MITSUBISHI ELECTRIC
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AIR CONDITIONING SYSTEMS

CITY MULTI DATA BOOK

MODEL

PQHY-P200-900Y(S)LM-A
PQRY-P200-900Y(S)LM-A
-For ground source application

Preface

DATABOOK describes the technical specifications of MITSUBISHI ELECTRIC Corp.'s CITYMULTI air conditioning system products.

In this DATABOOK for ground source application, the information on water-cooled heat source unit PQHY-P Y(S)LM-A/PQRY-P Y(S)LM-A with the connection of standard CITY MULTI indoor unit series is specified.

For capacity tables with indoor units, refer to the DATABOOK for standard CITY MULTI units.

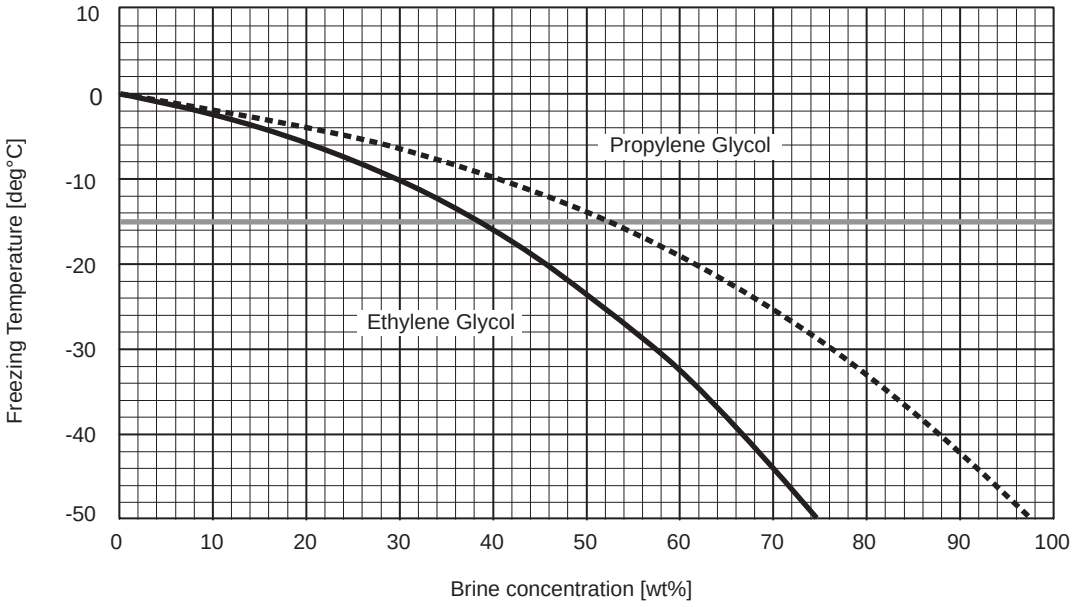
We recommend DATABOOK users to read carefully and take advantage of all the contents inside to design the CITY MULTI air conditioning system and/or to prepare documents for promotions. Along with the DATABOOK, MITSUBISHI ELECTRIC provides a Design-Tool software to ensure the users to design the system correctly and simplify the calculations. Please contact your local distributor for this software. Please be notified that specifications are subject to change without notice due to continual improvements of the product. For any inquiries, please contact your local distributor.

CITY MULTI
Databook for ground source application

BRINE INFORMATION

Brine freezing temperature

Brine concentration is decided by the freezing temperature. First, it is necessary to decide the freezing temperature and find out brine concentration which will correspond to the freezing temperature.



Note

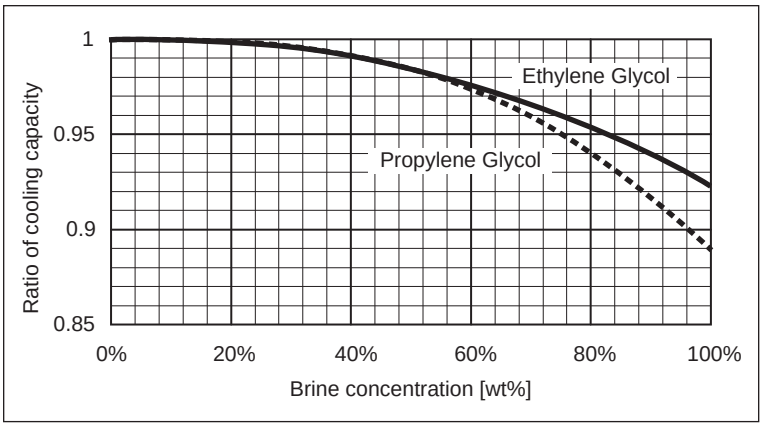
The graph was referred from chemical company data.
But Freezing Temperature condition will be slightly different based on each company.
Please confirm detail data to the chemical company directly.
It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

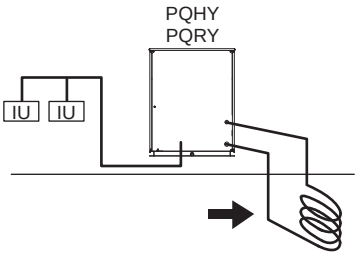
BRINE INFORMATION

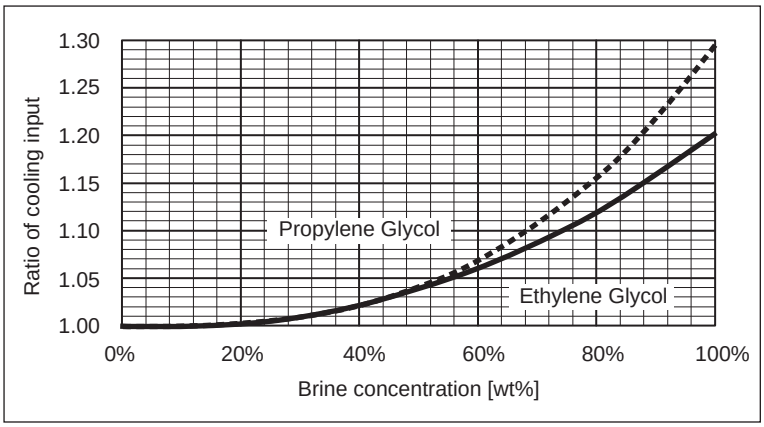
Capacity correction by brine concentration (For heat source unit)

Depending on the freezing temperature and brine concentration, the ratio of unit capacity will change.
As shown in the line diagram, higher the brine concentration, the lower the ratio of capacity becomes.

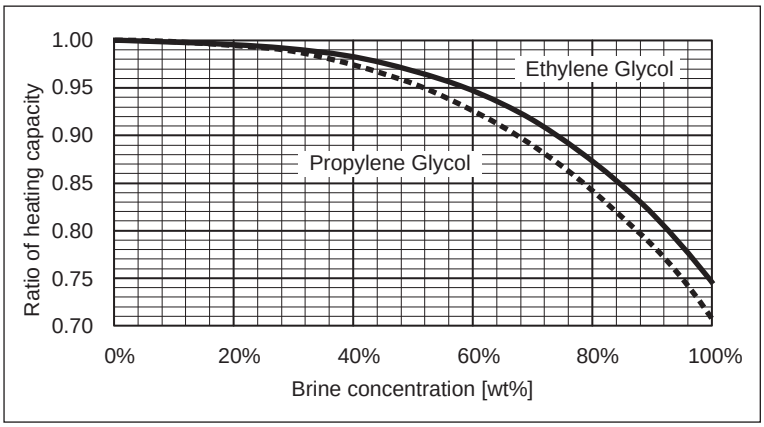
Cooling

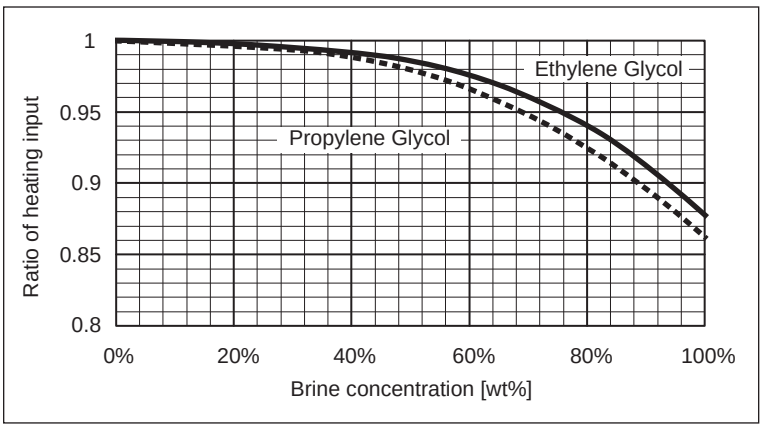






Heating

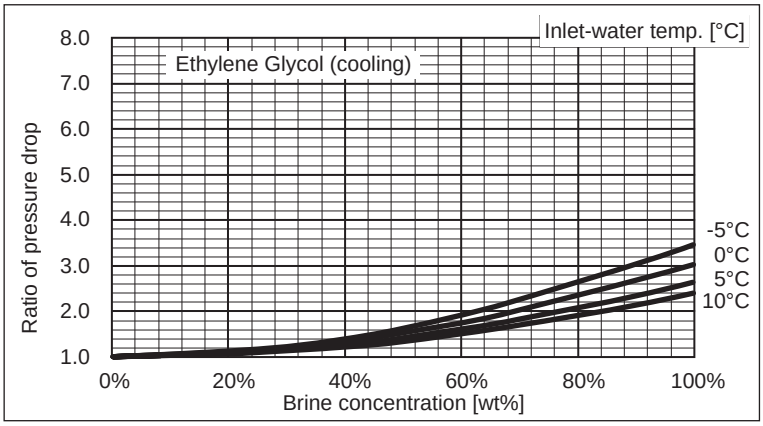


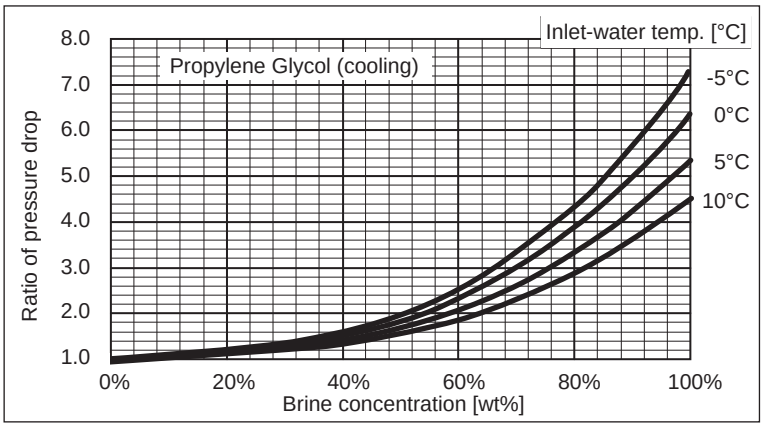


Pressure drop correction by brine concentration (For heat source unit)

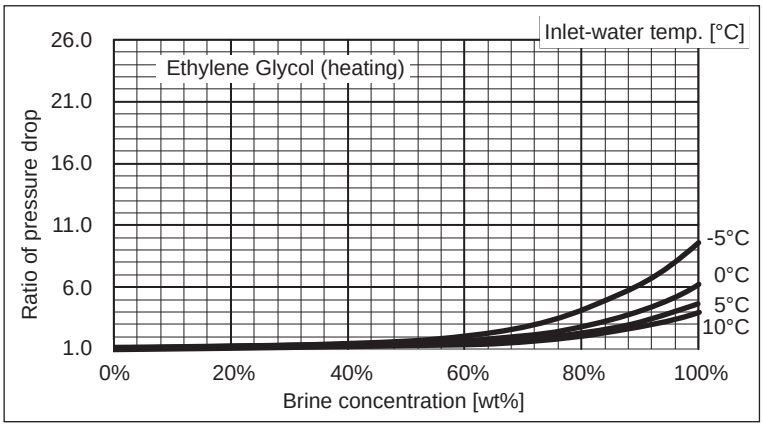
Also, water pump is selected by the ratio of pressure drop of depending on the brine concentration.

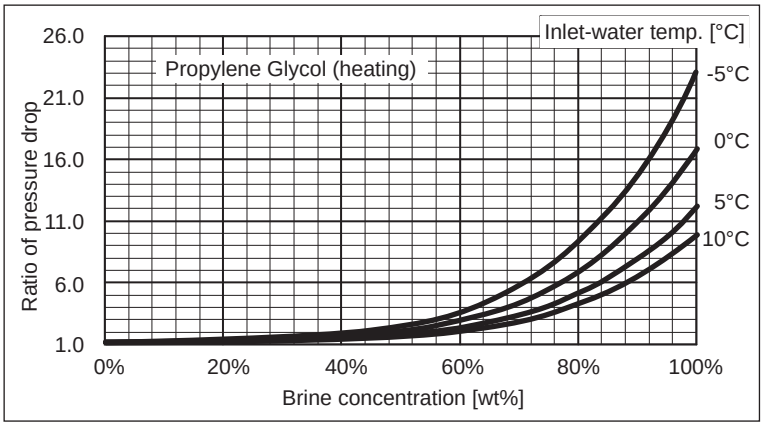
Cooling





Heating





* Please supply strainer on site.

GENERAL LINE-UP

Heat Pump WY Series

PQHY-P200YLM-A
PQHY-P300YLM-A

PQHY-P250YLM-A

8, 10, 12HP

PQHY-P350YLM-A
PQHY-P450YLM-A
PQHY-P550YLM-A

PQHY-P400YLM-A
PQHY-P500YLM-A
PQHY-P600YLM-A

14, 16, 18, 20, 22, 24HP

PQHY-P400YSLM-A
PQHY-P500YSLM-A
PQHY-P600YSLM-A

PQHY-P450YSLM-A
PQHY-P550YSLM-A

16, 18, 20, 22, 24HP

PQHY-P700YSLM-A
PQHY-P800YSLM-A
PQHY-P900YSLM-A

PQHY-P750YSLM-A
PQHY-P850YSLM-A

28, 30, 32, 34, 36HP

Heat Recovery WR2 Series

PQRY-P200YLM-A
PQRY-P300YLM-A

PQRY-P250YLM-A

8, 10, 12HP

PQRY-P350YLM-A
PQRY-P450YLM-A
PQRY-P550YLM-A

PQRY-P400YLM-A
PQRY-P500YLM-A
PQRY-P600YLM-A

14, 16, 18, 20, 22, 24HP

PQRY-P400YSLM-A
PQRY-P500YSLM-A
PQRY-P600YSLM-A

PQRY-P450YSLM-A
PQRY-P550YSLM-A

16, 18, 20, 22, 24HP

PQRY-P700YSLM-A
PQRY-P800YSLM-A
PQRY-P900YSLM-A

PQRY-P750YSLM-A
PQRY-P850YSLM-A

28, 30, 32, 34, 36HP

HEAT SOURCE UNITS

1. SPECIFICATIONS

WY

Model			PQHY-P200YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	22.4
(Nominal)		kcal/h	20,000
		BTU/h	76,400
	Power input	kW	3.71
	Current input	A	6.2-5.9-5.7
	EER	kW/kW	6.03
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	25.0
(Nominal)		kcal/h	21,500
		BTU/h	85,300
	Power input	kW	3.97
	Current input	A	6.7-6.3-6.1
	COP	kW/kW	6.29
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~17
Sound pressure level (measured in anechoic room)		dB <A>	46
Sound power level (measured in anechoic room)		dB <A>	60
Refrigerant	Liquid pipe	mm (in.)	9.52 (3/8) Brazed
piping diameter	Gas pipe	mm (in.)	19.05 (3/4) Brazed
Circulating	Water flow rate	m^3/h	5.76
water		L/min	96
		cfm	3.4
	Pressure drop	kPa	24
	Operating volume range	m^3/h	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	4.8
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	174 (384)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R435
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P250YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	28.0
(Nominal)		kcal/h	25,000
		BTU/h	95,500
	Power input	kW	4.90
	Current input	A	8.2-7.8-7.5
	EER	kW/kW	5.71
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	31.5
(Nominal)		kcal/h	27,100
		BTU/h	107,500
	Power input	kW	5.08
	Current input	A	8.5-8.1-7.8
	COP	kW/kW	6.20
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~21
Sound pressure level (measured in anechoic room)		dB <A>	48
Sound power level (measured in anechoic room)		dB <A>	62
Refrigerant	Liquid pipe	mm (in.)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 90 m)
piping diameter	Gas pipe	mm (in.)	22.2 (7/8) Brazed
Circulating	Water flow rate	m^3/h	5.76
water		L/min	96
		cfm	3.4
	Pressure drop	kPa	24
	Operating volume range	m^3/h	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	6.2
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	174 (384)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R435
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WY

Model			PQHY-P300YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	33.5
(Nominal)		kcal/h	30,000
		BTU/h	114,300
	Power input	kW	6.04
	Current input	A	10.1-9.6-9.3
	EER	kW/kW	5.54
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	37.5
(Nominal)		kcal/h	32,300
		BTU/h	128,000
	Power input	kW	6.25
	Current input	A	10.5-10.0-9.6
	COP	kW/kW	6.00
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~26
Sound pressure level (measured in anechoic room)		dB <A>	54
Sound power level (measured in anechoic room)		dB <A>	68
Refrigerant	Liquid pipe	mm (in.)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 40 m)
piping diameter	Gas pipe	mm (in.)	22.2 (7/8) Brazed
Circulating	Water flow rate	m^3/h	5.76
water		L/min	96
		cfm	3.4
	Pressure drop	kPa	24
	Operating volume range	m^3/h	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	7.7
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	174 (384)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R435
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P350YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	40.0
(Nominal)		kcal/h	35,000
		BTU/h	136,500
	Power input	kW	7.14
	Current input	A	12.0-11.4-11.0
	EER	kW/kW	5.60
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	45.0
(Nominal)		kcal/h	40,000
		BTU/h	153,500
	Power input	kW	7.53
	Current input	A	12.7-12.0-11.6
	COP	kW/kW	5.97
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~30
Sound pressure level (measured in anechoic room)		dB <A>	52
Sound power level (measured in anechoic room)		dB <A>	66
Refrigerant	Liquid pipe	mm (in.)	12.7 (1/2) Brazed
piping diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	7.20
water		L/min	120
		cfm	4.2
	Pressure drop	kPa	44
	Operating volume range	m^3/h	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	9.5
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	217 (479)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R436
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WY

Model			PQHY-P400YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	45.0
(Nominal)		kcal/h	40,000
		BTU/h	153,500
	Power input	kW	8.03
	Current input	A	13.5-12.8-12.4
	EER	kW/kW	5.60
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	50.0
(Nominal)		kcal/h	45,000
		BTU/h	170,600
	Power input	kW	8.37
	Current input	A	14.1-13.4-12.9
	COP	kW/kW	5.97
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~34
Sound pressure level (measured in anechoic room)		dB <A>	52
Sound power level (measured in anechoic room)		dB <A>	66
Refrigerant	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
piping diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	7.20
water		L/min	120
		cfm	4.2
	Pressure drop	kPa	44
	Operating volume range	m^3/h	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	10.7
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	217 (479)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R436
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P450YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	50.0
(Nominal)		kcal/h	45,000
		BTU/h	170,600
	Power input	kW	9.29
	Current input	A	15.6-14.8-14.3
	EER	kW/kW	5.38
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	56.0
(Nominal)		kcal/h	50,000
		BTU/h	191,100
	Power input	kW	9.79
	Current input	A	16.5-15.7-15.1
	COP	kW/kW	5.72
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~39
Sound pressure level (measured in anechoic room)		dB <A>	54
Sound power level (measured in anechoic room)		dB <A>	70
Refrigerant	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
piping diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	7.20
water		L/min	120
		cfm	4.2
	Pressure drop	kPa	44
	Operating volume range	m^3/h	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	11.6
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	217 (479)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R436
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WY

Model			PQHY-P500YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	56.0
(Nominal)		kcal/h	50,000
		BTU/h	191,100
	Power input	kW	11.17
	Current input	A	18.8-17.9-17.2
	EER	kW/kW	5.01
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	63.0
(Nominal)		kcal/h	55,000
		BTU/h	215,000
	Power input	kW	11.43
	Current input	A	19.2-18.3-17.6
	COP	kW/kW	5.51
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~43
Sound pressure level (measured in anechoic room)		dB <A>	54
Sound power level (measured in anechoic room)		dB <A>	70.5
Refrigerant	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
piping diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	7.20
water		L/min	120
		cfm	4.2
	Pressure drop	kPa	44
	Operating volume range	m^3/h	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	13.0
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	217 (479)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R436
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P550YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	63.0
(Nominal)		kcal/h	55,000
		BTU/h	215,000
	Power input	kW	12.54
	Current input	A	21.1-20.1-19.3
	EER	kW/kW	5.02
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	69.0
(Nominal)		kcal/h	60,000
		BTU/h	235,400
	Power input	kW	12.27
	Current input	A	20.7-19.6-18.9
	COP	kW/kW	5.62
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/2~47
Sound pressure level (measured in anechoic room)		dB <A>	56.5
Sound power level (measured in anechoic room)		dB <A>	71.5
Refrigerant	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
piping diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	11.52
water		L/min	192
		cfm	6.8
	Pressure drop	kPa	45
	Operating volume range	m^3/h	6.0 ~ 14.4
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	15.0
	Case heater	kW	0.045 (240 V)
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 11.7 kg (26 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	246 (543)
Heat exchanger			plate type
	Water volume in plate	l	10.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R437
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WY

Model			PQHY-P600YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	69.0
(Nominal)		kcal/h	60,000
		BTU/h	235,400
	Power input	kW	14.49
	Current input	A	24.4-23.2-22.3
	EER	kW/kW	4.76
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	76.5
(Nominal)		kcal/h	65,800
		BTU/h	261,000
	Power input	kW	14.51
	Current input	A	24.4-23.2-22.4
	COP	kW/kW	5.27
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	56.5
Sound power level (measured in anechoic room)		dB <A>	73
Refrigerant	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
piping diameter	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	11.52
water		L/min	192
		cfm	6.8
	Pressure drop	kPa	45
	Operating volume range	m^3/h	6.0 ~ 14.4
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	16.1
	Case heater	kW	0.045 (240 V)
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 11.7 kg (26 lbs)
	Control		LEV and HIC circuit
Net weight		kg (lbs)	246 (543)
Heat exchanger			plate type
	Water volume in plate	l	10.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure
Drawing	External		WKS94R437
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P400YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	45.0
		kcal/h	40,000
		BTU/h	153,500
	Power input	kW	7.70
	Current input	A	12.9-12.3-11.9
	EER	kW/kW	5.84
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	50.0
		kcal/h	45,000
		BTU/h	170,600
	Power input	kW	7.94
	Current input	A	13.4-12.7-12.2
	COP	kW/kW	6.29
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model/Quantity		P15~P250/1~34
Sound pressure level (measured in anechoic room)		dB <A>	49
Sound power level (measured in anechoic room)		dB <A>	63
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQHY-P200YLM-A < For Ground source >	PQHY-P200YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	4.8	4.8
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	174 (384)	174 (384)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
Drawing	External		WKS94C751	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	=m^3/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WY

Model			PQHY-P450YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal) *1, 2		kW	50.0
		kcal/h	45,000
		BTU/h	170,600
	Power input	kW	8.78
	Current input	A	14.8-14.0-13.5
	EER	kW/kW	5.69
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal) *3, 4		kW	56.0
		kcal/h	50,000
		BTU/h	191,100
	Power input	kW	8.97
	Current input	A	15.1-14.3-13.8
	COP	kW/kW	6.24
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model/Quantity		P15~P250/1~39
Sound pressure level (measured in anechoic room)		dB <A>	50
Sound power level (measured in anechoic room)		dB <A>	64
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQHY-P250YLM-A < For Ground source >	PQHY-P200YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	6.2	4.8
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	174 (384)	174 (384)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Drawing	External		WKS94C751	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P500YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	56.0
		kcal/h	50,000
		BTU/h	191,100
	Power input	kW	10.12
	Current input	A	17.0-16.2-15.6
	EER	kW/kW	5.53
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	63.0
		kcal/h	55,000
		BTU/h	215,000
	Power input	kW	10.16
	Current input	A	17.1-16.2-15.7
	COP	kW/kW	6.20
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model/Quantity		P15~P250/1~43
Sound pressure level (measured in anechoic room)		dB <A>	51
Sound power level (measured in anechoic room)		dB <A>	65
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQHY-P250YLM-A < For Ground source >	PQHY-P250YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	6.2	6.2
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	174 (384)	174 (384)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Drawing	External		WKS94C751	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	=m^3/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P550YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	63.0
		kcal/h	55,000
		BTU/h	215,000
	Power input	kW	11.55
	Current input	A	19.4-18.5-17.8
	EER	kW/kW	5.45
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	69.0
		kcal/h	60,000
		BTU/h	235,400
	Power input	kW	11.31
	Current input	A	19.0-18.1-17.4
	COP	kW/kW	6.10
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model/Quantity		P15~P250/2~47
Sound pressure level (measured in anechoic room)		dB <A>	55
Sound power level (measured in anechoic room)		dB <A>	69
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQHY-P300YLM-A < For Ground source >	PQHY-P250YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	7.7	6.2
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	174 (384)	174 (384)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Drawing	External		WKS94C751	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P600YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	69.0
		kcal/h	60,000
		BTU/h	235,400
	Power input	kW	12.84
	Current input	A	21.6-20.5-19.8
	EER	kW/kW	5.37
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	76.5
		kcal/h	65,800
		BTU/h	261,000
	Power input	kW	12.75
	Current input	A	21.5-20.4-19.7
	COP	kW/kW	6.00
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	57
Sound power level (measured in anechoic room)		dB <A>	71
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQHY-P300YLM-A < For Ground source >	PQHY-P300YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	7.7	7.7
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	174 (384)	174 (384)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Drawing	External		WKS94C751	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WY

Model			PQHY-P700YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	80.0
		kcal/h	68,800
		BTU/h	273,000
	Power input	kW	14.73
	Current input	A	24.8-23.6-22.7
	EER	kW/kW	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	88.0
		kcal/h	75,700
		BTU/h	300,300
	Power input	kW	14.73
	Current input	A	24.8-23.6-22.7
	COP	kW/kW	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Sound power level (measured in anechoic room)		dB <A>	69
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQHY-P350YLM-A < For Ground source >	PQHY-P350YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	9.5	9.5
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	217 (479)	217 (479)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C752	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P750YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	85.0
		kcal/h	73,100
		BTU/h	290,000
	Power input	kW	15.64
	Current input	A	26.4-25.0-24.1
	EER	kW/kW	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	95.0
		kcal/h	81,700
		BTU/h	324,100
	Power input	kW	15.90
	Current input	A	26.8-25.4-24.5
	COP	kW/kW	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Sound power level (measured in anechoic room)		dB <A>	69
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQHY-P400YLM-A < For Ground source >	PQHY-P350YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	10.7	9.5
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	217 (479)	217 (479)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C752	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WY

Model			PQHY-P800YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	90.0
(Nominal)		kcal/h	77,400
		BTU/h	307,100
	Power input	kW	16.57
	Current input	A	27.9-26.5-25.6
	EER	kW/kW	5.43
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	100.0
(Nominal)		kcal/h	86,000
		BTU/h	341,200
	Power input	kW	16.75
	Current input	A	28.2-26.8-25.8
	COP	kW/kW	5.97
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Sound power level (measured in anechoic room)		dB <A>	69
Refrigerant	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
piping diameter	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQHY-P400YLM-A < For Ground source >	PQHY-P400YLM-A < For Ground source >
Circulating	Water flow rate	m^3/h	7.20 + 7.20	
water		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	10.7	10.7
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	217 (479)	217 (479)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
distributor	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C752	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQHY-P850YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	96.0
		kcal/h	82,600
		BTU/h	327,600
	Power input	kW	18.03
	Current input	A	30.4-28.9-27.8
	EER	kW/kW	5.32
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	108.0
		kcal/h	92,900
		BTU/h	368,500
	Power input	kW	18.49
	Current input	A	31.2-29.6-28.5
	COP	kW/kW	5.84
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~130% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	56
Sound power level (measured in anechoic room)		dB <A>	71.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PQHY-P450YLM-A < For Ground source >	PQHY-P400YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	11.6	10.7
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	217 (479)	217 (479)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C752	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	=m^3/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WY

Model			PQHY-P900YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	101.0
(Nominal)		kcal/h	86,900
		BTU/h	344,600
	Power input	kW	19.38
	Current input	A	32.7-31.0-29.9
	EER	kW/kW	5.21
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	113.0
(Nominal)		kcal/h	97,200
		BTU/h	385,600
	Power input	kW	19.74
	Current input	A	33.3-31.6-30.5
	COP	kW/kW	5.72
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~130% of heat source unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	57
Sound power level (measured in anechoic room)		dB <A>	73
Refrigerant	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
piping diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PQHY-P450YLM-A < For Ground source >	PQHY-P450YLM-A < For Ground source >
Circulating	Water flow rate	m^3/h	7.20 + 7.20	
water		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	11.6	11.6
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	217 (479)	217 (479)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
distributor	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C752	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202, 302S-G2 Header: CMY-Y104, 108, 1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

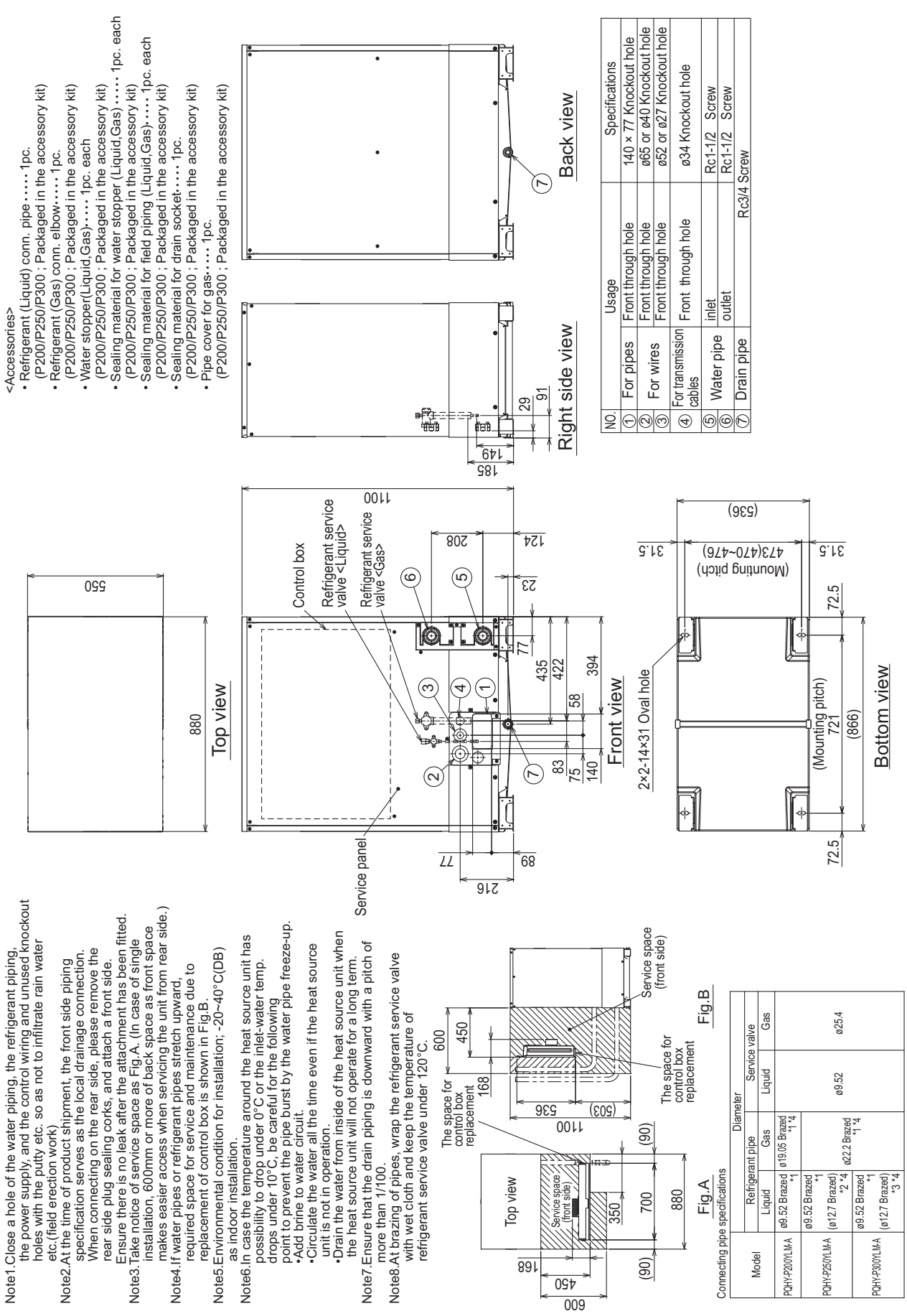
1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

PQHY-P200, 250, 300YLM-A

Unit: mm



NO.	Usage	Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole
②	For wires	Front through hole	ø65 or ø40 Knockout hole
③	For wires	Front through hole	ø52 or ø27 Knockout hole
④	For transmission cables	Front through hole	ø34 Knockout hole
⑤	Water pipe	inlet	Rc1-1/2 Screw
⑥	Water pipe	outlet	Rc1-1/2 Screw
⑦	Drain pipe	Rc3/4 Screw	

Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)
Note2. At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.
Note3. Take notice of service space as Fig.A. (In case of single installation, 600mm or more of back space as front space makes easier access when servicing the unit from rear side.)
Note4. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.
Note5. Environmental condition for installation; -20~40°C(DB) as indoor installation.
Note6. In case the temperature around the heat source unit has possibility to drop under 0°C or the inlet-water temp. drops under 10°C, be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
•Add brine to water circuit.
•Circulate the water all the time even if the heat source unit is not in operation.
•Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.
Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.
Note8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

Connecting pipe specifications

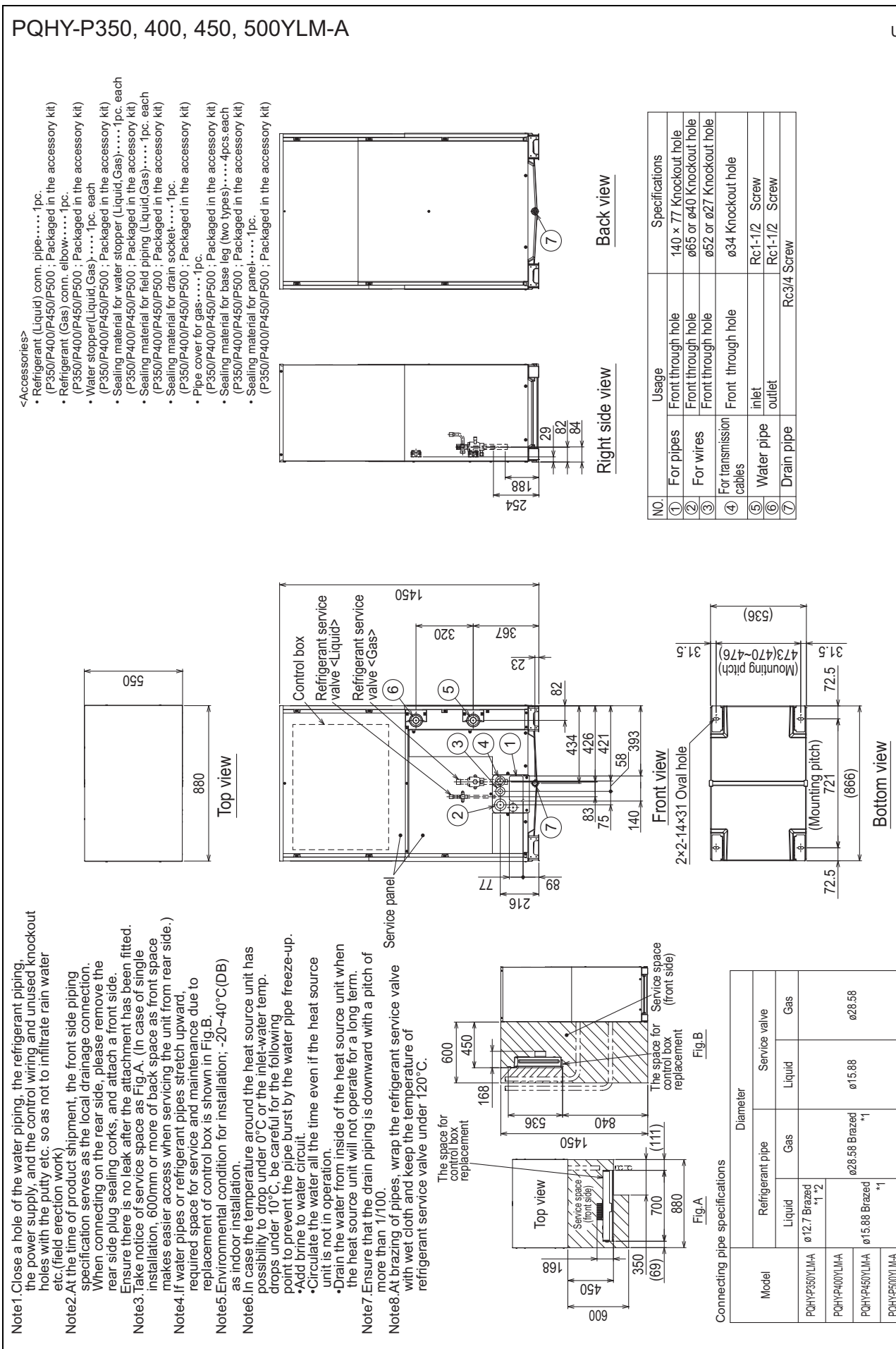
Model	Diameter			
	Refrigerant pipe		Service valve	
	Liquid	Gas	Liquid	Gas
PQHY-P200YLM-A	ø9.52 Brazed	ø19.05 Brazed *1 *4	ø9.52	ø25.4
PQHY-P250YLM-A	ø9.52 Brazed *1 (ø12.7 Brazed) *2 *4	ø22.2 Brazed *1 *4		
PQHY-P300YLM-A	ø9.52 Brazed *1 (ø12.7 Brazed) *3 *4			

*1. Connect by using the connecting pipes and elbow that are supplied.
*2. Total length ≥ 90m
*3. Total length ≥ 40m
*4. Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

2. EXTERNAL DIMENSIONS

PQHY-P350, 400, 450, 500YLM-A

Unit: mm



Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)

Note2. At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.

Note3. Take notice of service space as Fig.A. (In case of single installation, 600mm or more of back space as front space makes easier access when servicing the unit from rear side.)

Note4. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.

Note5. Environmental condition for installation; -20~40°C(DB) as indoor installation.

Note6. In case the temperature around the heat source unit has possibility to drop under 0°C or the inlet-water temp. drops under 10°C, be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
- Add brine to water circuit.
- Circulate the water all the time even if the heat source unit is not in operation.
- Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.

Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.

Note8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	Liquid	Gas	Liquid	Gas
PQHY-P350YLM-A	ø12.7 Brazed *1 *2	ø28.58 Brazed *1	ø15.88	ø28.58
PQHY-P400YLM-A				
PQHY-P450YLM-A	ø15.88 Brazed *1			
PQHY-P500YLM-A				

*1. Connect by using the connecting pipes and elbow that are supplied.
*2. Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

PQHY-P550, 600YLM-A

Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)
Note2. At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.
Note3. Take notice of service space as Fig.A. (In case of single installation, 600mm or more of back space as front space makes easier access when servicing the unit from rear side.)
Note4. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.
Note5. Environmental condition for installation; -20~40°C(DB) as indoor installation.
Note6. In case the temperature around the heat source unit has possibility to drop under 0°C or the inlet-water temp. drops under 10°C, be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
•Add brine to water circuit.
•Circulate the water all the time even if the heat source unit is not in operation.
•Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.
Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.
Note8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

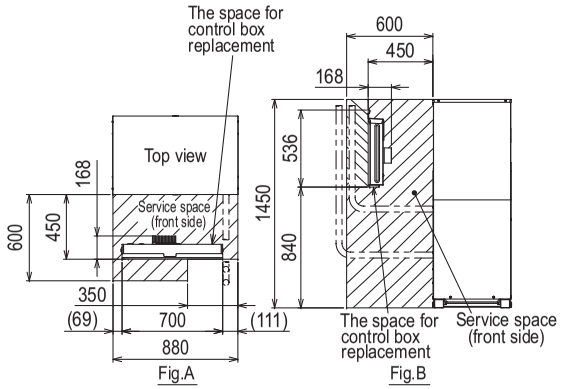
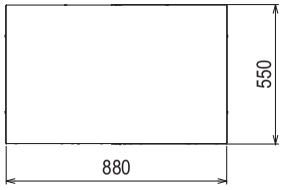


Fig.A Fig.B

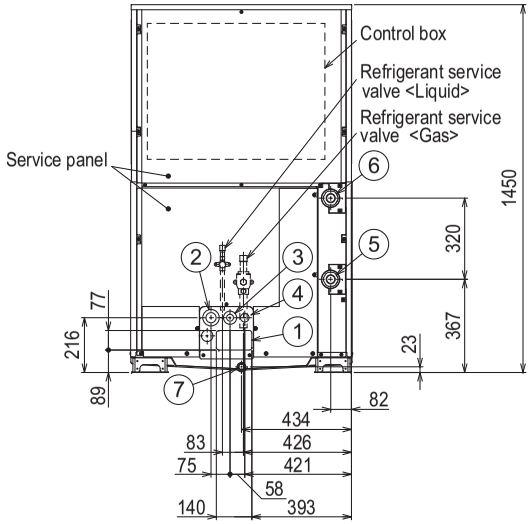
Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	Liquid	Gas	Liquid	Gas
PQHY-P550YLM-A	ø15.88 Brazed *1	ø28.58 Brazed *1	ø15.88	ø28.58
PQHY-P600YLM-A				

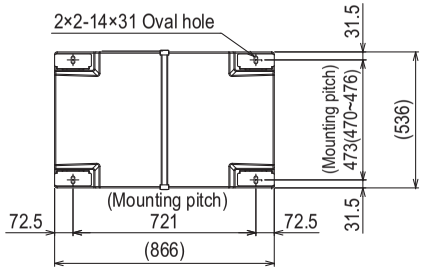
*1.Connect by using the connecting pipes and elbow that are supplied.



Top view

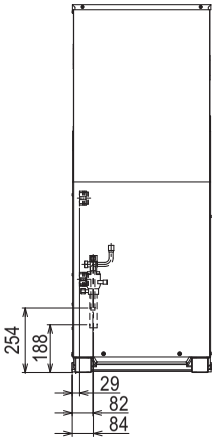


Front view

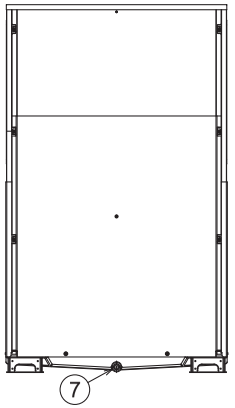


Bottom view

<Accessories>
• Refrigerant (Liquid) conn. pipe ····· 1pc.
(P550/P600 ; Packaged in the accessory kit)
• Refrigerant (Gas) conn. elbow ····· 1pc.
(P550/P600 ; Packaged in the accessory kit)
• Water stopper(Liquid,Gas) ····· 1pc. each
(P550/P600 ; Packaged in the accessory kit)
• Sealing material for water stopper (Liquid,Gas) ····· 1pc. each
(P550/P600 ; Packaged in the accessory kit)
• Sealing material for field piping (Liquid,Gas) ····· 1pc. each
(P550/P600 ; Packaged in the accessory kit)
• Sealing material for drain socket ····· 1pc.
(P550/P600 ; Packaged in the accessory kit)
• Pipe cover for gas ····· 1pc.
(P550/P600 ; Packaged in the accessory kit)
• Sealing material for base leg (two types) ····· 4pcs.each
(P550/P600 ; Packaged in the accessory kit)
• Sealing material for panel ····· 1pc.
(P550/P600 ; Packaged in the accessory kit)



Right side view



Back view

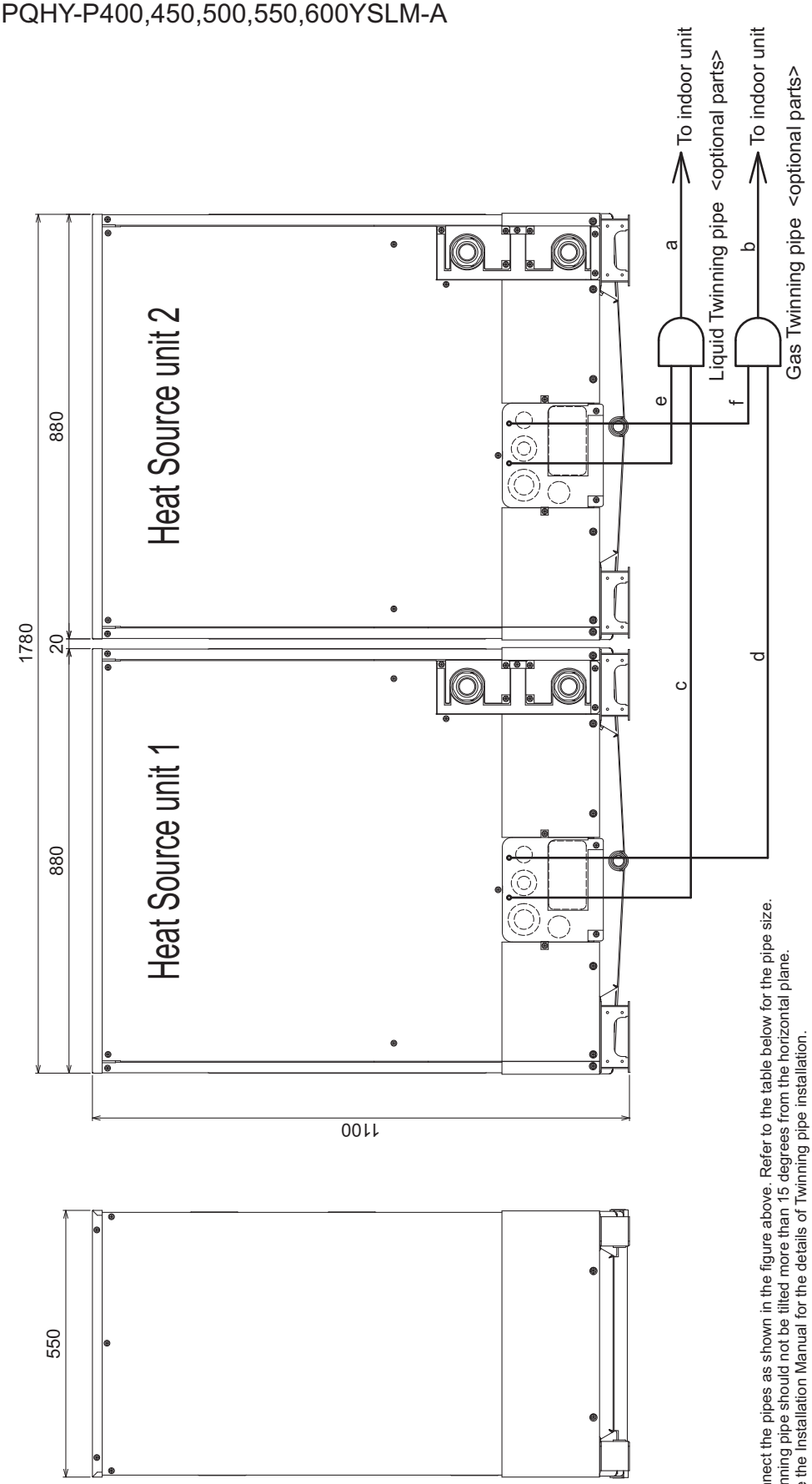
NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole
②	For wires	Front through hole	ø65 or ø40 Knockout hole
③		Front through hole	ø52 or ø27 Knockout hole
④	For transmission cables	Front through hole	ø34 Knockout hole
⑤	Water pipe	inlet	Rc1-1/2 Screw
⑥		outlet	Rc1-1/2 Screw
⑦	Drain pipe	Rc3/4 Screw	

Unit: mm

2. EXTERNAL DIMENSIONS

PQHY-P400,450,500,550,600YSLM-A

Unit: mm



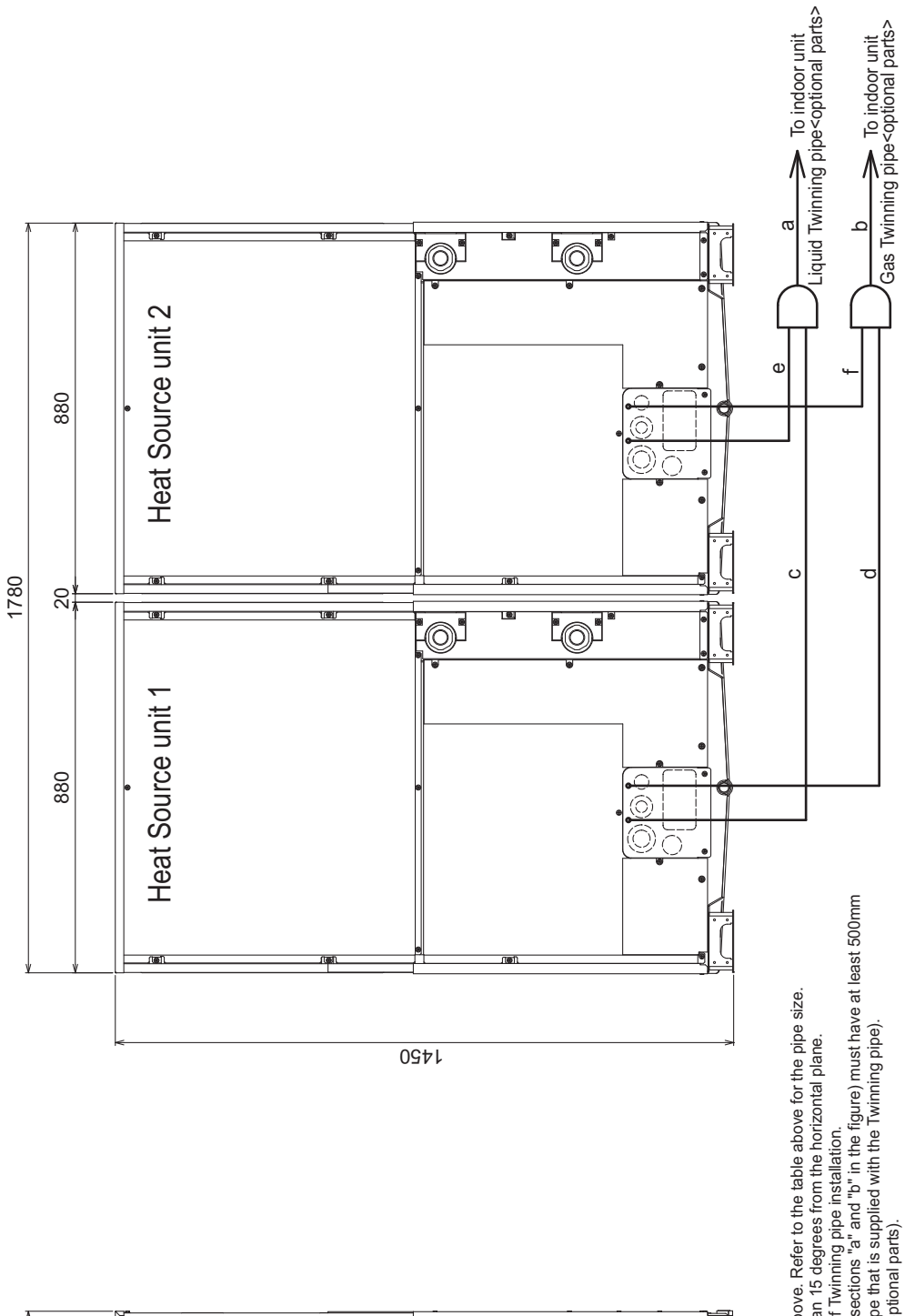
Note 1.Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2.Twinning pipe should not be tilted more than 15 degrees from the horizontal plane.
3.See the Installation Manual for the details of Twinning pipe installation.
4.The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm of straight section (*including the straight pipe that is supplied with the Twinning pipe).
5.Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name			PQHY-P400YSLM-A	PQHY-P450YSLM-A	PQHY-P500YSLM-A	PQHY-P550YSLM-A	PQHY-P600YSLM-A
Component unit name	Heat Source unit 1		PQHY-P200YLM-A	PQHY-P250YLM-A	PQHY-P250YLM-A	PQHY-P300YLM-A	PQHY-P300YLM-A
	Heat Source unit 2		PQHY-P200YLM-A	PQHY-P200YLM-A	PQHY-P250YLM-A	PQHY-P250YLM-A	PQHY-P300YLM-A
Twinning pipe Kit(optional parts)			CMY-Y100VBK3				
Indoor unit~Twinning pipe	Lquid	a	ø15.88				
	Gas	b	ø28.58				
Twinning pipe~Heat Source unit 1	Lquid	c	ø9.52			ø12.7	
	Gas	d	ø19.05		ø22.2		
Twinning pipe~Heat Source unit 2	Lquid	e	ø9.52			ø12.7	
	Gas	f	ø19.05		ø22.2		

PQHY-P700, 750, 800, 850, 900YSLM-A

Unit: mm



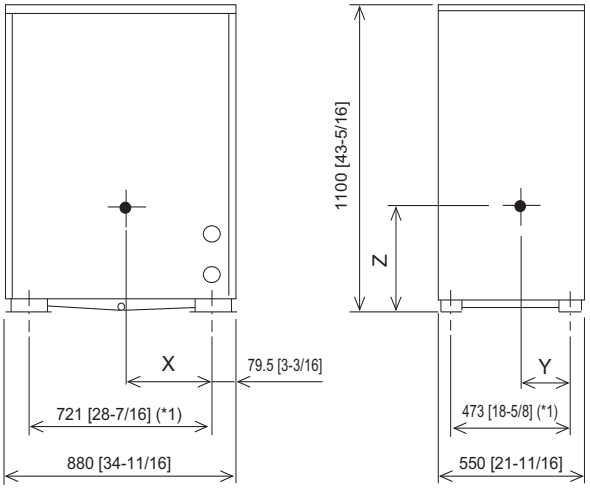
Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
2. Twinning pipes should not be tilted more than 15 degrees from the horizontal plane.
3. See the Installation Manual for the details of Twinning pipe installation.
4. The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm of straight section (*including the straight pipe that is supplied with the Twinning pipe).
5. Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name			PQHY-P700YSLM-A	PQHY-P750YSLM-A	PQHY-P800YSLM-A	PQHY-P850YSLM-A	PQHY-P900YSLM-A
Component unit name	Heat Source unit 1		PQHY-P350YLM-A	PQHY-P400YLM-A	PQHY-P400YLM-A	PQHY-P450YLM-A	PQHY-P450YLM-A
	Heat Source unit 2		PQHY-P350YLM-A	PQHY-P350YLM-A	PQHY-P400YLM-A	PQHY-P400YLM-A	PQHY-P450YLM-A
Twinning Kit(optional parts)			CMY-Y200VBK2				
Indoor unit~Twinning pipe		Liquid	a	ø19.05			
		Gas	b	ø34.93			ø41.28
Twinning pipe~Heat Source unit 1		Liquid	c	ø12.7		ø15.88	
		Gas	d	ø28.58			
Twinning pipe~Heat Source unit 2		Liquid	e	ø12.7		ø15.88	
		Gas	f	ø28.58			

PQHY-P200, 250, 300YLM-A

Unit: mm [in.]

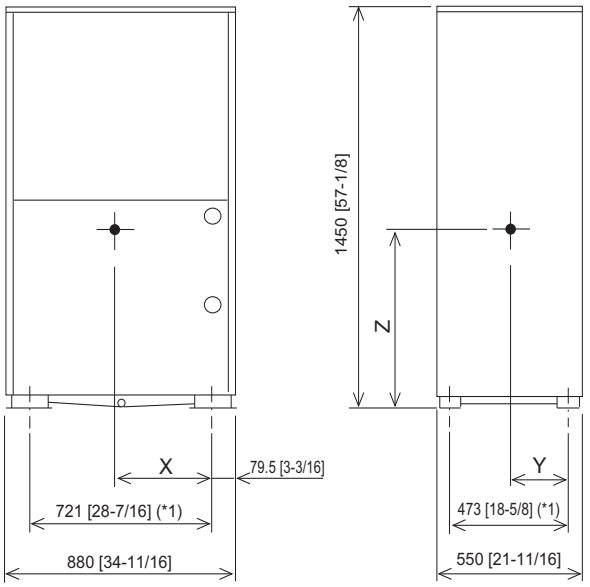


Model	X	Y	Z
PQHY-P200YLM-A	353[13-15/16]	233[9-3/16]	448[17-11/16]
PQHY-P250YLM-A	353[13-15/16]	233[9-3/16]	448[17-11/16]
PQHY-P300YLM-A	353[13-15/16]	233[9-3/16]	448[17-11/16]

*1 Mounting Pitch

PQHY-P350, 400, 450, 500, 550, 600YLM-A

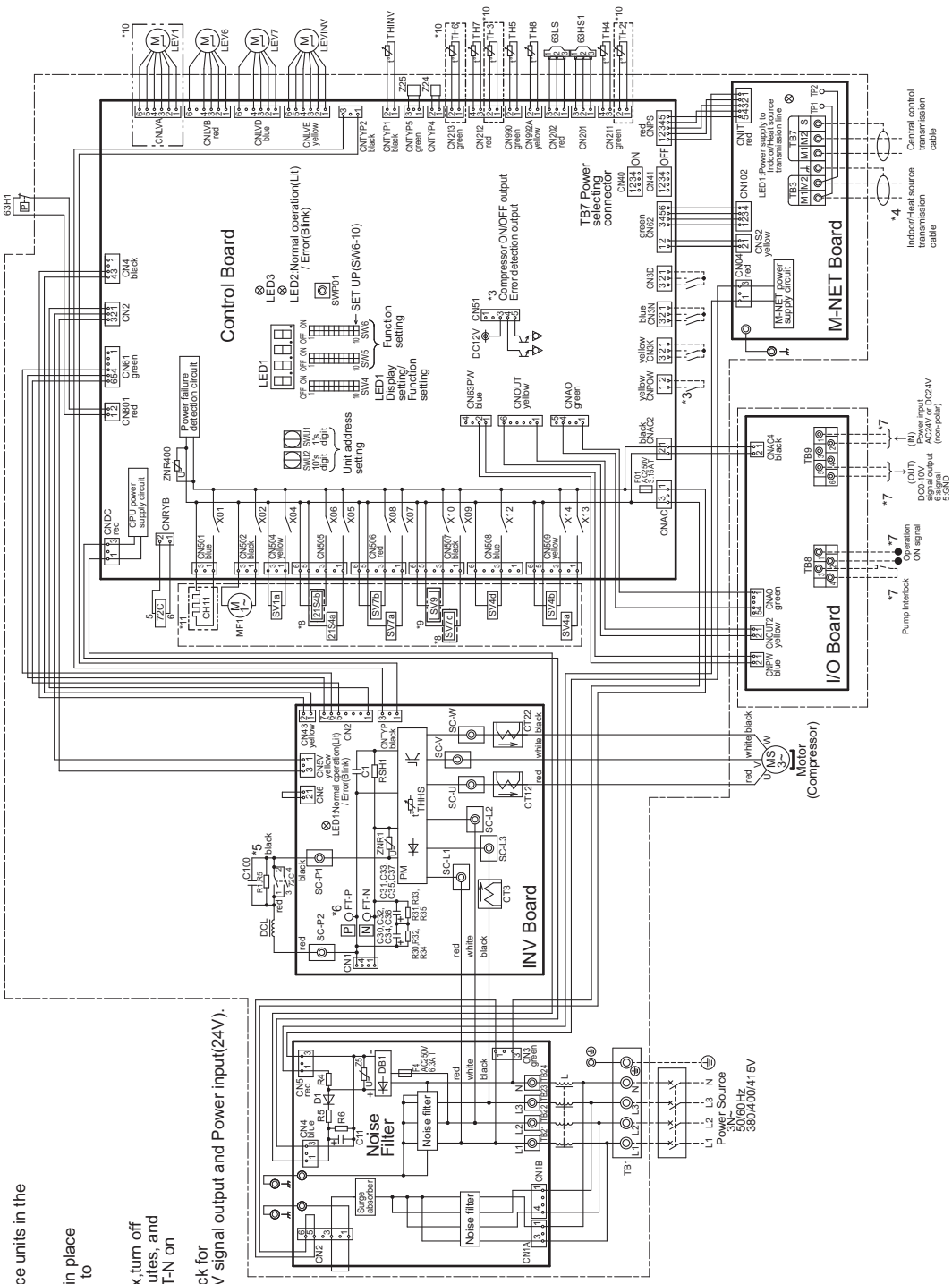
Unit: mm [in.]



Model	X	Y	Z
PQHY-P350YLM-A	382[15-1/16]	233[9-3/16]	632[24-15/16]
PQHY-P400YLM-A	382[15-1/16]	233[9-3/16]	632[24-15/16]
PQHY-P450YLM-A	382[15-1/16]	233[9-3/16]	632[24-15/16]
PQHY-P500YLM-A	382[15-1/16]	233[9-3/16]	632[24-15/16]
PQHY-P550YLM-A	365[14-3/8]	224[8-7/8]	650[25-5/8]
PQHY-P600YLM-A	365[14-3/8]	224[8-7/8]	650[25-5/8]

*1 Mounting Pitch

PQHY-P200, 250, 300, 350, 400, 450, 500, 550, 600YLM-A



*1.Single-dotted lines indicate wiring not supplied with the unit.
*2.Dot-dash lines indicate the control box boundaries.
*3.Refer to the Data book for connecting input/output signal connectors.
*4.Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
*5.Faston terminals have a locking function.
Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to removed them.
*6.Control box houses high-voltage parts.
Before inspecting the inside of the control box,turn off the power,keep the unit off for at least 10 minutes, and confirm that the voltage between FT-P and FT-N on INV Board has dropped to DC20V or less.
*7.Refer to the Data book for wiring terminal block for Pump Interlock,Operation ON signal,DC0-10V signal output and Power input(24V).
*8.Difference of appliance.

Model name	Appliance
P200/250/300	*8 do not exist
P350/400/450/500/550/600	*8 exist

*9.Difference of appliance.

Model name	Appliance
PQHY	*9 do not exist
PQRY	*9 exist

*10.Difference of appliance.

Model name	Appliance
PQHY	*10 exist
PQRY	*10 do not exist

*11.Difference of appliance.

Model name	Appliance
P200/250/300/350/400/450/500	*11 do not exist
P550/600	*11 exist

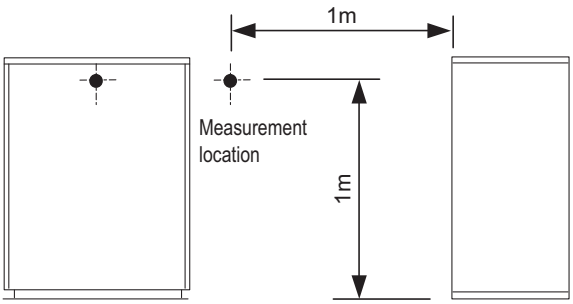
<Symbol explanation>

Symbol		Explanation
21S4a	4-way valve	Cooling/Heating switching
21S4b	Pressure switch	Heat exchanger capacity control
63H1		High pressure protection for the heat source unit
63HS1	Pressure sensor	High pressure
63LS		Low pressure
72C	Magnetic relay	Inverter main circuit)
C30~C37	Capacitor	Inverter main circuit)
CH11	Crankcase heater	For heating the compressor)
CT12,22,3	Current sensor	AC)
DCL	DC reactor	
L	Choke coil	For high frequency noise reduction)
LEV1	Linear expansion valve	HIC bypass,Controls refrigerant flow in HIC circuit.
LEV6		Heat exchanger capacity control
LEV7		Heat exchanger capacity control
LEV/INV		Heat exchanger for inverter
MF1	Fan motor	Radiator panel
R1,5	Resistor	For inrush current prevention
RSH1		For current detection
SV1a	Solenoid valve	For opening/closing the bypass circuit valve
SV4a,b,d		Heat exchanger capacity control
SV7a,b,c		Heat exchanger capacity control
SV9		For opening/closing the bypass circuit
TB1	Terminal block	Power supply
TB3		Indoor/Heat source transmission cable
TB7		Central control transmission cable
TB8		Operation ON signal, Pump Interlock
TB9		Power input and signal output for variable water flow valve
TH2	Thermistor	Subcool bypass outlet temperature
TH3		Pipe temperature
TH4		Discharge pipe temperature
TH5		ACC inlet pipe temperature
TH6		Subcooled liquid refrigerant temperature
TH7		Water inlet temperature
TH8		Water outlet temperature
THINV		Outlet temp.detect of heat exchanger for inverter
THHS		IPM temperature
Z24,25	Function setting connector	

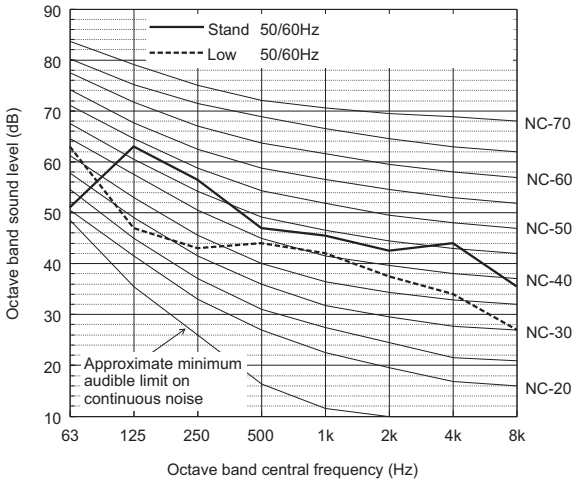
5. SOUND LEVELS

WY

Measurement condition
PQHY-P200, 250, 300YLM-A



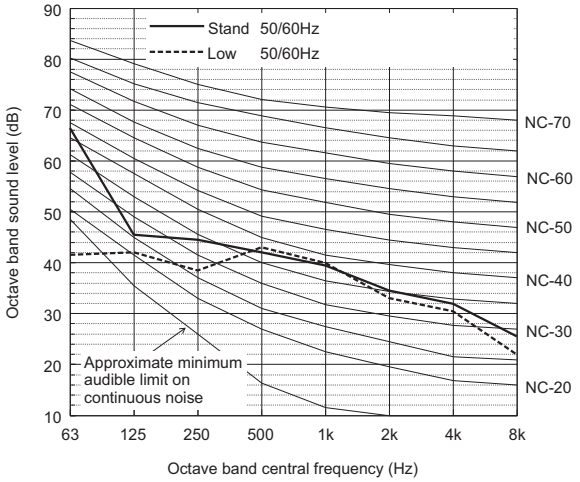
Sound level of PQHY-P300YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	51.0	63.0	56.5	47.0	45.5	42.5	44.0	35.5	54.0
Low noise mode	50/60Hz	63.0	47.0	43.0	44.0	42.0	37.5	34.0	27.0	47.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

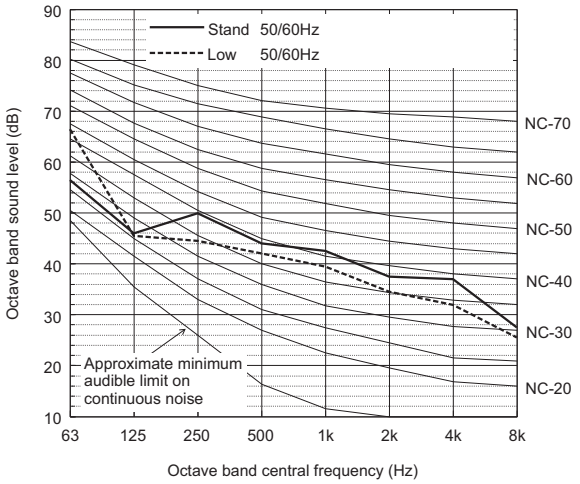
Sound level of PQHY-P200YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0
Low noise mode	50/60Hz	41.5	42.0	38.5	43.0	40.0	33.0	30.5	22.0	44.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P250YLM-A



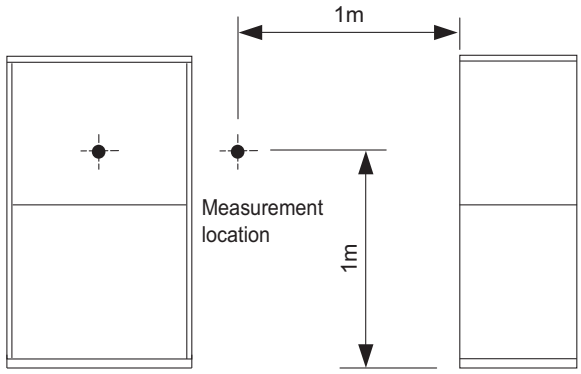
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	56.5	46.0	50.0	44.0	42.5	37.5	37.0	27.5	48.0
Low noise mode	50/60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

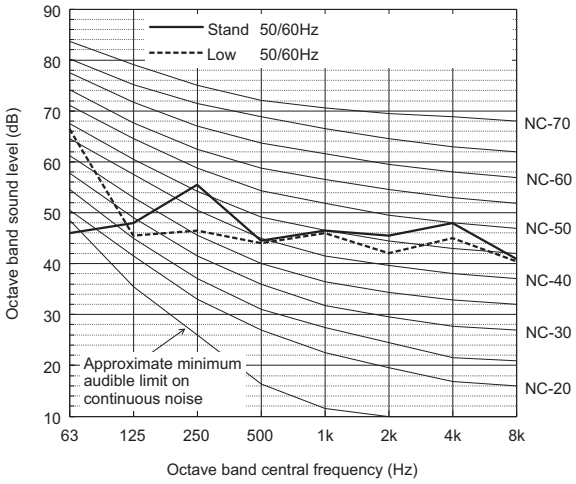
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Measurement condition
PQHY-P350, 400, 450, 500, 550, 600YLM-A



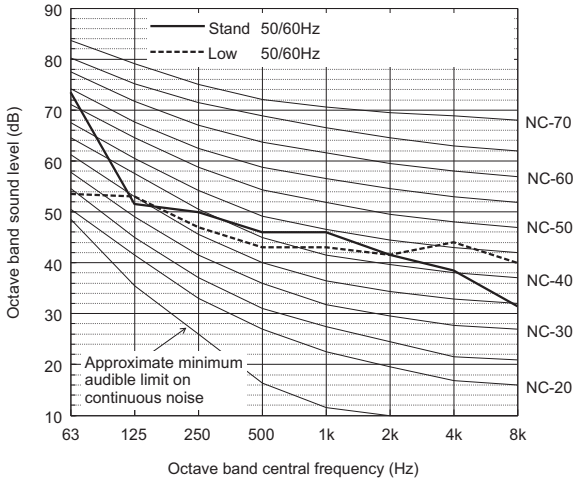
Sound level of PQHY-P450YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	46.0	48.0	55.5	44.5	46.5	45.5	48.0	41.0	54.0
Low noise mode	50/60Hz	66.5	45.5	46.5	44.0	46.0	42.0	45.0	40.5	51.5

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

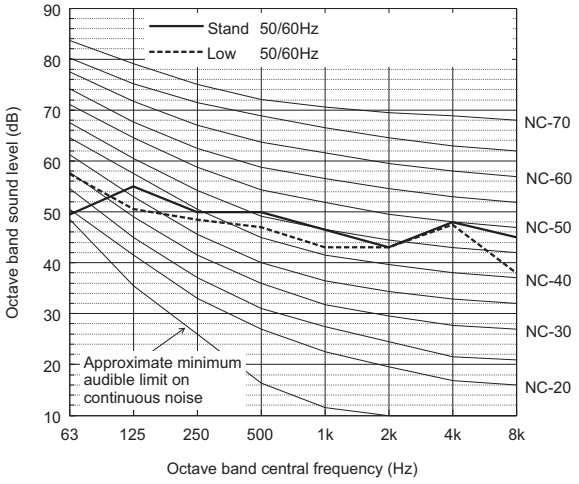
Sound level of PQHY-P350YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.5	51.5	50.0	46.0	46.0	41.5	38.5	31.5	52.0
Low noise mode	50/60Hz	53.5	53.0	47.0	43.0	43.0	41.5	44.0	40.0	50.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

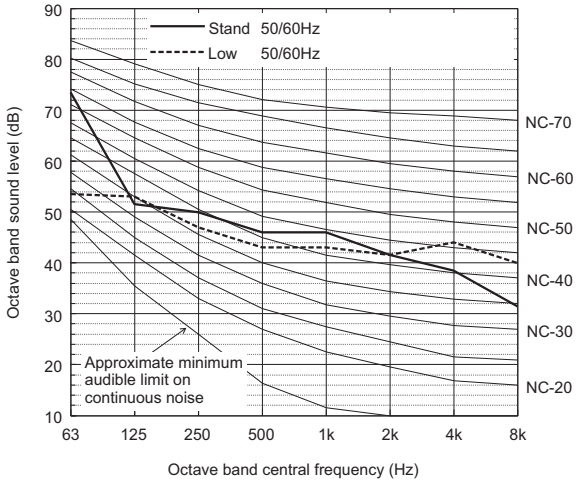
Sound level of PQHY-P500YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	49.5	55.0	50.0	50.0	46.5	43.0	48.0	45.0	54.0
Low noise mode	50/60Hz	57.5	50.5	48.5	47.0	43.0	43.0	47.5	38.0	52.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

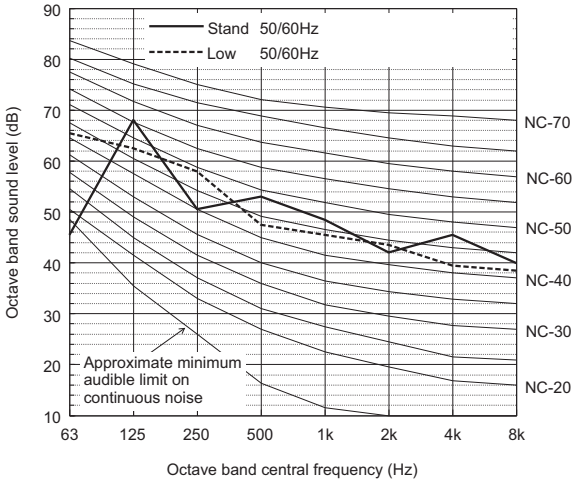
Sound level of PQHY-P400YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.5	51.5	50.0	46.0	46.0	41.5	38.5	31.5	52.0
Low noise mode	50/60Hz	53.5	53.0	47.0	43.0	43.0	41.5	44.0	40.0	50.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P550YLM-A



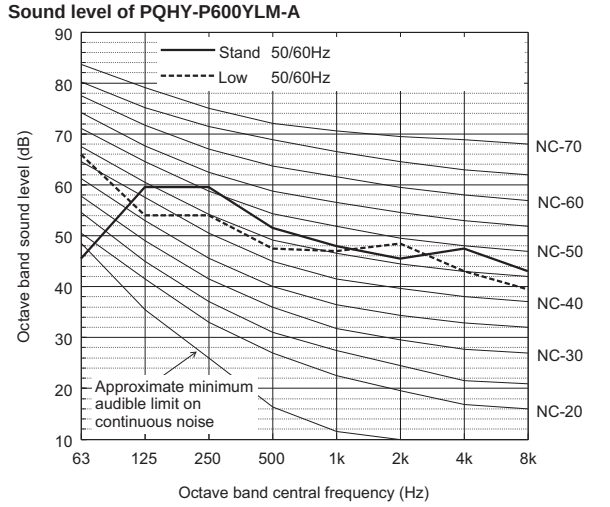
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	45.5	68.0	50.5	53.0	48.5	42.0	45.5	40.0	56.5
Low noise mode	50/60Hz	65.5	62.5	58.0	47.5	45.5	43.5	39.5	38.5	54.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Sound level of PQHY-P600YLM-A



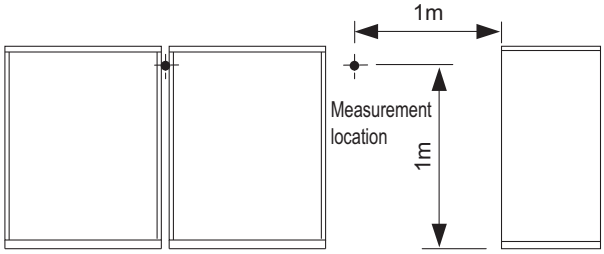
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	45.5	59.5	59.5	51.5	48.0	45.5	47.5	43.0	56.5
Low noise mode	50/60Hz	66.0	54.0	54.0	47.5	47.0	48.5	43.0	39.5	54.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

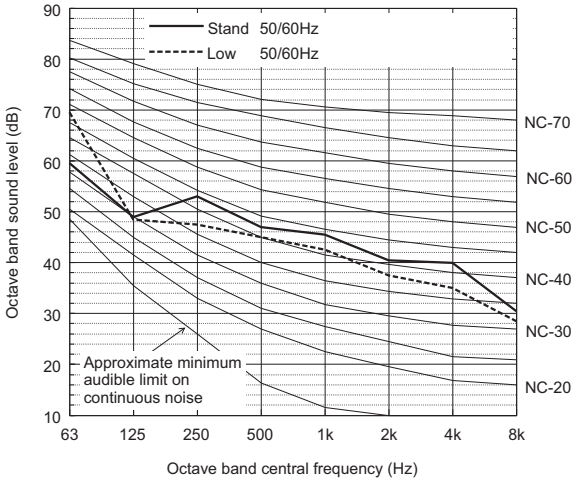
♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Measurement condition
PQHY-P400, 450, 500, 550, 600YSLM-A



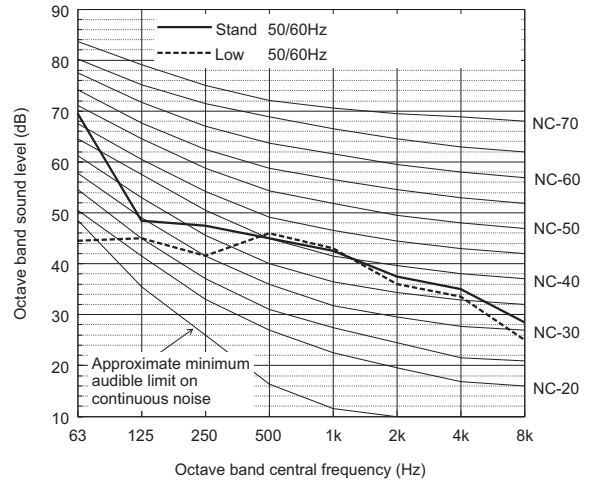
Sound level of PQHY-P500YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	59.5	49.0	53.0	47.0	45.5	40.5	40.0	30.5	51.0
Low noise mode	50/60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

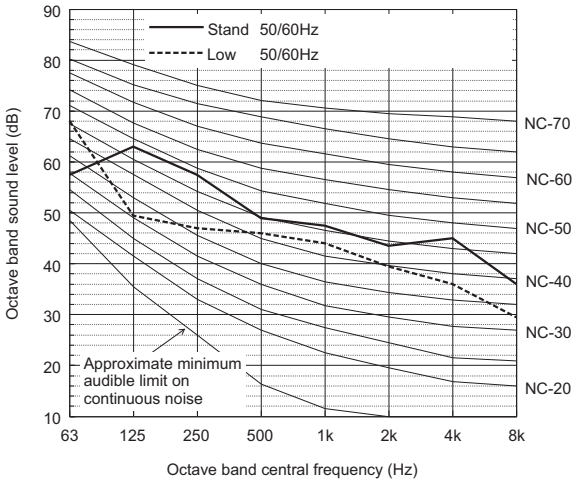
Sound level of PQHY-P400YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0
Low noise mode	50/60Hz	44.5	45.0	41.5	46.0	43.0	36.0	33.5	25.0	47.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

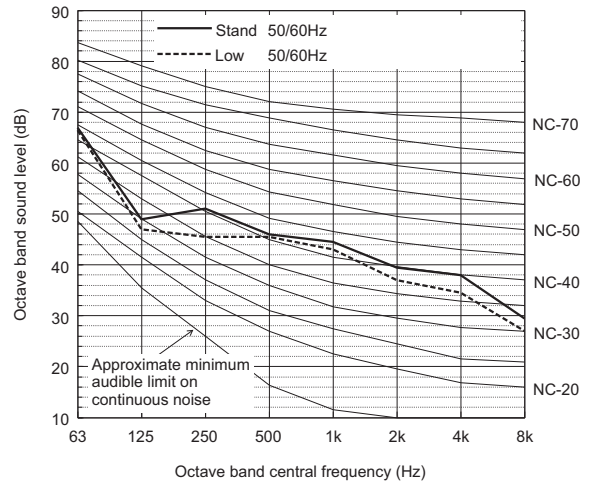
Sound level of PQHY-P550YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	57.5	63.0	57.5	49.0	47.5	43.5	45.0	36.0	55.0
Low noise mode	50/60Hz	68.0	49.5	47.0	46.0	44.0	39.5	36.0	29.5	49.5

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

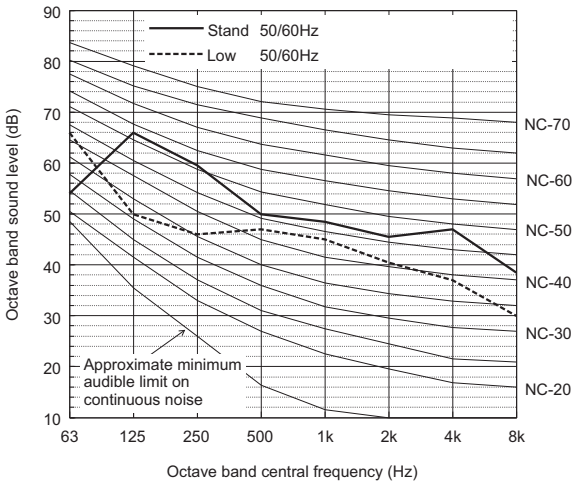
Sound level of PQHY-P450YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	67.0	49.0	51.0	46.0	44.5	39.5	38.0	29.5	50.0
Low noise mode	50/60Hz	66.5	47.0	45.5	45.5	43.0	37.0	34.5	27.0	48.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P600YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	54.0	66.0	59.5	50.0	48.5	45.5	47.0	38.5	57.0
Low noise mode	50/60Hz	66.0	50.0	46.0	47.0	45.0	40.5	37.0	30.0	50.0

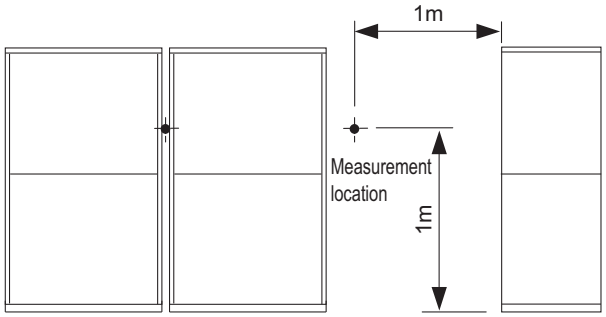
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

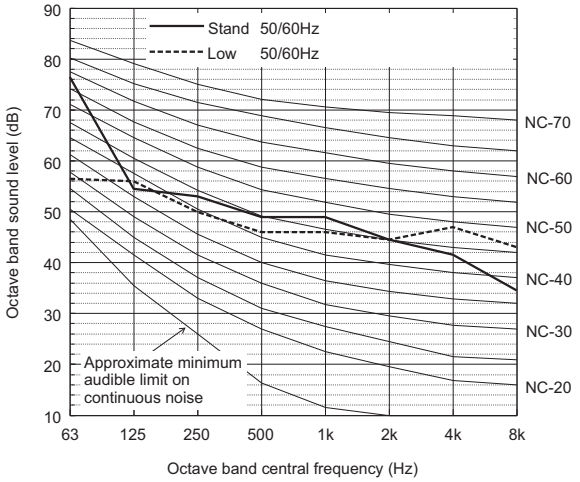
5. SOUND LEVELS

WY

Measurement condition
PQHY-P700, 750, 800, 850, 900YSLM-A



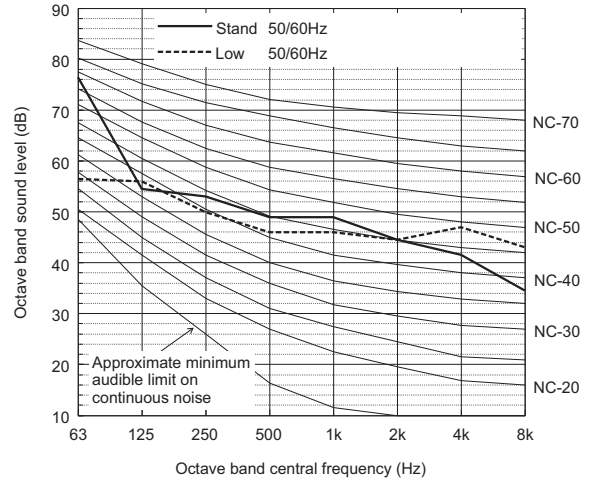
Sound level of PQHY-P800YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.5	54.5	53.0	49.0	49.0	44.5	41.5	34.5	55.0
Low noise mode	50/60Hz	56.5	56.0	50.0	46.0	46.0	44.5	47.0	43.0	53.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

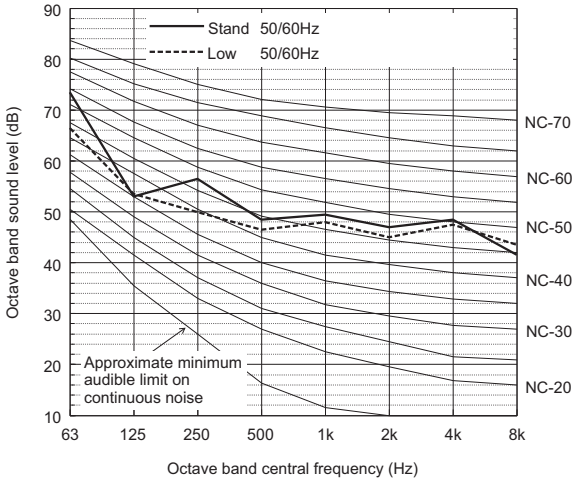
Sound level of PQHY-P700YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.5	54.5	53.0	49.0	49.0	44.5	41.5	34.5	55.0
Low noise mode	50/60Hz	56.5	56.0	50.0	46.0	46.0	44.5	47.0	43.0	53.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

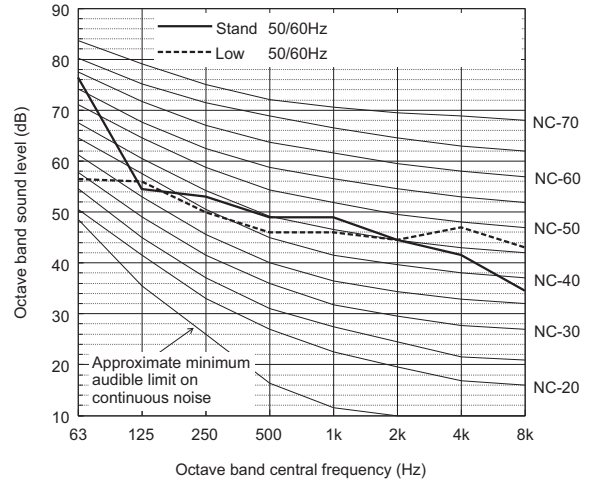
Sound level of PQHY-P850YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.5	53.0	56.5	48.5	49.5	47.0	48.5	41.5	56.0
Low noise mode	50/60Hz	66.5	53.5	50.0	46.5	48.0	45.0	47.5	43.5	54.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

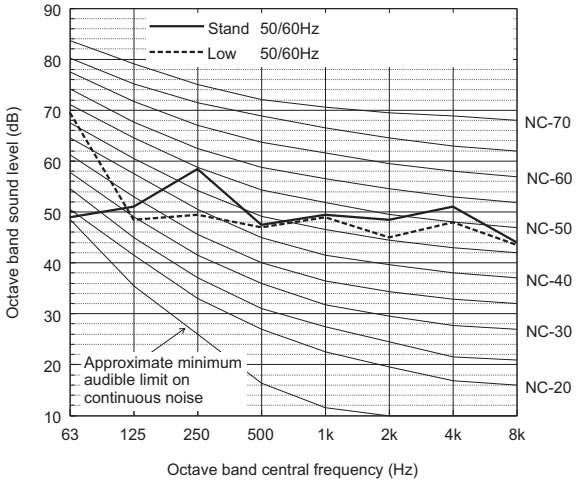
Sound level of PQHY-P750YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.5	54.5	53.0	49.0	49.0	44.5	41.5	34.5	55.0
Low noise mode	50/60Hz	56.5	56.0	50.0	46.0	46.0	44.5	47.0	43.0	53.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P900YSLM-A



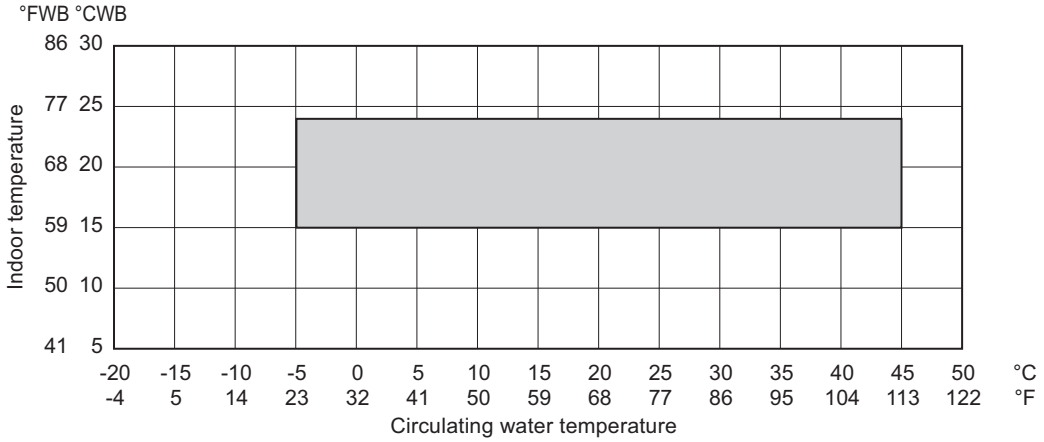
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	49.0	51.0	58.5	47.5	49.5	48.5	51.0	44.0	57.0
Low noise mode	50/60Hz	69.5	48.5	49.5	47.0	49.0	45.0	48.0	43.5	54.5

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

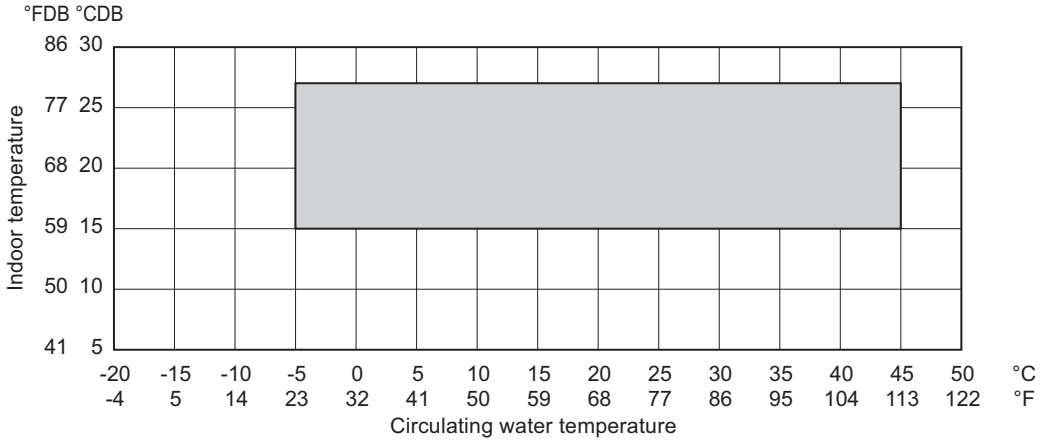
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

6. OPERATION TEMPERATURE RANGE

Cooling



Heating

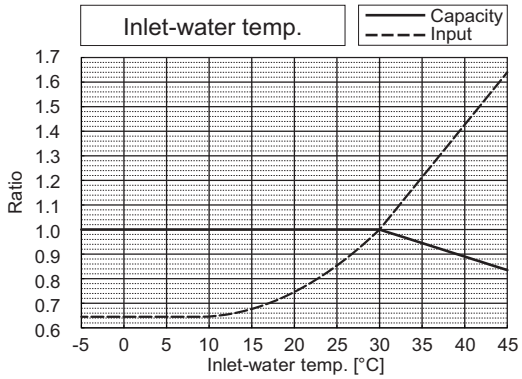


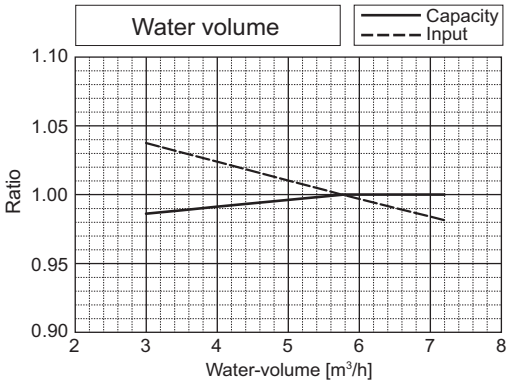
7. CAPACITY TABLES

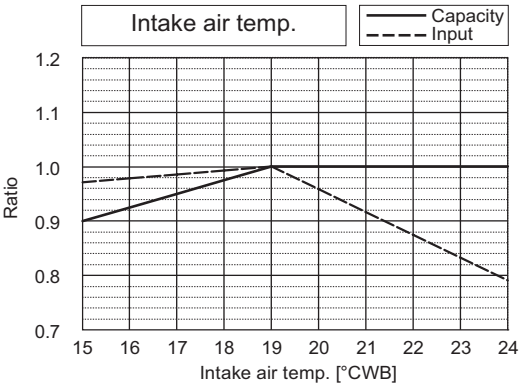
7-1. Correction by temperature

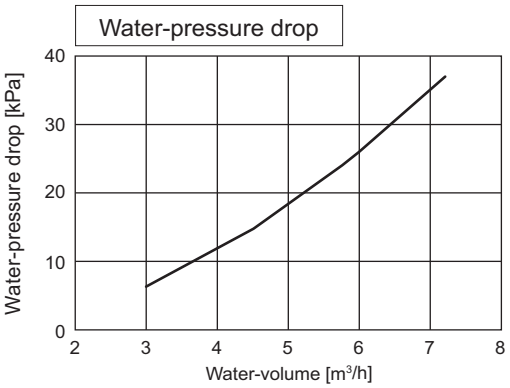
CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

		PQHY-P200YLM-A	PQRY-P200YLM-A
Nominal Cooling Capacity	kW	22.4	22.4
	BTU/h	76,400	76,400
Input	kW	3.71	3.71

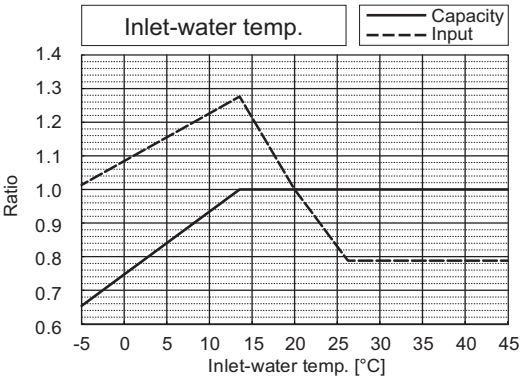


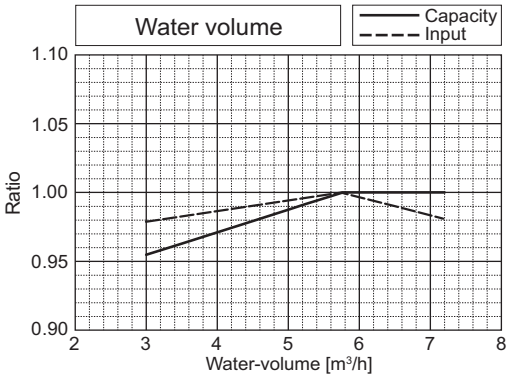


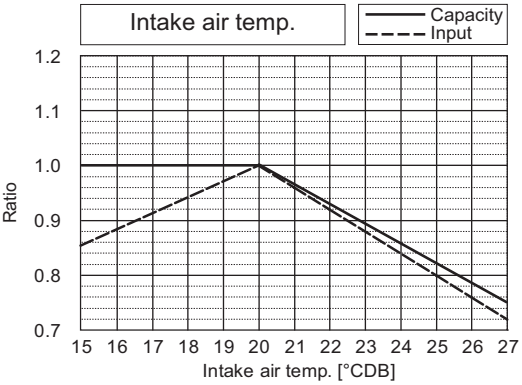


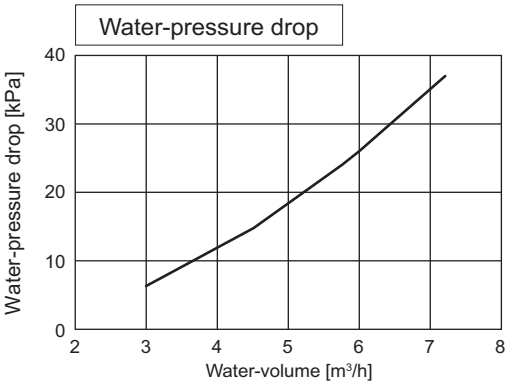


		PQHY-P200YLM-A	PQRY-P200YLM-A
Nominal Heating Capacity	kW	25.0	25.0
	BTU/h	85,300	85,300
Input	kW	3.97	3.97



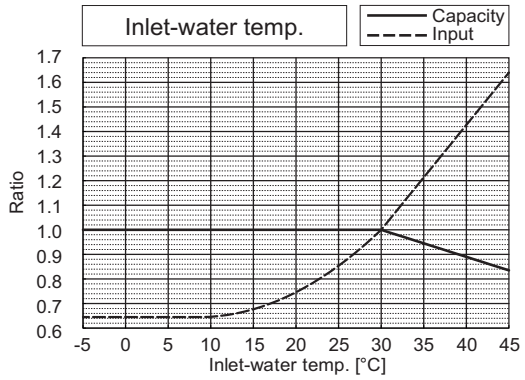


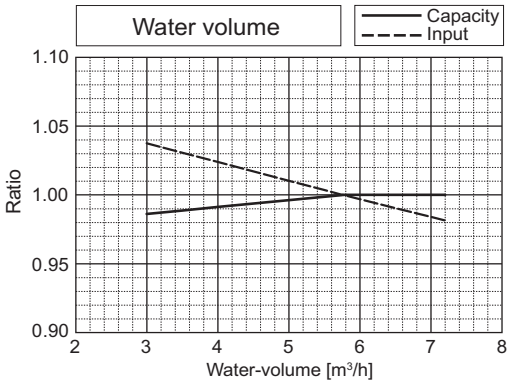


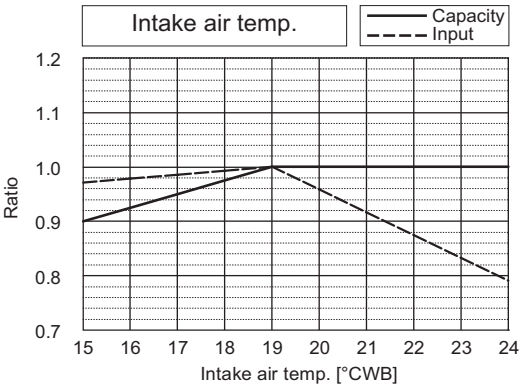


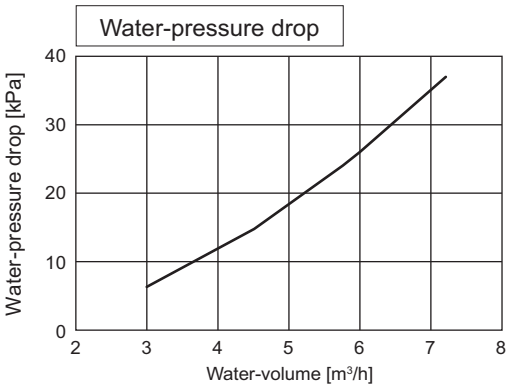
7. CAPACITY TABLES

		PQHY-P250YLM-A	PQRY-P250YLM-A
Nominal Cooling Capacity	kW	28.0	28.0
	BTU/h	95,500	95,500
Input	kW	4.90	4.90

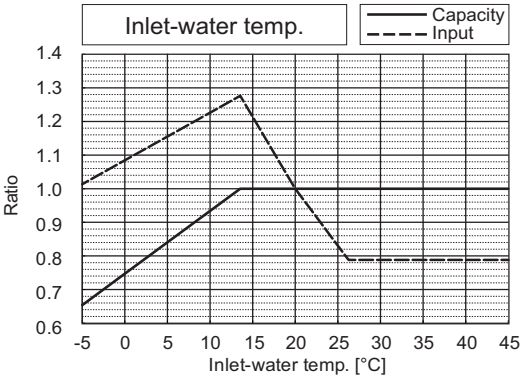


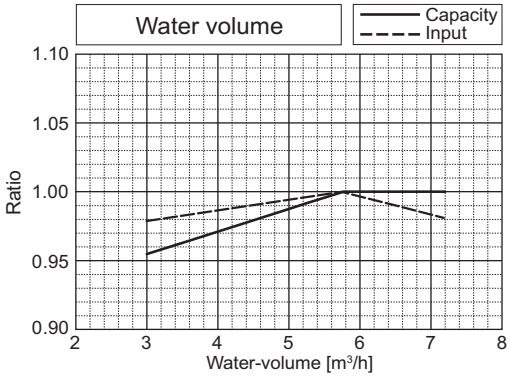


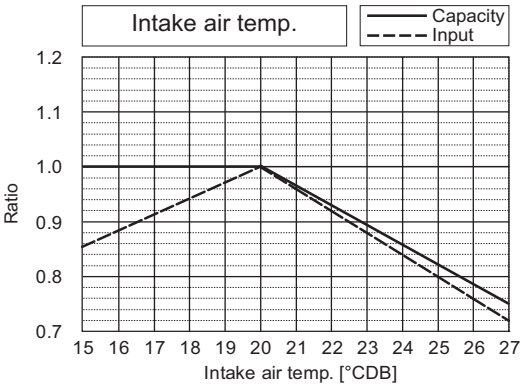


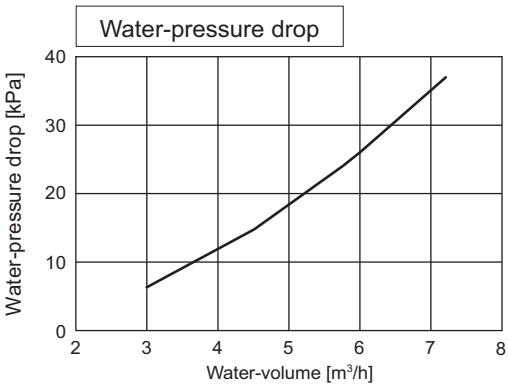


		PQHY-P250YLM-A	PQRY-P250YLM-A
Nominal Heating Capacity	kW	31.5	31.5
	BTU/h	107,500	107,500
Input	kW	5.08	5.08



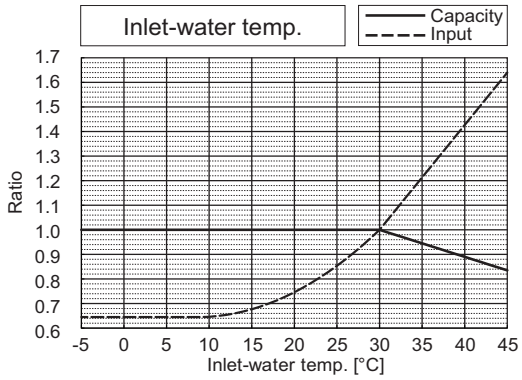


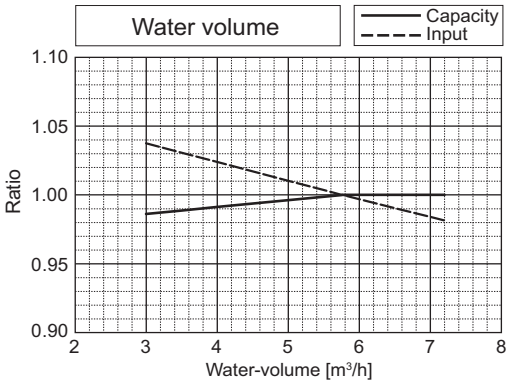


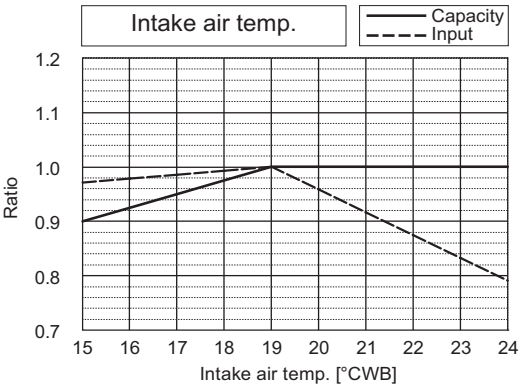


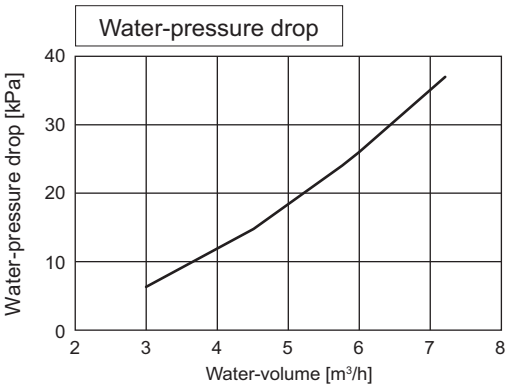
7. CAPACITY TABLES

		PQHY-P300YLM-A	PQRY-P300YLM-A
Nominal Cooling Capacity	kW	33.5	33.5
	BTU/h	114,300	114,300
Input	kW	6.04	6.04

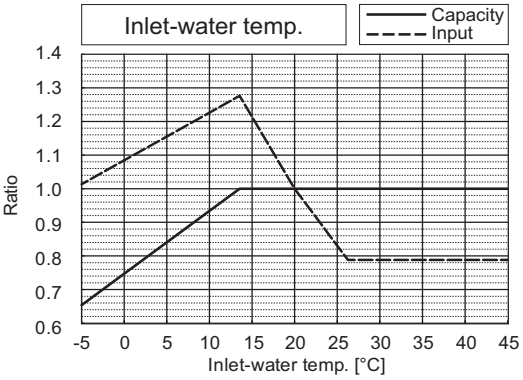


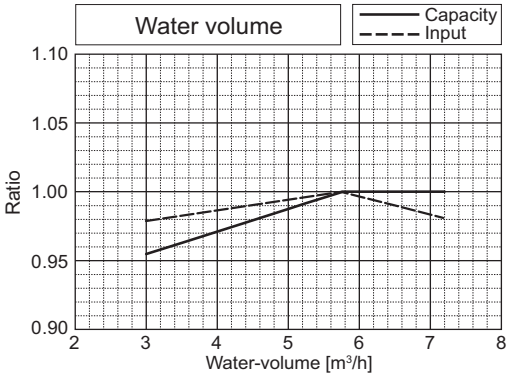


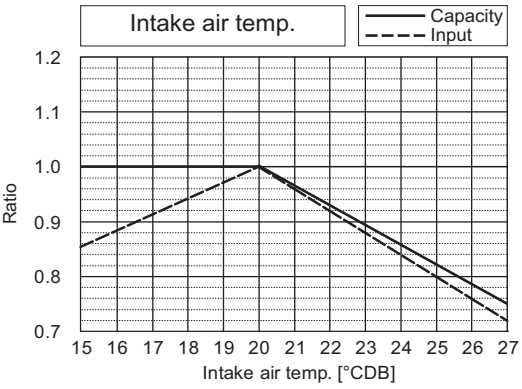


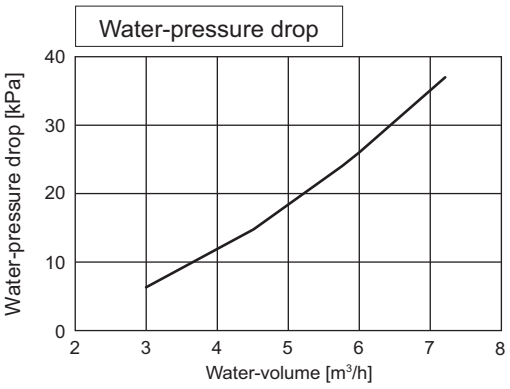


		PQHY-P300YLM-A	PQRY-P300YLM-A
Nominal Heating Capacity	kW	37.5	37.5
	BTU/h	128,000	128,000
Input	kW	6.25	6.25



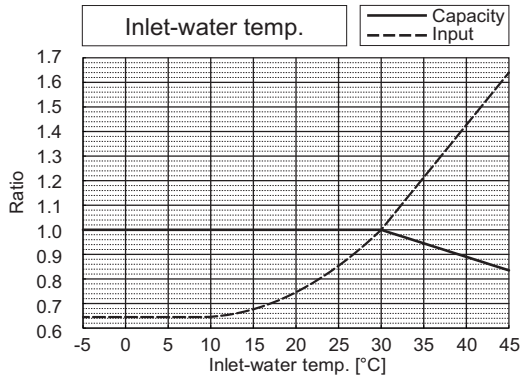


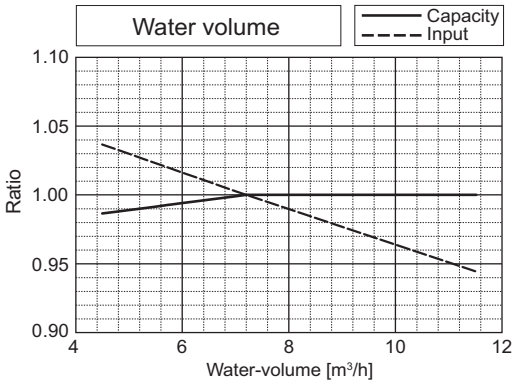


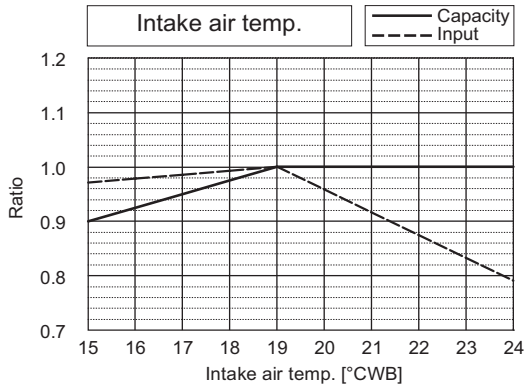


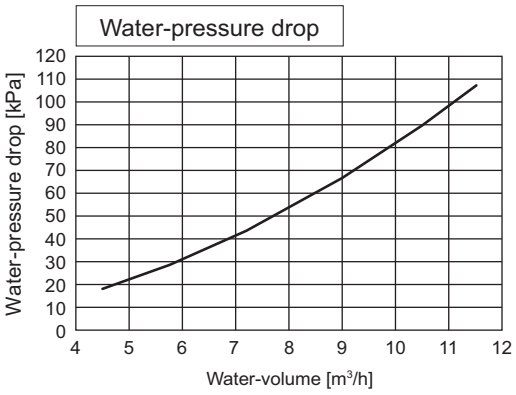
7. CAPACITY TABLES

		PQHY-P350YLM-A	PQRY-P350YLM-A
Nominal Cooling Capacity	kW	40.0	40.0
	BTU/h	136,500	136,500
Input	kW	7.14	7.14

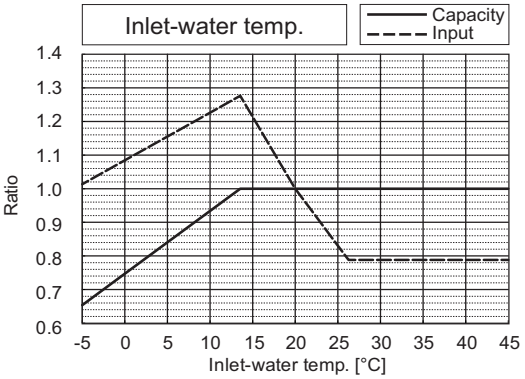


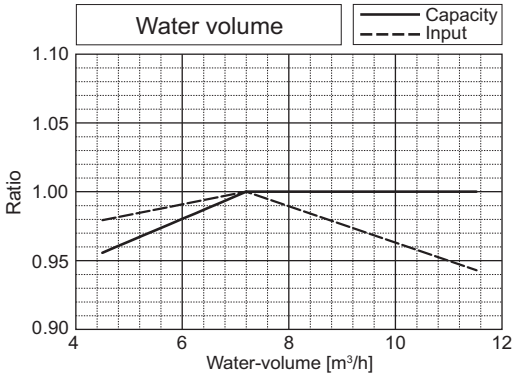


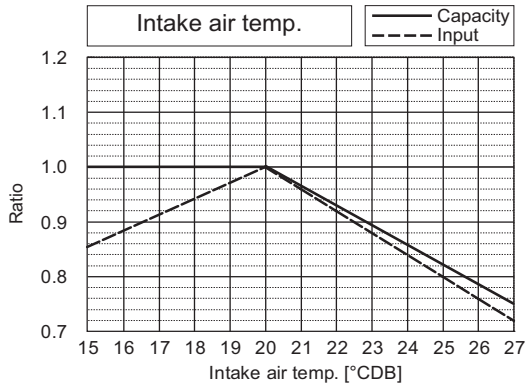


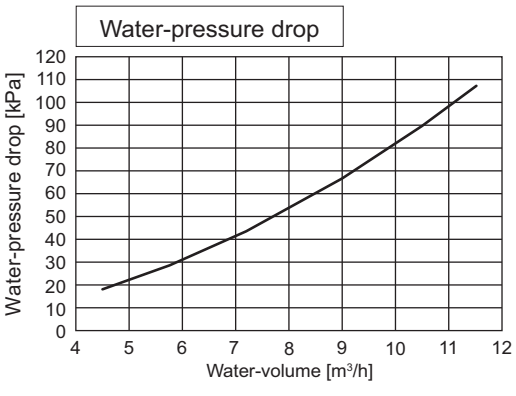


		PQHY-P350YLM-A	PQRY-P350YLM-A
Nominal Heating Capacity	kW	45.0	45.0
	BTU/h	153,500	153,500
Input	kW	7.53	7.53



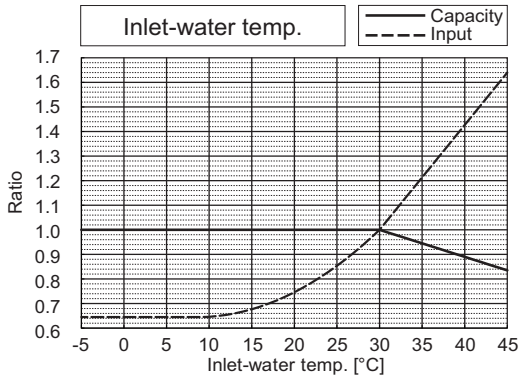


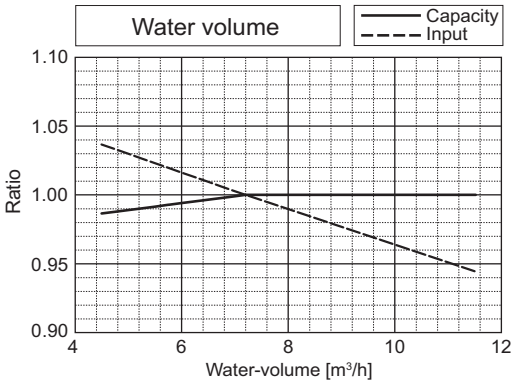


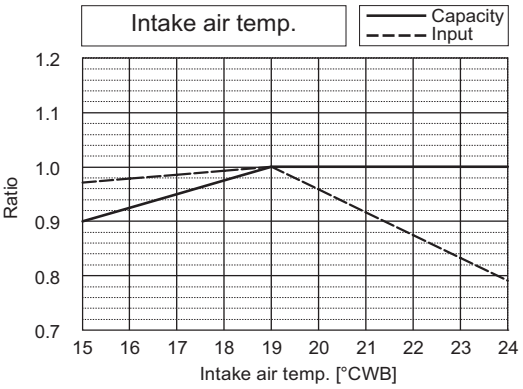


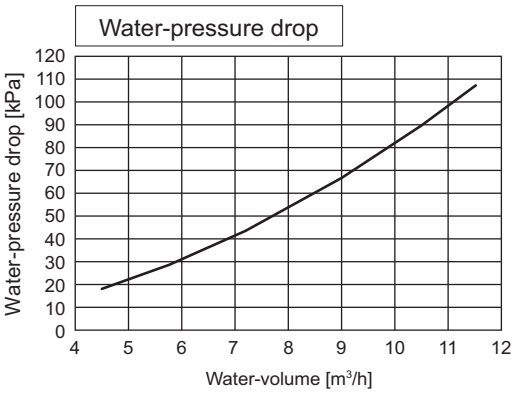
7. CAPACITY TABLES

		PQHY-P400YLM-A	PQRY-P400YLM-A
Nominal Cooling Capacity	kW	45.0	45.0
	BTU/h	153,500	153,500
Input	kW	8.03	8.03

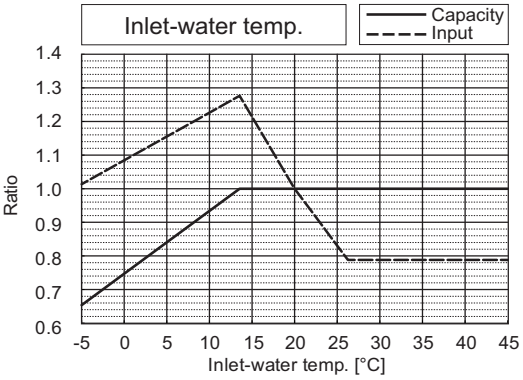


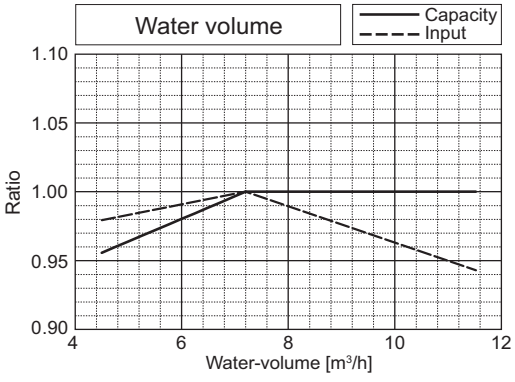


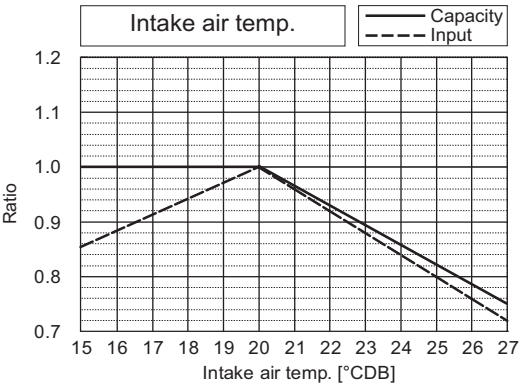


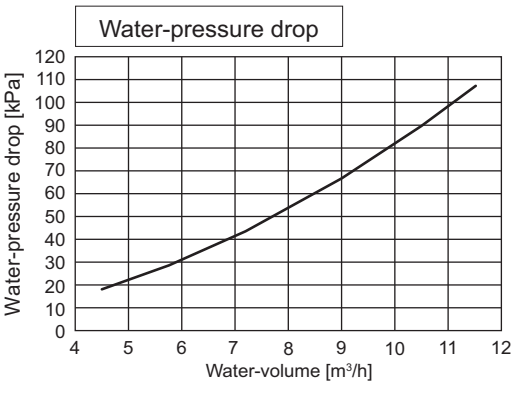


		PQHY-P400YLM-A	PQRY-P400YLM-A
Nominal Heating Capacity	kW	50.0	50.0
	BTU/h	170,600	170,600
Input	kW	8.37	8.37



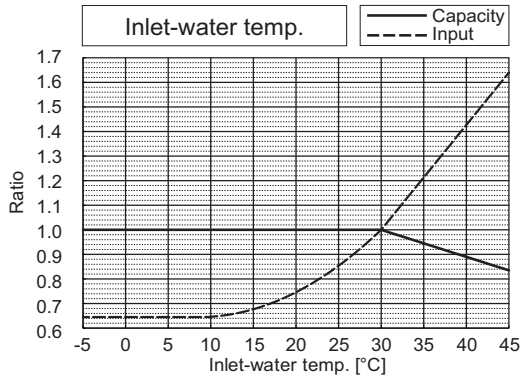


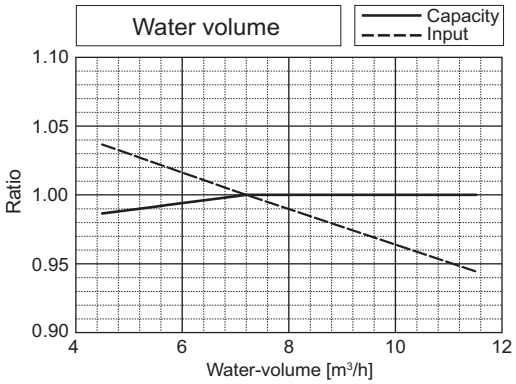


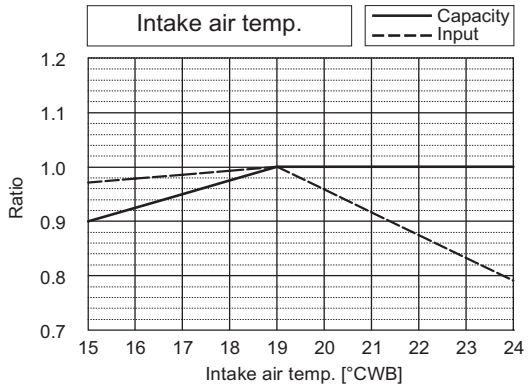


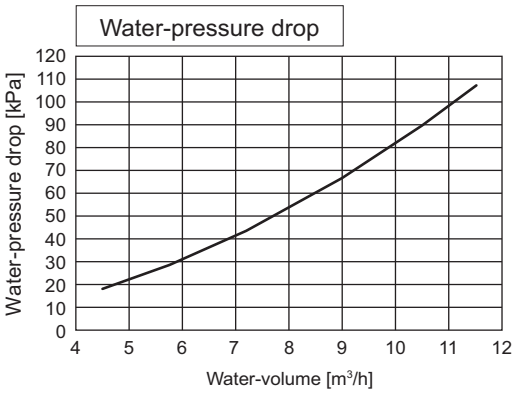
7. CAPACITY TABLES

		PQHY-P450YLM-A	PQRY-P450YLM-A
Nominal Cooling Capacity	kW	50.0	50.0
	BTU/h	170,600	170,600
Input	kW	9.29	9.29

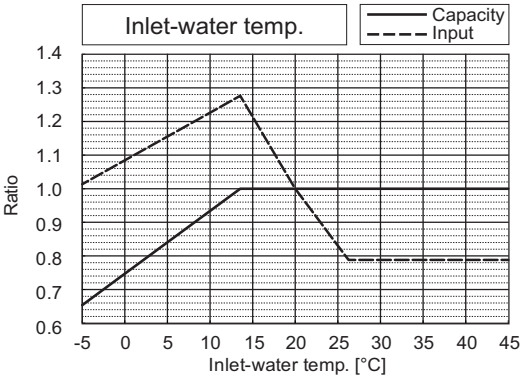


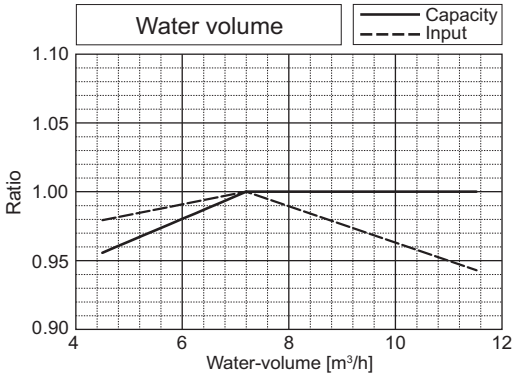


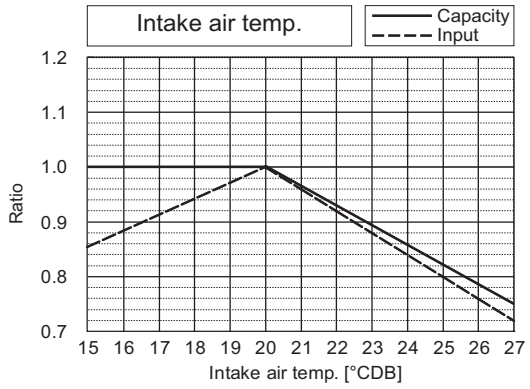


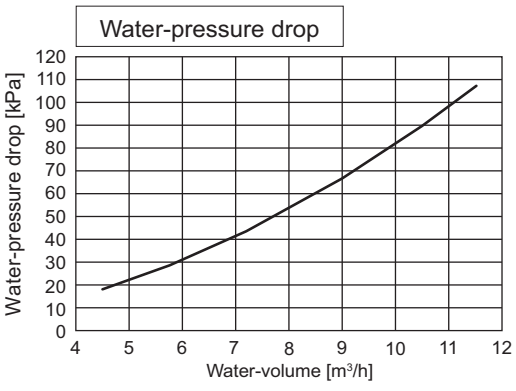


		PQHY-P450YLM-A	PQRY-P450YLM-A
Nominal Heating Capacity	kW	56.0	56.0
	BTU/h	191,100	191,100
Input	kW	9.79	9.79



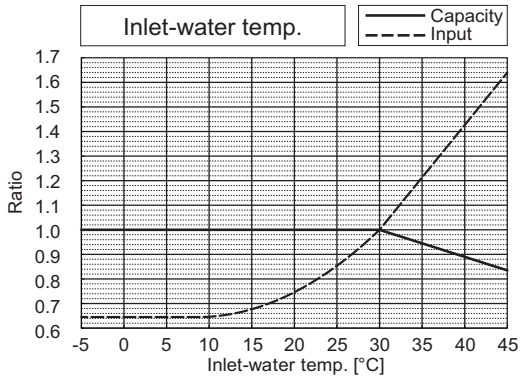


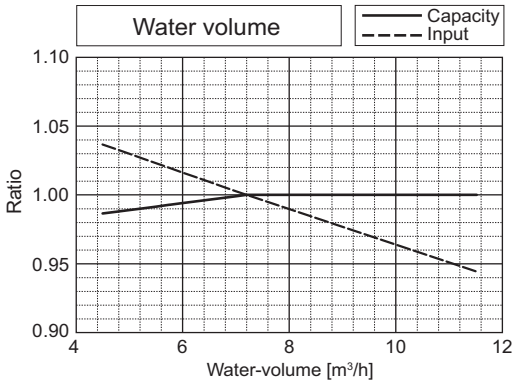


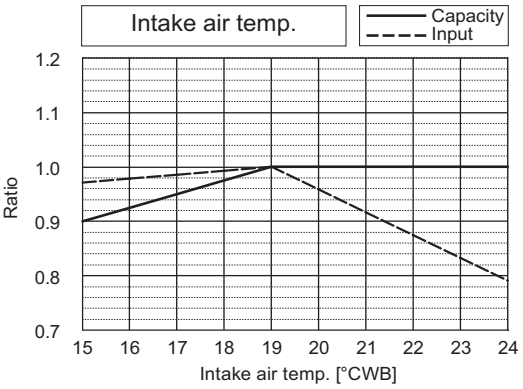


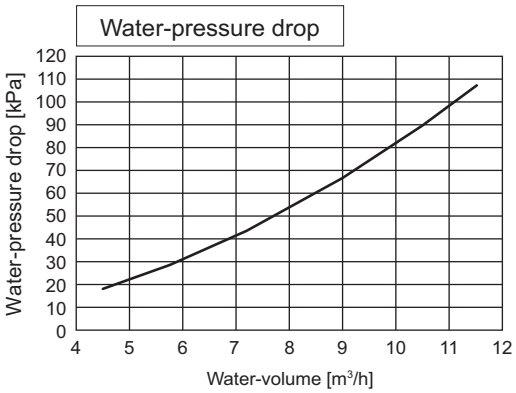
7. CAPACITY TABLES

		PQHY-P500YLM-A	PQRY-P500YLM-A
Nominal Cooling Capacity	kW	56.0	56.0
	BTU/h	191,100	191,100
Input	kW	11.17	11.17

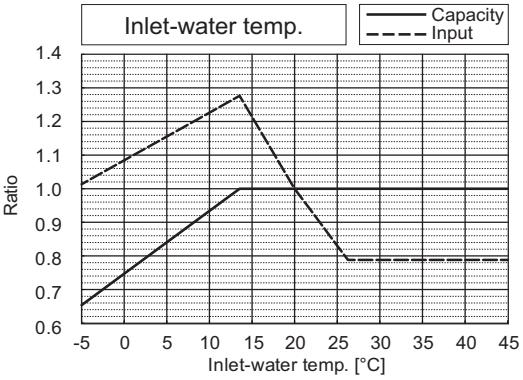


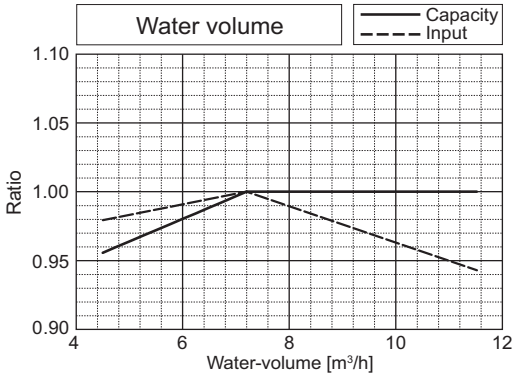


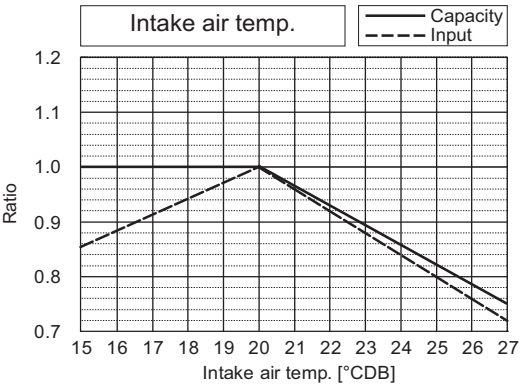


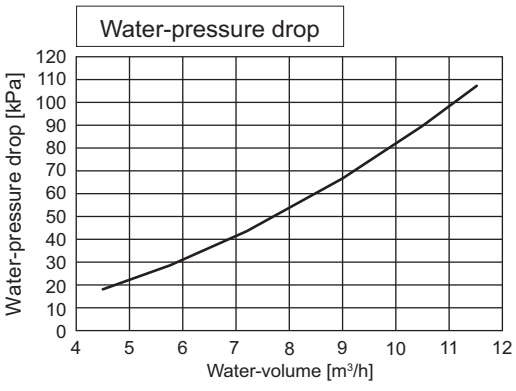


		PQHY-P500YLM-A	PQRY-P500YLM-A
Nominal Heating Capacity	kW	63.0	63.0
	BTU/h	215,000	215,000
Input	kW	11.43	11.43



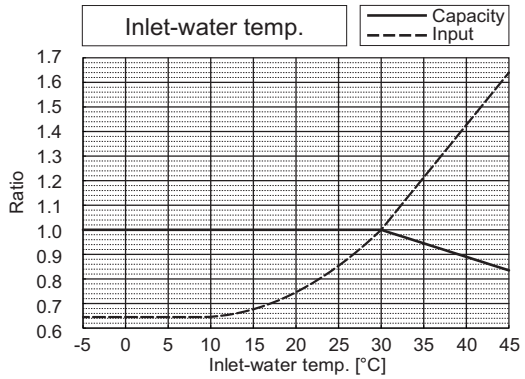


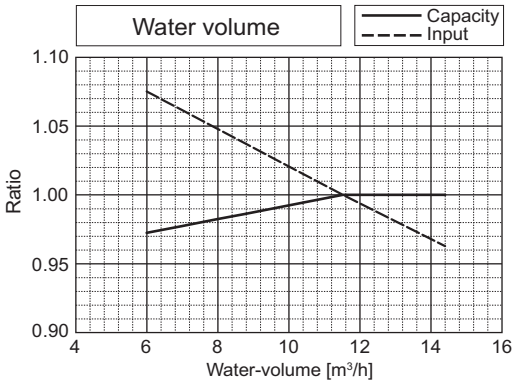


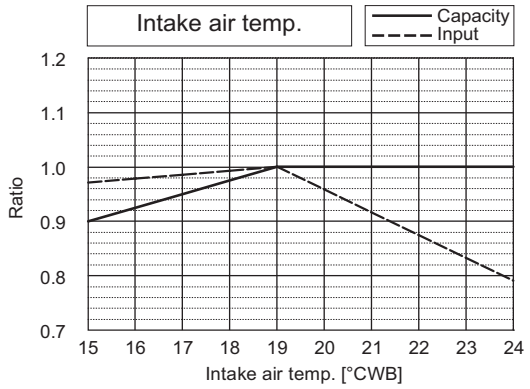


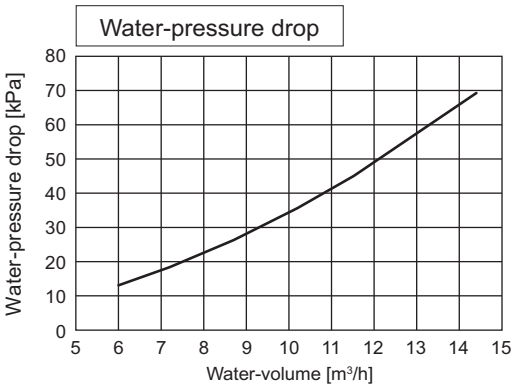
7. CAPACITY TABLES

		PQHY-P550YLM-A	PQRY-P550YLM-A
Nominal Cooling Capacity	kW	63.0	63.0
	BTU/h	215,000	215,000
Input	kW	12.54	12.54

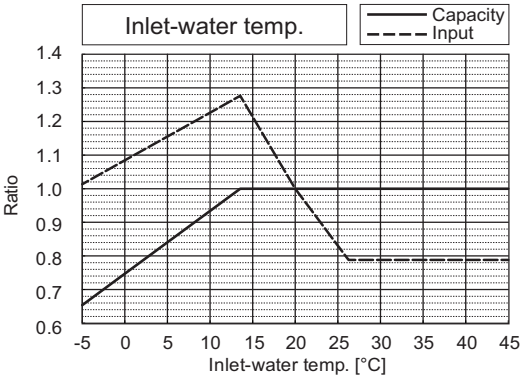


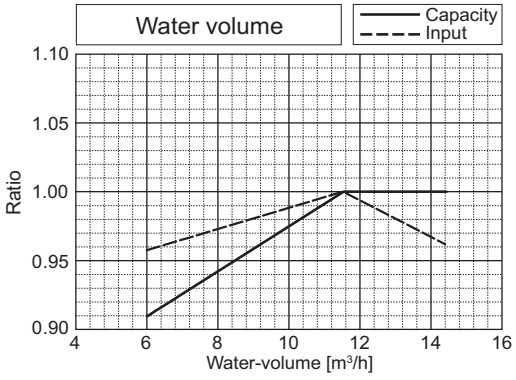


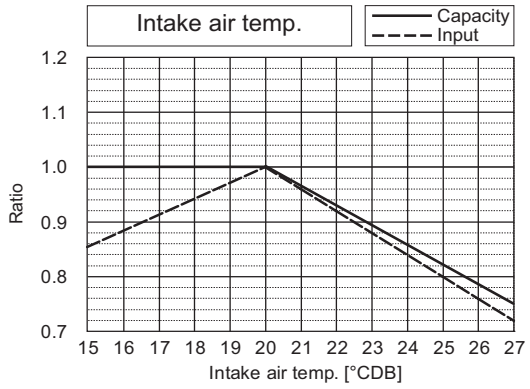


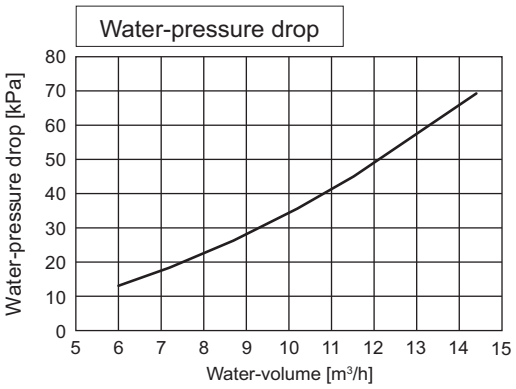


		PQHY-P550YLM-A	PQRY-P550YLM-A
Nominal Heating Capacity	kW	69.0	69.0
	BTU/h	235,400	235,400
Input	kW	12.27	12.27



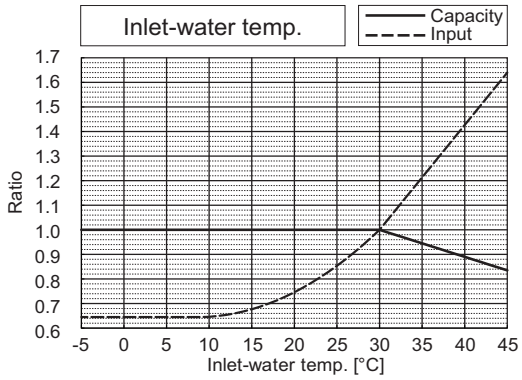


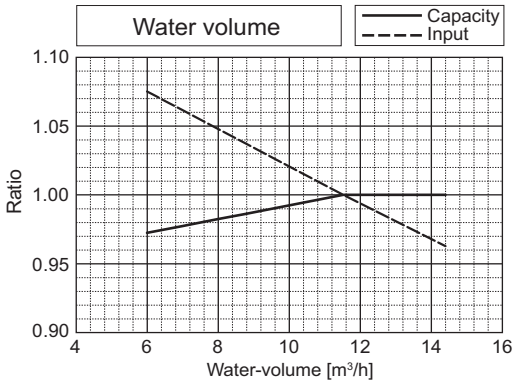


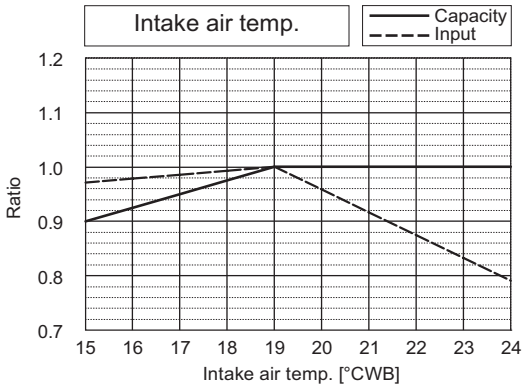


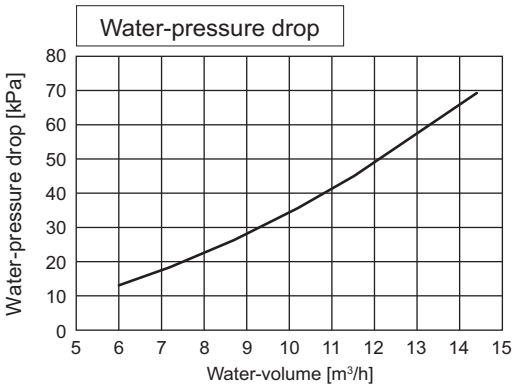
7. CAPACITY TABLES

		PQHY-P600YLM-A	PQRY-P600YLM-A
Nominal Cooling Capacity	kW	69.0	69.0
	BTU/h	235,400	235,400
Input	kW	14.49	14.49

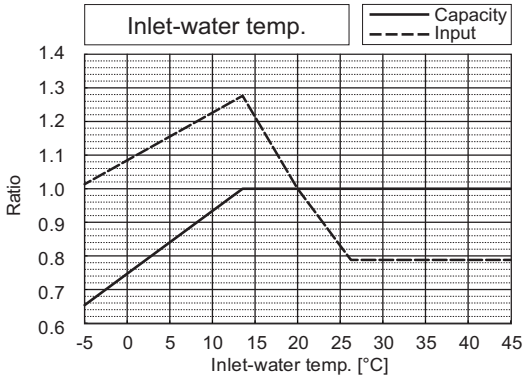


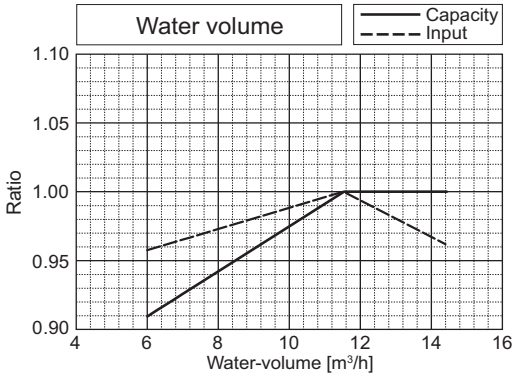


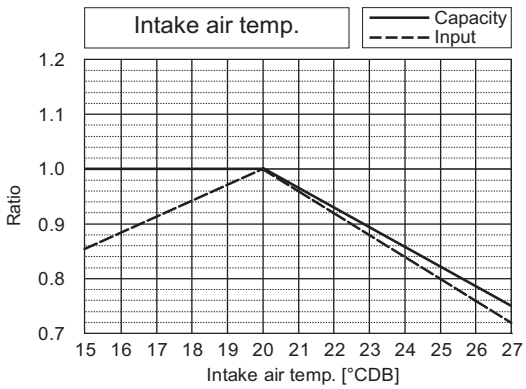


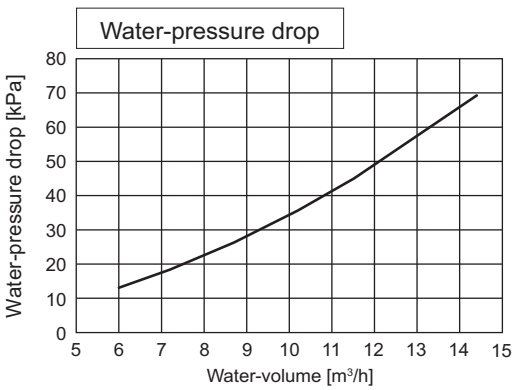


		PQHY-P600YLM-A	PQRY-P600YLM-A
Nominal Heating Capacity	kW	76.5	76.5
	BTU/h	261,000	261,000
Input	kW	14.51	14.51



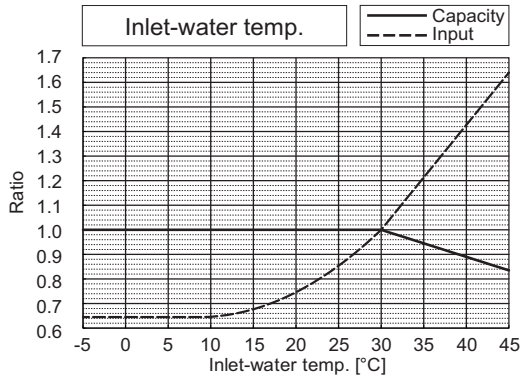


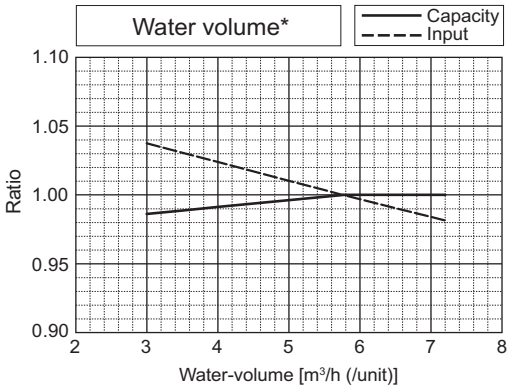


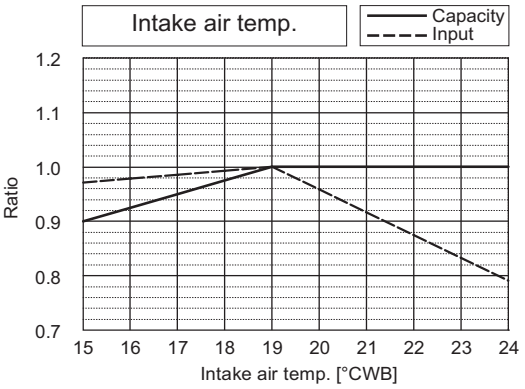


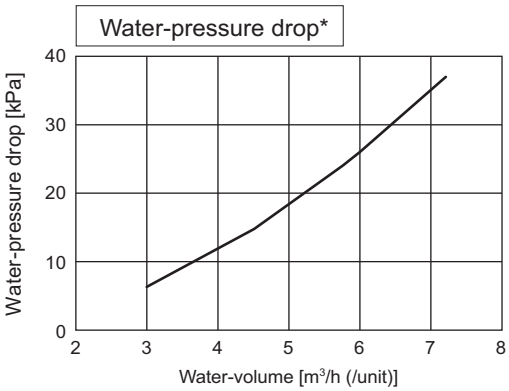
7. CAPACITY TABLES

		PQHY-P400YSLM-A	PQRY-P400YSLM-A
Nominal Cooling Capacity	kW	45.0	45.0
	BTU/h	153,500	153,500
Input	kW	7.70	7.70



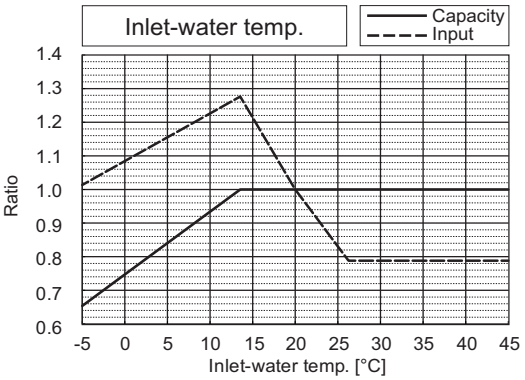


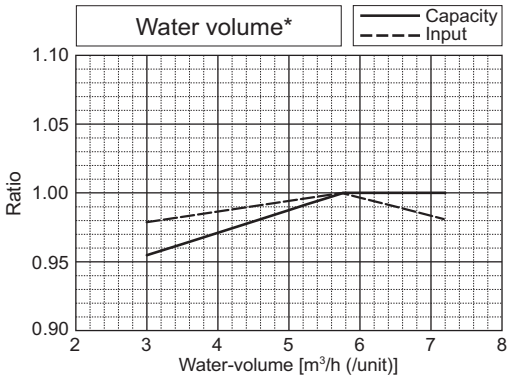


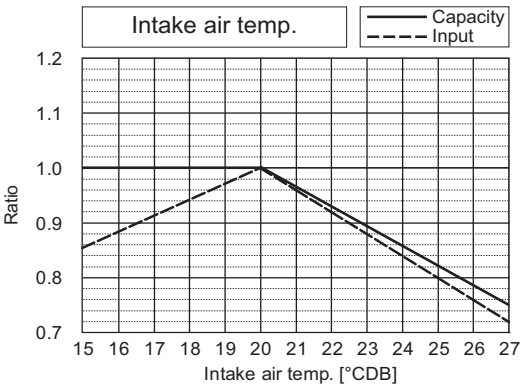


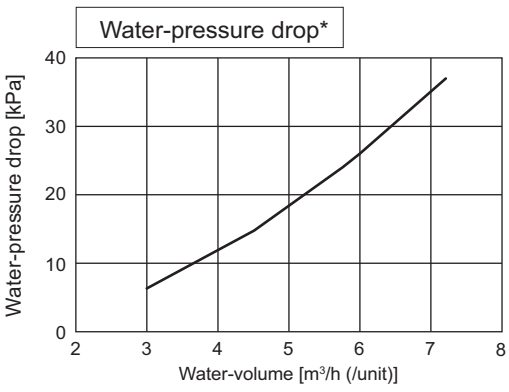
*The drawing indicates characteristic per unit.

		PQHY-P400YSLM-A	PQRY-P400YSLM-A
Nominal Heating Capacity	kW	50.0	50.0
	BTU/h	170,600	170,600
Input	kW	7.94	7.94





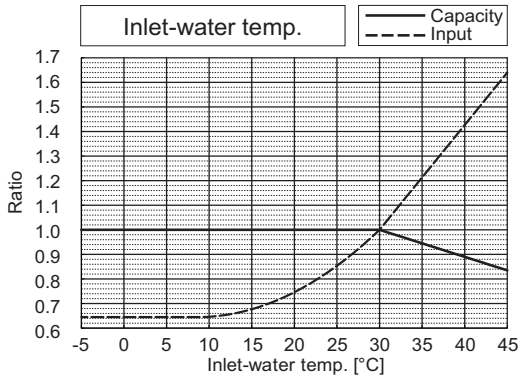


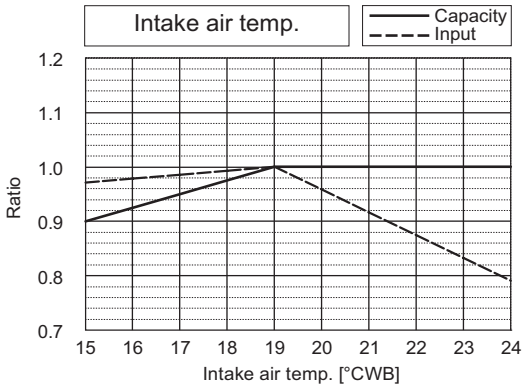


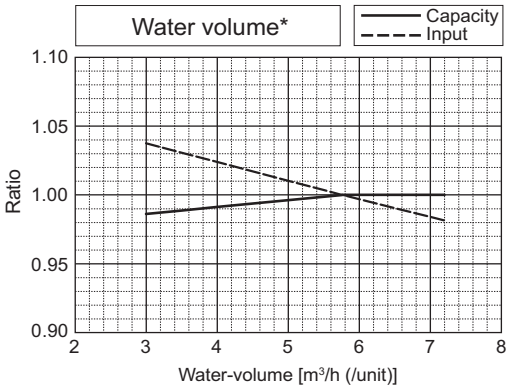
*The drawing indicates characteristic per unit.

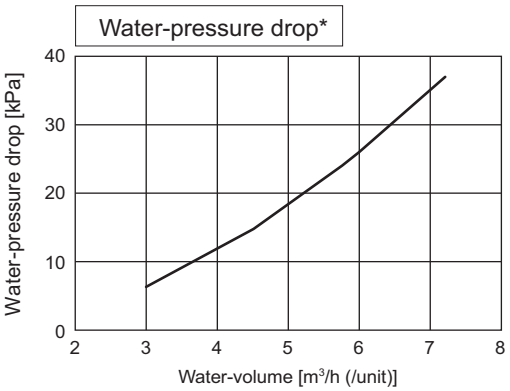
7. CAPACITY TABLES

		PQHY-P450YSLM-A	PQRY-P450YSLM-A
Nominal Cooling Capacity	kW	50.0	50.0
	BTU/h	170,600	170,600
Input	kW	8.78	8.78



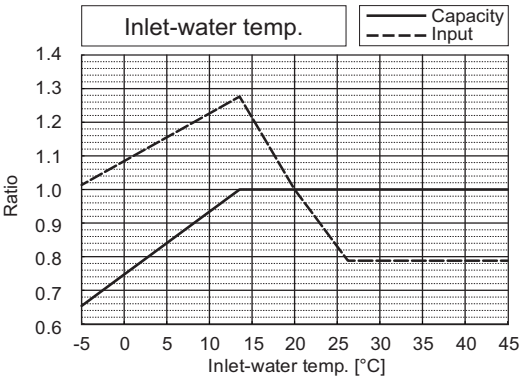


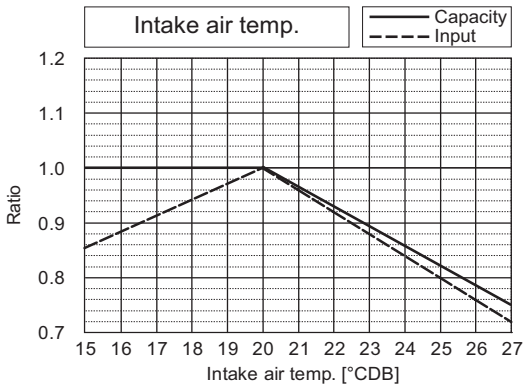


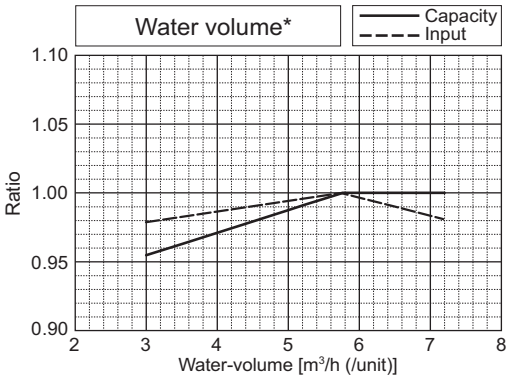


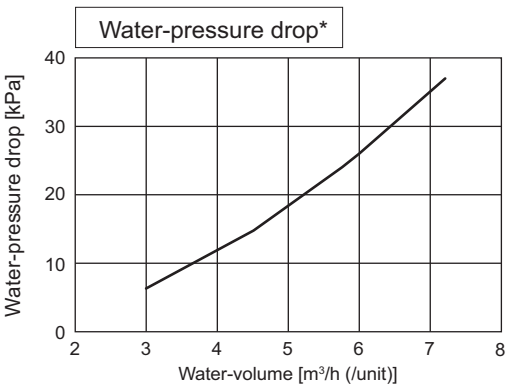
*The drawing indicates characteristic per unit.

		PQHY-P450YSLM-A	PQRY-P450YSLM-A
Nominal Heating Capacity	kW	56.0	56.0
	BTU/h	191,100	191,100
Input	kW	8.97	8.97





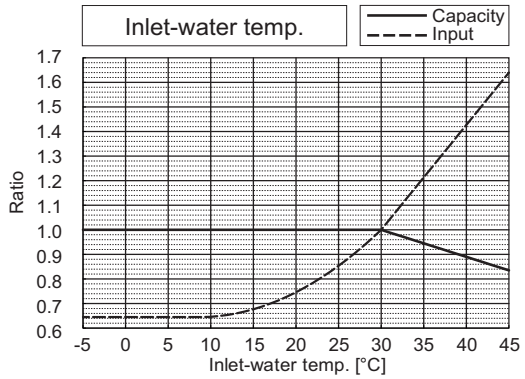


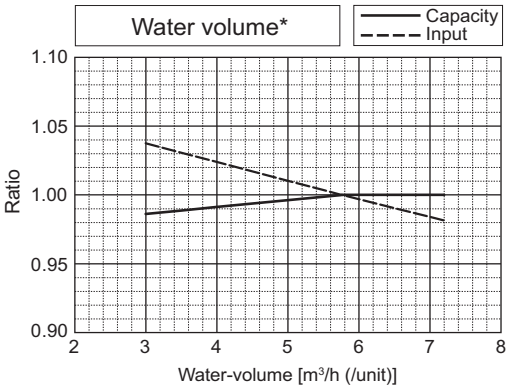


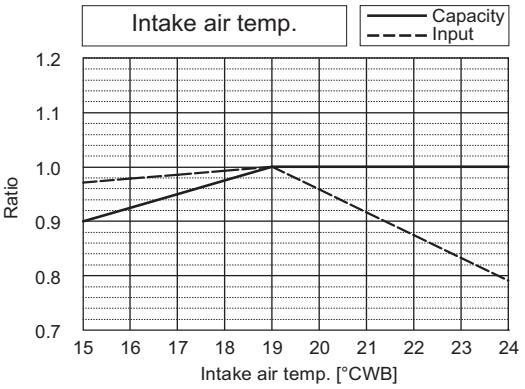
*The drawing indicates characteristic per unit.

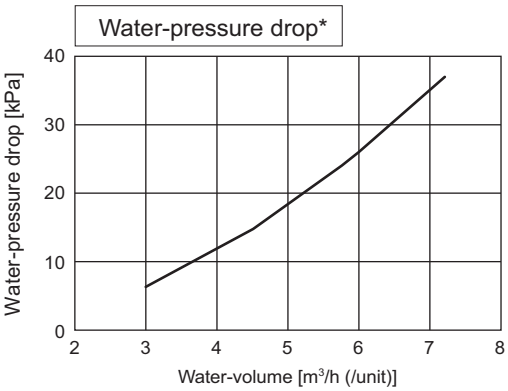
7. CAPACITY TABLES

		PQHY-P500YSLM-A	PQRY-P500YSLM-A
Nominal Cooling Capacity	kW	56.0	56.0
	BTU/h	191,100	191,100
Input	kW	10.12	10.12



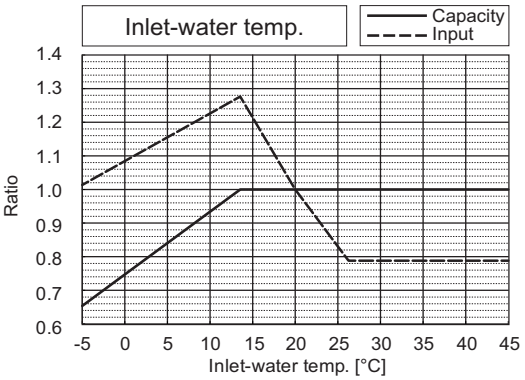


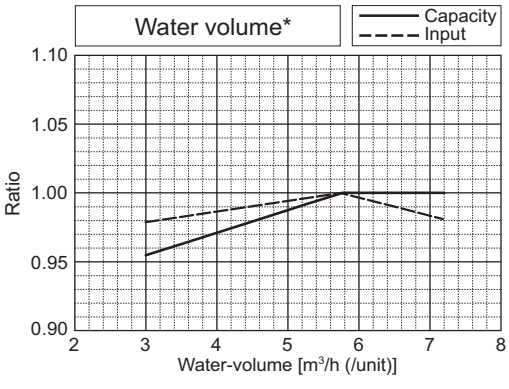


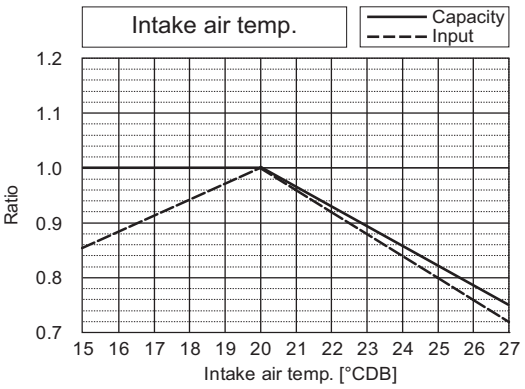


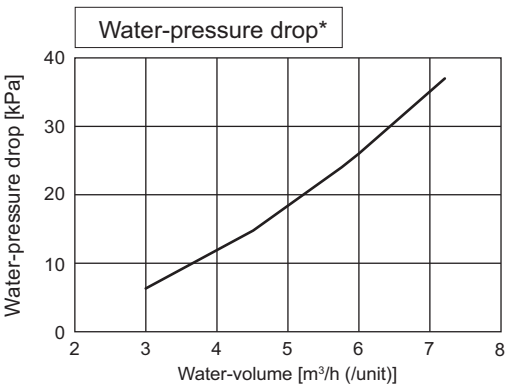
*The drawing indicates characteristic per unit.

		PQHY-P500YSLM-A	PQRY-P500YSLM-A
Nominal Heating Capacity	kW	63.0	63.0
	BTU/h	215,000	215,000
Input	kW	10.16	10.16





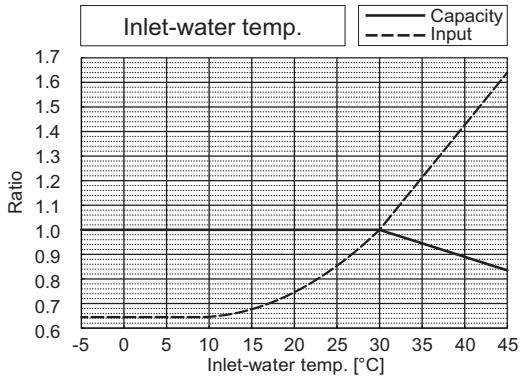


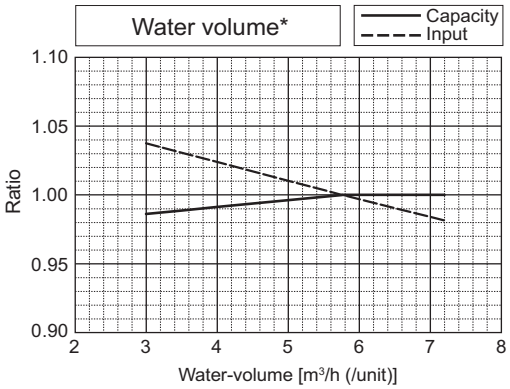


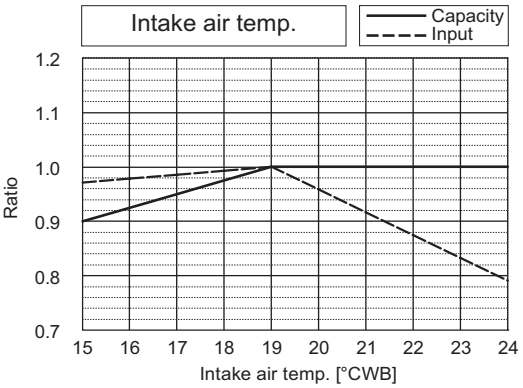
*The drawing indicates characteristic per unit.

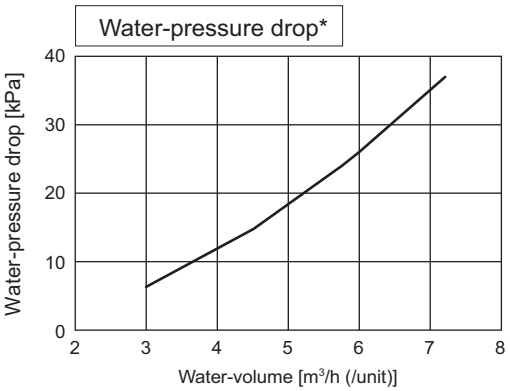
7. CAPACITY TABLES

		PQHY-P550YSLM-A	PQRY-P550YSLM-A
Nominal Cooling Capacity	kW	63.0	63.0
	BTU/h	215,000	215,000
Input	kW	11.55	11.55



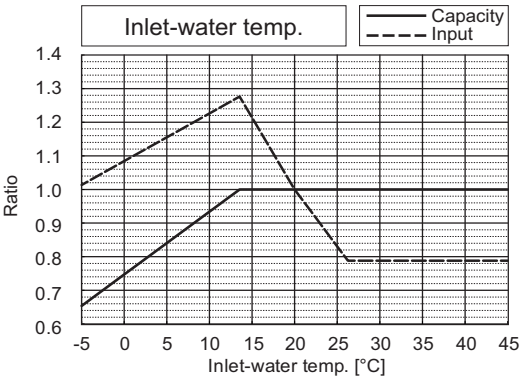


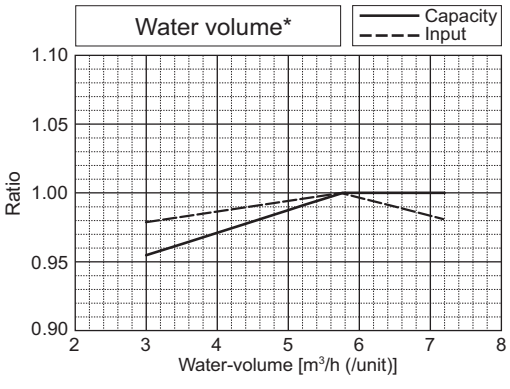


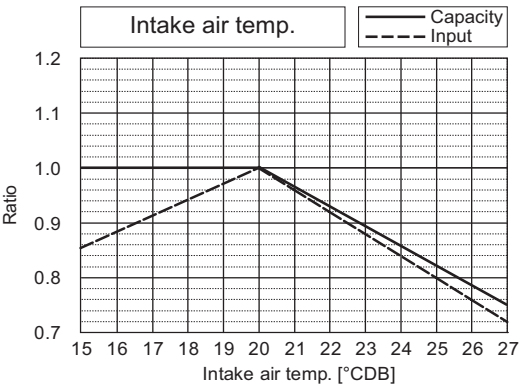


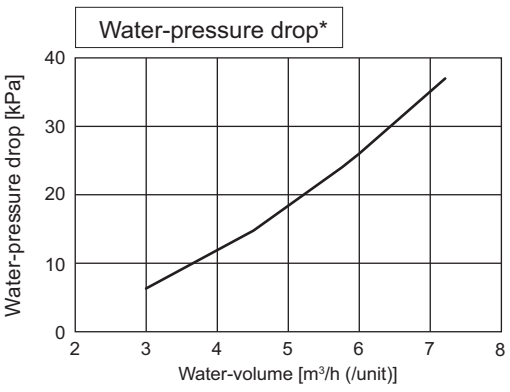
*The drawing indicates characteristic per unit.

		PQHY-P550YSLM-A	PQRY-P550YSLM-A
Nominal Heating Capacity	kW	69.0	69.0
	BTU/h	235,400	235,400
Input	kW	11.31	11.31





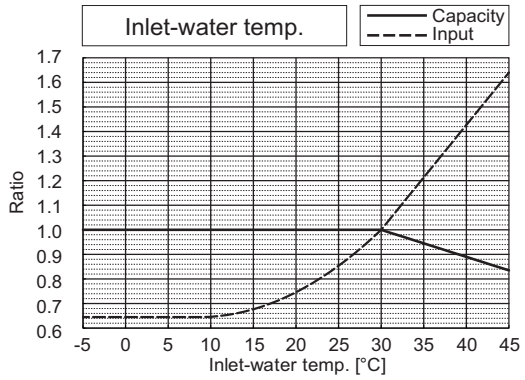


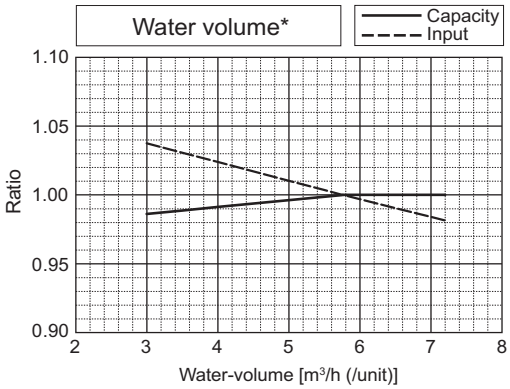


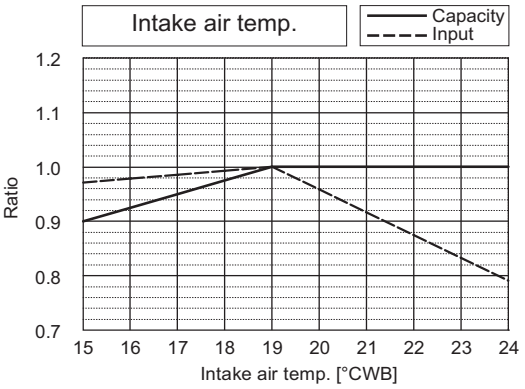
*The drawing indicates characteristic per unit.

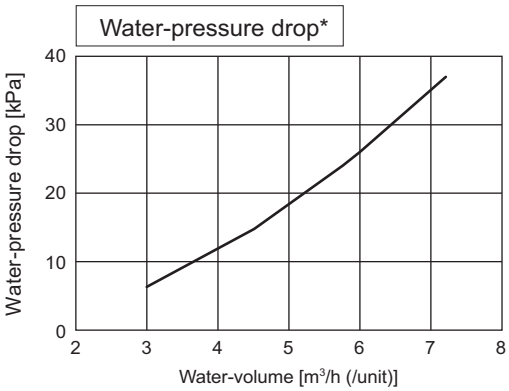
7. CAPACITY TABLES

		PQHY-P600YSLM-A	PQRY-P600YSLM-A
Nominal Cooling Capacity	kW	69.0	69.0
	BTU/h	235,400	235,400
Input	kW	12.84	12.84



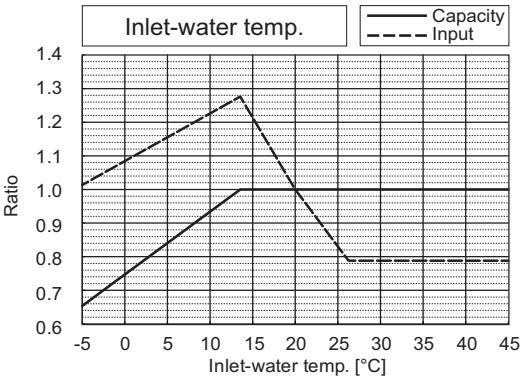


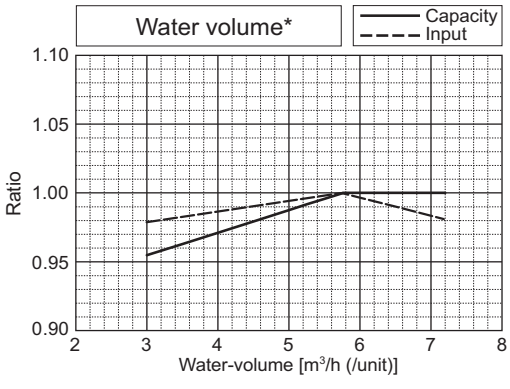


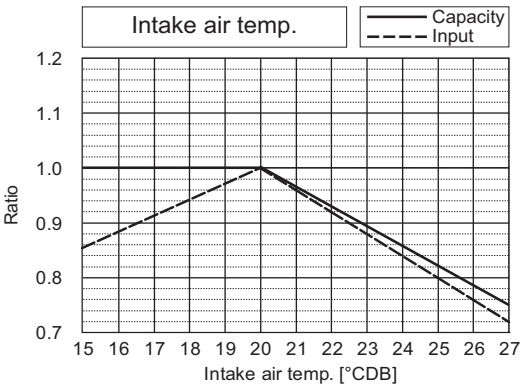


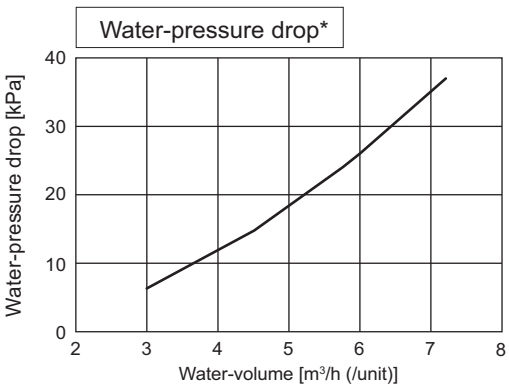
*The drawing indicates characteristic per unit.

		PQHY-P600YSLM-A	PQRY-P600YSLM-A
Nominal Heating Capacity	kW	76.5	76.5
	BTU/h	261,000	261,000
Input	kW	12.75	12.75





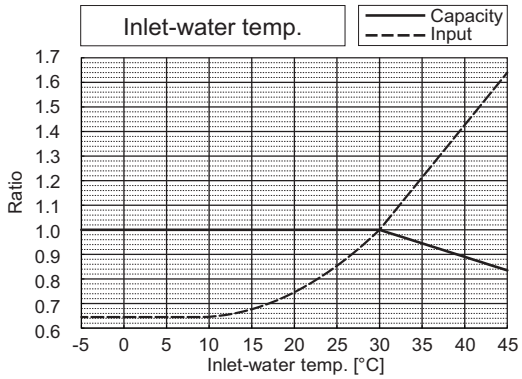


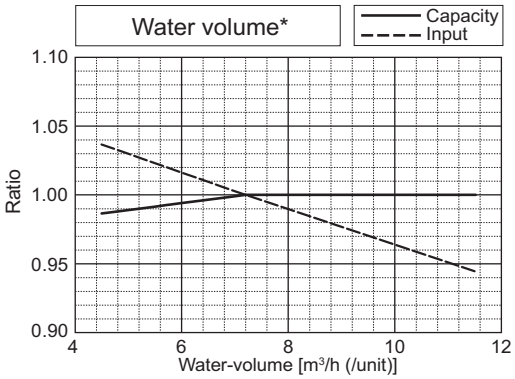


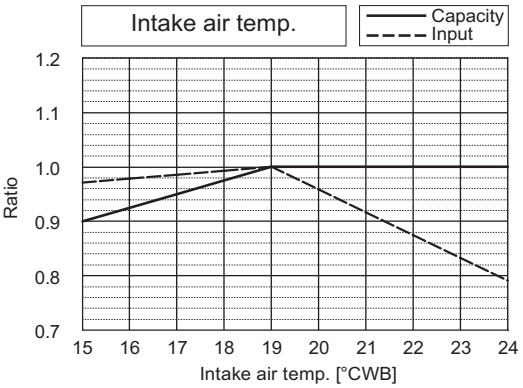
*The drawing indicates characteristic per unit.

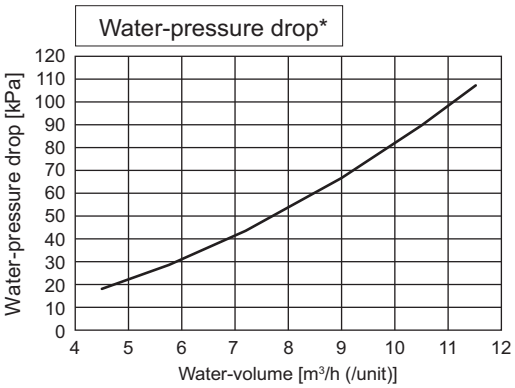
7. CAPACITY TABLES

		PQHY-P700YSLM-A	PQRY-P700YSLM-A
Nominal Cooling Capacity	kW	80.0	80.0
	BTU/h	273,000	273,000
Input	kW	14.73	14.73



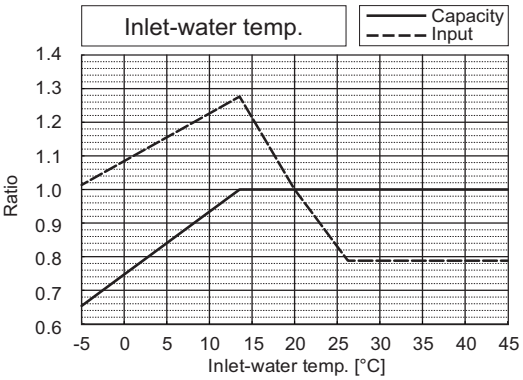


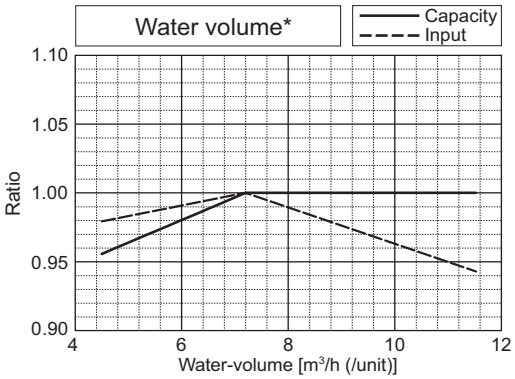


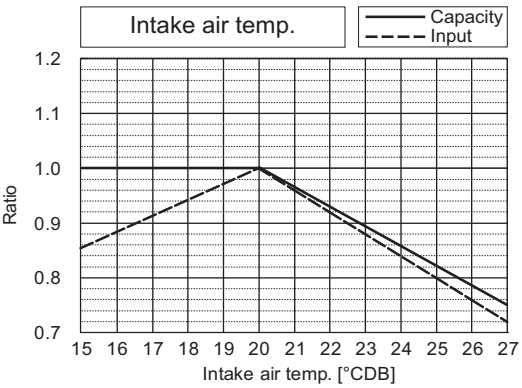


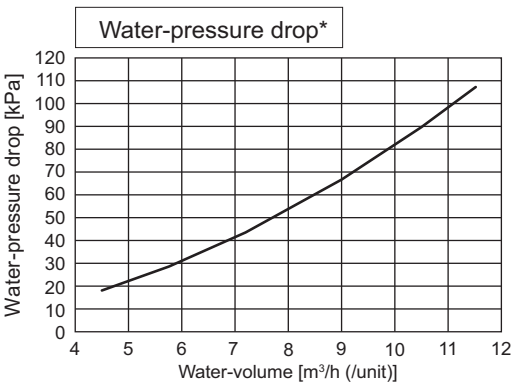
*The drawing indicates characteristic per unit.

		PQHY-P700YSLM-A	PQRY-P700YSLM-A
Nominal Heating Capacity	kW	88.0	88.0
	BTU/h	300,300	300,300
Input	kW	14.73	14.73





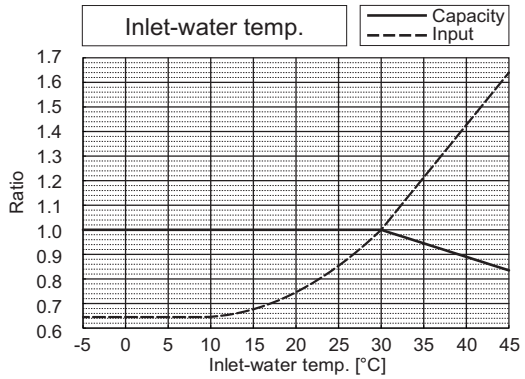


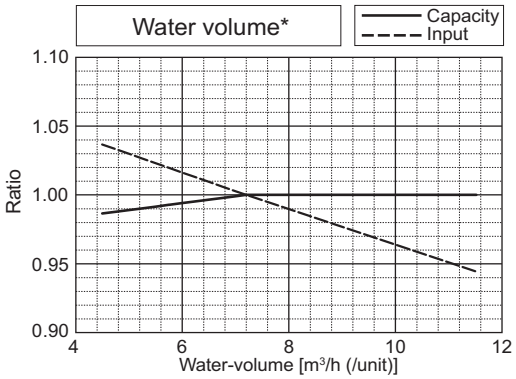


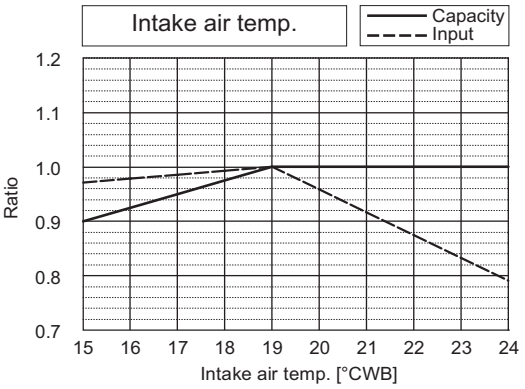
*The drawing indicates characteristic per unit.

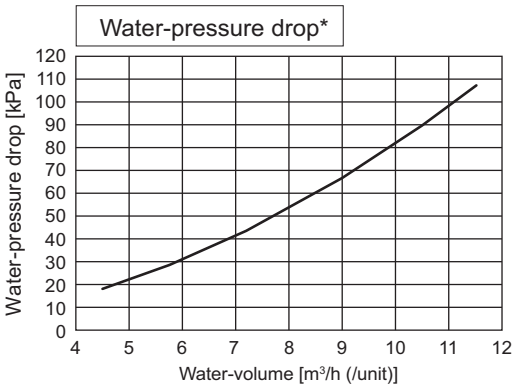
7. CAPACITY TABLES

		PQHY-P750YSLM-A	PQRY-P750YSLM-A
Nominal Cooling Capacity	kW	85.0	85.0
	BTU/h	290,000	290,000
Input	kW	15.64	15.64



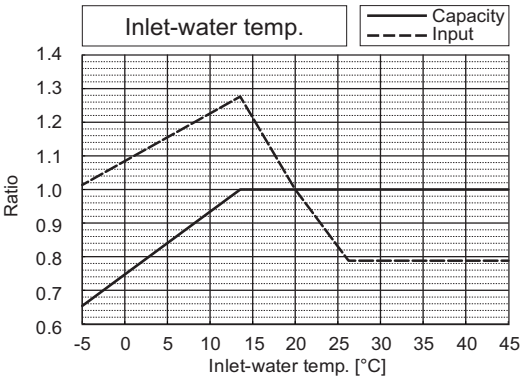


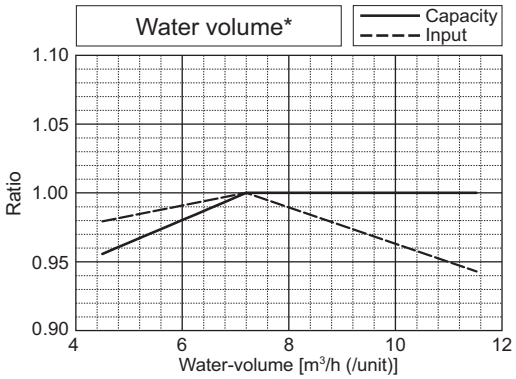


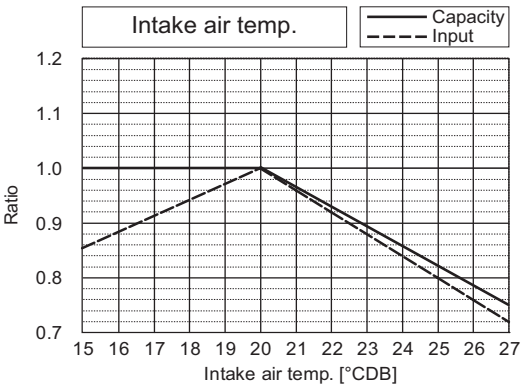


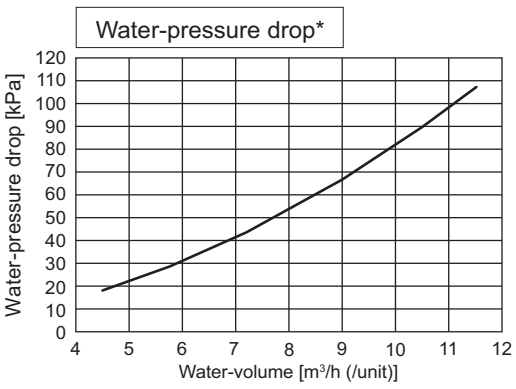
*The drawing indicates characteristic per unit.

		PQHY-P750YSLM-A	PQRY-P750YSLM-A
Nominal Heating Capacity	kW	95.0	95.0
	BTU/h	324,100	324,100
Input	kW	15.90	15.90





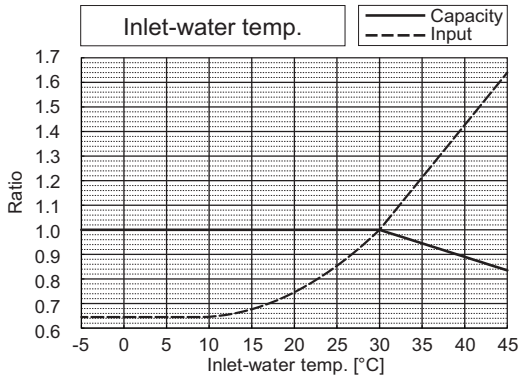


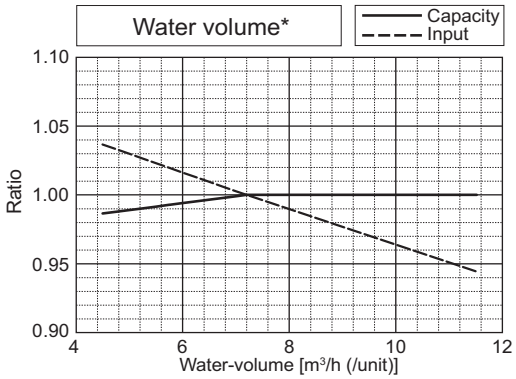


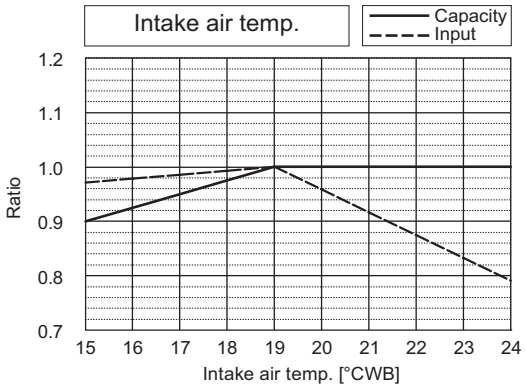
*The drawing indicates characteristic per unit.

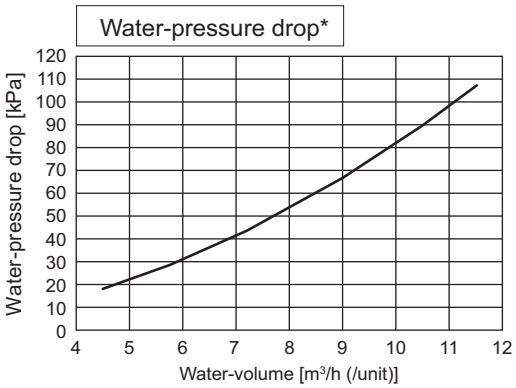
7. CAPACITY TABLES

		PQHY-P800YSLM-A	PQRY-P800YSLM-A
Nominal Cooling Capacity	kW	90.0	90.0
	BTU/h	307,100	307,100
Input	kW	16.57	16.57



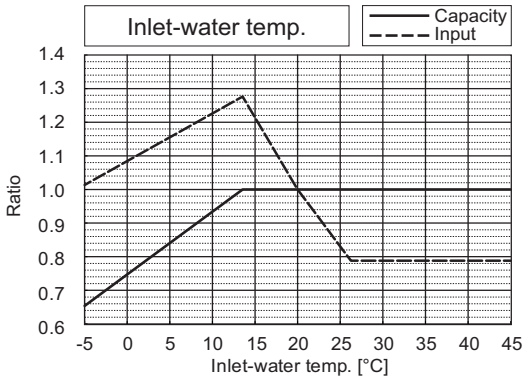


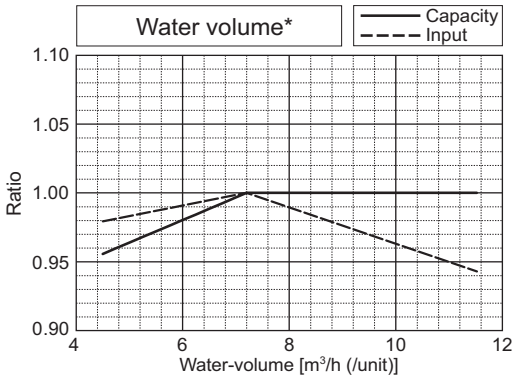


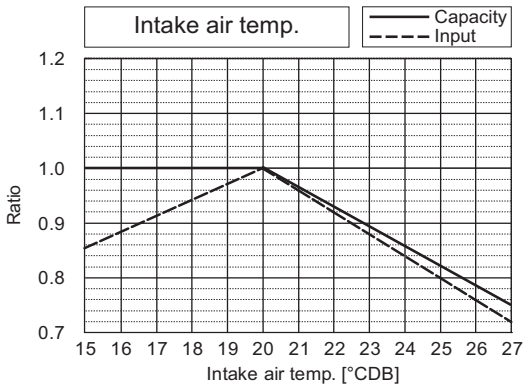


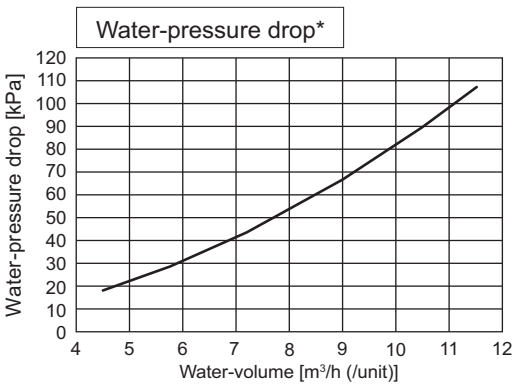
*The drawing indicates characteristic per unit.

		PQHY-P800YSLM-A	PQRY-P800YSLM-A
Nominal Heating Capacity	kW	100.0	100.0
	BTU/h	341,200	341,200
Input	kW	16.75	16.75





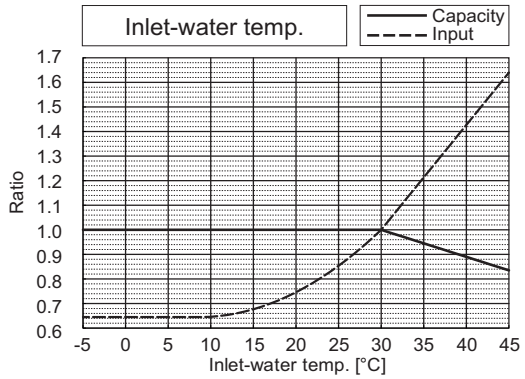


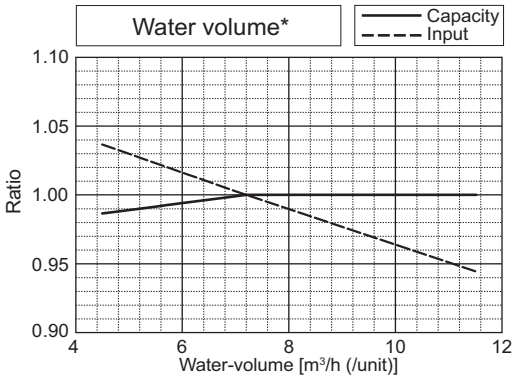


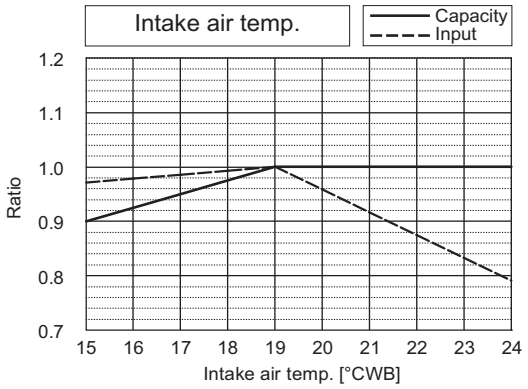
*The drawing indicates characteristic per unit.

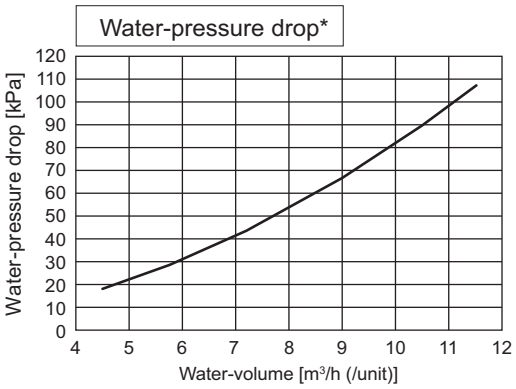
7. CAPACITY TABLES

		PQHY-P850YSLM-A	PQRY-P850YSLM-A
Nominal Cooling Capacity	kW	96.0	96.0
	BTU/h	327,600	327,600
Input	kW	18.03	18.03



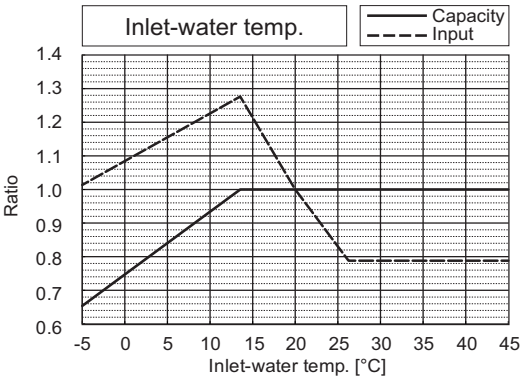


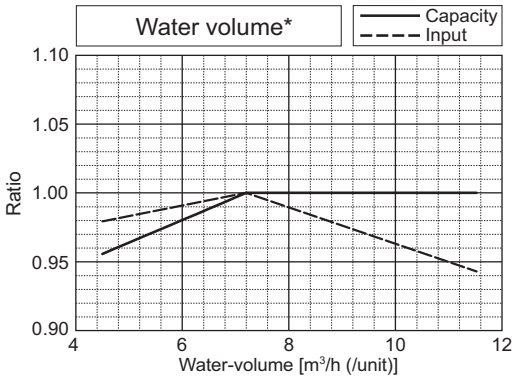


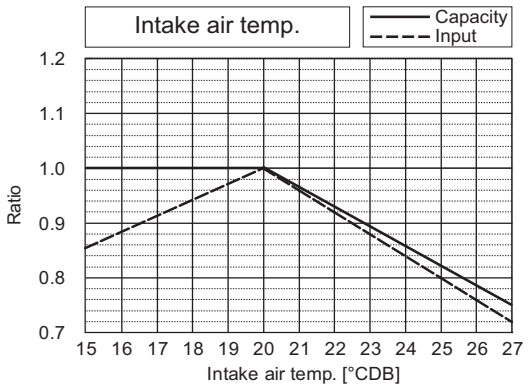


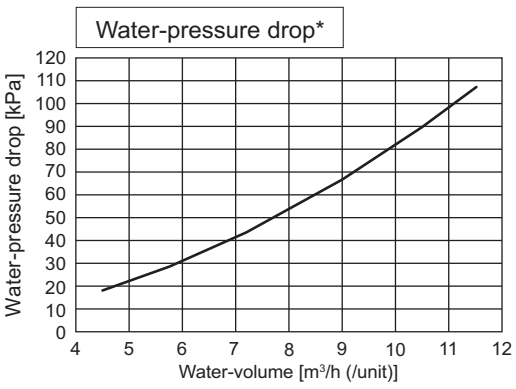
*The drawing indicates characteristic per unit.

		PQHY-P850YSLM-A	PQRY-P850YSLM-A
Nominal Heating Capacity	kW	108.0	108.0
	BTU/h	368,500	368,500
Input	kW	18.49	18.49





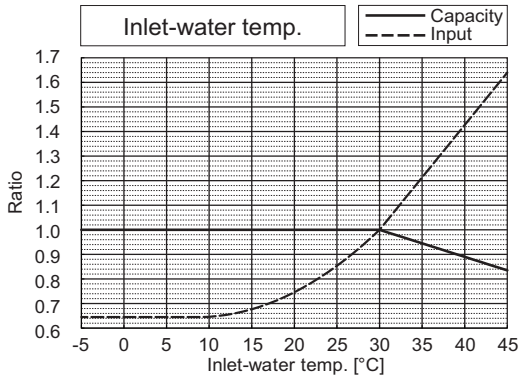


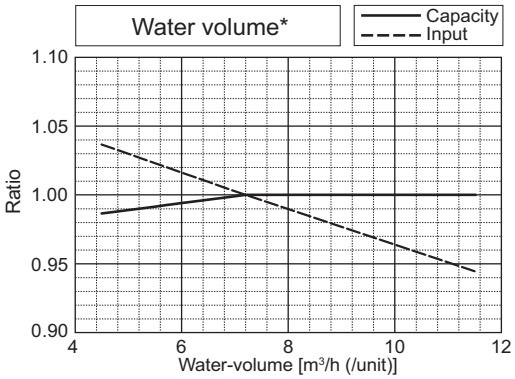


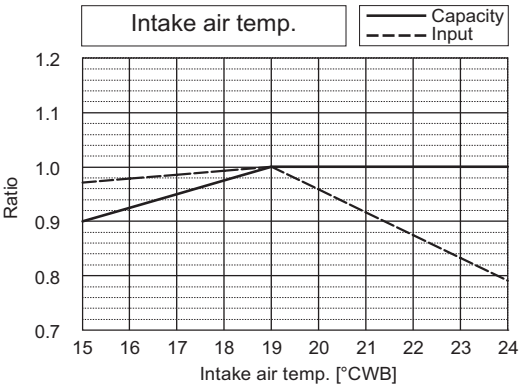
*The drawing indicates characteristic per unit.

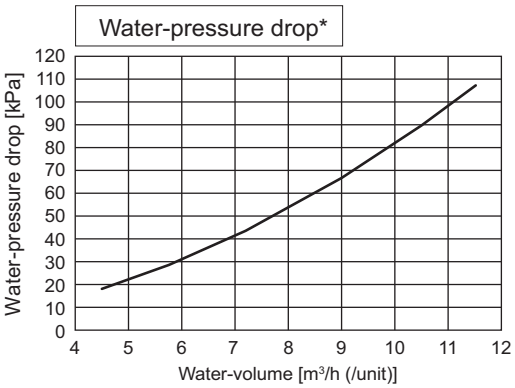
7. CAPACITY TABLES

		PQHY-P900YSLM-A	PQRY-P900YSLM-A
Nominal Cooling Capacity	kW	101.0	101.0
	BTU/h	344,600	344,600
Input	kW	19.38	19.38



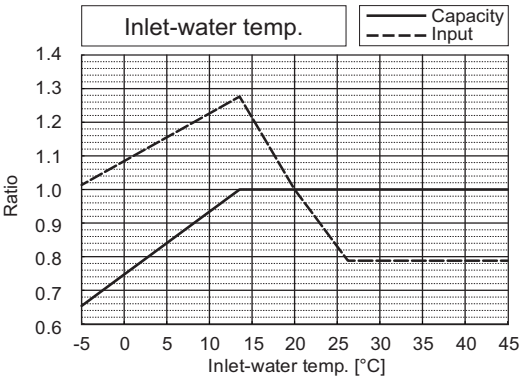


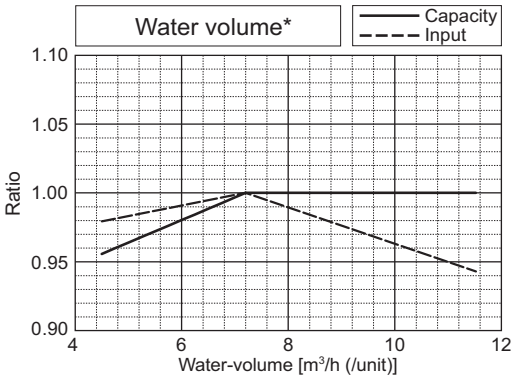


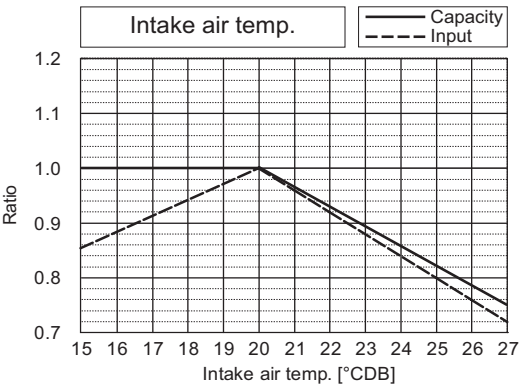


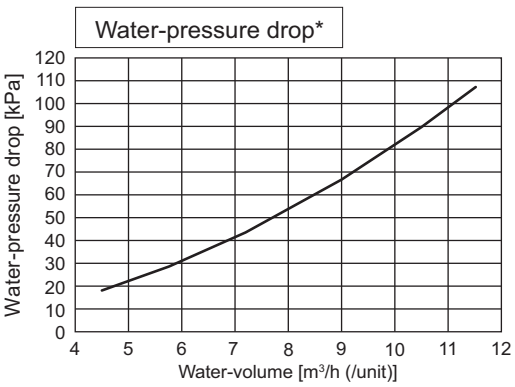
*The drawing indicates characteristic per unit.

		PQHY-P900YSLM-A	PQRY-P900YSLM-A
Nominal Heating Capacity	kW	113.0	113.0
	BTU/h	385,600	385,600
Input	kW	19.74	19.74









*The drawing indicates characteristic per unit.

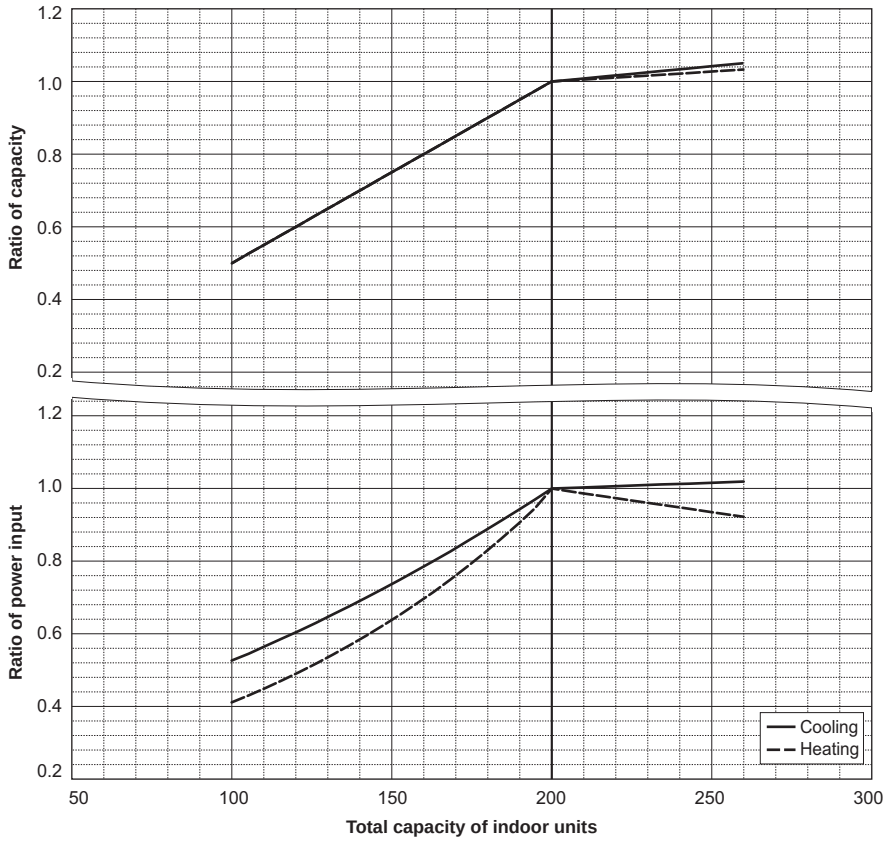
7-2. Correction by total indoor

CITY MULTI system have different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

PQHY-P200YLM-A		
Nominal Cooling Capacity	kW	22.4
	BTU/h	76,400
Input	kW	3.71

PQHY-P200YLM-A		
Nominal Heating Capacity	kW	25.0
	BTU/h	85,300
Input	kW	3.97

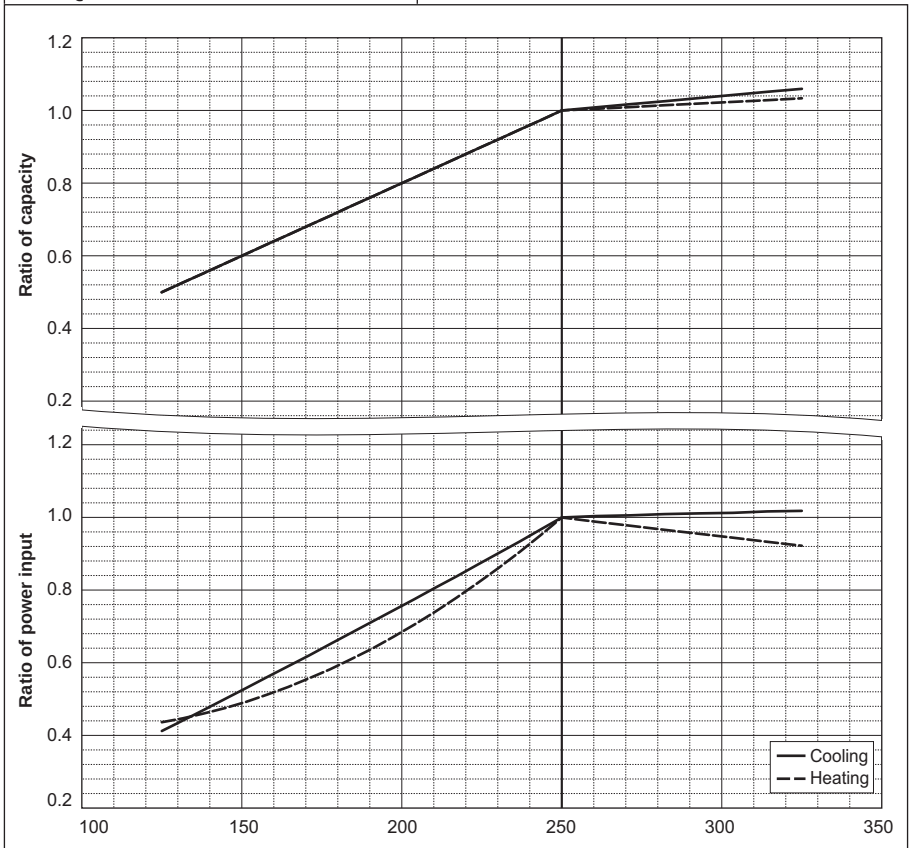
PQHY-P200YLM-A



PQHY-P250YLM-A		
Nominal Cooling Capacity	kW	28.0
	BTU/h	95,500
Input	kW	4.90

PQHY-P250YLM-A		
Nominal Heating Capacity	kW	31.5
	BTU/h	107,500
Input	kW	5.08

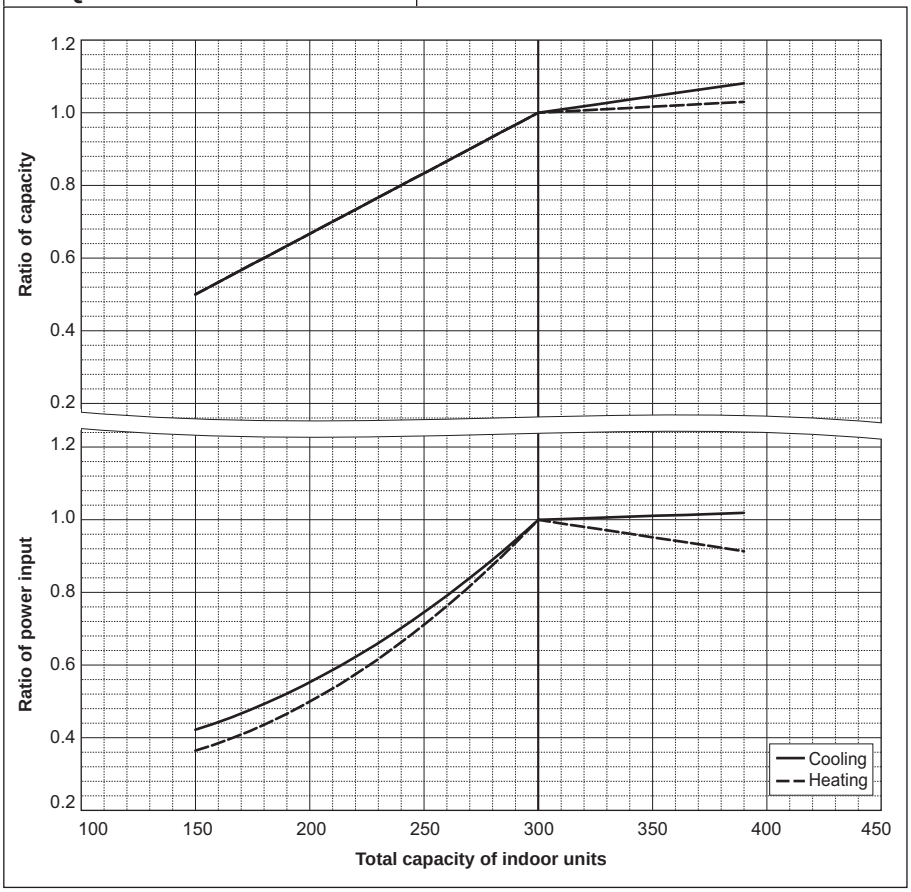
PQHY-P250YLM-A



PQHY-P300YLM-A		
Nominal Cooling Capacity	kW	33.5
	BTU/h	114,300
Input	kW	6.04

PQHY-P300YLM-A		
Nominal Heating Capacity	kW	37.5
	BTU/h	128,000
Input	kW	6.25

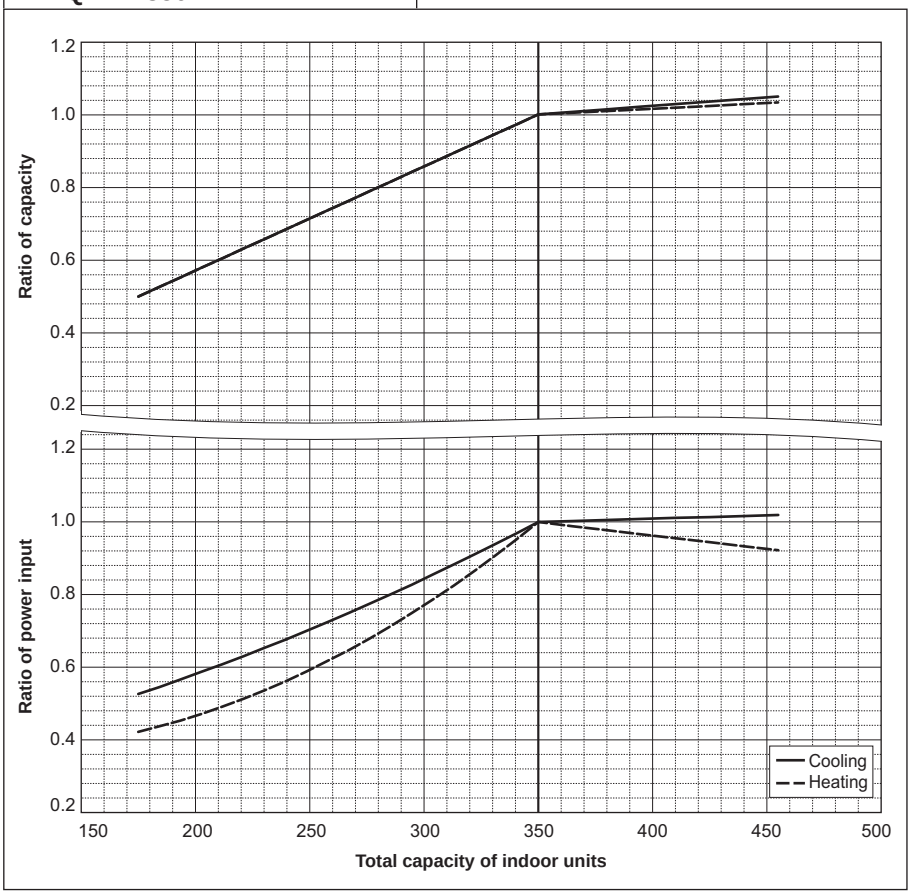
PQHY-P300YLM-A



PQHY-P350YLM-A		
Nominal Cooling Capacity	kW	40.0
	BTU/h	136,500
Input	kW	7.14

PQHY-P350YLM-A		
Nominal Heating Capacity	kW	45.0
	BTU/h	153,500
Input	kW	7.53

PQHY-P350YLM-A



7. CAPACITY TABLES

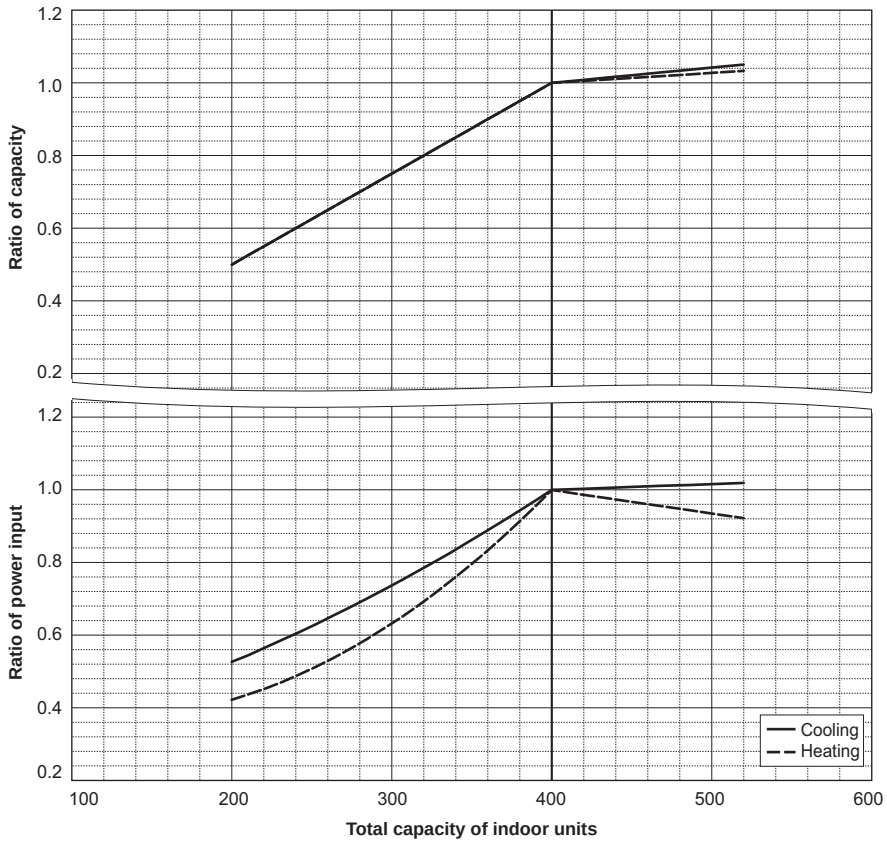
PQHY-P400YLM-A		
Nominal Cooling Capacity	kW	45.0
	BTU/h	153,500
Input	kW	8.03

PQHY-P400YLM-A		
Nominal Heating Capacity	kW	50.0
	BTU/h	170,600
Input	kW	8.37

PQHY-P400YSLM-A		
Nominal Cooling Capacity	kW	45.0
	BTU/h	153,500
Input	kW	7.70

PQHY-P400YSLM-A		
Nominal Heating Capacity	kW	50.0
	BTU/h	170,600
Input	kW	7.94

PQHY-P400Y(S)LM-A



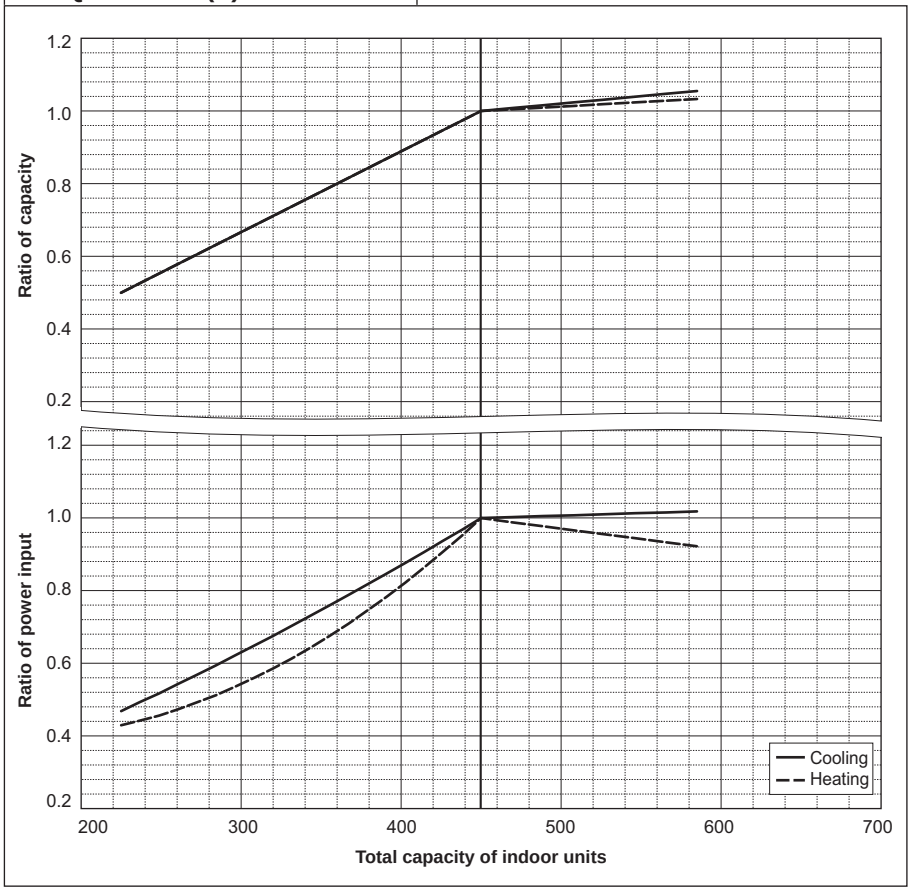
PQHY-P450YLM-A		
Nominal Cooling Capacity	kW	50.0
	BTU/h	170,600
Input	kW	9.29

PQHY-P450YLM-A		
Nominal Heating Capacity	kW	56.0
	BTU/h	191,100
Input	kW	9.79

PQHY-P450YSLM-A		
Nominal Cooling Capacity	kW	50.0
	BTU/h	170,600
Input	kW	8.78

PQHY-P450YSLM-A		
Nominal Heating Capacity	kW	56.0
	BTU/h	191,100
Input	kW	8.97

PQHY-P450Y(S)LM-A



7. CAPACITY TABLES

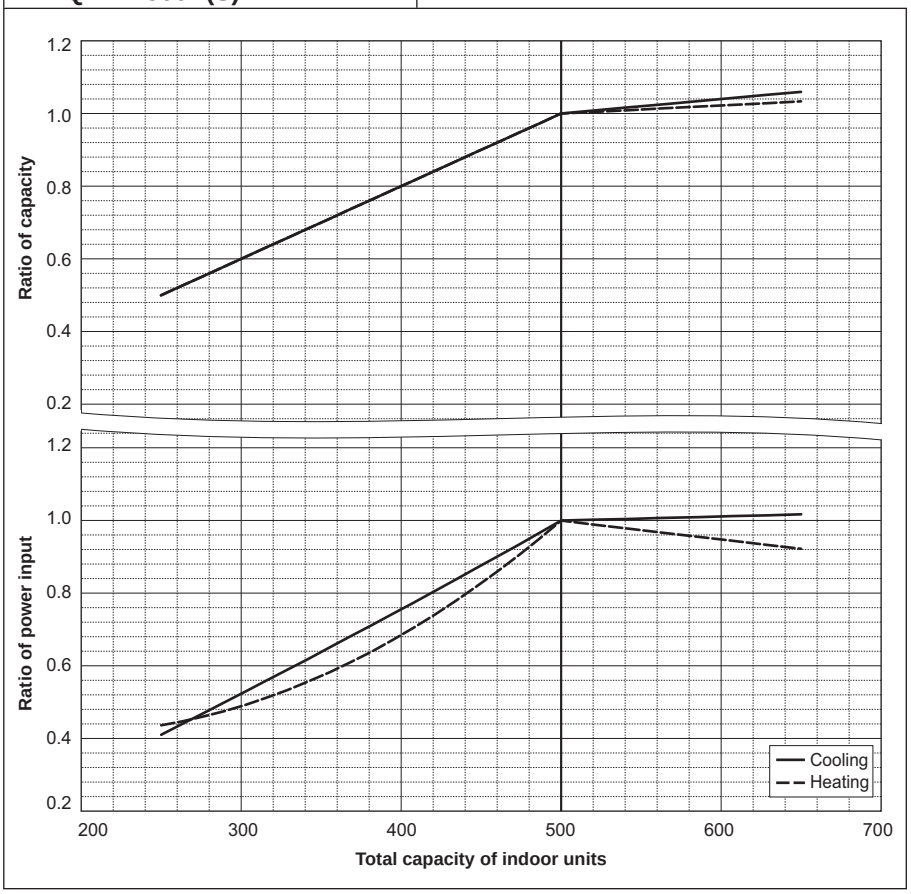
PQHY-P500YLM-A		
Nominal Cooling Capacity	kW	56.0
	BTU/h	191,100
Input	kW	11.17

PQHY-P500YLM-A		
Nominal Heating Capacity	kW	63.0
	BTU/h	215,000
Input	kW	11.43

PQHY-P500YSLM-A		
Nominal Cooling Capacity	kW	56.0
	BTU/h	191,100
Input	kW	10.12

PQHY-P500YSLM-A		
Nominal Heating Capacity	kW	63.0
	BTU/h	215,000
Input	kW	10.16

PQHY-P500Y(S)LM-A



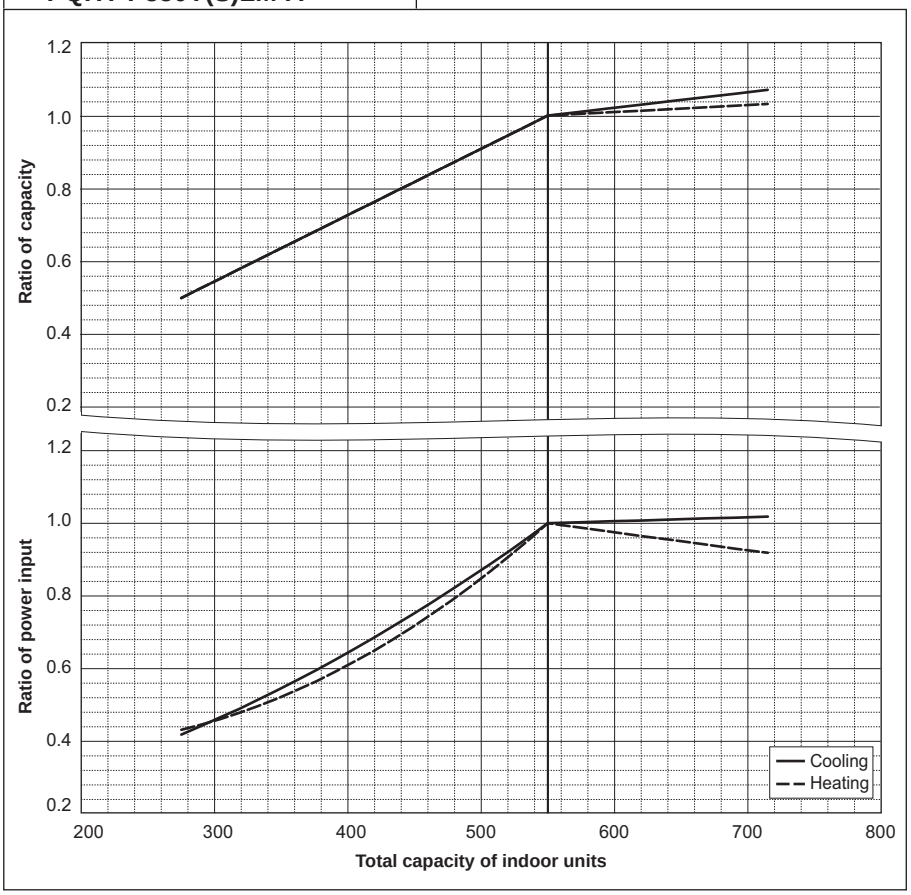
PQHY-P550YLM-A		
Nominal Cooling Capacity	kW	63.0
	BTU/h	215,000
Input	kW	12.54

PQHY-P550YLM-A		
Nominal Heating Capacity	kW	69.0
	BTU/h	235,400
Input	kW	12.27

PQHY-P550YSLM-A		
Nominal Cooling Capacity	kW	63.0
	BTU/h	215,000
Input	kW	11.55

PQHY-P550YSLM-A		
Nominal Heating Capacity	kW	69.0
	BTU/h	235,400
Input	kW	11.31

PQHY-P550Y(S)LM-A



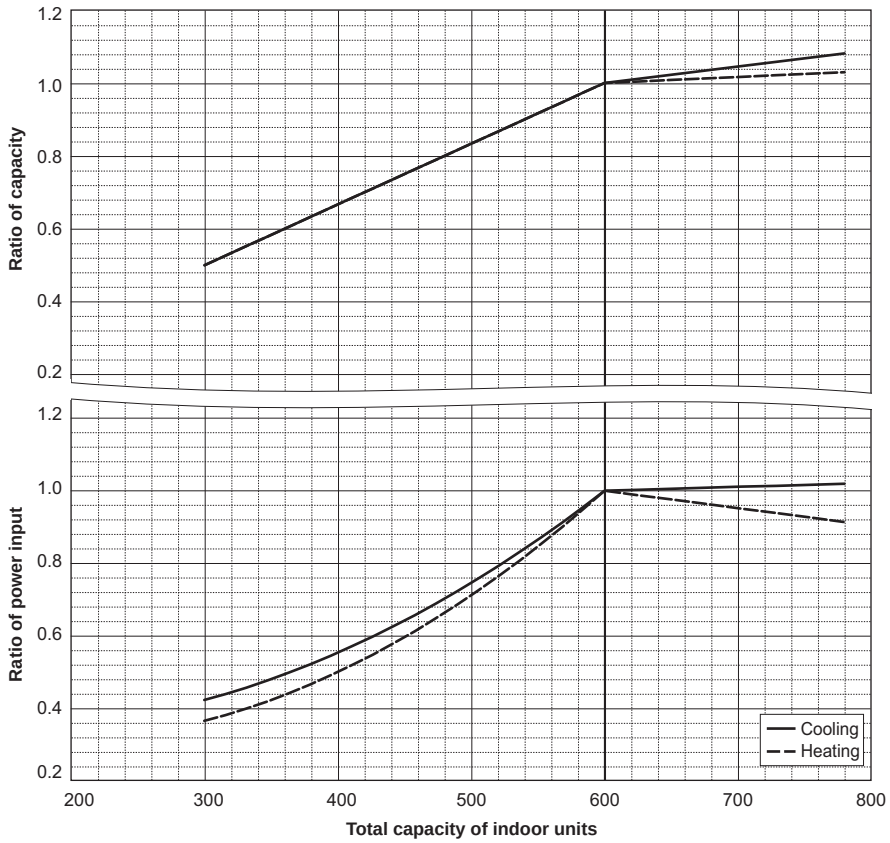
PQHY-P600YLM-A		
Nominal Cooling Capacity	kW	69.0
	BTU/h	235,400
Input	kW	14.49

PQHY-P600YLM-A		
Nominal Heating Capacity	kW	76.5
	BTU/h	261,000
Input	kW	14.51

PQHY-P600YSLM-A		
Nominal Cooling Capacity	kW	69.0
	BTU/h	235,400
Input	kW	12.84

PQHY-P600YSLM-A		
Nominal Heating Capacity	kW	76.5
	BTU/h	261,000
Input	kW	12.75

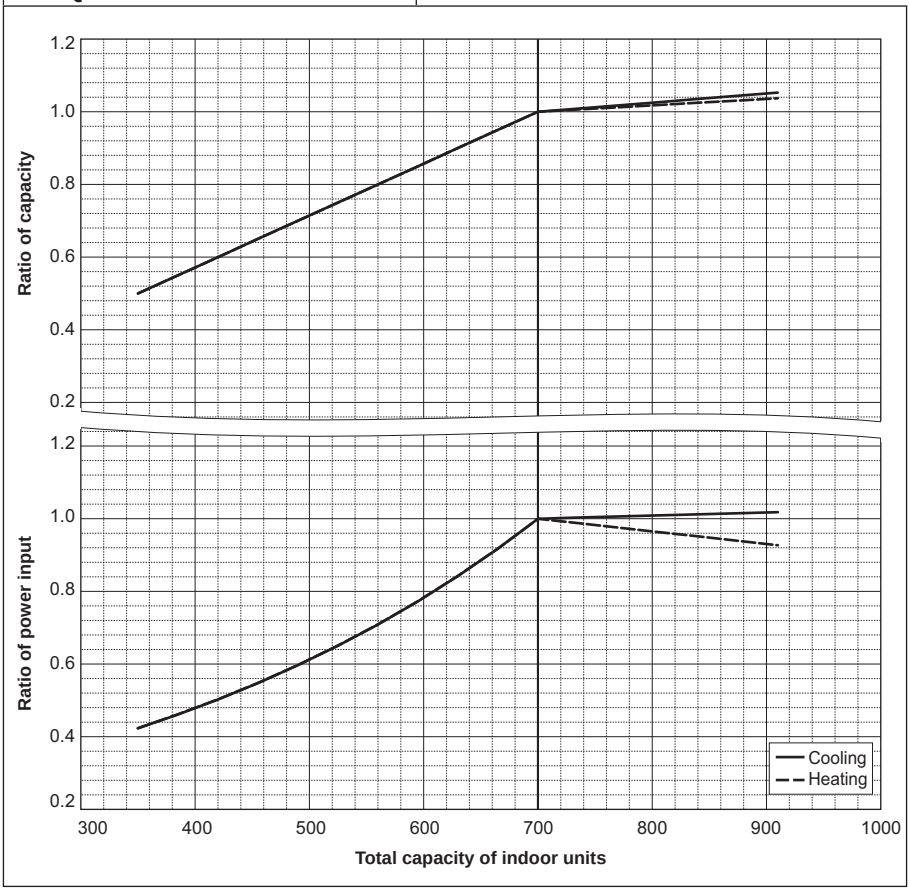
PQHY-P600Y(S)LM-A



PQHY-P700YSLM-A		
Nominal Cooling Capacity	kW	80.0
	BTU/h	273,000
Input	kW	14.73

PQHY-P700YSLM-A		
Nominal Heating Capacity	kW	88.0
	BTU/h	300,300
Input	kW	14.73

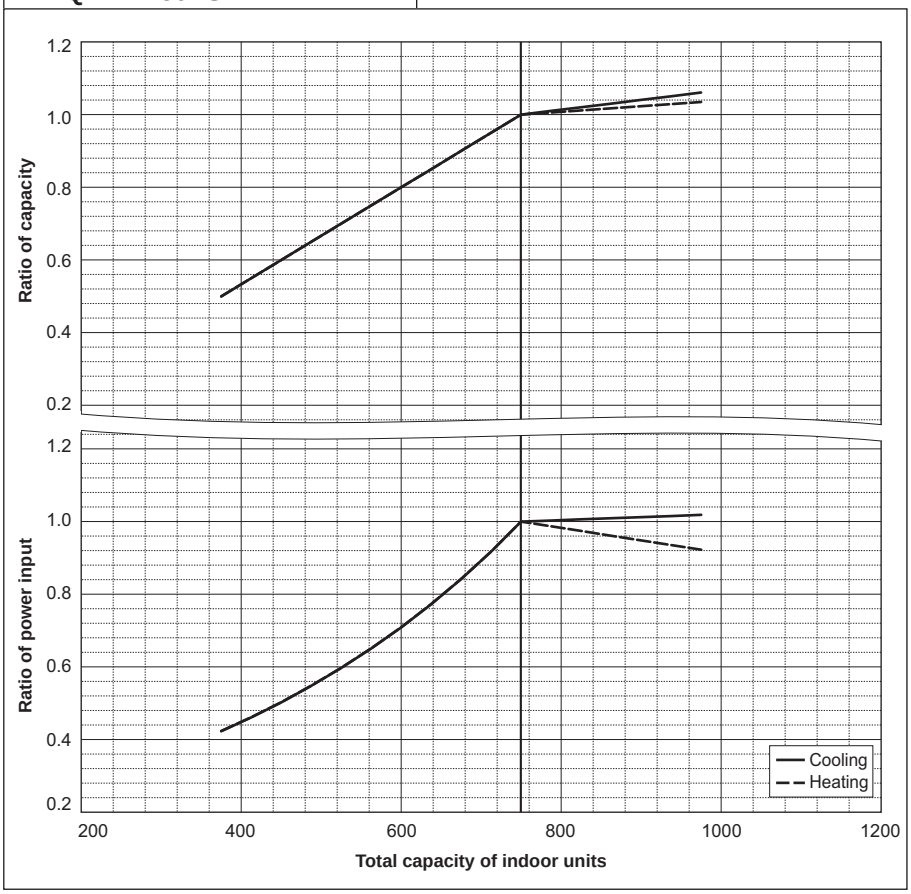
PQHY-P700YSLM-A



PQHY-P750YSLM-A		
Nominal Cooling Capacity	kW	85.0
	BTU/h	290,000
Input	kW	15.64

PQHY-P750YSLM-A		
Nominal Heating Capacity	kW	95.0
	BTU/h	324,100
Input	kW	15.90

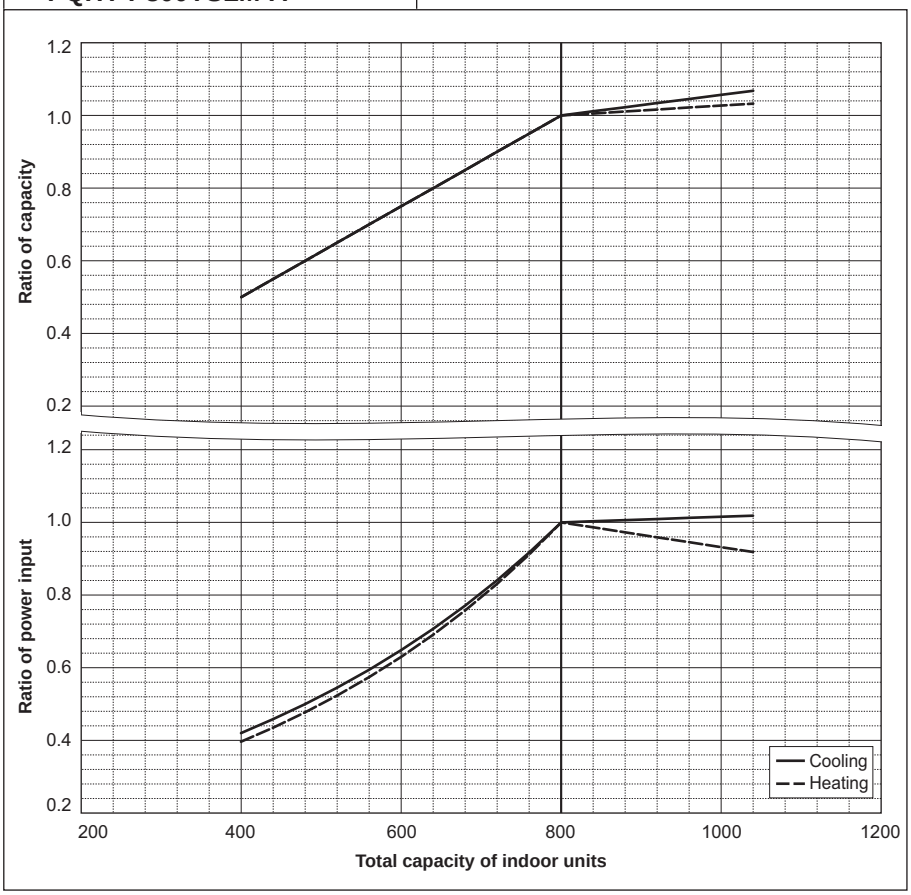
PQHY-P750YSLM-A



PQHY-P800YSLM-A		
Nominal Cooling Capacity	kW	90.0
	BTU/h	307,100
Input	kW	16.57

PQHY-P800YSLM-A		
Nominal Heating Capacity	kW	100.0
	BTU/h	341,200
Input	kW	16.75

PQHY-P800YSLM-A

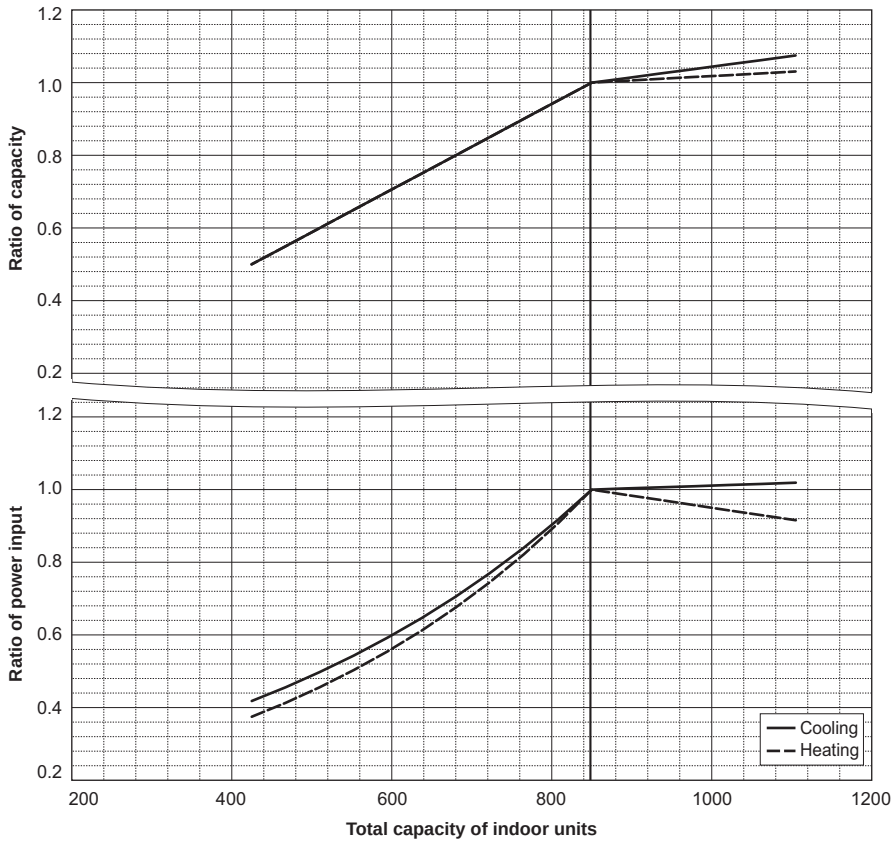


7. CAPACITY TABLES

PQHY-P850YSLM-A		
Nominal Cooling Capacity	kW	96.0
	BTU/h	327,600
Input	kW	18.03

PQHY-P850YSLM-A		
Nominal Heating Capacity	kW	108.0
	BTU/h	368,500
Input	kW	18.49

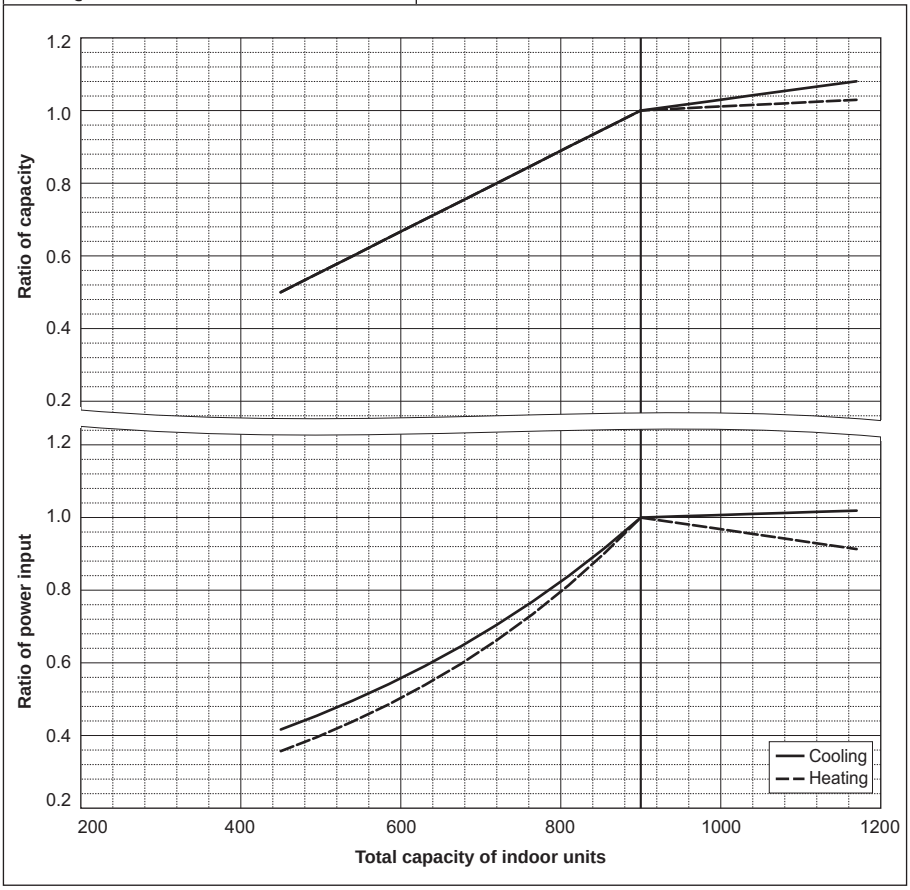
PQHY-P850YSLM-A



PQHY-P900YSLM-A		
Nominal Cooling Capacity	kW	101.0
	BTU/h	344,600
Input	kW	19.38

PQHY-P900YSLM-A		
Nominal Heating Capacity	kW	113.0
	BTU/h	385,600
Input	kW	19.74

PQHY-P900YSLM-A

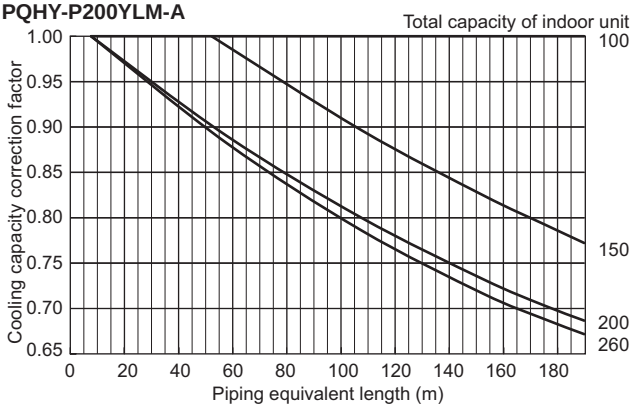


7-3. Correction by refrigerant piping length

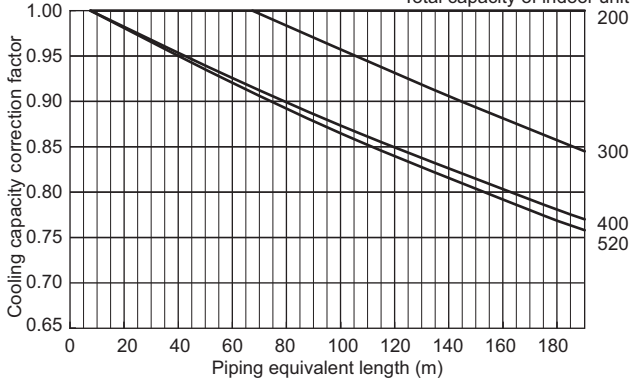
CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. However, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 7-3-1 and 7-3-2, the capacity can be observed. 7-3-3 shows how to obtain the equivalent length of piping.

7-3-1. Cooling capacity correction

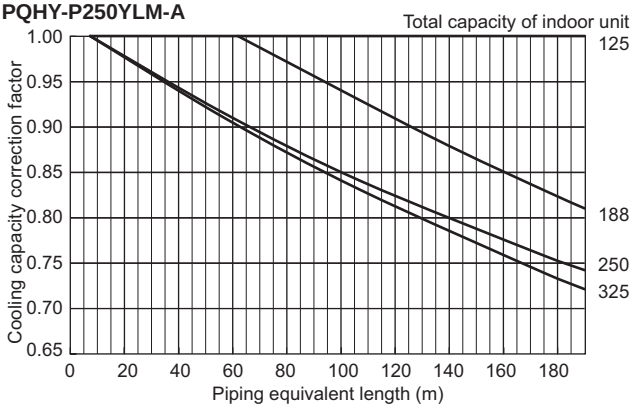
PQHY-P200YLM-A



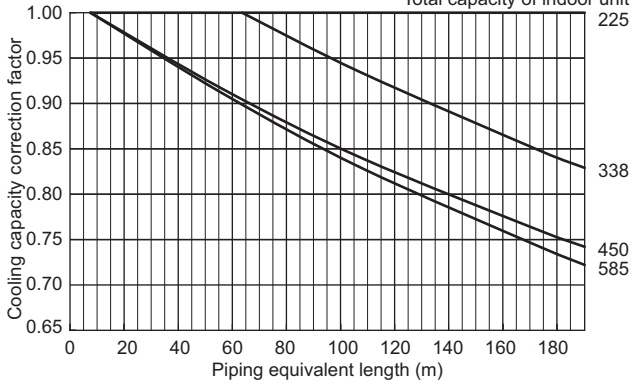
PQHY-P400Y(S)LM-A



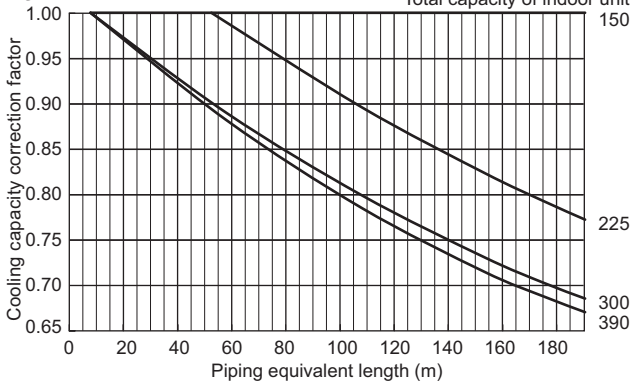
PQHY-P250YLM-A



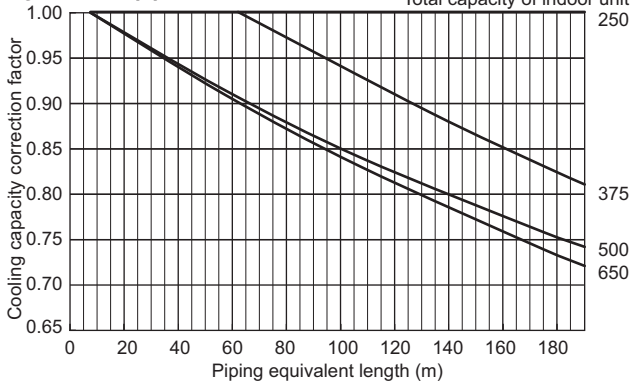
PQHY-P450Y(S)LM-A



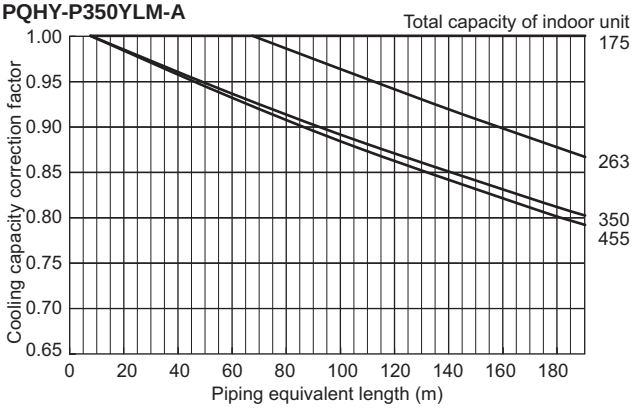
PQHY-P300YLM-A



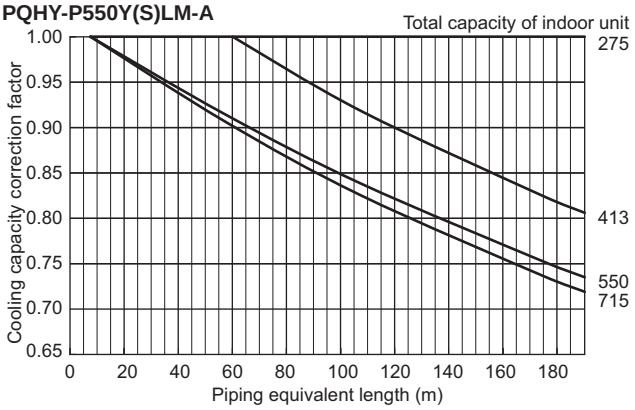
PQHY-P500Y(S)LM-A



PQHY-P350YLM-A

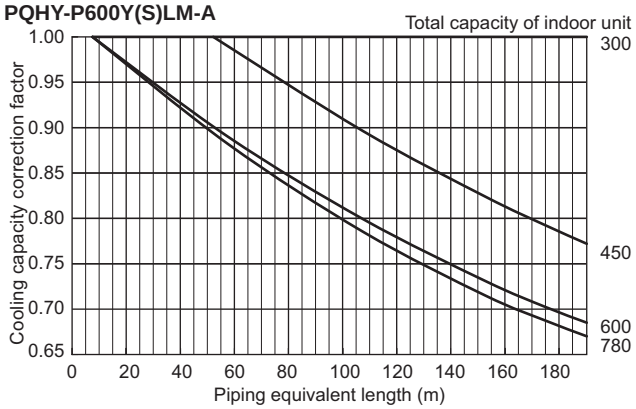


PQHY-P550Y(S)LM-A

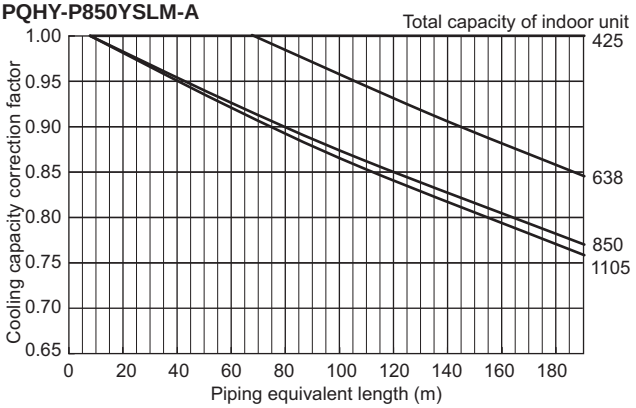


7. CAPACITY TABLES

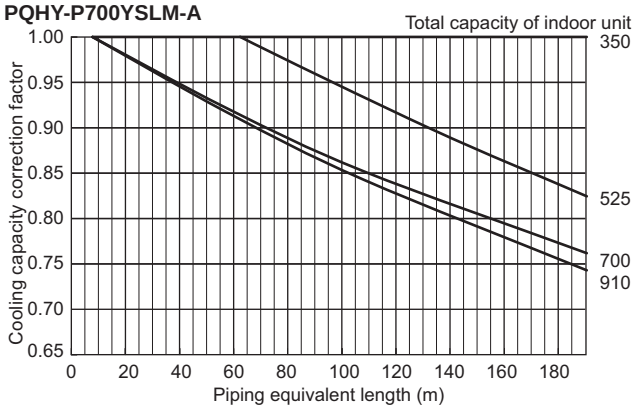
PQHY-P600Y(S)LM-A



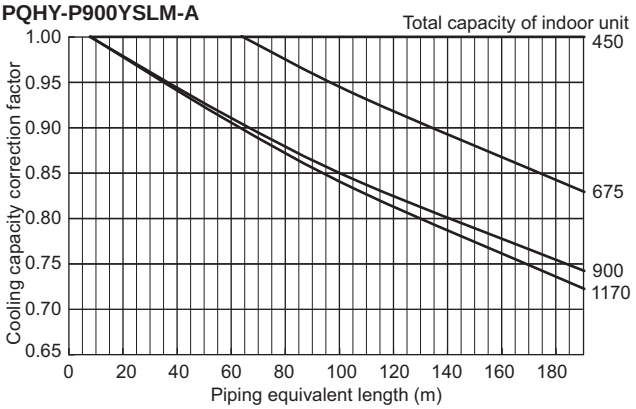
PQHY-P850YSLM-A



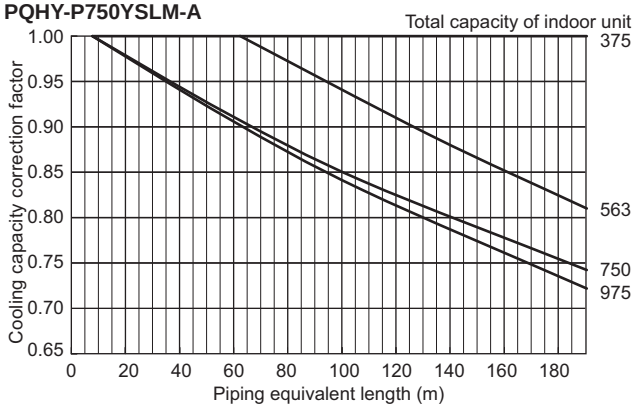
PQHY-P700YSLM-A



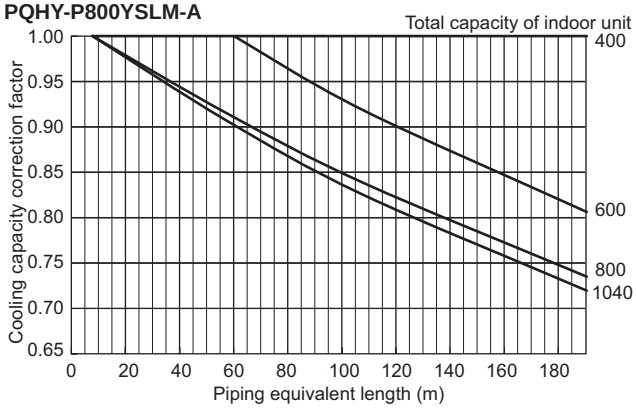
PQHY-P900YSLM-A



PQHY-P750YSLM-A

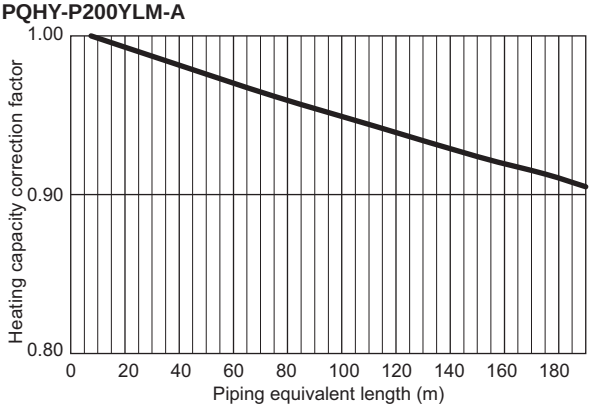


PQHY-P800YSLM-A

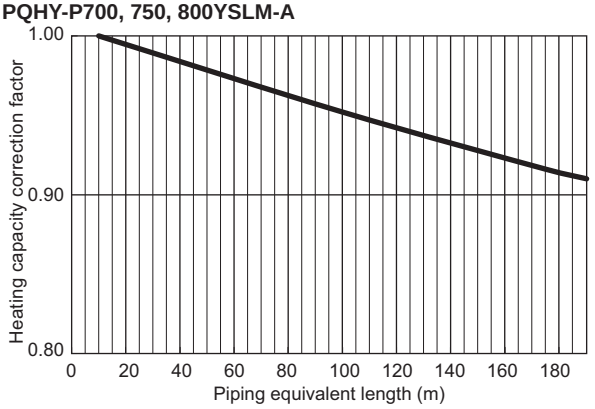


7-3-2. Heating capacity correction

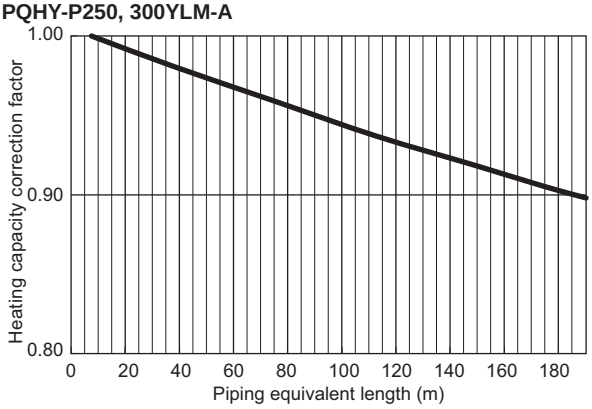
PQHY-P200YLM-A



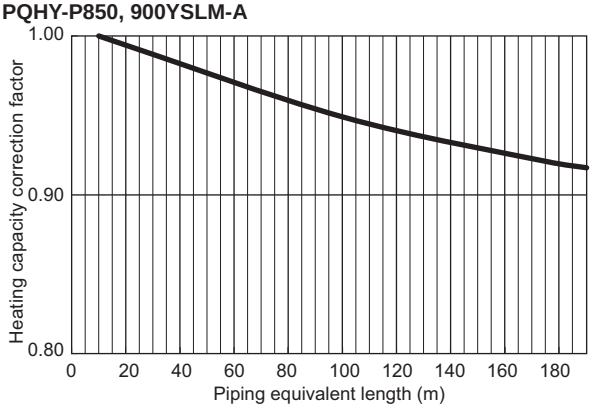
PQHY-P700, 750, 800YSLM-A



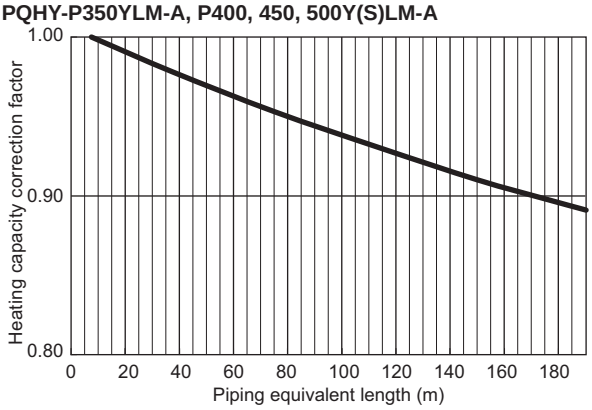
PQHY-P250, 300YLM-A



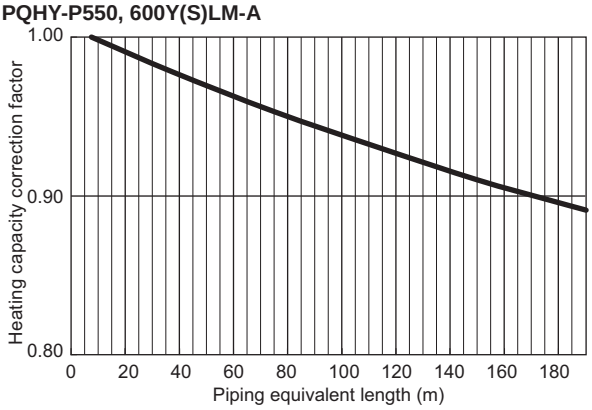
PQHY-P850, 900YSLM-A



PQHY-P350YLM-A, P400, 450, 500Y(S)LM-A



PQHY-P550, 600Y(S)LM-A



7-3-3. How to obtain the equivalent piping length

1 **PQHY-P200YLM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 × number of bends in the piping) m

2 **PQHY-P250, 300YLM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 × number of bends in the piping) m

3 **PQHY-P350, 400, 450, 500, 550, 600Y(S)LM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bends in the piping) m

4 **PQHY-P700, 750, 800YSLM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 × number of bends in the piping) m

5 **PQHY-P850, 900YSLM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 × number of bends in the piping) m

HEAT SOURCE UNITS

1. SPECIFICATIONS

Model			PQRY-P200YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	22.4
		kcal/h	20,000
		BTU/h	76,400
	Power input	kW	3.71
	Current input	A	6.2-5.9-5.7
	EER	kW/kW	6.03
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	25.0
		kcal/h	21,500
		BTU/h	85,300
	Power input	kW	3.97
	Current input	A	6.7-6.3-6.1
	COP	kW/kW	6.29
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/1~20
Sound pressure level (measured in anechoic room)		dB <A>	46
Sound power level (measured in anechoic room)		dB <A>	60
Refrigerant piping diameter	High pressure	mm (in.)	15.88 (5/8) Brazed
	Low pressure	mm (in.)	19.05 (3/4) Brazed
Circulating water	Water flow rate	m^3/h	5.76
		L/min	96
		cfm	3.4
	Pressure drop	kPa	24
	Operating volume range	m^3/h	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	4.8
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	172 (380)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R432
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P250YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	28.0
(Nominal)		kcal/h	25,000
		BTU/h	95,500
	Power input	kW	4.90
	Current input	A	8.2-7.8-7.5
	EER	kW/kW	5.71
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	31.5
(Nominal)		kcal/h	27,100
		BTU/h	107,500
	Power input	kW	5.08
	Current input	A	8.5-8.1-7.8
	COP	kW/kW	6.20
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~150% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~25
Sound pressure level (measured in anechoic room)		dB <A>	48
Sound power level (measured in anechoic room)		dB <A>	62
Refrigerant	High pressure	mm (in.)	19.05 (3/4) Brazed
piping diameter	Low pressure	mm (in.)	22.2 (7/8) Brazed
Circulating	Water flow rate	m^3/h	5.76
water		L/min	96
		cfm	3.4
	Pressure drop	kPa	24
	Operating volume range	m^3/h	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	6.2
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	172 (380)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R432
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P300YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	33.5
(Nominal)		kcal/h	30,000
		BTU/h	114,300
	Power input	kW	6.04
	Current input	A	10.1-9.6-9.3
	EER	kW/kW	5.54
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	37.5
(Nominal)		kcal/h	32,300
		BTU/h	128,000
	Power input	kW	6.25
	Current input	A	10.5-10.0-9.6
	COP	kW/kW	6.00
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~150% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~30
Sound pressure level (measured in anechoic room)		dB <A>	54
Sound power level (measured in anechoic room)		dB <A>	68
Refrigerant	High pressure	mm (in.)	19.05 (3/4) Brazed
piping diameter	Low pressure	mm (in.)	22.2 (7/8) Brazed
Circulating	Water flow rate	m^3/h	5.76
water		L/min	96
		cfm	3.4
	Pressure drop	kPa	24
	Operating volume range	m^3/h	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	7.7
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	172 (380)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R432
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P350YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	40.0
(Nominal)		kcal/h	35,000
		BTU/h	136,500
	Power input	kW	7.14
	Current input	A	12.0-11.4-11.0
	EER	kW/kW	5.60
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	45.0
(Nominal)		kcal/h	40,000
		BTU/h	153,500
	Power input	kW	7.53
	Current input	A	12.7-12.0-11.6
	COP	kW/kW	5.97
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~150% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~35
Sound pressure level (measured in anechoic room)		dB <A>	52
Sound power level (measured in anechoic room)		dB <A>	66
Refrigerant	High pressure	mm (in.)	22.2 (7/8) Brazed
piping diameter	Low pressure	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	7.20
water		L/min	120
		cfm	4.2
	Pressure drop	kPa	44
	Operating volume range	m^3/h	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	9.5
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	216 (477)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R433
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.) , Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

WR2

1. SPECIFICATIONS

Model			PQRY-P400YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	45.0
		kcal/h	40,000
		BTU/h	153,500
	Power input	kW	8.03
	Current input	A	13.5-12.8-12.4
	EER	kW/kW	5.60
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	50.0
		kcal/h	45,000
		BTU/h	170,600
	Power input	kW	8.37
	Current input	A	14.1-13.4-12.9
	COP	kW/kW	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/1~40
Sound pressure level (measured in anechoic room)		dB <A>	52
Sound power level (measured in anechoic room)		dB <A>	66
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed
Circulating water	Water flow rate	m^3/h	7.20
		L/min	120
		cfm	4.2
	Pressure drop	kPa	44
	Operating volume range	m^3/h	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	10.7
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	216 (477)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R433
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P450YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	50.0
(Nominal)		kcal/h	45,000
		BTU/h	170,600
	Power input	kW	9.29
	Current input	A	15.6-14.8-14.3
	EER	kW/kW	5.38
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	56.0
(Nominal)		kcal/h	50,000
		BTU/h	191,100
	Power input	kW	9.79
	Current input	A	16.5-15.7-15.1
	COP	kW/kW	5.72
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~150% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~45
Sound pressure level (measured in anechoic room)		dB <A>	54
Sound power level (measured in anechoic room)		dB <A>	70
Refrigerant	High pressure	mm (in.)	22.2 (7/8) Brazed
piping diameter	Low pressure	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	7.20
water		L/min	120
		cfm	4.2
	Pressure drop	kPa	44
	Operating volume range	m^3/h	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	11.6
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	216 (477)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R433
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P500YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	56.0
(Nominal)		kcal/h	50,000
		BTU/h	191,100
	Power input	kW	11.17
	Current input	A	18.8-17.9-17.2
	EER	kW/kW	5.01
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	63.0
(Nominal)		kcal/h	55,000
		BTU/h	215,000
	Power input	kW	11.43
	Current input	A	19.2-18.3-17.6
	COP	kW/kW	5.51
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~150% of heat source unit capacity
connectable	Model/Quantity		P15~P250/1~50
Sound pressure level (measured in anechoic room)		dB <A>	54
Sound power level (measured in anechoic room)		dB <A>	70.5
Refrigerant	High pressure	mm (in.)	22.2 (7/8) Brazed
piping diameter	Low pressure	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	7.20
water		L/min	120
		cfm	4.2
	Pressure drop	kPa	44
	Operating volume range	m^3/h	4.5 ~ 11.6
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	13.0
	Case heater	kW	-
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	216 (477)
Heat exchanger			plate type
	Water volume in plate	l	5.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R433
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.) , Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter	
BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P550YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2		kW	63.0
(Nominal)		kcal/h	55,000
		BTU/h	215,000
	Power input	kW	12.54
	Current input	A	21.1-20.1-19.3
	EER	kW/kW	5.02
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4		kW	69.0
(Nominal)		kcal/h	60,000
		BTU/h	235,400
	Power input	kW	12.27
	Current input	A	20.7-19.6-18.9
	COP	kW/kW	5.62
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit	Total capacity		50~150% of heat source unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	56.5
Sound power level (measured in anechoic room)		dB <A>	71.5
Refrigerant	High pressure	mm (in.)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)
piping diameter	Low pressure	mm (in.)	28.58 (1-1/8) Brazed
Circulating	Water flow rate	m^3/h	11.52
water		L/min	192
		cfm	6.8
	Pressure drop	kPa	45
	Operating volume range	m^3/h	6.0 ~ 14.4
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	15.0
	Case heater	kW	0.045 (240 V)
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
devices	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 11.7 kg (26 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	246 (543)
Heat exchanger			plate type
	Water volume in plate	l	10.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R434
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P600YLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	69.0
		kcal/h	60,000
		BTU/h	235,400
	Power input	kW	14.49
	Current input	A	24.4-23.2-22.3
	EER	kW/kW	4.76
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	76.5
		kcal/h	65,800
		BTU/h	261,000
	Power input	kW	14.51
	Current input	A	24.4-23.2-22.4
	COP	kW/kW	5.27
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	56.5
Sound power level (measured in anechoic room)		dB <A>	73
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed
Circulating water	Water flow rate	m^3/h	11.52
		L/min	192
		cfm	6.8
	Pressure drop	kPa	45
	Operating volume range	m^3/h	6.0 ~ 14.4
Compressor	Type		Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	16.1
	Case heater	kW	0.045 (240 V)
	Lubricant		MEL32
External finish			Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection
	Compressor		Over-heat protection
Refrigerant	Type x original charge		R410A x 11.7 kg (26 lbs)
	Control		Indoor LEV and BC controller
Net weight		kg (lbs)	246 (543)
Heat exchanger			plate type
	Water volume in plate	l	10.0
	Water pressure Max.	MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-
Drawing	External		WKS94R434
	Wiring		WKE94G131
Standard attachment	Document		Installation Manual
	Accessory		Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P400YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	45.0
		kcal/h	40,000
		BTU/h	153,500
	Power input	kW	7.70
	Current input	A	12.9-12.3-11.9
	EER	kW/kW	5.84
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	50.0
		kcal/h	45,000
		BTU/h	170,600
	Power input	kW	7.94
	Current input	A	13.4-12.7-12.2
	COP	kW/kW	6.29
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/1~40
Sound pressure level (measured in anechoic room)		dB <A>	49
Sound power level (measured in anechoic room)		dB <A>	63
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQRY-P200YLM-A < For Ground source >	PQRY-P200YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	4.8	4.8
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	172 (380)	172 (380)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Low pressure	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
Drawing	External		WKS94C749	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WR2

Model			PQRY-P450YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	50.0
		kcal/h	45,000
		BTU/h	170,600
	Power input	kW	8.78
	Current input	A	14.8-14.0-13.5
	EER	kW/kW	5.69
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	56.0
		kcal/h	50,000
		BTU/h	191,100
	Power input	kW	8.97
	Current input	A	15.1-14.3-13.8
	COP	kW/kW	6.24
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/1~45
Sound pressure level (measured in anechoic room)		dB <A>	50
Sound power level (measured in anechoic room)		dB <A>	64
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQRY-P250YLM-A < For Ground source >	PQRY-P200YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	6.2	4.8
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	172 (380)	172 (380)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Drawing	External		WKS94C749	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P500YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	56.0
		kcal/h	50,000
		BTU/h	191,100
	Power input	kW	10.12
	Current input	A	17.0-16.2-15.6
	EER	kW/kW	5.53
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	63.0
		kcal/h	55,000
		BTU/h	215,000
	Power input	kW	10.16
	Current input	A	17.1-16.2-15.7
	COP	kW/kW	6.20
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/1~50
Sound pressure level (measured in anechoic room)		dB <A>	51
Sound power level (measured in anechoic room)		dB <A>	65
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQRY-P250YLM-A < For Ground source >	PQRY-P250YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	6.2	6.2
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	172 (380)	172 (380)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Drawing	External		WKS94C749	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.) , Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h =kW x 3,412
cfm =m^3/min x 35.31
lbs =kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WR2

Model			PQRY-P550YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity *1, 2 (Nominal)		kW	63.0
		kcal/h	55,000
		BTU/h	215,000
	Power input	kW	11.55
	Current input	A	19.4-18.5-17.8
	EER	kW/kW	5.45
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity *3, 4 (Nominal)		kW	69.0
		kcal/h	60,000
		BTU/h	235,400
	Power input	kW	11.31
	Current input	A	19.0-18.1-17.4
	COP	kW/kW	6.10
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Sound power level (measured in anechoic room)		dB <A>	69
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PQRY-P300YLM-A < For Ground source >	PQRY-P250YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	7.7	6.2
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	172 (380)	172 (380)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Drawing	External		WKS94C749	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Brine concentration 0%
3.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4.Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P600YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal) *1, 2		kW	69.0
		kcal/h	60,000
		BTU/h	235,400
	Power input	kW	12.84
	Current input	A	21.6-20.5-19.8
	EER	kW/kW	5.37
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal) *3, 4		kW	76.5
		kcal/h	65,800
		BTU/h	261,000
	Power input	kW	12.75
	Current input	A	21.5-20.4-19.7
	COP	kW/kW	6.00
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	57
Sound power level (measured in anechoic room)		dB <A>	71
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQRY-P300YLM-A < For Ground source >	PQRY-P300YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	kPa	24	24
	Operating volume range	m^3/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	7.7	7.7
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	172 (380)	172 (380)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Drawing	External		WKS94C749	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3$/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WR2

Model			PQRY-P700YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	80.0
		kcal/h	68,800
		BTU/h	273,000
	Power input	kW	14.73
	Current input	A	24.8-23.6-22.7
	EER	kW/kW	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	88.0
		kcal/h	75,700
		BTU/h	300,300
	Power input	kW	14.73
	Current input	A	24.8-23.6-22.7
	COP	kW/kW	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Sound power level (measured in anechoic room)		dB <A>	69
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQRY-P350YLM-A < For Ground source >	PQRY-P350YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	9.5	9.5
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	216 (477)	216 (477)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C750	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3$/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P750YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	85.0
		kcal/h	73,100
		BTU/h	290,000
	Power input	kW	15.64
	Current input	A	26.4-25.0-24.1
	EER	kW/kW	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	95.0
		kcal/h	81,700
		BTU/h	324,100
	Power input	kW	15.90
	Current input	A	26.8-25.4-24.5
	COP	kW/kW	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Sound power level (measured in anechoic room)		dB <A>	69
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQRY-P400YLM-A < For Ground source >	PQRY-P350YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	10.7	9.5
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	216 (477)	216 (477)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C750	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

WR2

Model			PQRY-P800YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	90.0
		kcal/h	77,400
		BTU/h	307,100
	Power input	kW	16.57
	Current input	A	27.9-26.5-25.6
	EER	kW/kW	5.43
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	100.0
		kcal/h	86,000
		BTU/h	341,200
	Power input	kW	16.75
	Current input	A	28.2-26.8-25.8
	COP	kW/kW	5.97
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	55
Sound power level (measured in anechoic room)		dB <A>	69
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PQRY-P400YLM-A < For Ground source >	PQRY-P400YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	10.7	10.7
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	216 (477)	216 (477)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C750	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P850YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	96.0
		kcal/h	82,600
		BTU/h	327,600
	Power input	kW	18.03
	Current input	A	30.4-28.9-27.8
	EER	kW/kW	5.32
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	108.0
		kcal/h	92,900
		BTU/h	368,500
	Power input	kW	18.49
	Current input	A	31.2-29.6-28.5
	COP	kW/kW	5.84
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	56
Sound power level (measured in anechoic room)		dB <A>	71.5
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PQRY-P450YLM-A < For Ground source >	PQRY-P400YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	11.6	10.7
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	216 (477)	216 (477)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C750	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Model			PQRY-P900YSLM-A < For Ground source >
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling capacity (Nominal)	*1, 2	kW	101.0
		kcal/h	86,900
		BTU/h	344,600
	Power input	kW	19.38
	Current input	A	32.7-31.0-29.9
	EER	kW/kW	5.21
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Heating capacity (Nominal)	*3, 4	kW	113.0
		kcal/h	97,200
		BTU/h	385,600
	Power input	kW	19.74
	Current input	A	33.3-31.6-30.5
	COP	kW/kW	5.72
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Circulating water	°C	-5.0~45.0°C (23~113°F)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	57
Sound power level (measured in anechoic room)		dB <A>	73
Refrigerant piping diameter	High pressure	mm (in.)	28.58 (1-1/8) Brazed
	Low pressure	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PQRY-P450YLM-A < For Ground source >	PQRY-P450YLM-A < For Ground source >
Circulating water	Water flow rate	m^3/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	kPa	44	44
	Operating volume range	m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	11.6	11.6
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
	Control		Indoor LEV and BC controller	
Net weight		kg (lbs)	216 (477)	216 (477)
Heat exchanger			plate type	plate type
	Water volume in plate	l	5.0	5.0
	Water pressure Max.	MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Drawing	External		WKS94C750	
	Wiring		WKE94G131	WKE94G131
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Heat Source Twinning kit: CMY-Q200CBK Joint: CMY-Y102SS/LS-G2, CMY-R160-J1 Main BC controller: CMB-P1016V-HA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°C D.B. The ambient relative humidity of the heat source unit needs to be kept below 80%. The heat source unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The heat source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 10°C (50°F), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Brine concentration 0%
3. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
4. Brine concentration 0%

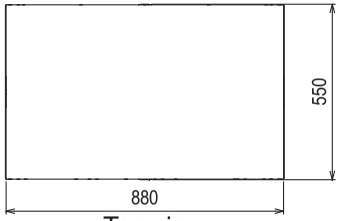
Unit converter

BTU/h	=kW x 3,412
cfm	$=m^3/min$ x 35.31
lbs	=kg/0.4536

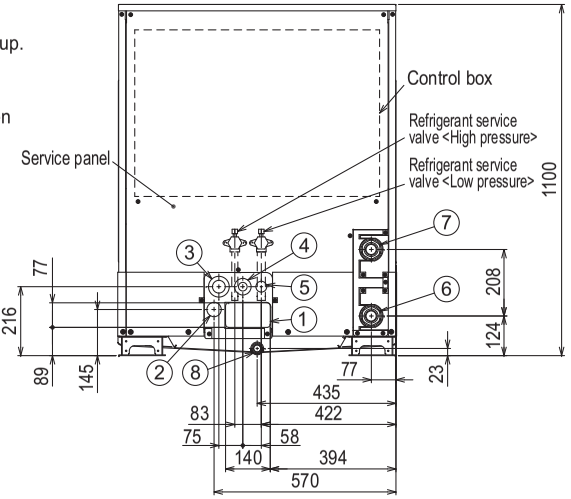
*Above specification data is subject to rounding variation.

Note1.Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)
Note2.At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.
Note3.Take notice of service space as Fig.A. (In case of single installation, 600mm or more of back space as front space makes easier access when servicing the unit from rear side.)
Note4.If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.
Note5.Environmental condition for installation; -20~40°C(DB) as indoor installation.
Note6.In case the temperature around the heat source unit has possibility to drop under 0°C or the inlet-water temp. drops under 10°C, be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
•Add brine to water circuit.
•Circulate the water all the time even if the heat source unit is not in operation.
•Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.
Note7.Ensure that the drain piping is downward with a pitch of more than 1/100.
Note8.At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

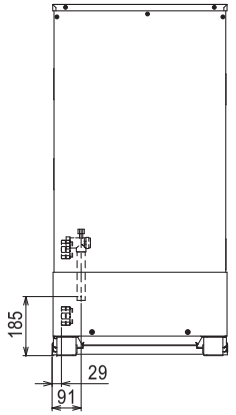
<Accessories>
• Refrigerant (high pressure) conn. pipe・・・・・1pc.
(P200/P250/P300 ; Packaged in the accessory kit)
• Refrigerant (low pressure) conn. elbow・・・・・1pc.
(P200/P250/P300 ; Packaged in the accessory kit)
• Water stopper・・・・・1pc.
(P200/P250/P300 ; Packaged in the accessory kit)
• Sealing material for water stopper・・・・・1pc.
(P200/P250/P300 ; Packaged in the accessory kit)
• Sealing material for field piping (high pressure, low pressure)・・・・・1pc. each
(P200/P250/P300 ; Packaged in the accessory kit)
• Sealing material for drain socket・・・・・1pc.
(P200/P250/P300 ; Packaged in the accessory kit)
• Pipe cover for low pressure・・・・・1pc.
(P200/P250/P300 ; Packaged in the accessory kit)



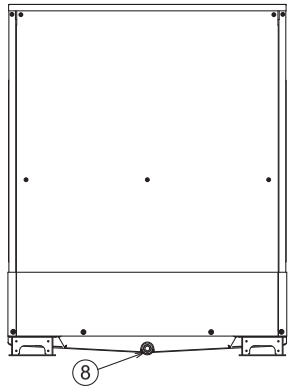
Top view



Front view



Right side view


Back view

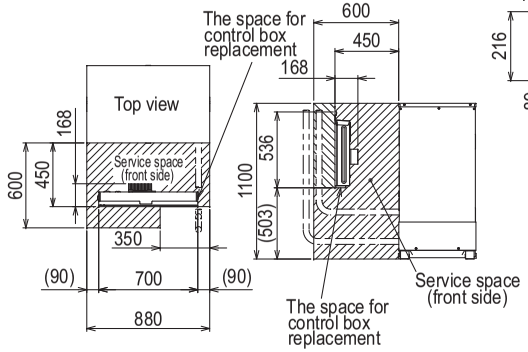
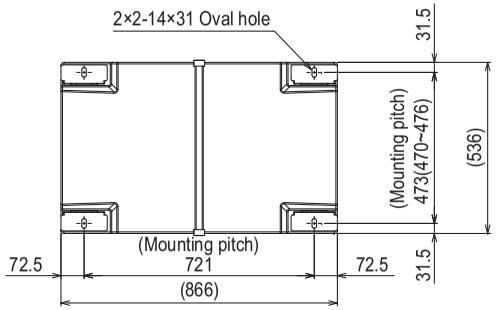


Fig.A Fig.B



Bottom view

NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole
②		Front through hole (Uses when twinning kit (optional parts) is mounted.)	ø45 Knockout hole
③	For wires	Front through hole	ø65 or ø40 Knockout hole
④		Front through hole	ø52 or ø27 Knockout hole
⑤	For transmission cables	Front through hole	ø34 Knockout hole
⑥	Water pipe	inlet	Rc1-1/2 Screw
⑦		outlet	Rc1-1/2 Screw
⑧	Drain pipe	Rc3/4 Screw	

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PQRY-P200YLM-A	ø15.88 Brazed *1 *2	ø19.05 Brazed *1 *2	ø19.05	ø25.4
PQRY-P250YLM-A	ø19.05 Brazed *1	ø22.2 Brazed *1 *2		
PQRY-P300YLM-A				

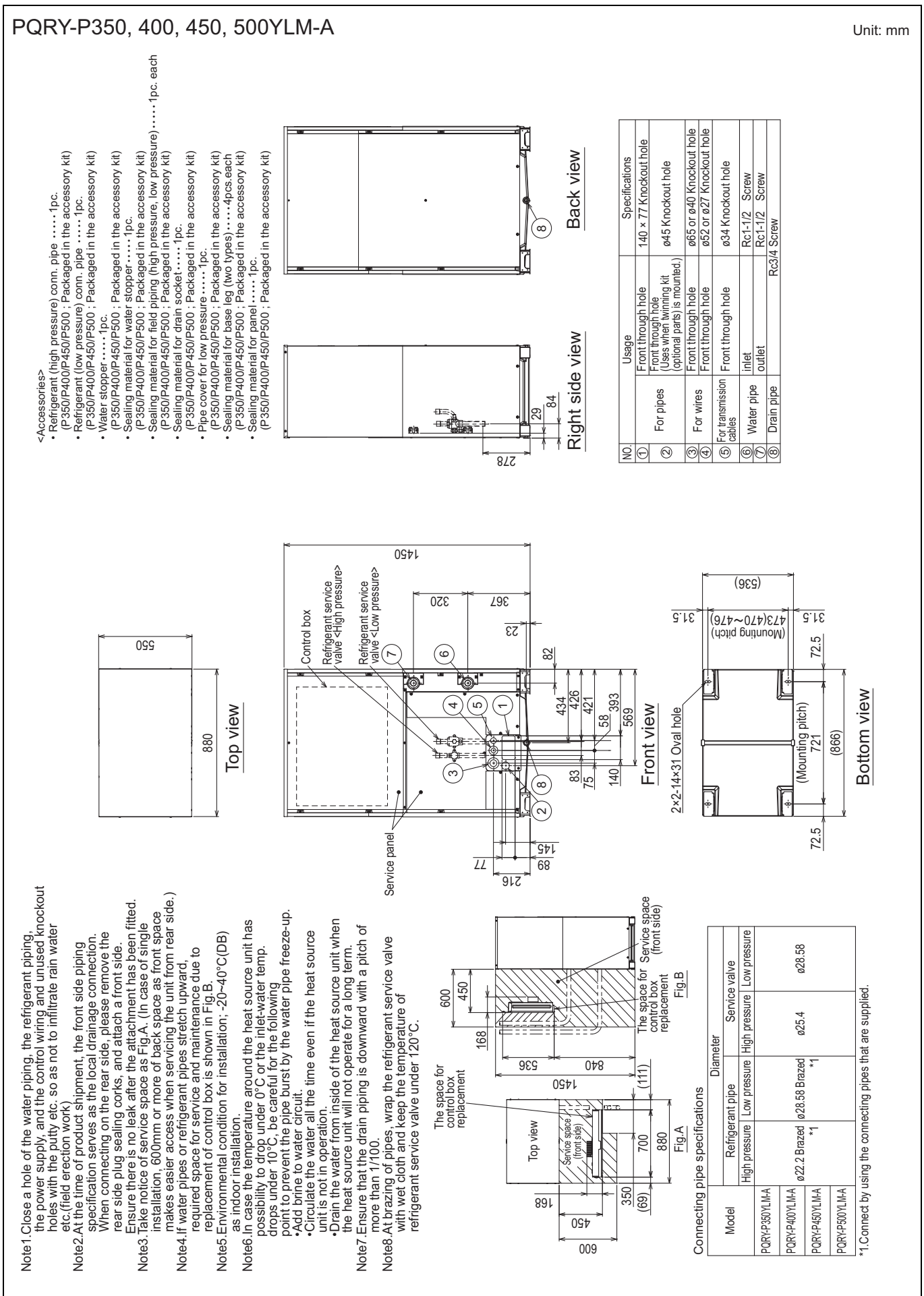
*1.Connect by using the connecting pipes and elbow that are supplied.
*2.Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

Unit: mm

2. EXTERNAL DIMENSIONS

PQRY-P350, 400, 450, 500YLM-A

Unit: mm



Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)

Note2. At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.

Note3. Take notice of service space as Fig.A. (In case of single installation, 600mm or more of back space as front space makes easier access when servicing the unit from rear side.)

Note4. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.

Note5. Environmental condition for installation; -20~40°C(DB) as indoor installation.

Note6. In case the temperature around the heat source unit has possibility to drop under 0°C or the inlet-water temp. drops under 10°C, be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
- Add brine to water circuit.
- Circulate the water all the time even if the heat source unit is not in operation.
- Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.

Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.

Note8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

Connecting pipe specifications

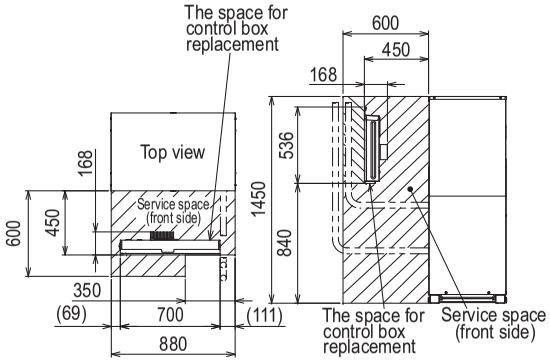
Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PQRY-P350YLM-A	ø22.2 Brazed *1	ø28.58 Brazed *1	ø25.4	ø28.58
PQRY-P400YLM-A				
PQRY-P450YLM-A				
PQRY-P500YLM-A				

*1.Connect by using the connecting pipes that are supplied.

2. EXTERNAL DIMENSIONS

PQRY-P550, 600YLM-A

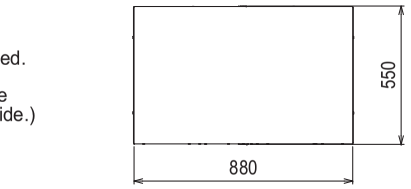
Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)
Note2. At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.
Note3. Take notice of service space as Fig.A. (In case of single installation, 600mm or more of back space as front space makes easier access when servicing the unit from rear side.)
Note4. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.
Note5. Environmental condition for installation; -20~40°C(DB) as indoor installation.
Note6. In case the temperature around the heat source unit has possibility to drop under 0°C or the inlet-water temp. drops under 10°C, be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
•Add brine to water circuit.
•Circulate the water all the time even if the heat source unit is not in operation.
•Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.
Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.
Note8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.



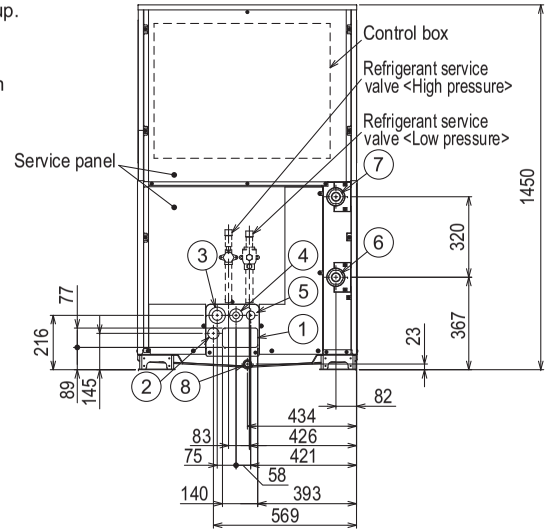
Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PQRY-P550YLM-A	ø22.2 Brazed *1 *2	ø28.58 Brazed *1	ø25.4	ø28.58
PQRY-P600YLM-A		ø34.93 Brazed *1 *3		

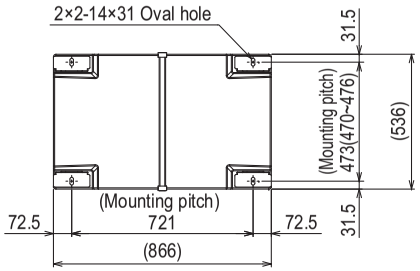
*1.Connect by using the connecting pipes and that are supplied.
*2.When the piping length is 65 m or longer, use the ø28.58 pipe for the part that exceeds 65 m.
*3.Use the pipe joint(field supply) and connect to the refrigerant service valve piping.



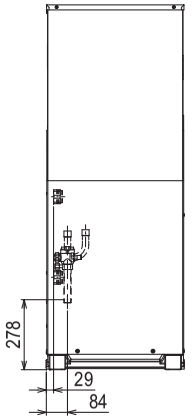
Top view



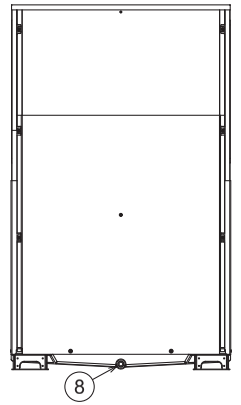
Front view



Bottom view



Right side view



Back view

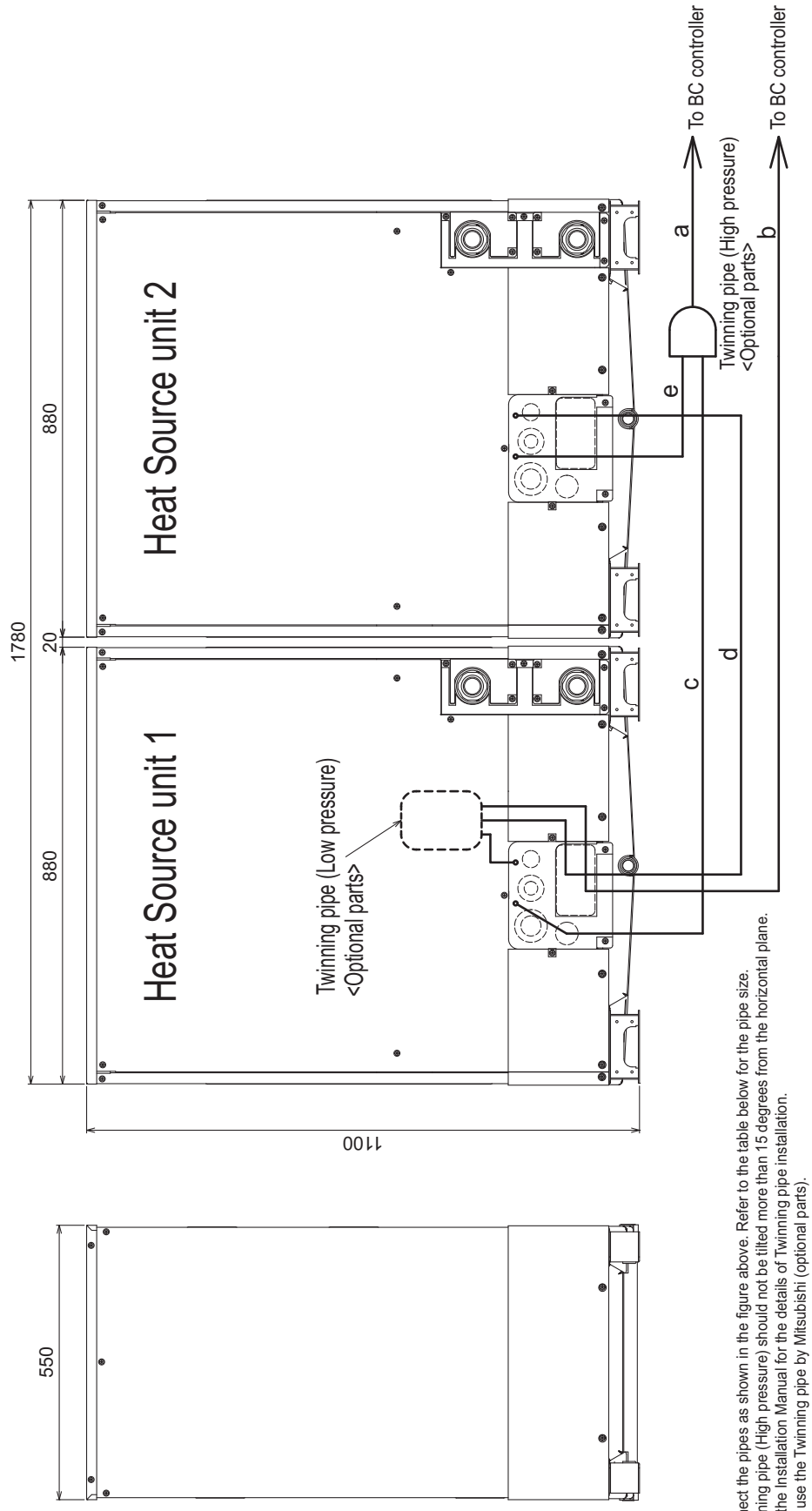
NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole
②		Front through hole (Uses when twinning kit (optional parts) is mounted.)	ø45 Knockout hole
③	For wires	Front through hole	ø65 or ø40 Knockout hole
④		Front through hole	ø52 or ø27 Knockout hole
⑤	For transmission cables	Front through hole	ø34 Knockout hole
⑥	Water pipe	inlet	Rc1-1/2 Screw
⑦		outlet	Rc1-1/2 Screw
⑧	Drain pipe	Rc3/4 Screw	

Unit: mm

WR2

PQRY-P400, 450, 500, 550, 600YSLM-A

Unit: mm



Note 1.Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2.Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.
3.See the Installation Manual for the details of Twinning pipe installation.
4.Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

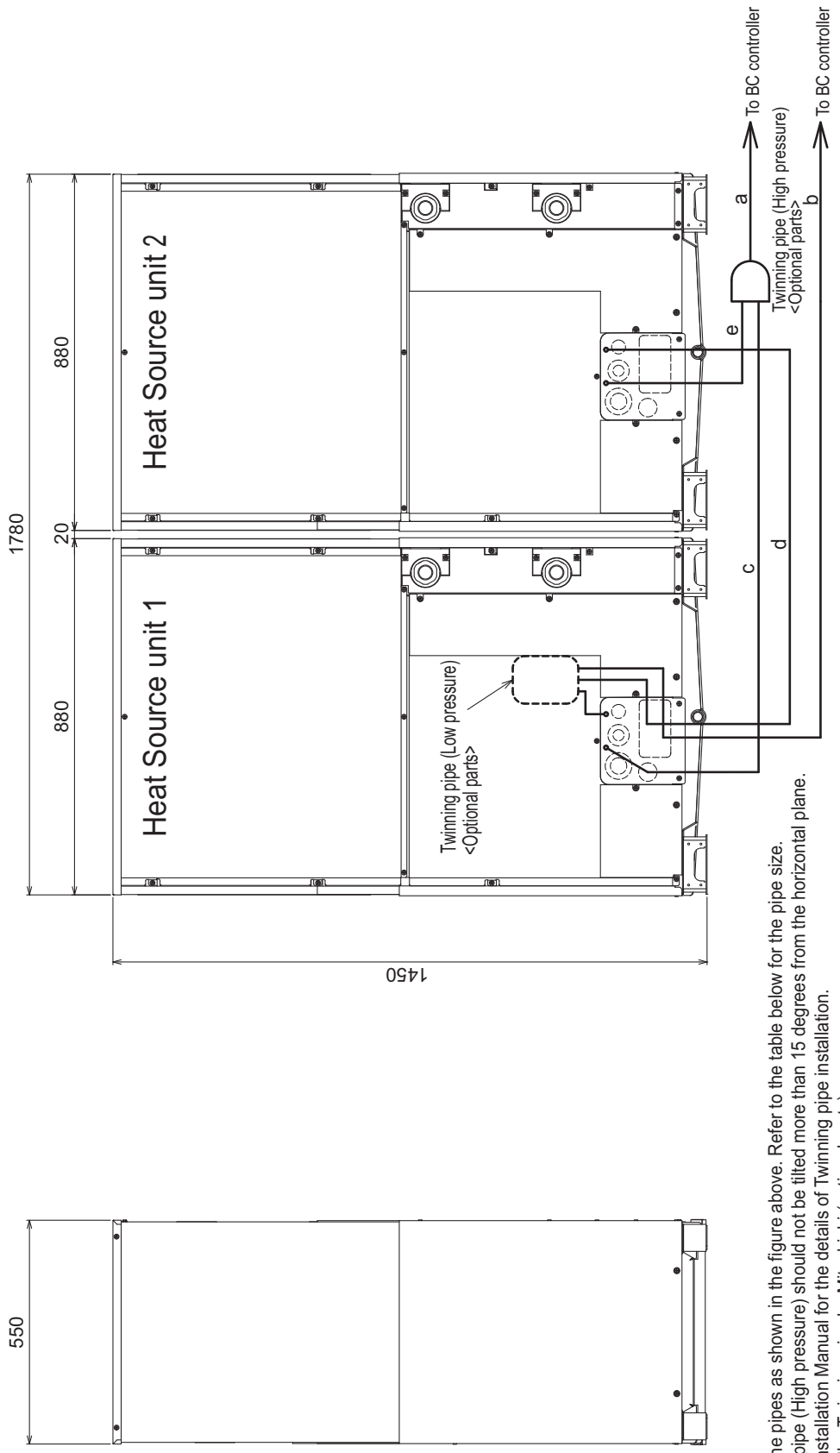
Package unit name			PQRY-P400YSLM-A	PQRY-P450YSLM-A	PQRY-P500YSLM-A	PQRY-P550YSLM-A	PQRY-P600YSLM-A
Component unit name	Heat Source unit 1		PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A	PQRY-P300YLM-A
	Heat Source unit 2		PQRY-P200YLM-A	PQRY-P200YLM-A	PQRY-P250YLM-A	PQRY-P250YLM-A	PQRY-P300YLM-A
Twinning pipe Kit(optional parts)			CMY-Q100CBK2				
BC controller~Twinning pipe	High pressure	a	ø22.2			ø22.2 *1	
	Low pressure	b	ø28.58			ø34.93	

	Unit model	High pressure	Low pressure
		c or e	d
Twinning pipe~Heat source unit	P200	ø15.88 *2	ø19.05 *2
	P250	ø19.05	ø22.2
	P300		

*1.When the piping length is 65 m or longer, use the ø28.58 pipe for the part that exceeds 65 m.
*2.When the package unit name"PQRY-P450YSLM-A", use the ø19.05 pipe for high pressure and the ø22.2 pipe for low pressure.

PQRY-P700, 750, 800, 850, 900YSLM-A

Unit: mm



Note 1.Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2.Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.
3.See the Installation Manual for the details of Twinning pipe installation.
4.Only use the Twinning pipe by Mitsubishi (optional parts).

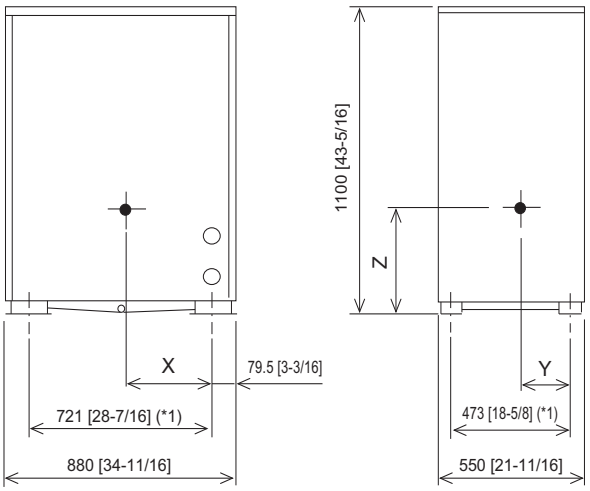
Twinning pipe connection size

Package unit name		PQRY-P700YSLM-A	PQRY-P750YSLM-A	PQRY-P800YSLM-A	PQRY-P850YSLM-A	PQRY-P900YSLM-A
Component unit name	Heat Source unit 1	PQRY-P350YLM-A	PQRY-P400YLM-A	PQRY-P400YLM-A	PQRY-P450YLM-A	PQRY-P450YLM-A
	Heat Source unit 2	PQRY-P350YLM-A	PQRY-P350YLM-A	PQRY-P400YLM-A	PQRY-P400YLM-A	PQRY-P450YLM-A
Twinning pipe Kit(optional parts)		CMY-Q200CBK				
BC controller~ Twinning pipe	High pressure	a	ø28.58			
	Low pressure	b	ø34.93			ø41.28

	Unit model	High pressure core e	Low pressure d
Twinning pipe~Heat source unit	P350	ø22.2	ø28.58
	P400		
	P450		

PQRY-P200, 250, 300YLM-A

Unit: mm [in.]

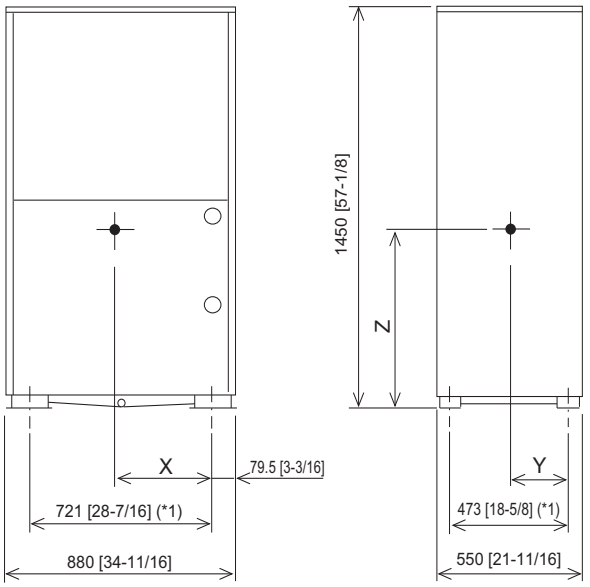


Model	X	Y	Z
PQRY-P200YLM-A	347[13-11/16]	234[9-1/4]	438[17-1/4]
PQRY-P250YLM-A	347[13-11/16]	234[9-1/4]	438[17-1/4]
PQRY-P300YLM-A	347[13-11/16]	234[9-1/4]	438[17-1/4]

*1 Mounting Pitch

PQRY-P350, 400, 450, 500, 550, 600YLM-A

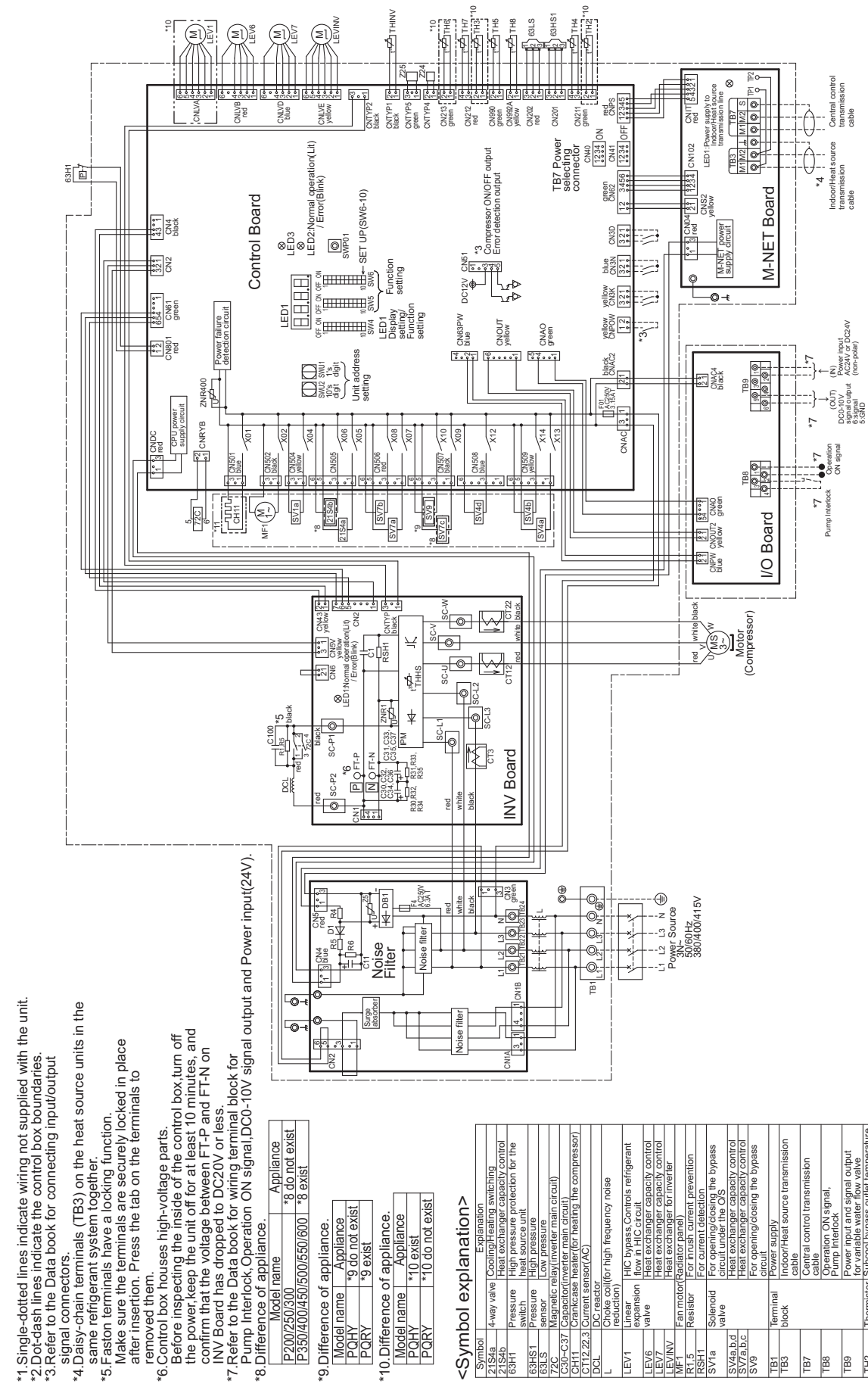
Unit: mm [in.]



Model	X	Y	Z
PQRY-P350YLM-A	379[14-15/16]	235[9-5/16]	631[24-7/8]
PQRY-P400YLM-A	379[14-15/16]	235[9-5/16]	631[24-7/8]
PQRY-P450YLM-A	379[14-15/16]	235[9-5/16]	631[24-7/8]
PQRY-P500YLM-A	379[14-15/16]	235[9-5/16]	631[24-7/8]
PQRY-P550YLM-A	366[14-7/16]	230[9-1/16]	672[26-1/2]
PQRY-P600YLM-A	366[14-7/16]	230[9-1/16]	672[26-1/2]

*1 Mounting Pitch

PQRY-P200, 250, 300, 350, 400, 450, 500, 550, 600YLM-A



*1.Single-dotted lines indicate wiring not supplied with the unit.
*2.Dot-dash lines indicate the control box boundaries.
*3.Refer to the Data book for connecting input/output signal connectors.
*4.Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
*5.Faston terminals have a locking function.
Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to removed them.
*6.Control box houses high-voltage parts.
Before inspecting the inside of the control box,turn off the power,keep the unit off for at least 10 minutes, and confirm that the voltage between FT-P and FT-N on INV Board has dropped to DC20V or less.
*7.Refer to the Data book for wiring terminal block for Pump Interlock,Operation ON signal,DC0-10V signal output and Power input(24V).
*8.Difference of appliance.

Model name	Appliance
P200/250/300	*8 do not exist
P350/400/450/500/550/600	*8 exist

*9.Difference of appliance.

Model name	Appliance
PQHY	*9 do not exist
PQRY	*9 exist

*10.Difference of appliance.

Model name	Appliance
PQHY	*10 exist
PQRY	*10 do not exist

*11.Difference of appliance.

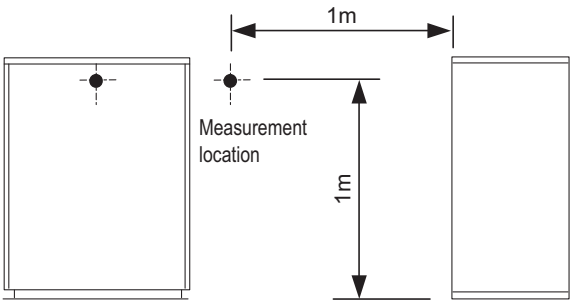
Model name	Appliance
P200/250/300/350/400/450/500	*11 do not exist
P550/600	*11 exist

<Symbol explanation>

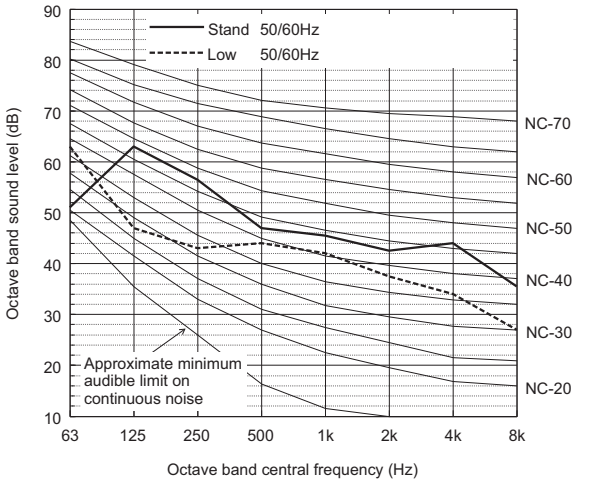
Symbol		Explanation
21S4a	4-way valve	Cooling/Heating switching
21S4b		Heat exchanger capacity control
63H1	Pressure switch	High pressure protection for the heat source unit
63HS1	Pressure sensor	High pressure
63LS		Low pressure
72C	Magnetic relay	Inverter main circuit)
C30~C37	Capacitor	Inverter main circuit)
CH11	Crankcase heater	For heating the compressor)
CT12,22,3	Current sensor	AC)
DCL	DC reactor	
L	Choke coil	For high frequency noise reduction)
LEV1	Linear expansion valve	HIC bypass,Controls refrigerant flow in HIC circuit.
LEV6		Heat exchanger capacity control
LEV7		Heat exchanger capacity control
LEV/INV		Heat exchanger for inverter
MF1	Fan motor	Radiator panel
R1,5	Resistor	For inrush current prevention
RSH1		For current detection
SV1a	Solenoid valve	For opening/closing the bypass circuit of hot gas
SV4a,b,d		Heat exchanger capacity control
SV7a,b,c		Heat exchanger capacity control
SV9		For opening/closing the bypass circuit
TB1	Terminal block	Power supply
TB3		Indoor/Heat source transmission cable
TB7		Central control transmission cable
TB8		Operation ON signal, Pump Interlock
TB9		Power input and signal output for variable water flow valve
TH2	Thermistor	Subcool bypass outlet temperature
TH3		Pipe temperature
TH4		Discharge pipe temperature
TH5		ACC inlet pipe temperature
TH6		Subcooled liquid refrigerant temperature
TH7		Water inlet temperature
TH8		Water outlet temperature
THINV		Outlet temp.detect of heat exchanger for inverter
THHS		IPM temperature
Z24,25	Function setting connector	

5. SOUND LEVELS

Measurement condition
PQRY-P200, 250, 300YLM-A



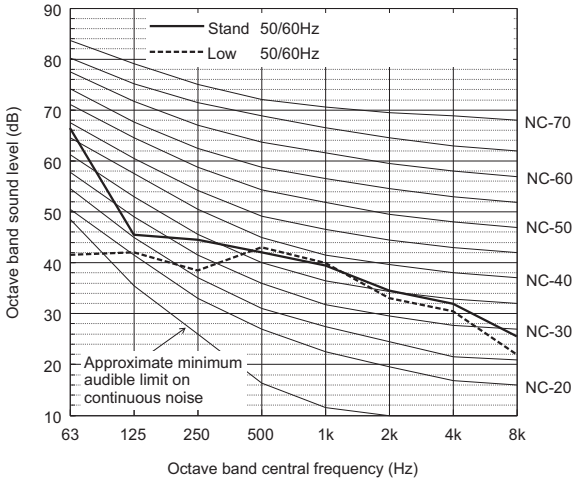
Sound level of PQRY-P300YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	51.0	63.0	56.5	47.0	45.5	42.5	44.0	35.5	54.0
Low noise mode	50/60Hz	63.0	47.0	43.0	44.0	42.0	37.5	34.0	27.0	47.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

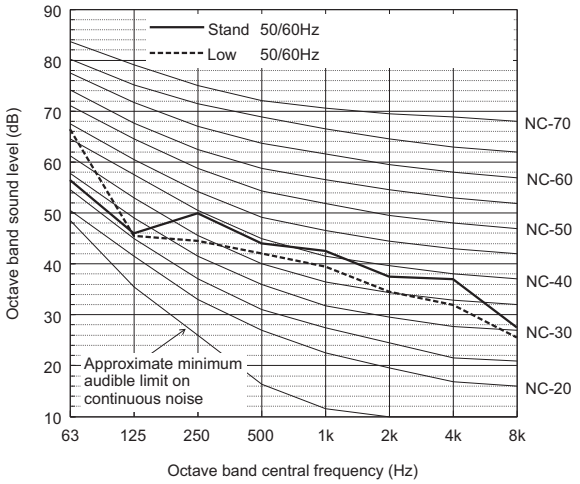
Sound level of PQRY-P200YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0
Low noise mode	50/60Hz	41.5	42.0	38.5	43.0	40.0	33.0	30.5	22.0	44.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P250YLM-A



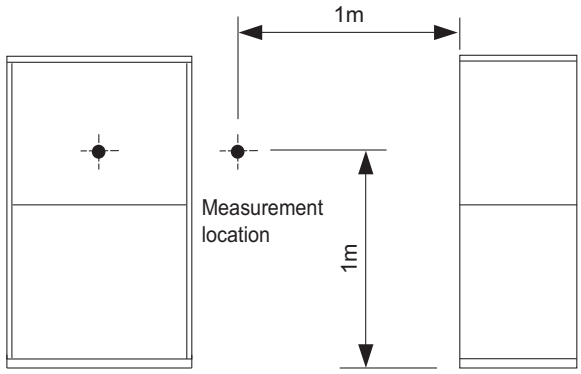
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	56.5	46.0	50.0	44.0	42.5	37.5	37.0	27.5	48.0
Low noise mode	50/60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

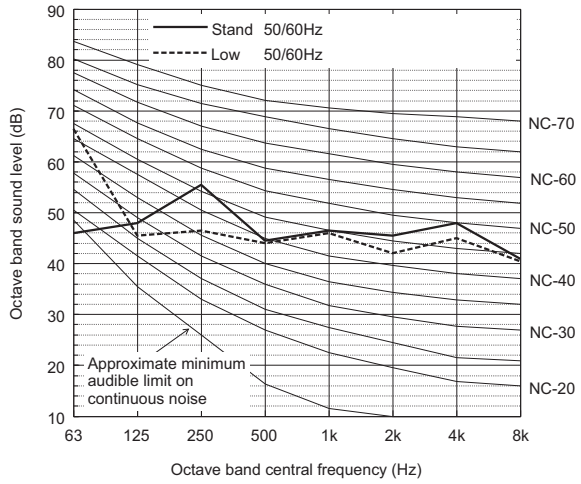
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Measurement condition
PQRY-P350, 400, 450, 500, 550, 600YLM-A



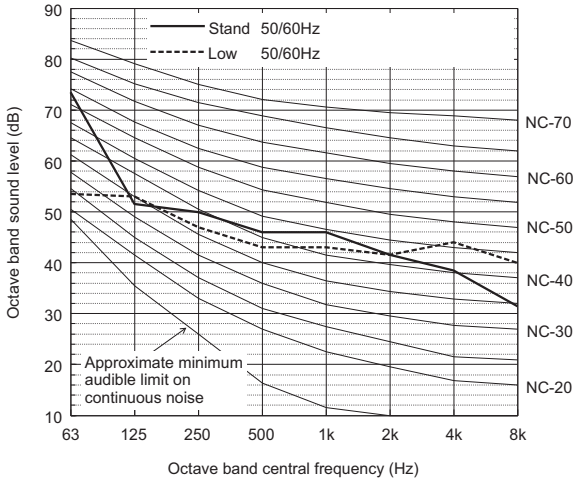
Sound level of PQRY-P450YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	46.0	48.0	55.5	44.5	46.5	45.5	48.0	41.0	54.0
Low noise mode	50/60Hz	66.5	45.5	46.5	44.0	46.0	42.0	45.0	40.5	51.5

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

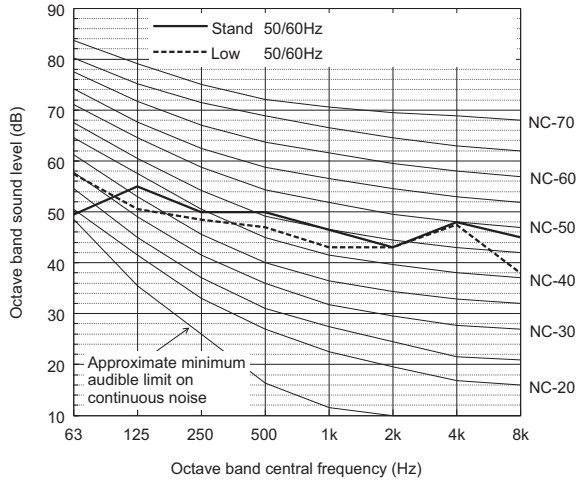
Sound level of PQRY-P350YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.5	51.5	50.0	46.0	46.0	41.5	38.5	31.5	52.0
Low noise mode	50/60Hz	53.5	53.0	47.0	43.0	43.0	41.5	44.0	40.0	50.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

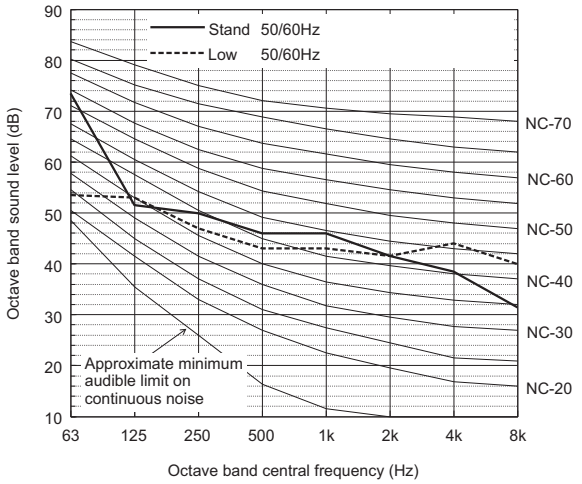
Sound level of PQRY-P500YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	49.5	55.0	50.0	50.0	46.5	43.0	48.0	45.0	54.0
Low noise mode	50/60Hz	57.5	50.5	48.5	47.0	43.0	43.0	47.5	38.0	52.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

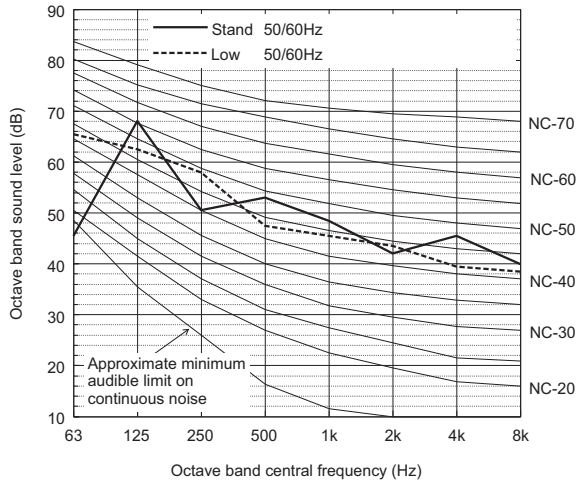
Sound level of PQRY-P400YLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.5	51.5	50.0	46.0	46.0	41.5	38.5	31.5	52.0
Low noise mode	50/60Hz	53.5	53.0	47.0	43.0	43.0	41.5	44.0	40.0	50.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P550YLM-A



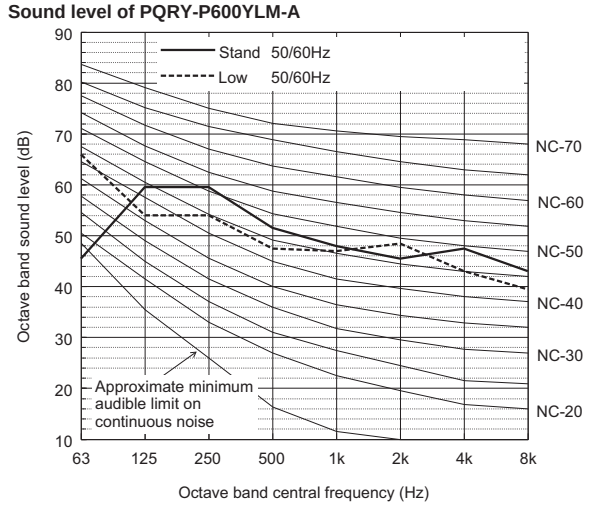
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	45.5	68.0	50.5	53.0	48.5	42.0	45.5	40.0	56.5
Low noise mode	50/60Hz	65.5	62.5	58.0	47.5	45.5	43.5	39.5	38.5	54.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Sound level of PQRY-P600YLM-A



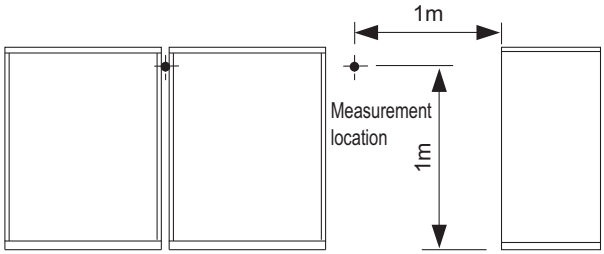
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	45.5	59.5	59.5	51.5	48.0	45.5	47.5	43.0	56.5
Low noise mode	50/60Hz	66.0	54.0	54.0	47.5	47.0	48.5	43.0	39.5	54.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

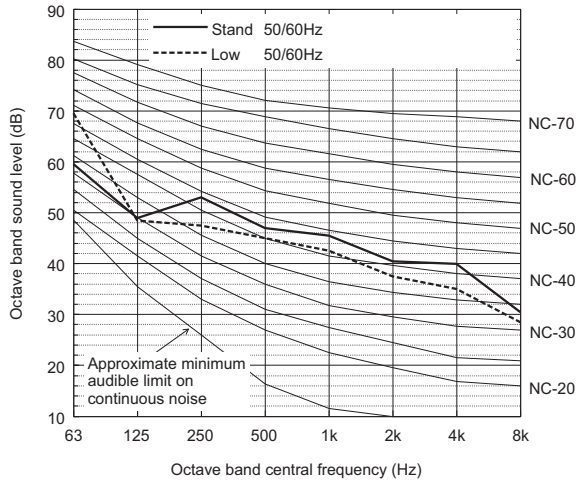
♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Measurement condition
PQRY-P400, 450, 500, 550, 600YSLM-A



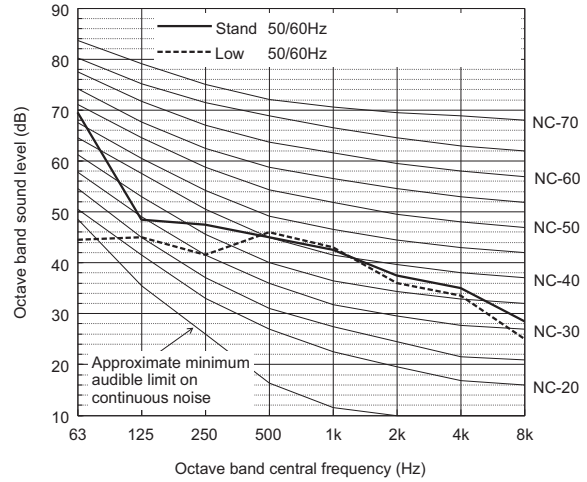
Sound level of PQRY-P500YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	59.5	49.0	53.0	47.0	45.5	40.5	40.0	30.5	51.0
Low noise mode	50/60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

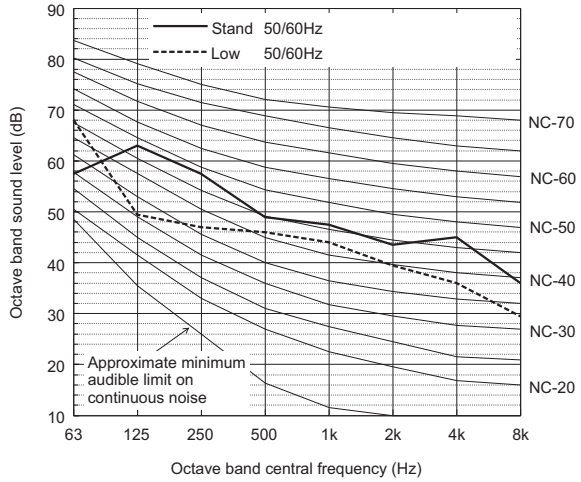
Sound level of PQRY-P400YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0
Low noise mode	50/60Hz	44.5	45.0	41.5	46.0	43.0	36.0	33.5	25.0	47.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

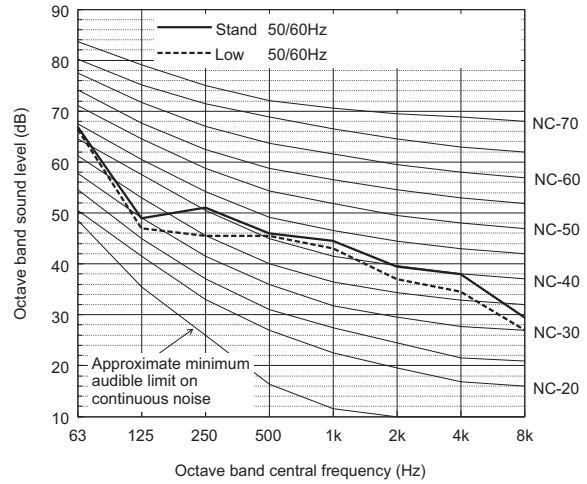
Sound level of PQRY-P550YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	57.5	63.0	57.5	49.0	47.5	43.5	45.0	36.0	55.0
Low noise mode	50/60Hz	68.0	49.5	47.0	46.0	44.0	39.5	36.0	29.5	49.5

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

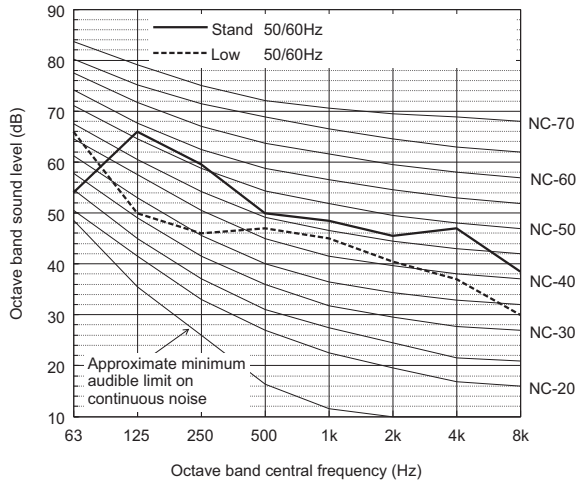
Sound level of PQRY-P450YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	67.0	49.0	51.0	46.0	44.5	39.5	38.0	29.5	50.0
Low noise mode	50/60Hz	66.5	47.0	45.5	45.5	43.0	37.0	34.5	27.0	48.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P600YSLM-A



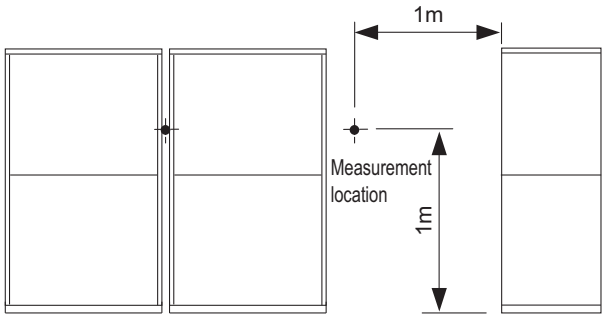
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	54.0	66.0	59.5	50.0	48.5	45.5	47.0	38.5	57.0
Low noise mode	50/60Hz	66.0	50.0	46.0	47.0	45.0	40.5	37.0	30.0	50.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

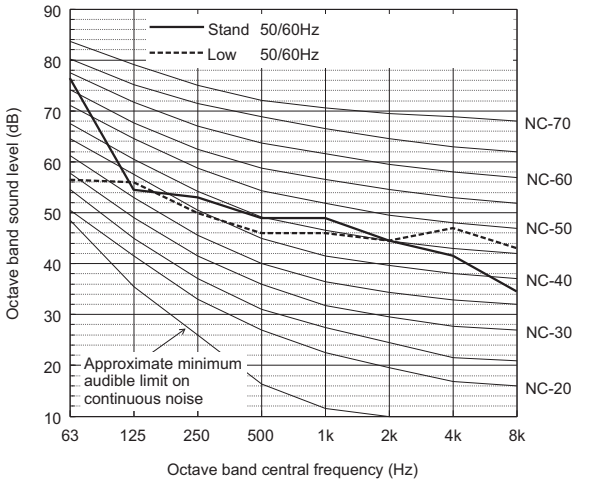
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Measurement condition
PQRY-P700, 750, 800, 850, 900YSLM-A



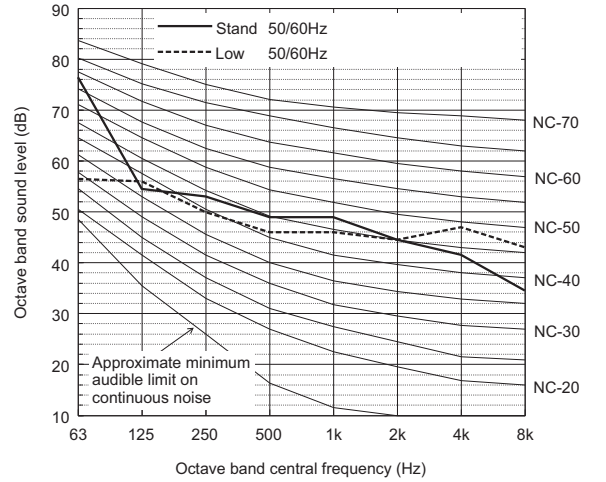
Sound level of PQRY-P800YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.5	54.5	53.0	49.0	49.0	44.5	41.5	34.5	55.0
Low noise mode	50/60Hz	56.5	56.0	50.0	46.0	46.0	44.5	47.0	43.0	53.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

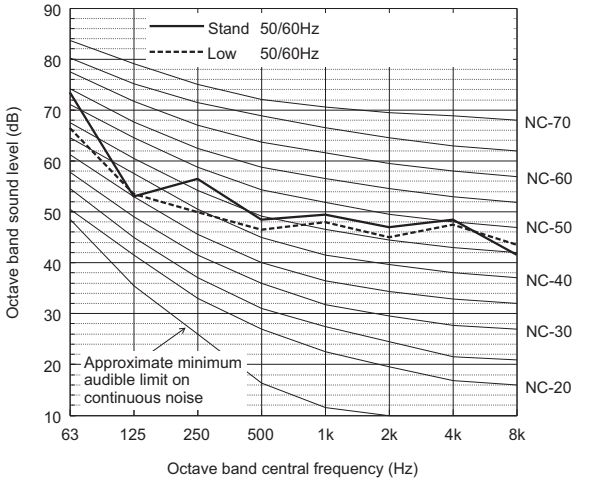
Sound level of PQRY-P700YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.5	54.5	53.0	49.0	49.0	44.5	41.5	34.5	55.0
Low noise mode	50/60Hz	56.5	56.0	50.0	46.0	46.0	44.5	47.0	43.0	53.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

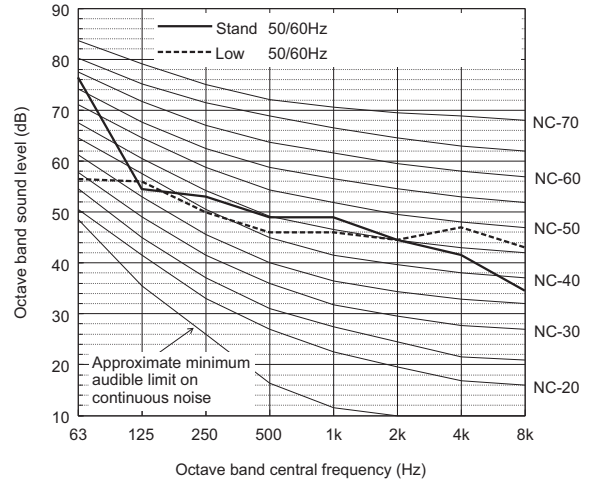
Sound level of PQRY-P850YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.5	53.0	56.5	48.5	49.5	47.0	48.5	41.5	56.0
Low noise mode	50/60Hz	66.5	53.5	50.0	46.5	48.0	45.0	47.5	43.5	54.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

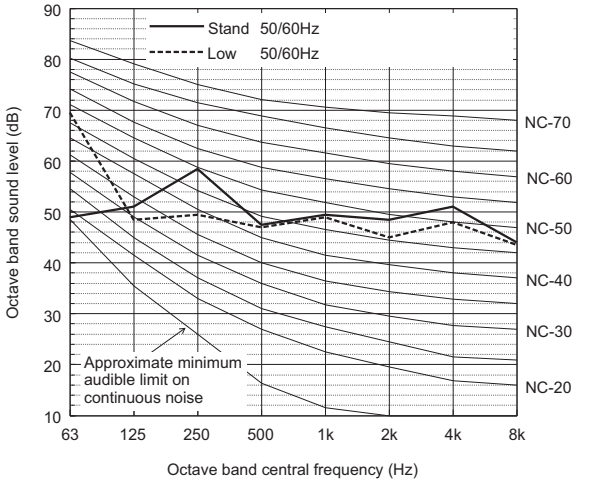
Sound level of PQRY-P750YSLM-A



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.5	54.5	53.0	49.0	49.0	44.5	41.5	34.5	55.0
Low noise mode	50/60Hz	56.5	56.0	50.0	46.0	46.0	44.5	47.0	43.0	53.0

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P900YSLM-A



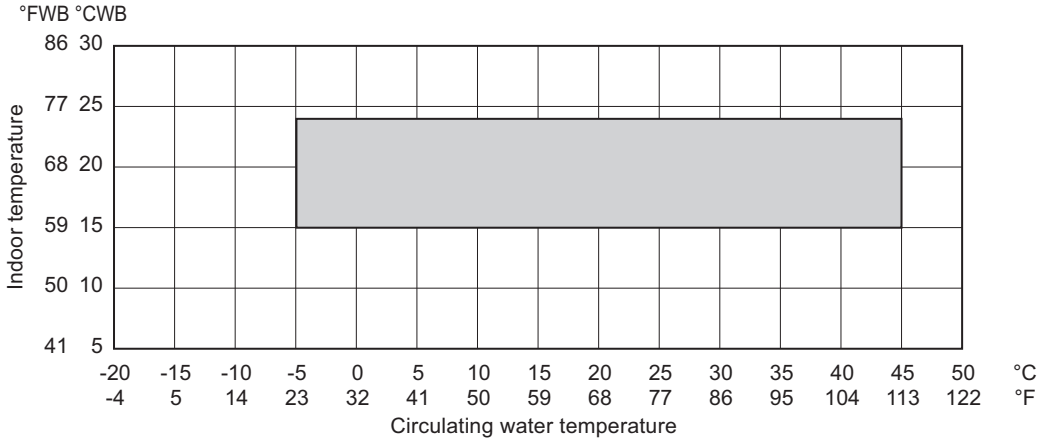
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	49.0	51.0	58.5	47.5	49.5	48.5	51.0	44.0	57.0
Low noise mode	50/60Hz	69.5	48.5	49.5	47.0	49.0	45.0	48.0	43.5	54.5

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

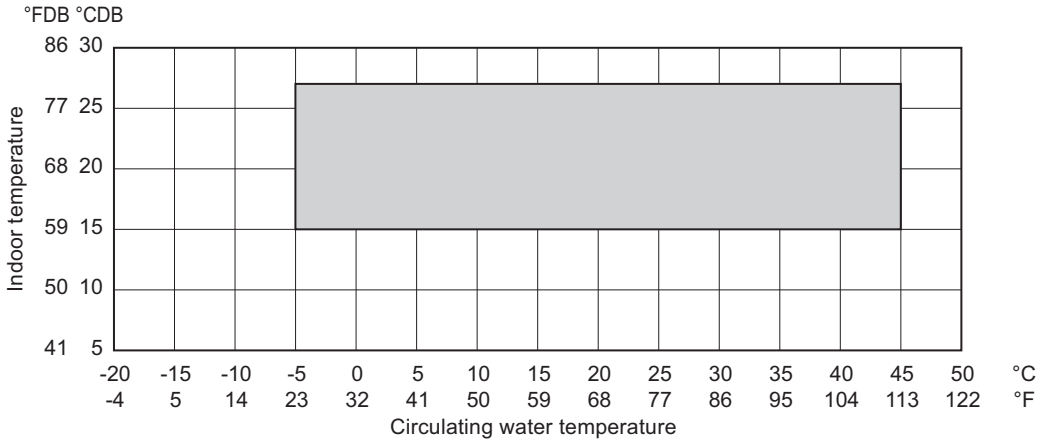
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

6. OPERATION TEMPERATURE RANGE

Cooling



Heating



Combination of cooling/heating operation (Cooling main or Heating main)

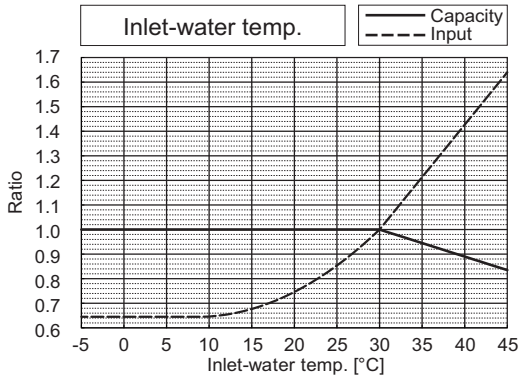
Water temperature	Indoor temperature	
	Cooling	Heating
10 to 45°C (50 to 113°F)	15 to 24°CWB (59 to 75°FWB)	15 to 27°CDB (59 to 81°FDB)

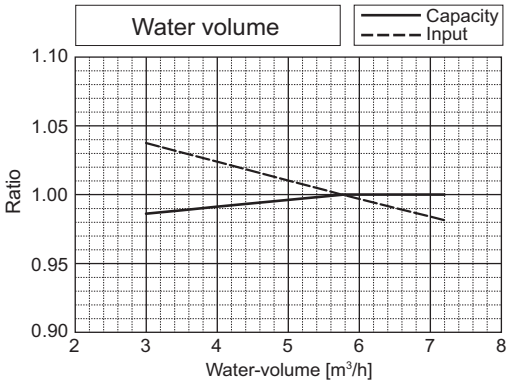
7. CAPACITY TABLES

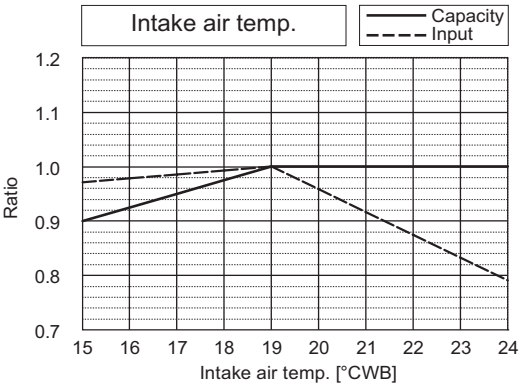
7-1. Correction by temperature

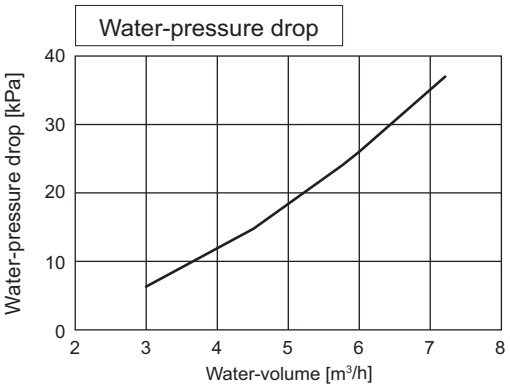
CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

		PQHY-P200YLM-A	PQRY-P200YLM-A
Nominal Cooling Capacity	kW	22.4	22.4
	BTU/h	76,400	76,400
Input	kW	3.71	3.71

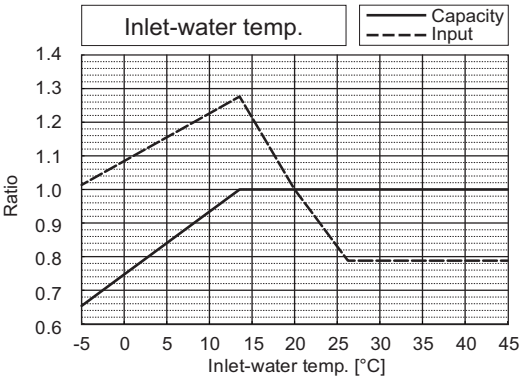


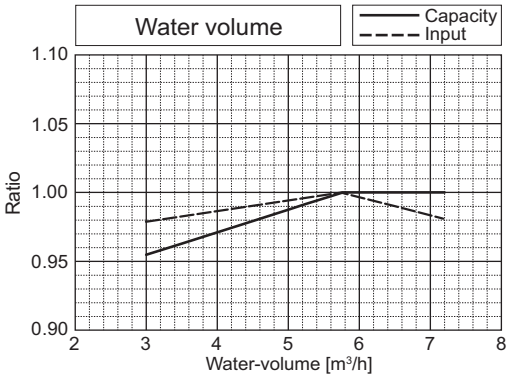


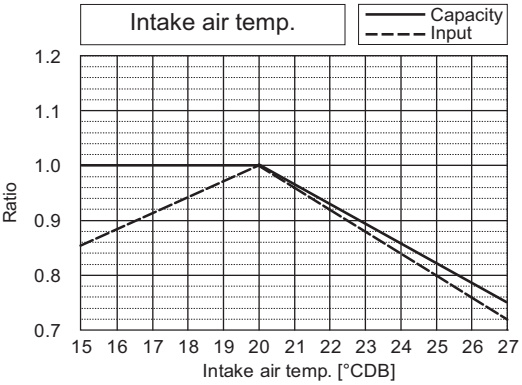


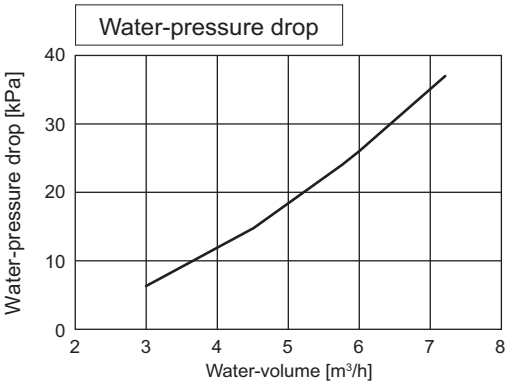


		PQHY-P200YLM-A	PQRY-P200YLM-A
Nominal Heating Capacity	kW	25.0	25.0
	BTU/h	85,300	85,300
Input	kW	3.97	3.97

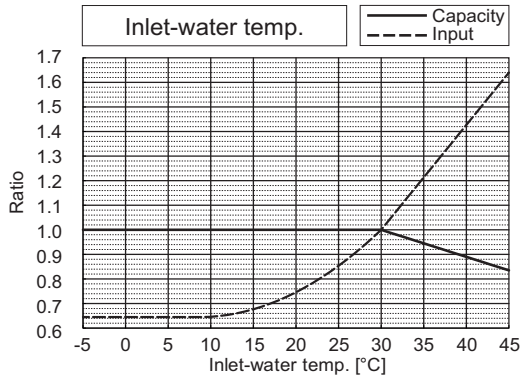


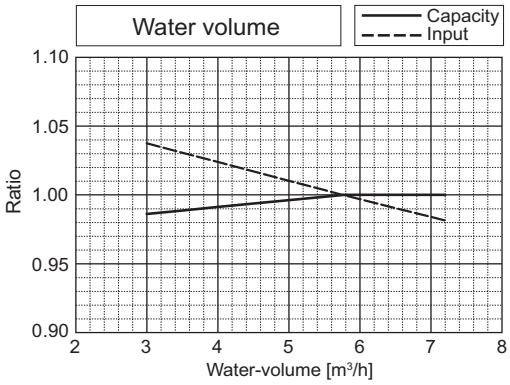


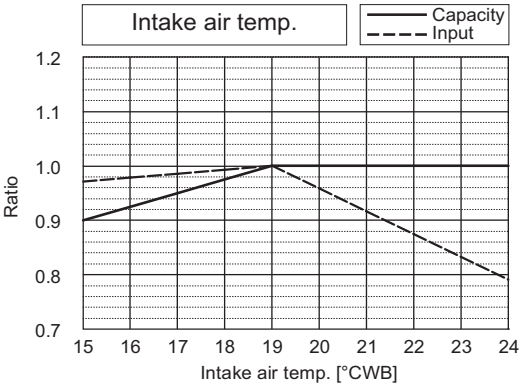


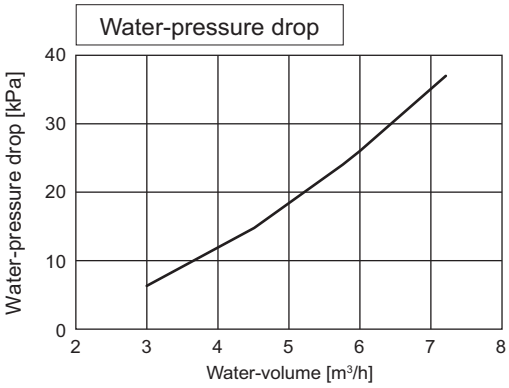


		PQHY-P250YLM-A	PQRY-P250YLM-A
Nominal Cooling Capacity	kW	28.0	28.0
	BTU/h	95,500	95,500
Input	kW	4.90	4.90

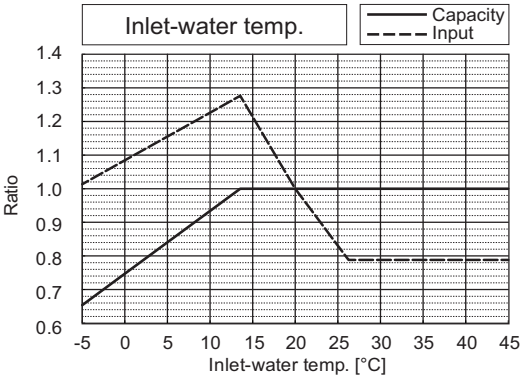


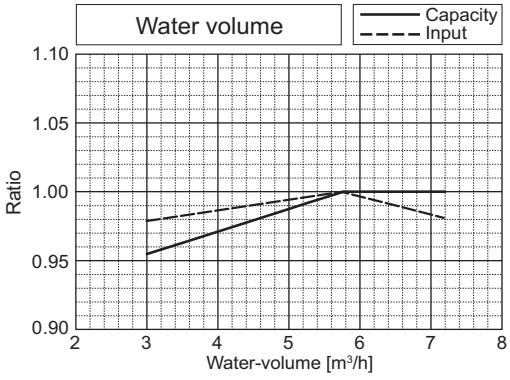


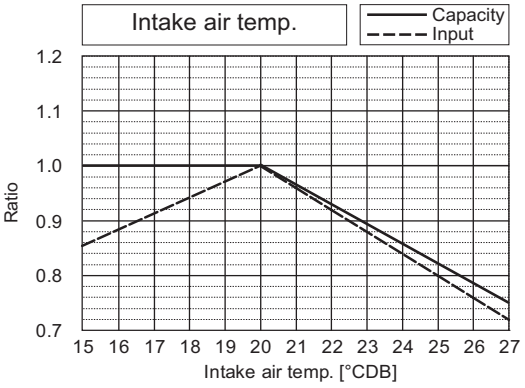


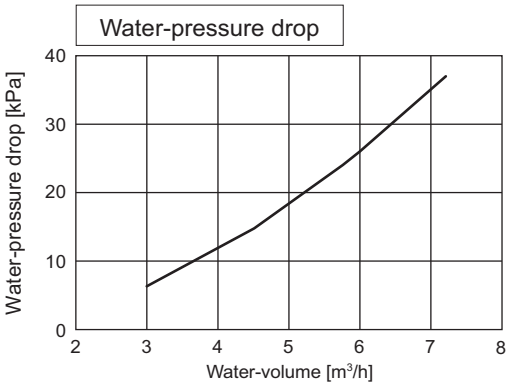


		PQHY-P250YLM-A	PQRY-P250YLM-A
Nominal Heating Capacity	kW	31.5	31.5
	BTU/h	107,500	107,500
Input	kW	5.08	5.08



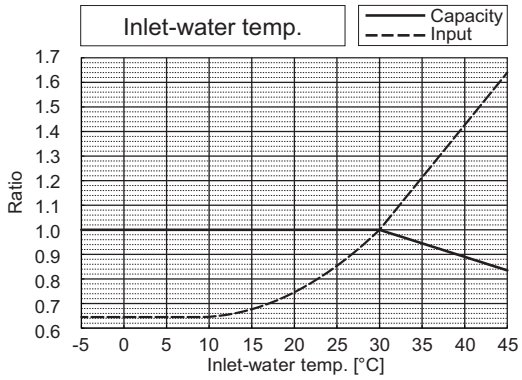


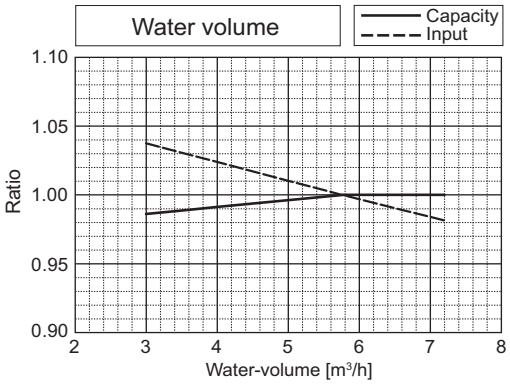


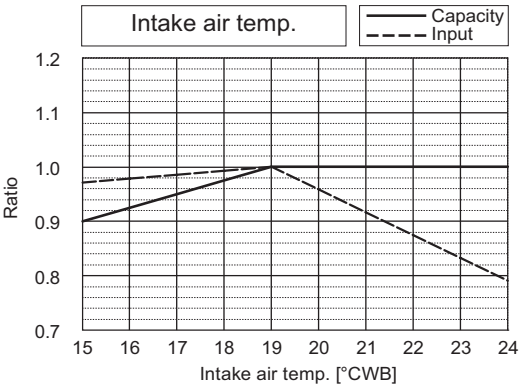


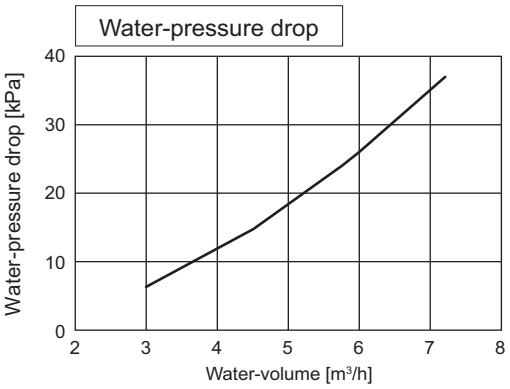
7. CAPACITY TABLES

		PQHY-P300YLM-A	PQRY-P300YLM-A
Nominal Cooling Capacity	kW	33.5	33.5
	BTU/h	114,300	114,300
Input	kW	6.04	6.04

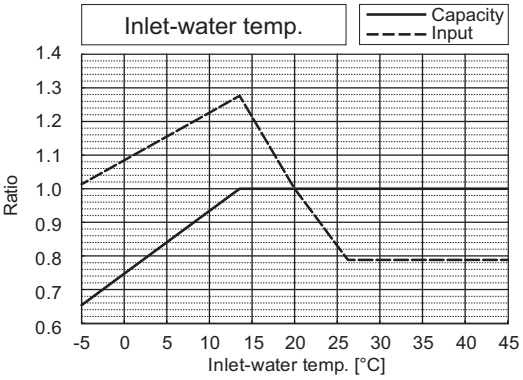


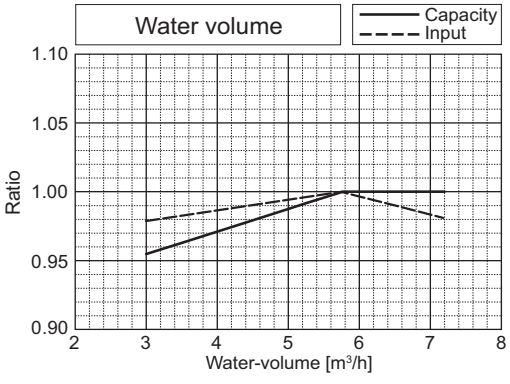


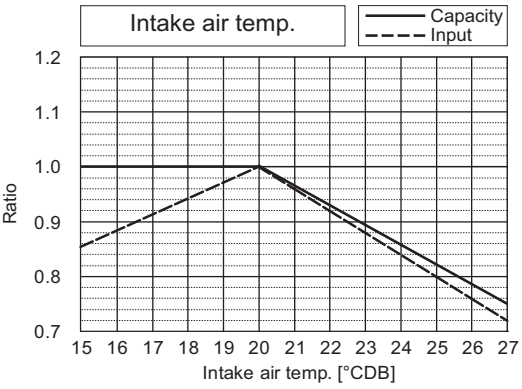


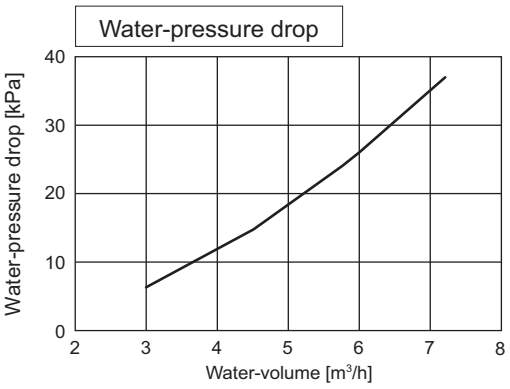


		PQHY-P300YLM-A	PQRY-P300YLM-A
Nominal Heating Capacity	kW	37.5	37.5
	BTU/h	128,000	128,000
Input	kW	6.25	6.25

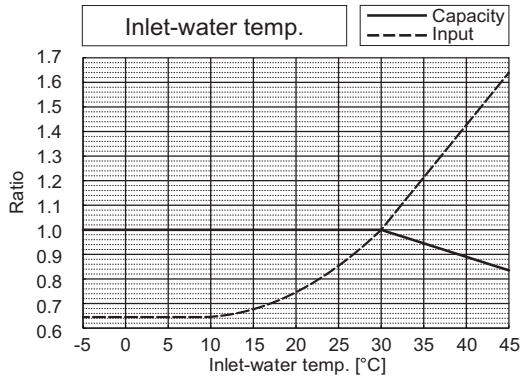


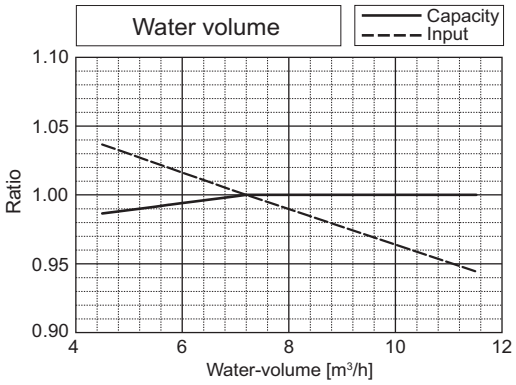


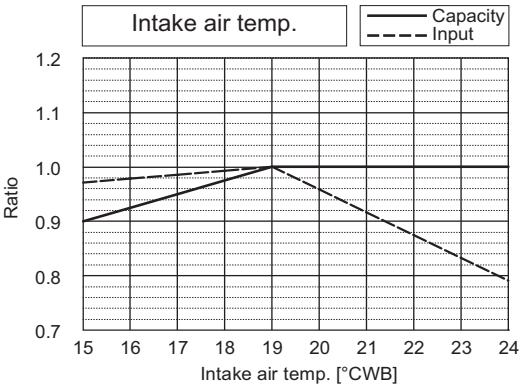


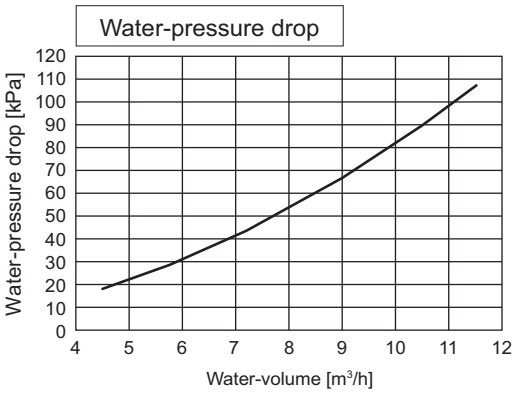


		PQHY-P350YLM-A	PQRY-P350YLM-A
Nominal Cooling Capacity	kW	40.0	40.0
	BTU/h	136,500	136,500
Input	kW	7.14	7.14

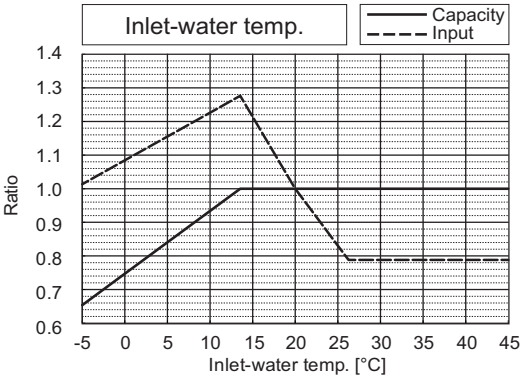


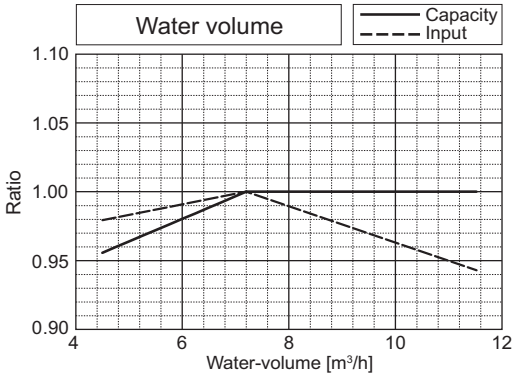


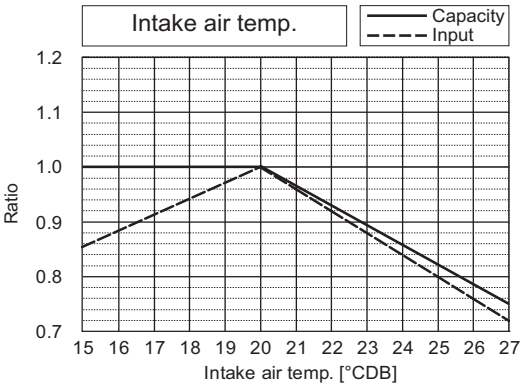


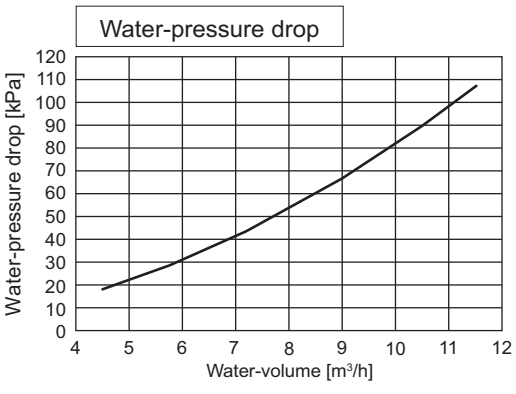


		PQHY-P350YLM-A	PQRY-P350YLM-A
Nominal Heating Capacity	kW	45.0	45.0
	BTU/h	153,500	153,500
Input	kW	7.53	7.53

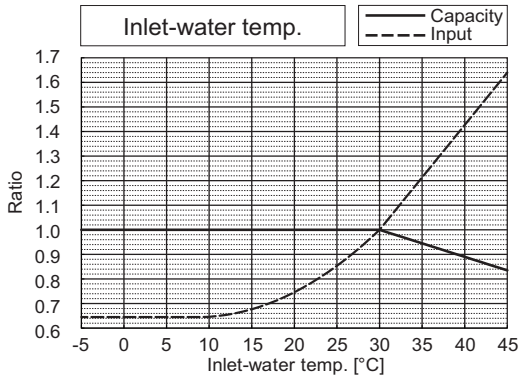


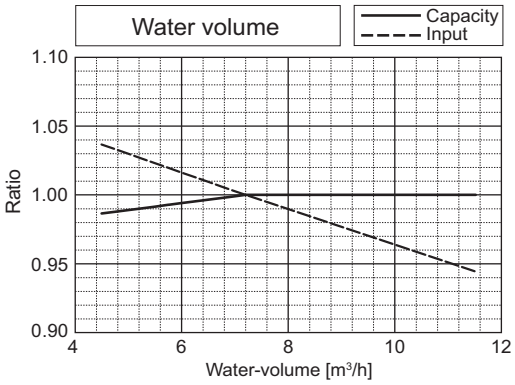


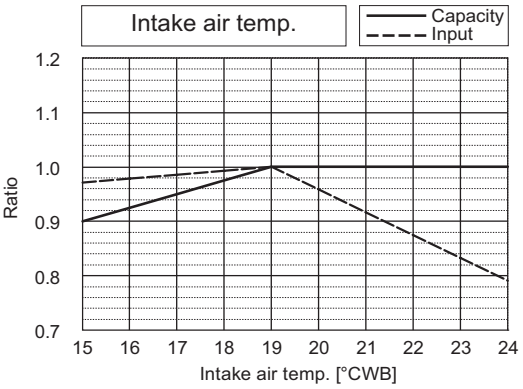


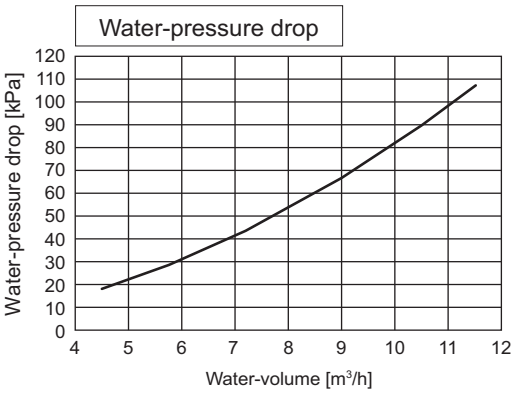


		PQHY-P400YLM-A	PQRY-P400YLM-A
Nominal Cooling Capacity	kW	45.0	45.0
	BTU/h	153,500	153,500
Input	kW	8.03	8.03

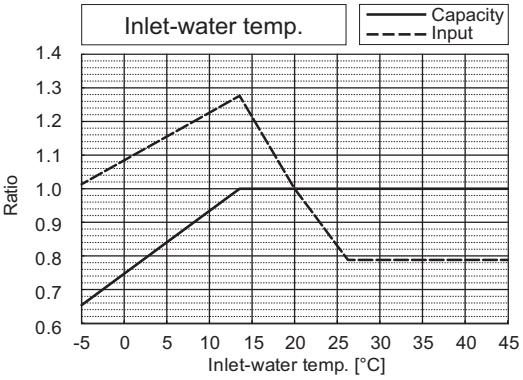


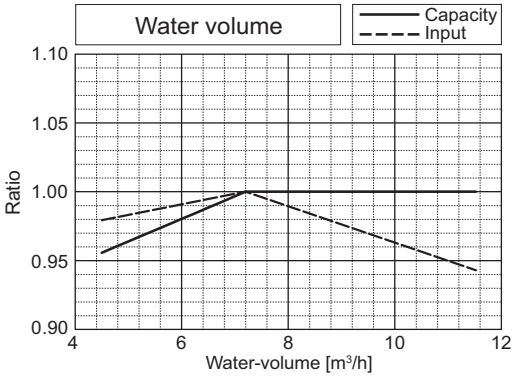


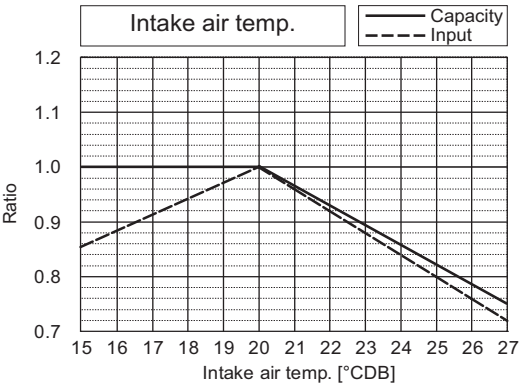


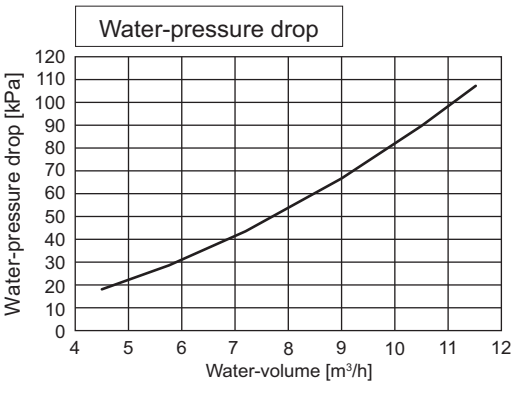


		PQHY-P400YLM-A	PQRY-P400YLM-A
Nominal Heating Capacity	kW	50.0	50.0
	BTU/h	170,600	170,600
Input	kW	8.37	8.37

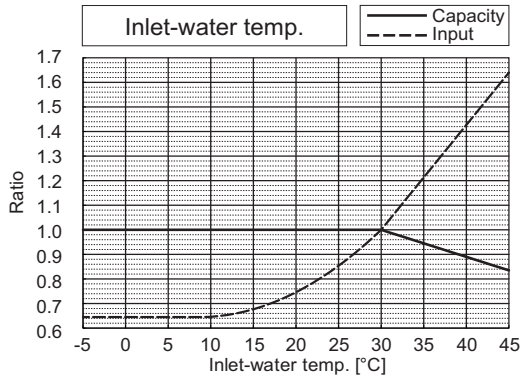


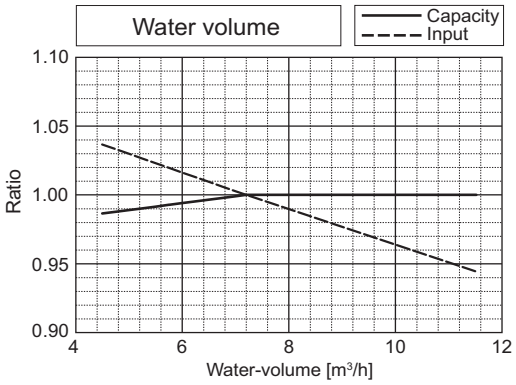


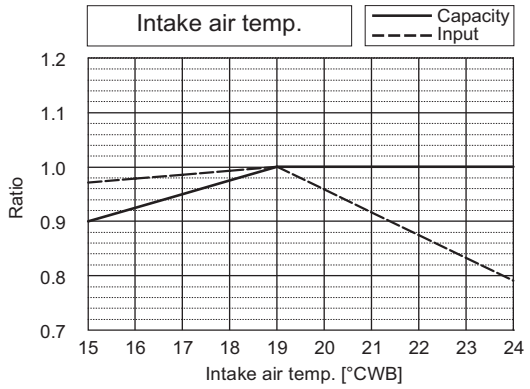


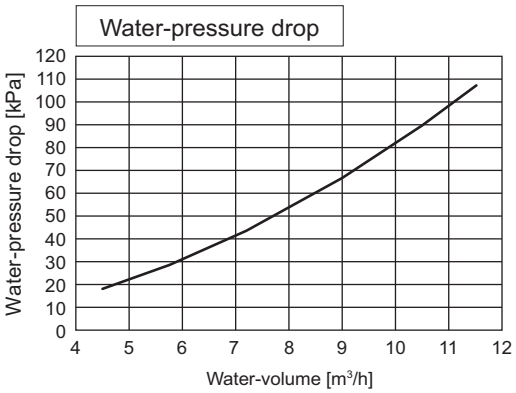


		PQHY-P450YLM-A	PQRY-P450YLM-A
Nominal Cooling Capacity	kW	50.0	50.0
	BTU/h	170,600	170,600
Input	kW	9.29	9.29

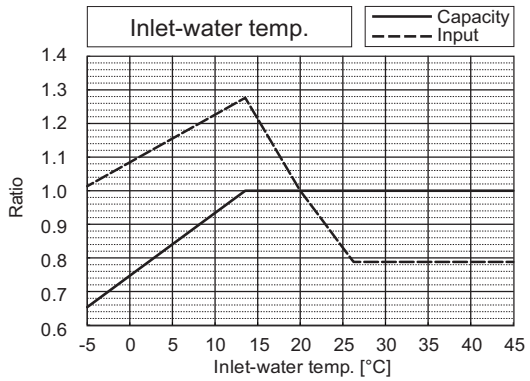


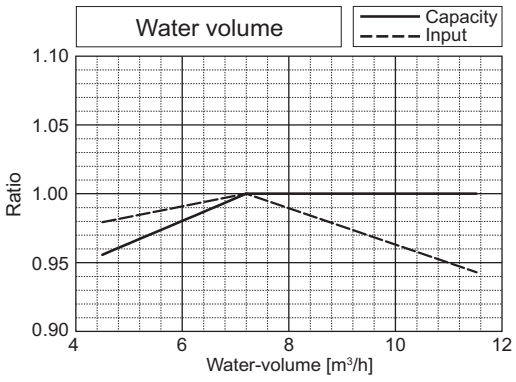


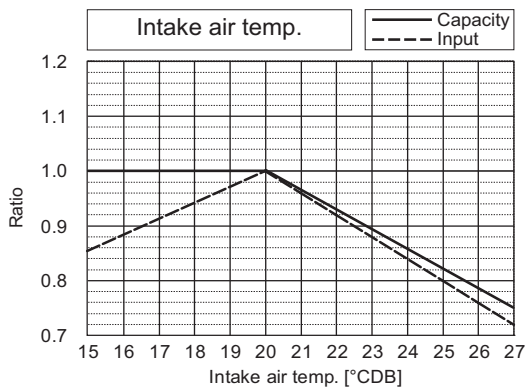


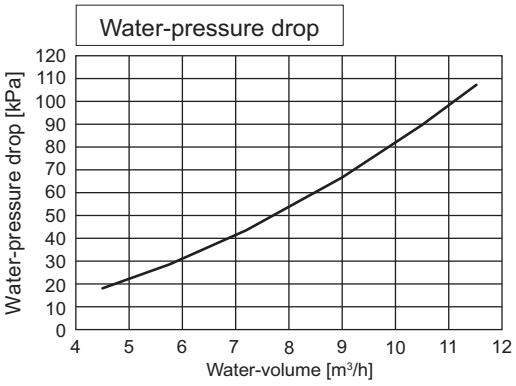


		PQHY-P450YLM-A	PQRY-P450YLM-A
Nominal Heating Capacity	kW	56.0	56.0
	BTU/h	191,100	191,100
Input	kW	9.79	9.79



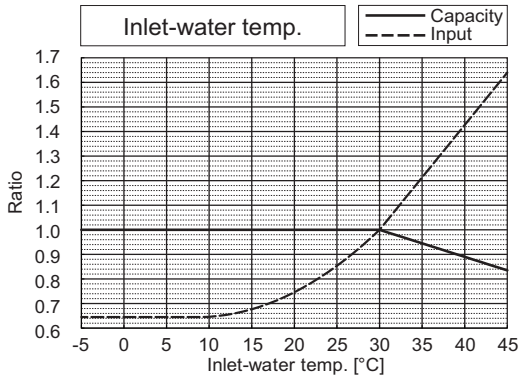


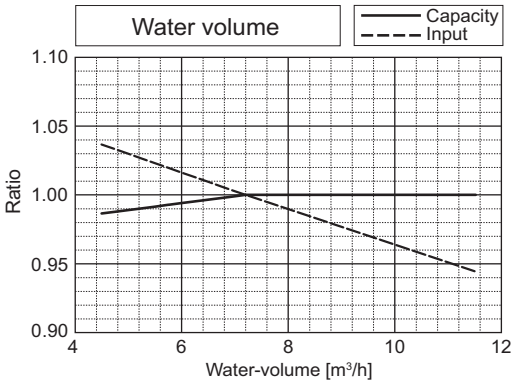


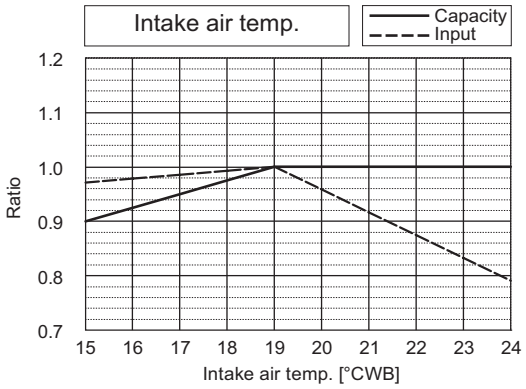


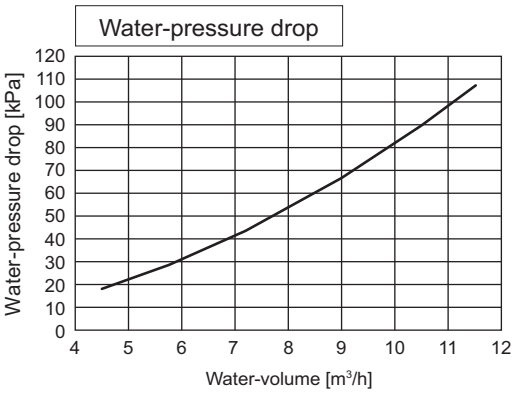
7. CAPACITY TABLES

		PQHY-P500YLM-A	PQRY-P500YLM-A
Nominal Cooling Capacity	kW	56.0	56.0
	BTU/h	191,100	191,100
Input	kW	11.17	11.17

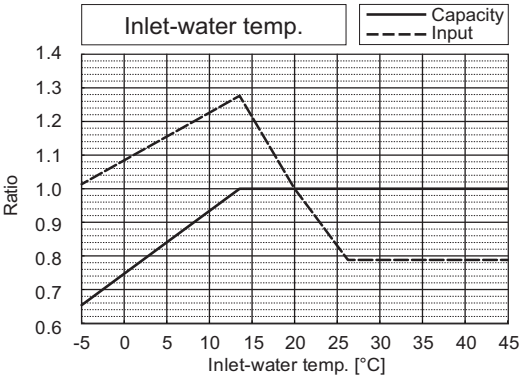


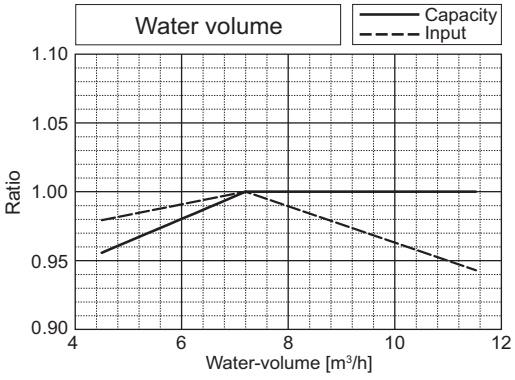


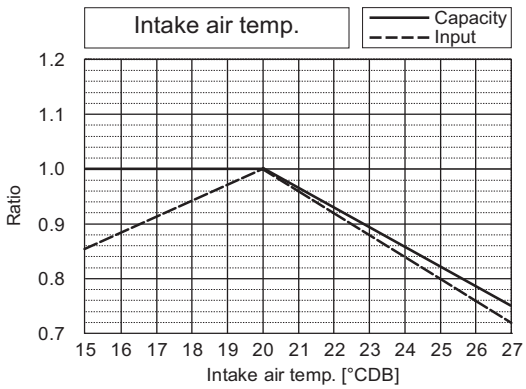


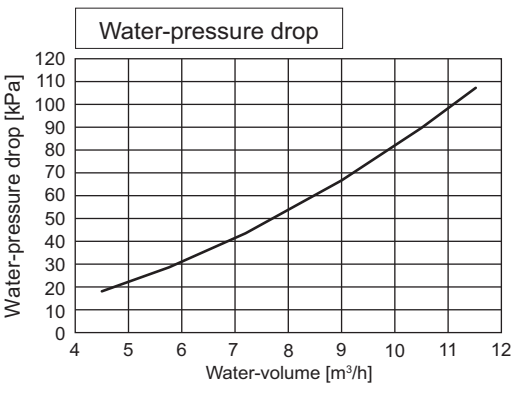


		PQHY-P500YLM-A	PQRY-P500YLM-A
Nominal Heating Capacity	kW	63.0	63.0
	BTU/h	215,000	215,000
Input	kW	11.43	11.43

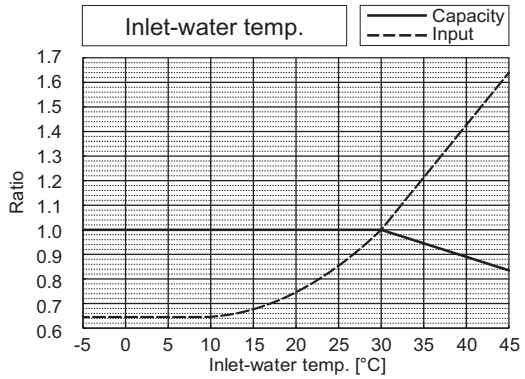


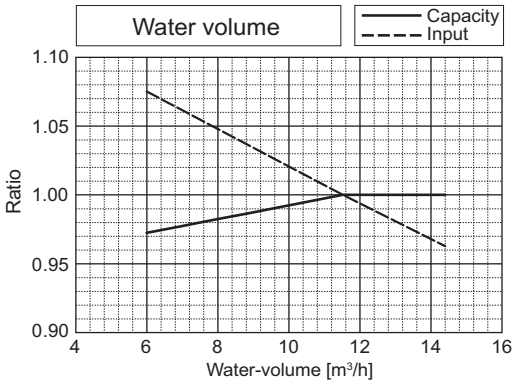


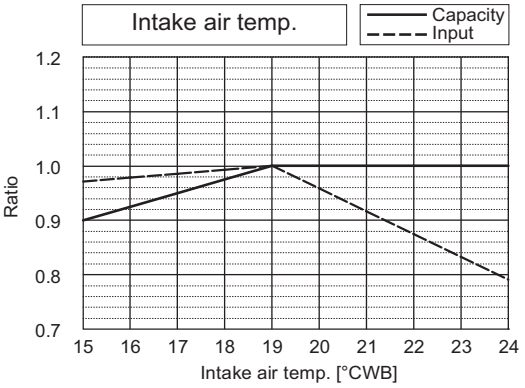


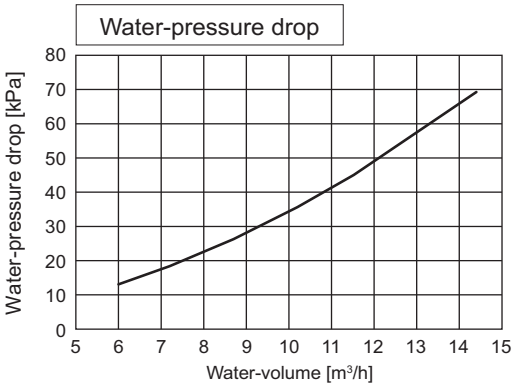


		PQHY-P550YLM-A	PQRY-P550YLM-A
Nominal Cooling Capacity	kW	63.0	63.0
	BTU/h	215,000	215,000
Input	kW	12.54	12.54

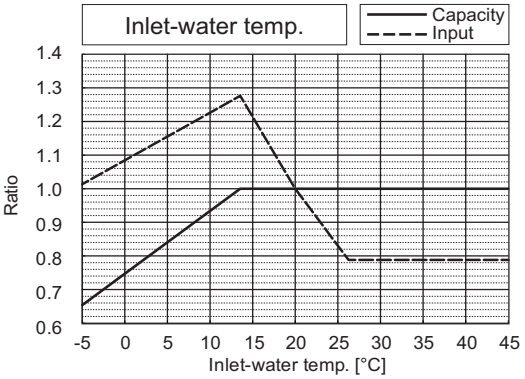


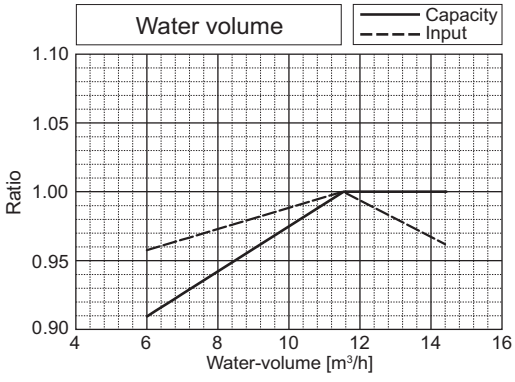


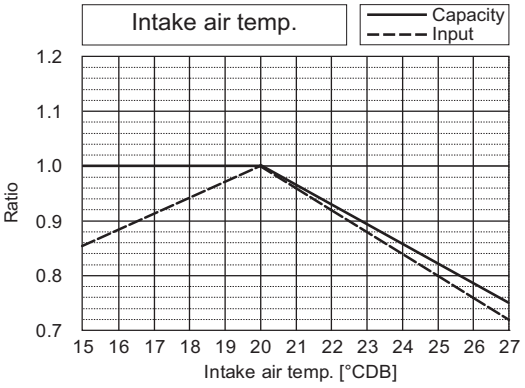


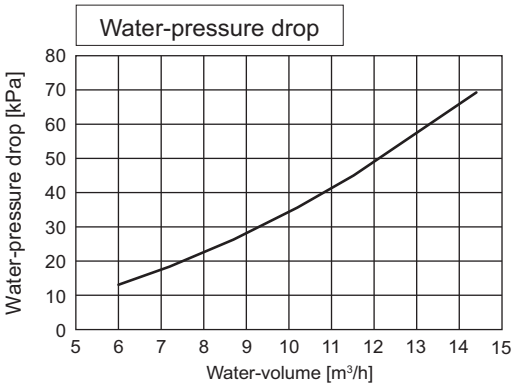


		PQHY-P550YLM-A	PQRY-P550YLM-A
Nominal Heating Capacity	kW	69.0	69.0
	BTU/h	235,400	235,400
Input	kW	12.27	12.27



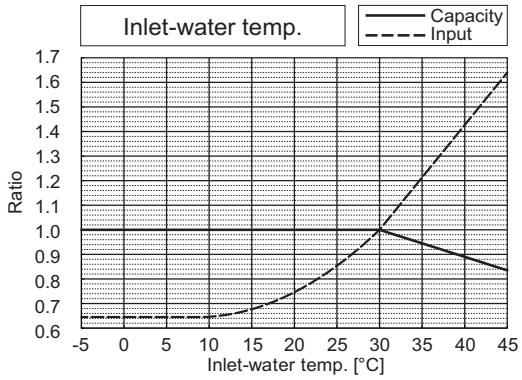


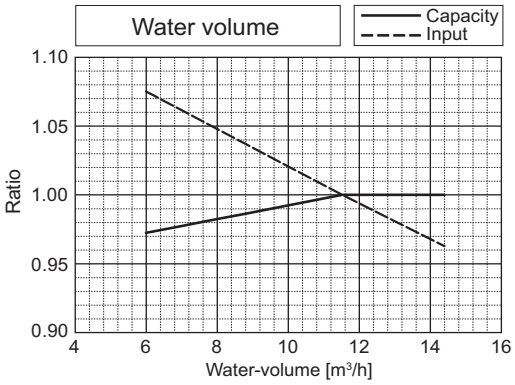


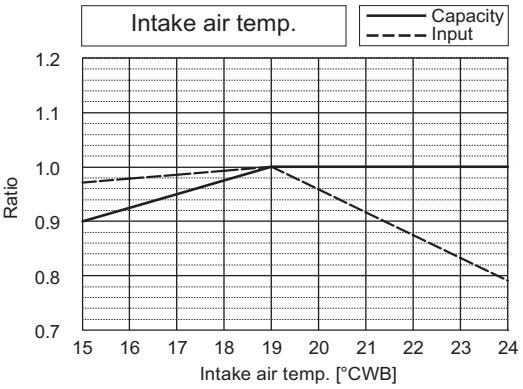


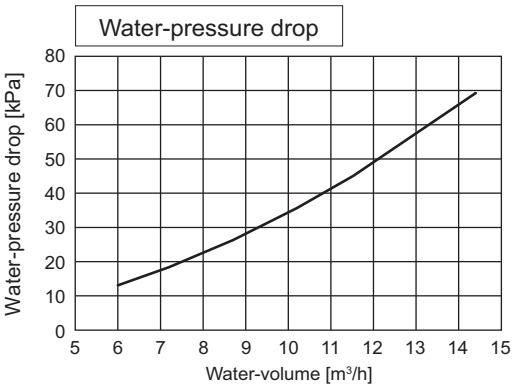
7. CAPACITY TABLES

		PQHY-P600YLM-A	PQRY-P600YLM-A
Nominal Cooling Capacity	kW	69.0	69.0
	BTU/h	235,400	235,400
Input	kW	14.49	14.49

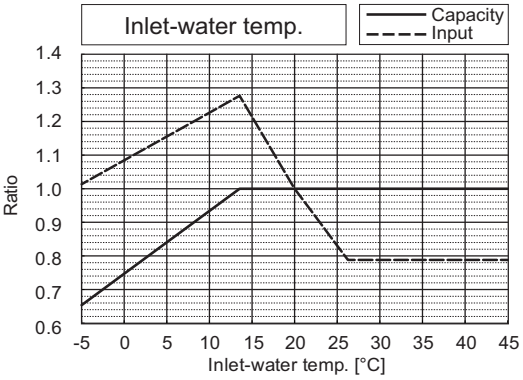


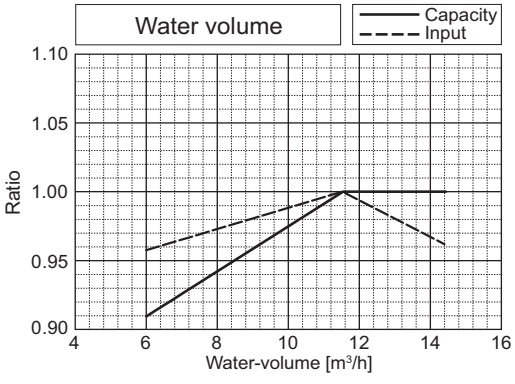


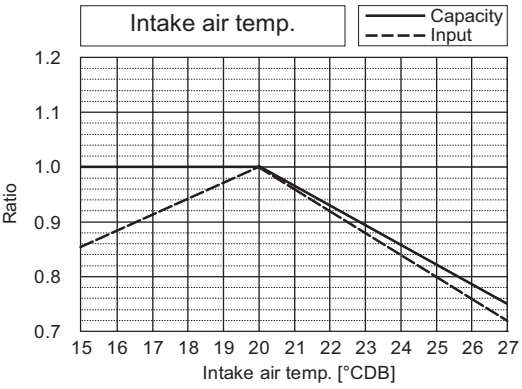


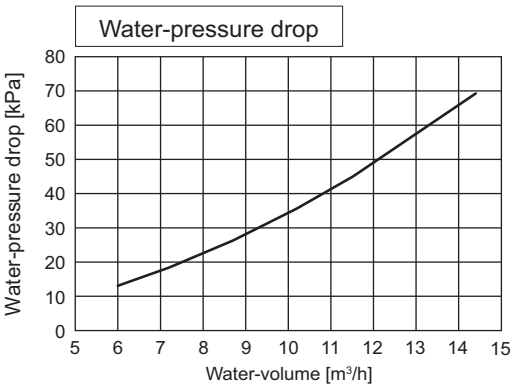


		PQHY-P600YLM-A	PQRY-P600YLM-A
Nominal Heating Capacity	kW	76.5	76.5
	BTU/h	261,000	261,000
Input	kW	14.51	14.51

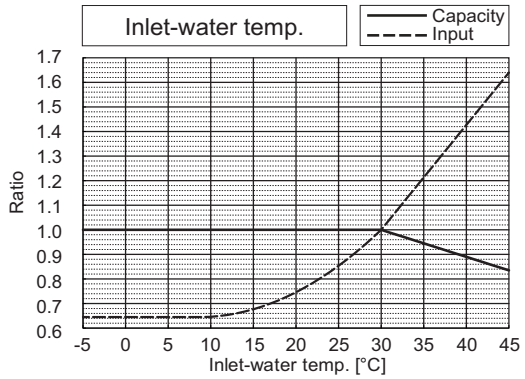


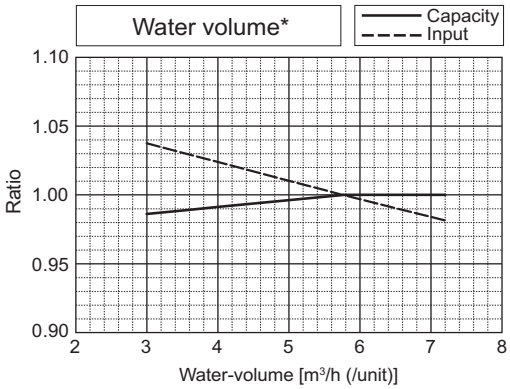


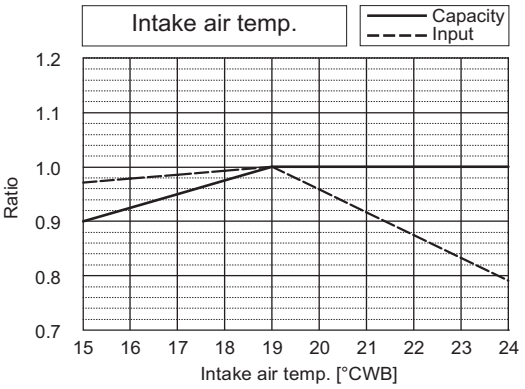


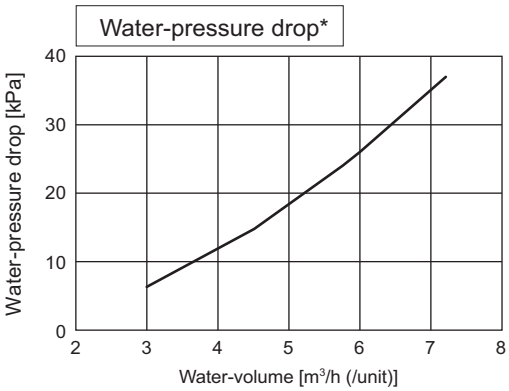


		PQHY-P400YSLM-A	PQRY-P400YSLM-A
Nominal Cooling Capacity	kW	45.0	45.0
	BTU/h	153,500	153,500
Input	kW	7.70	7.70



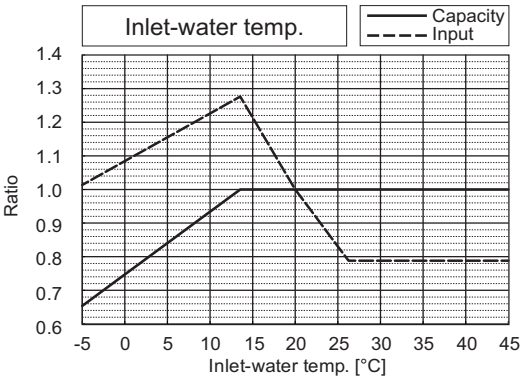


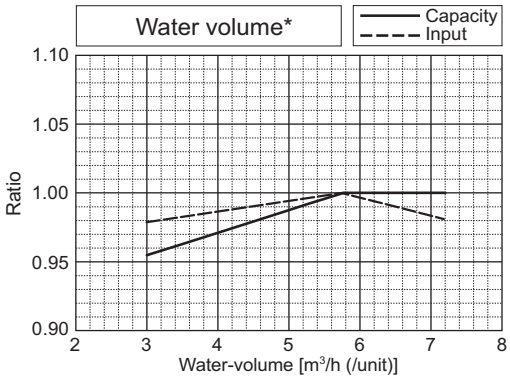


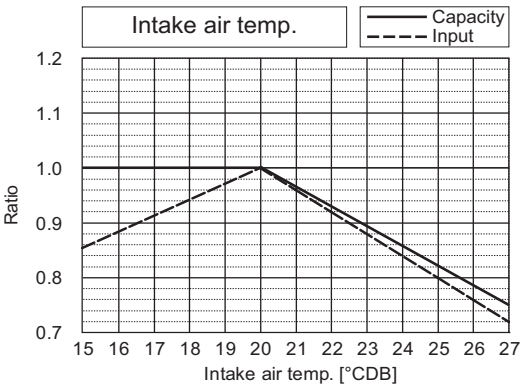


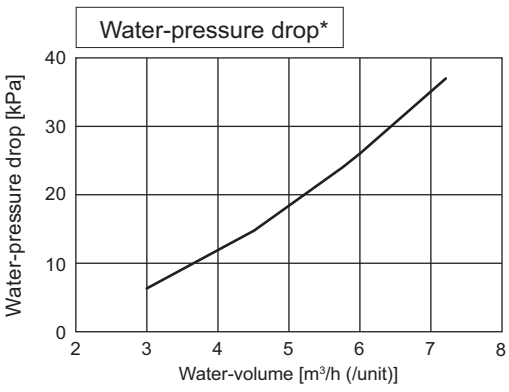
*The drawing indicates characteristic per unit.

		PQHY-P400YSLM-A	PQRY-P400YSLM-A
Nominal Heating Capacity	kW	50.0	50.0
	BTU/h	170,600	170,600
Input	kW	7.94	7.94





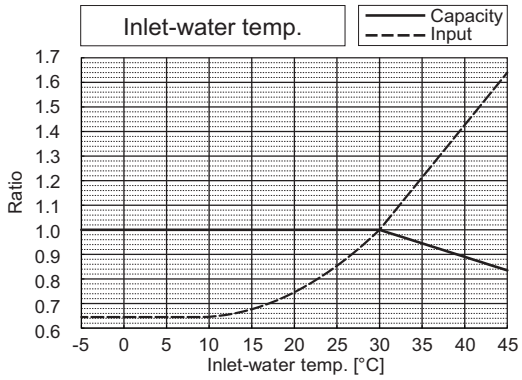


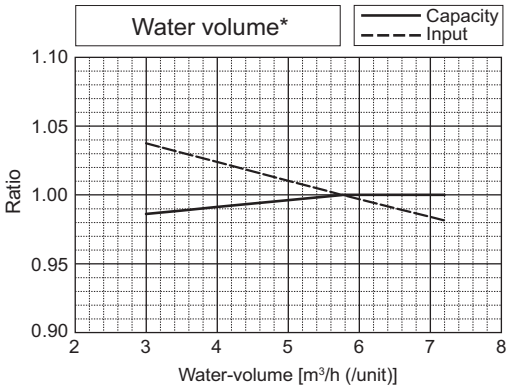


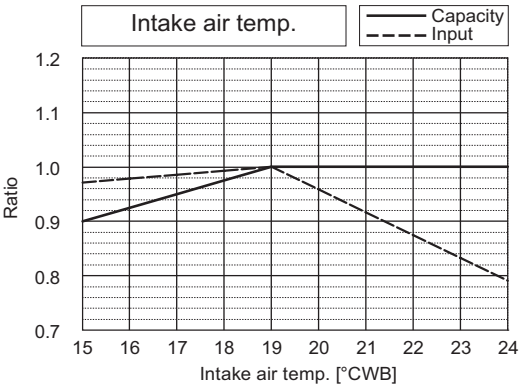
*The drawing indicates characteristic per unit.

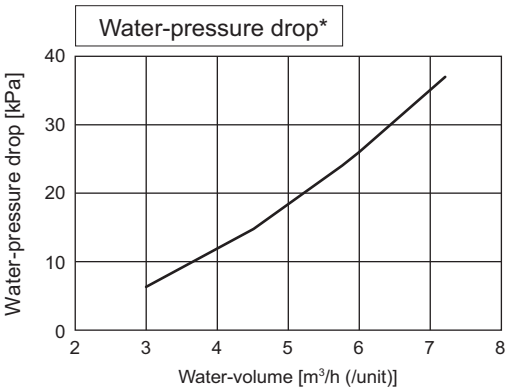
7. CAPACITY TABLES

		PQHY-P450YSLM-A	PQRY-P450YSLM-A
Nominal Cooling Capacity	kW	50.0	50.0
	BTU/h	170,600	170,600
Input	kW	8.78	8.78



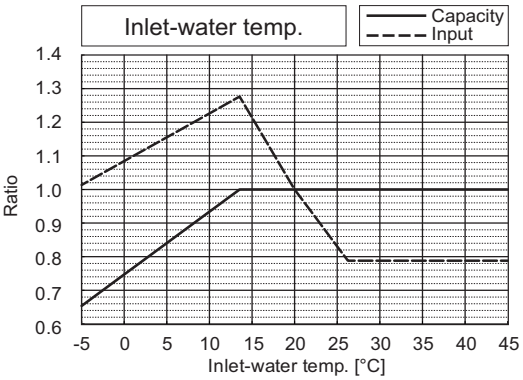


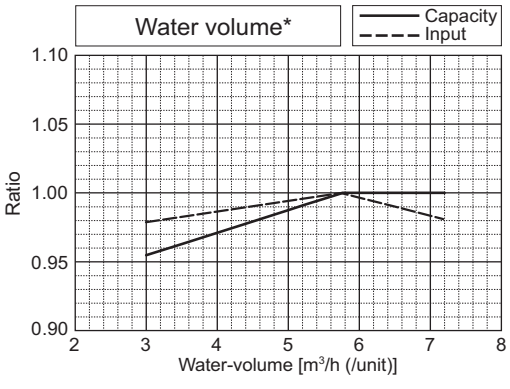


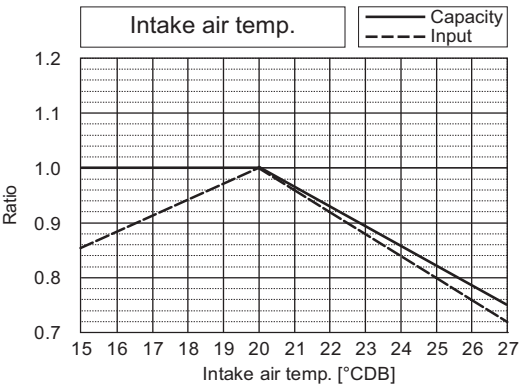


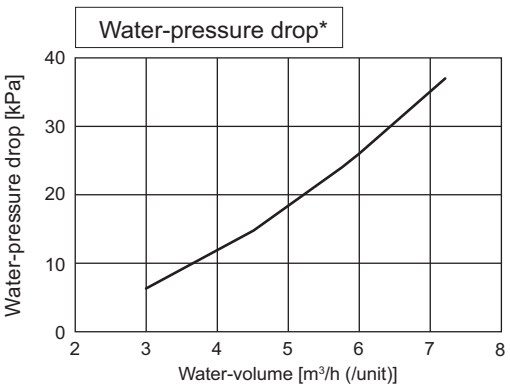
*The drawing indicates characteristic per unit.

		PQHY-P450YSLM-A	PQRY-P450YSLM-A
Nominal Heating Capacity	kW	56.0	56.0
	BTU/h	191,100	191,100
Input	kW	8.97	8.97



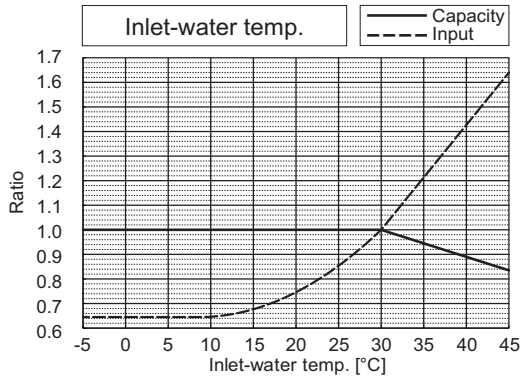


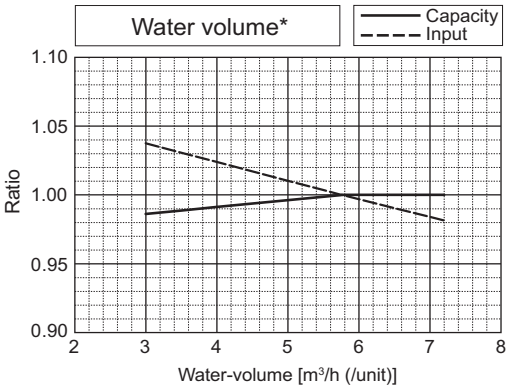


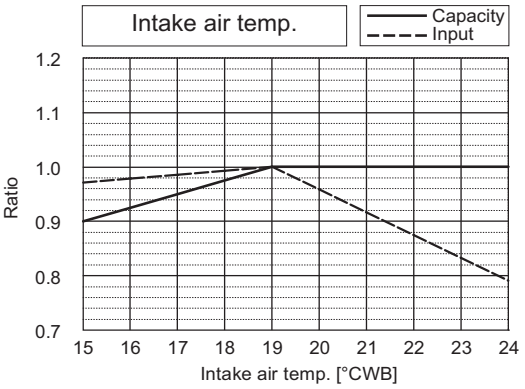


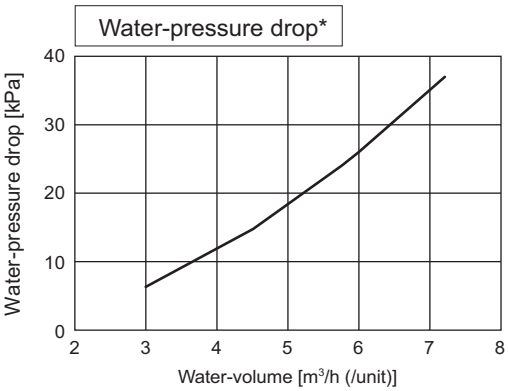
*The drawing indicates characteristic per unit.

		PQHY-P500YSLM-A	PQRY-P500YSLM-A
Nominal Cooling Capacity	kW	56.0	56.0
	BTU/h	191,100	191,100
Input	kW	10.12	10.12



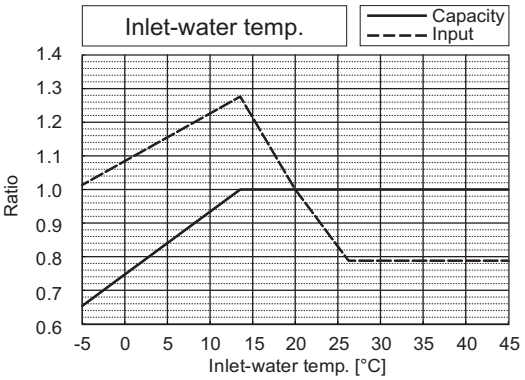


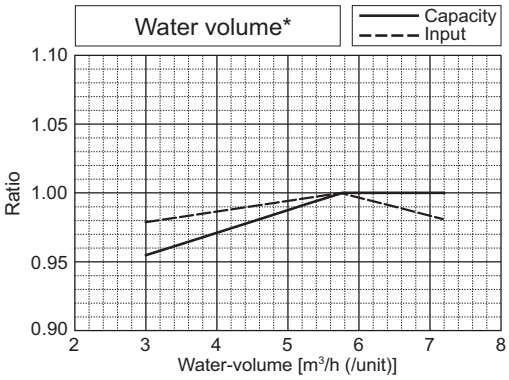


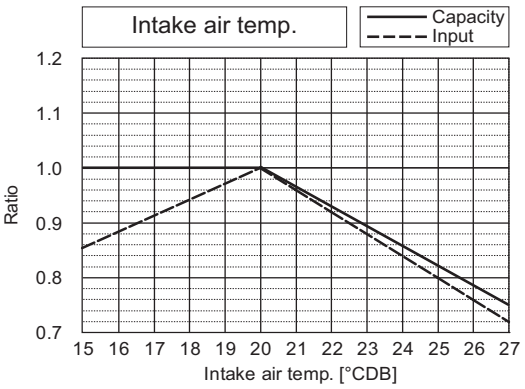


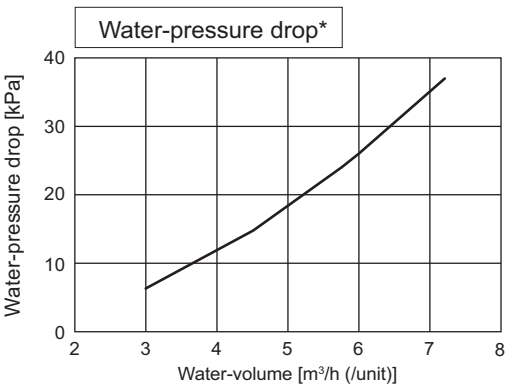
*The drawing indicates characteristic per unit.

		PQHY-P500YSLM-A	PQRY-P500YSLM-A
Nominal Heating Capacity	kW	63.0	63.0
	BTU/h	215,000	215,000
Input	kW	10.16	10.16





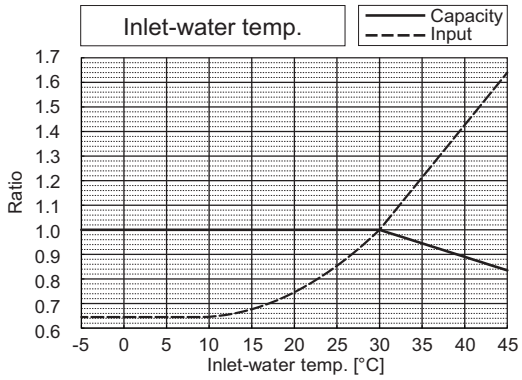


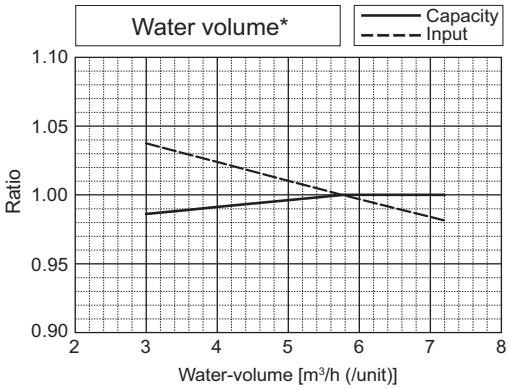


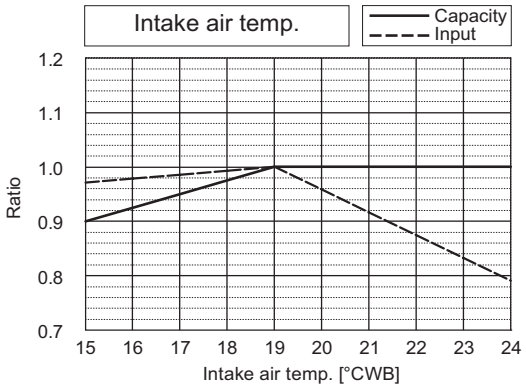
*The drawing indicates characteristic per unit.

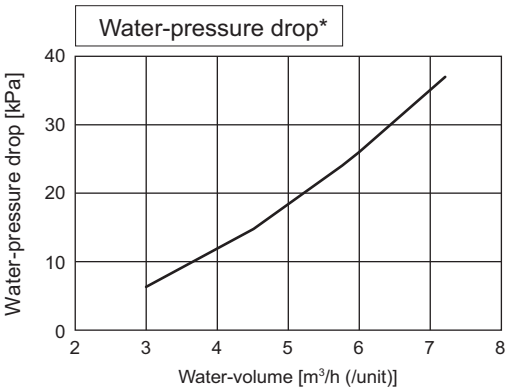
7. CAPACITY TABLES

		PQHY-P550YSLM-A	PQRY-P550YSLM-A
Nominal Cooling Capacity	kW	63.0	63.0
	BTU/h	215,000	215,000
Input	kW	11.55	11.55



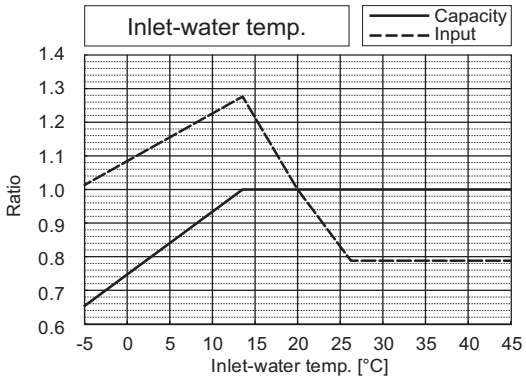


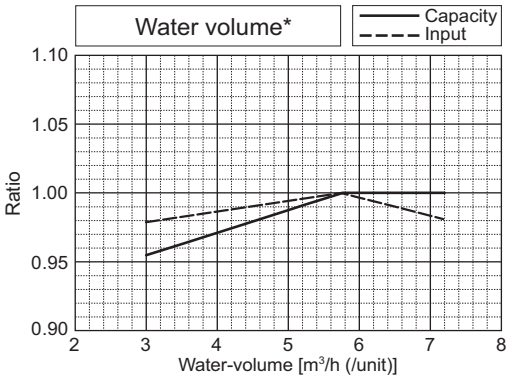


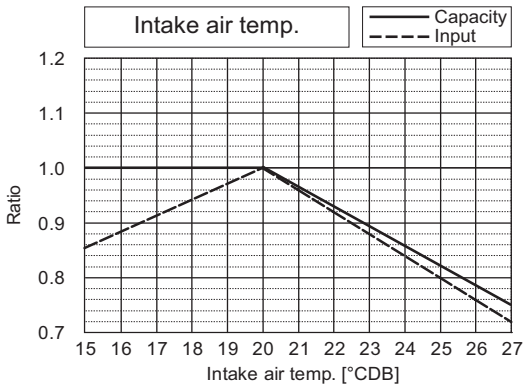


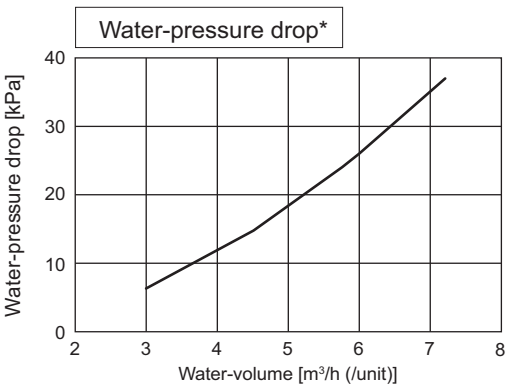
*The drawing indicates characteristic per unit.

		PQHY-P550YSLM-A	PQRY-P550YSLM-A
Nominal Heating Capacity	kW	69.0	69.0
	BTU/h	235,400	235,400
Input	kW	11.31	11.31



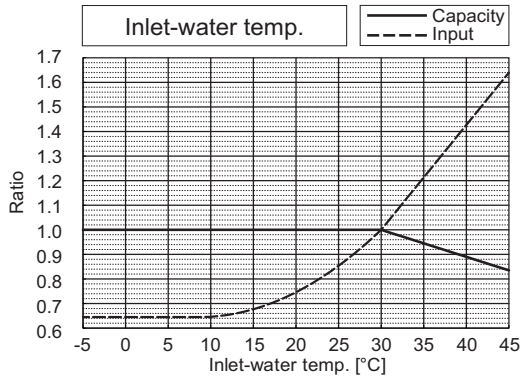


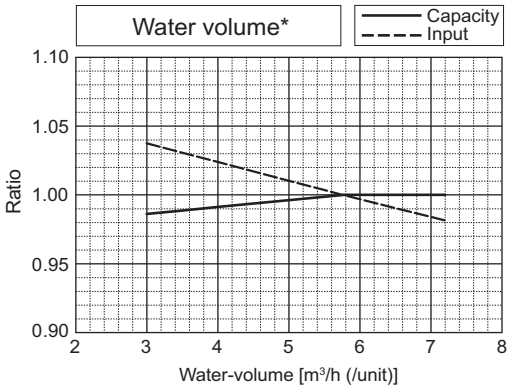


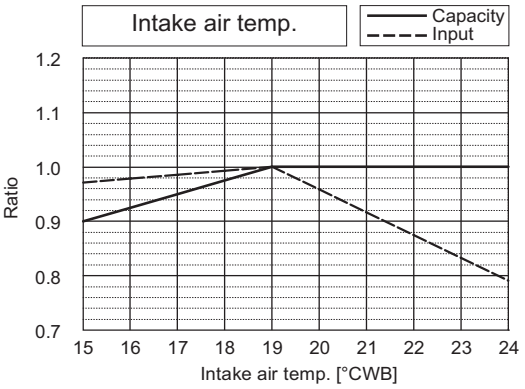


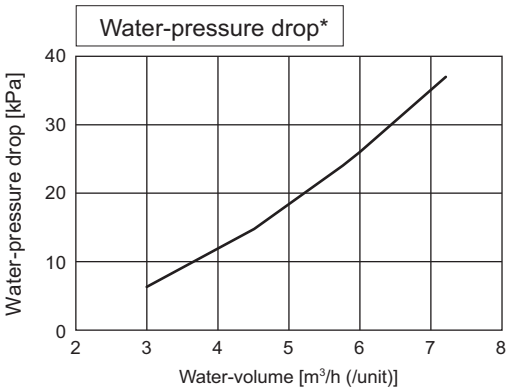
*The drawing indicates characteristic per unit.

		PQHY-P600YSLM-A	PQRY-P600YSLM-A
Nominal Cooling Capacity	kW	69.0	69.0
	BTU/h	235,400	235,400
Input	kW	12.84	12.84



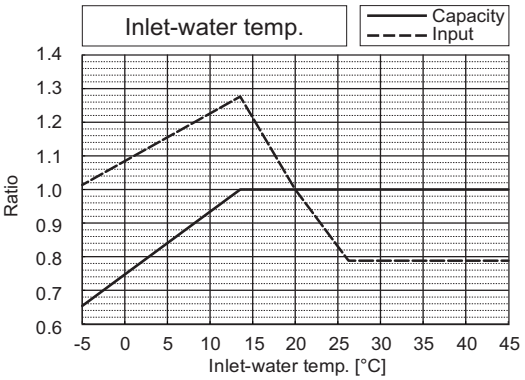


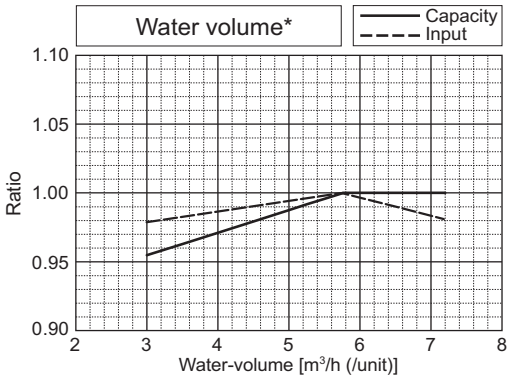


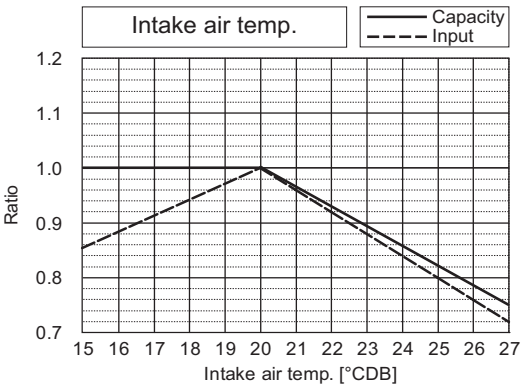


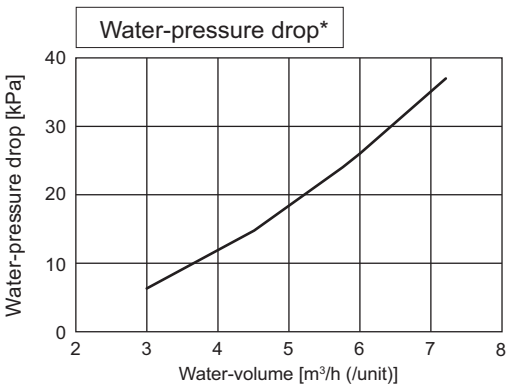
*The drawing indicates characteristic per unit.

		PQHY-P600YSLM-A	PQRY-P600YSLM-A
Nominal Heating Capacity	kW	76.5	76.5
	BTU/h	261,000	261,000
Input	kW	12.75	12.75





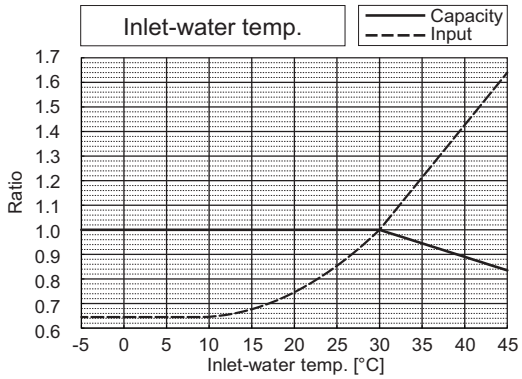


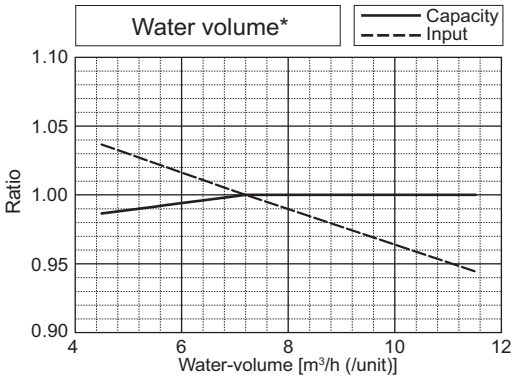


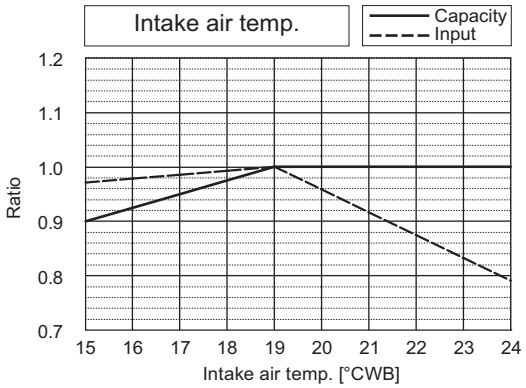
*The drawing indicates characteristic per unit.

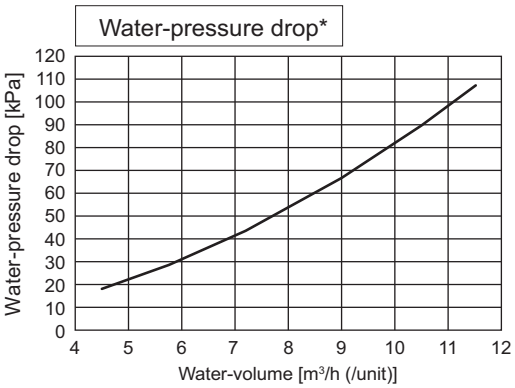
7. CAPACITY TABLES

		PQHY-P700YSLM-A	PQRY-P700YSLM-A
Nominal Cooling Capacity	kW	80.0	80.0
	BTU/h	273,000	273,000
Input	kW	14.73	14.73



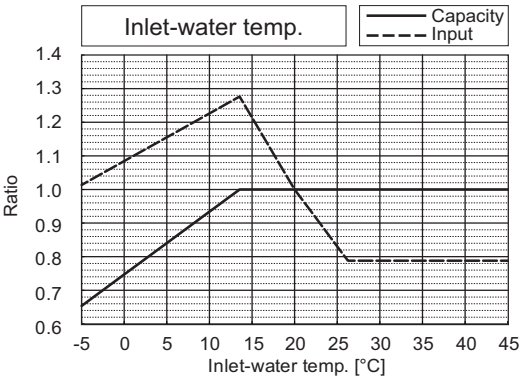


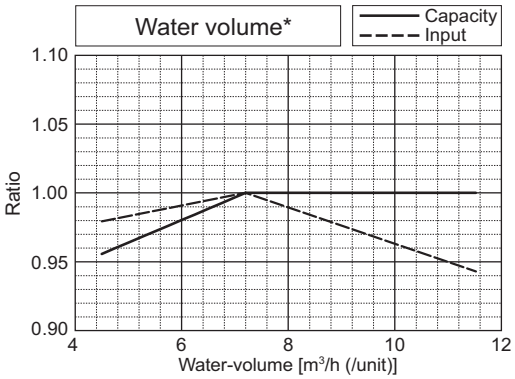


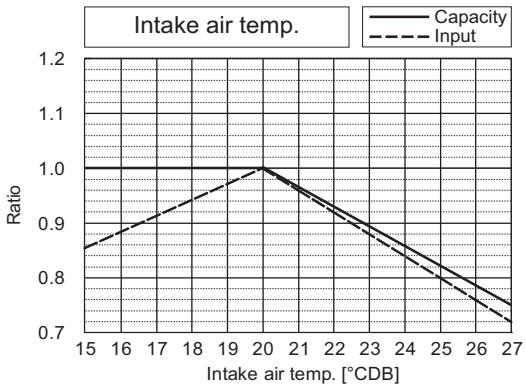


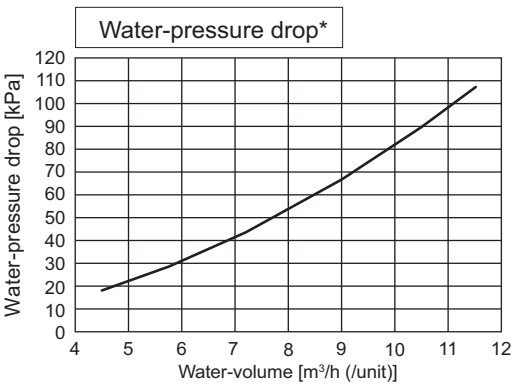
*The drawing indicates characteristic per unit.

		PQHY-P700YSLM-A	PQRY-P700YSLM-A
Nominal Heating Capacity	kW	88.0	88.0
	BTU/h	300,300	300,300
Input	kW	14.73	14.73



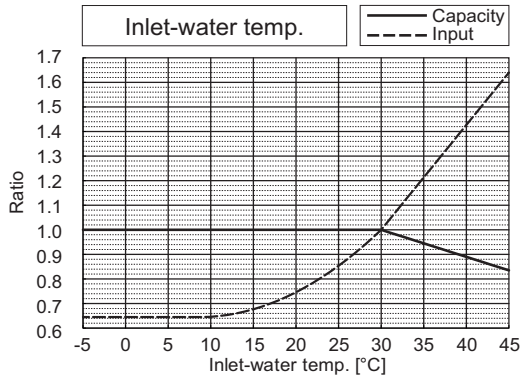


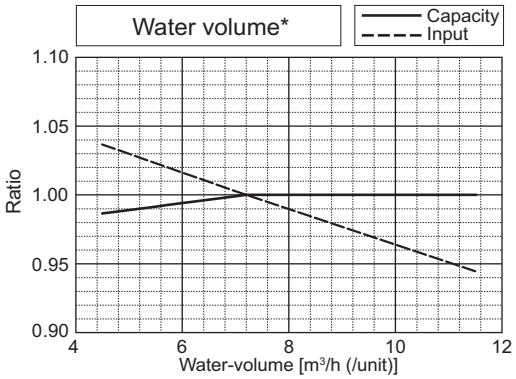


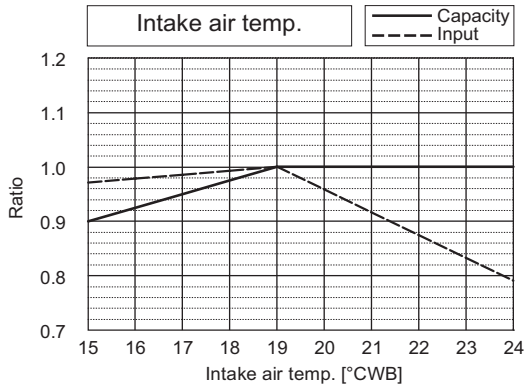


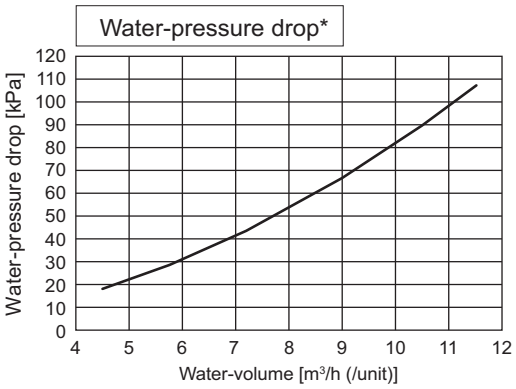
*The drawing indicates characteristic per unit.

		PQHY-P750YSLM-A	PQRY-P750YSLM-A
Nominal Cooling Capacity	kW	85.0	85.0
	BTU/h	290,000	290,000
Input	kW	15.64	15.64



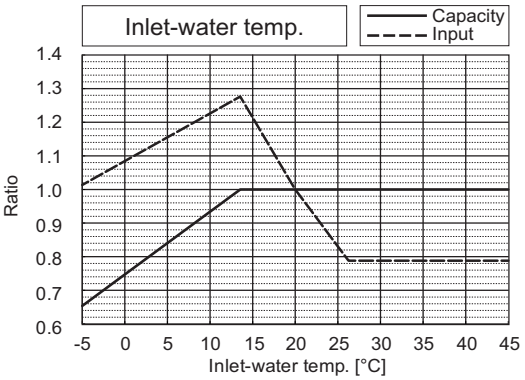


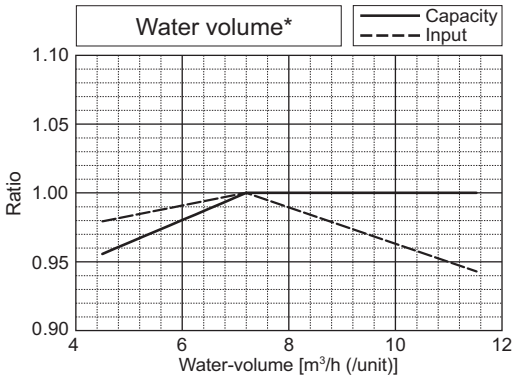


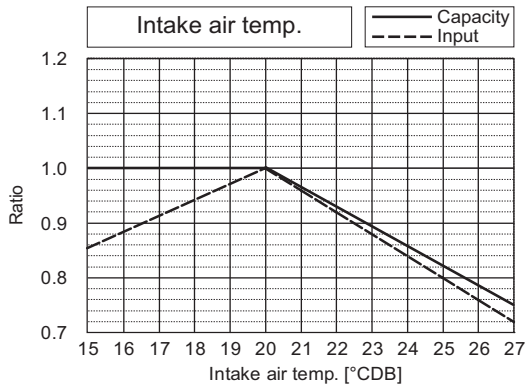


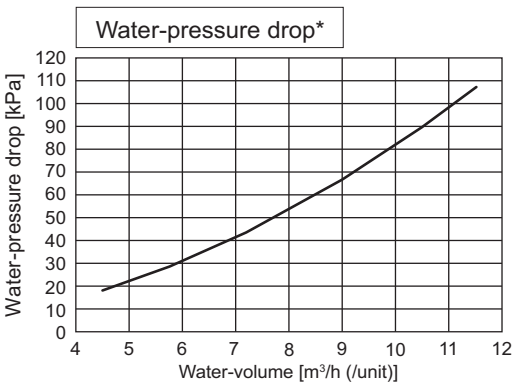
*The drawing indicates characteristic per unit.

		PQHY-P750YSLM-A	PQRY-P750YSLM-A
Nominal Heating Capacity	kW	95.0	95.0
	BTU/h	324,100	324,100
Input	kW	15.90	15.90





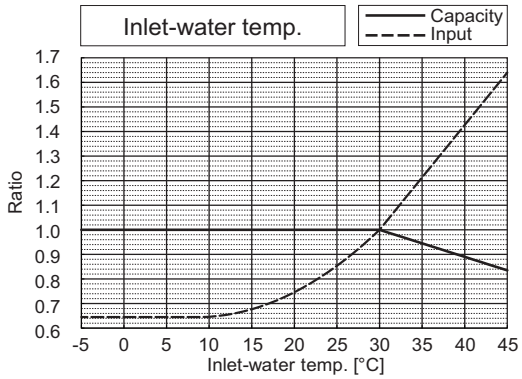


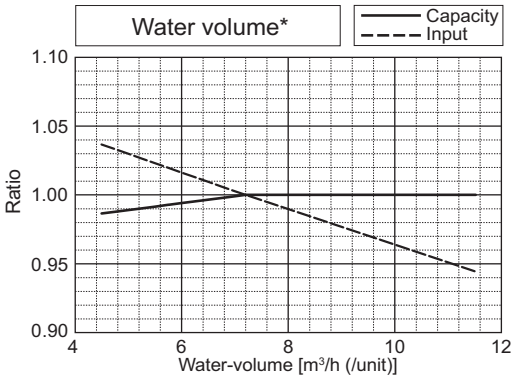


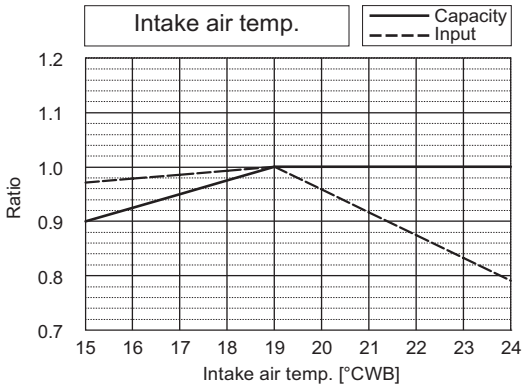
*The drawing indicates characteristic per unit.

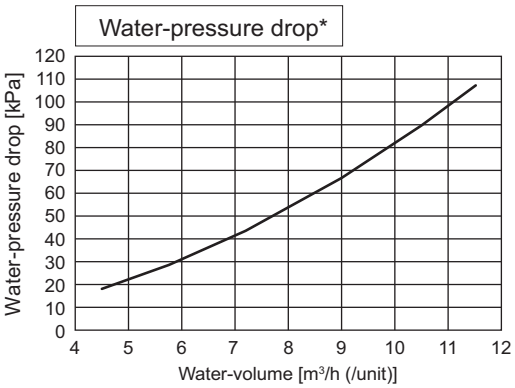
7. CAPACITY TABLES

		PQHY-P800YSLM-A	PQRY-P800YSLM-A
Nominal Cooling Capacity	kW	90.0	90.0
	BTU/h	307,100	307,100
Input	kW	16.57	16.57



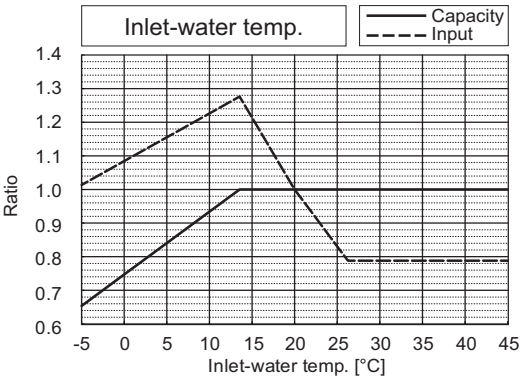


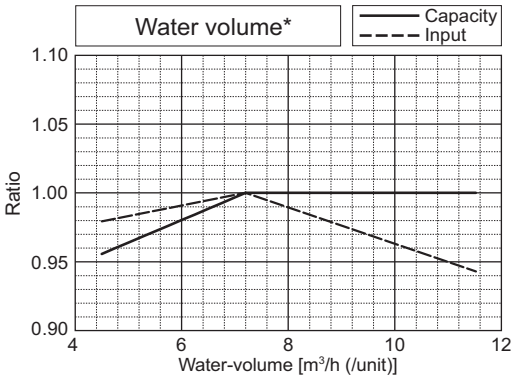


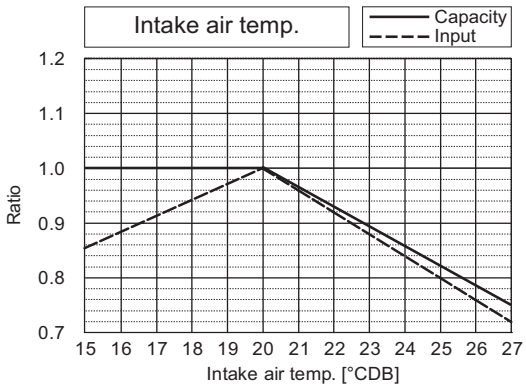


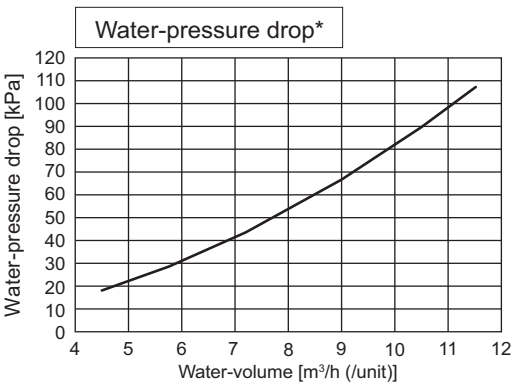
*The drawing indicates characteristic per unit.

		PQHY-P800YSLM-A	PQRY-P800YSLM-A
Nominal Heating Capacity	kW	100.0	100.0
	BTU/h	341,200	341,200
Input	kW	16.75	16.75



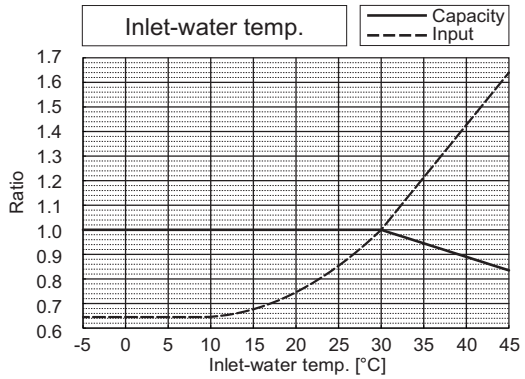


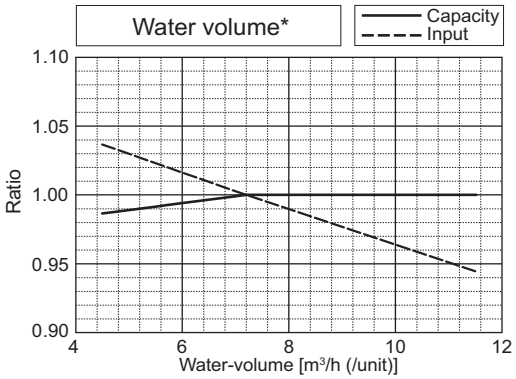


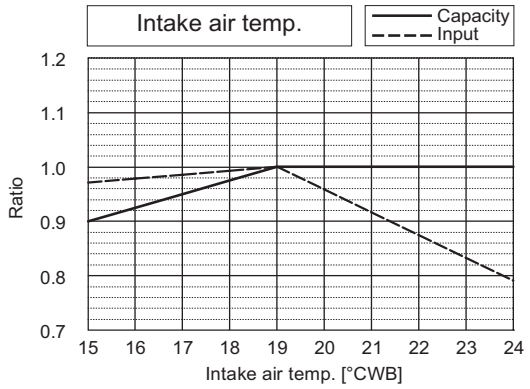


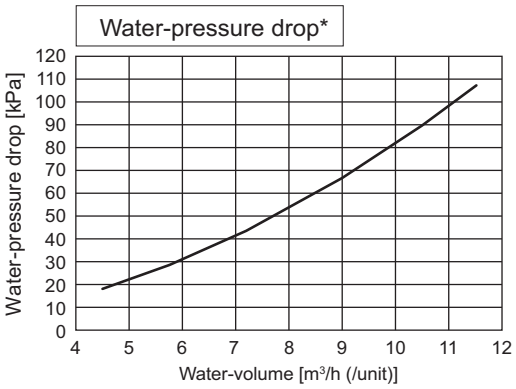
*The drawing indicates characteristic per unit.

		PQHY-P850YSLM-A	PQRY-P850YSLM-A
Nominal Cooling Capacity	kW	96.0	96.0
	BTU/h	327,600	327,600
Input	kW	18.03	18.03



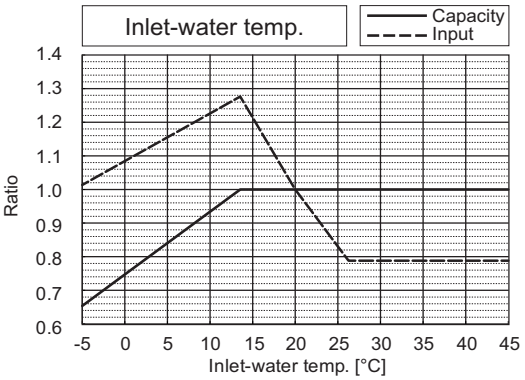


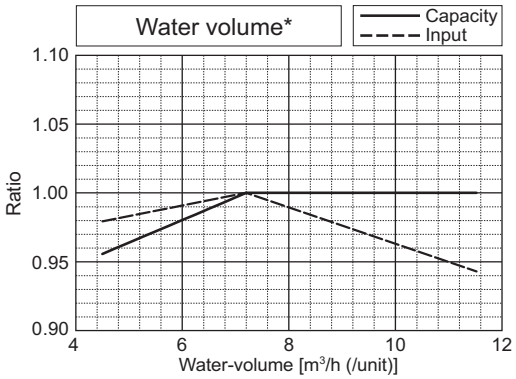


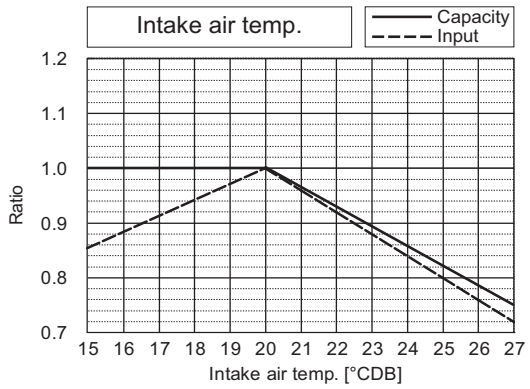


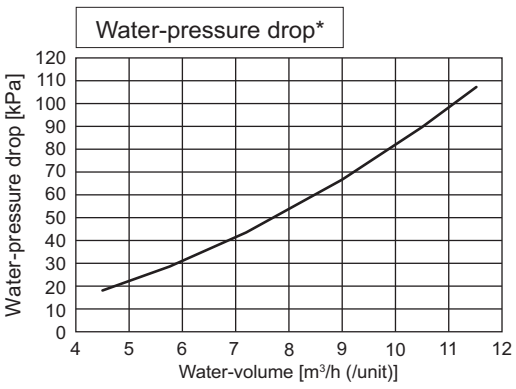
*The drawing indicates characteristic per unit.

		PQHY-P850YSLM-A	PQRY-P850YSLM-A
Nominal Heating Capacity	kW	108.0	108.0
	BTU/h	368,500	368,500
Input	kW	18.49	18.49





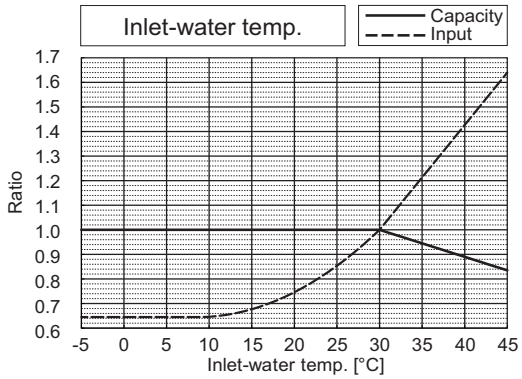


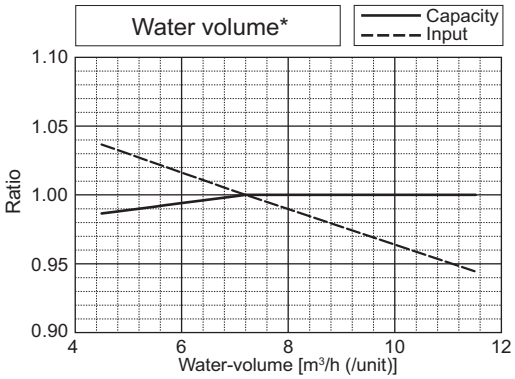


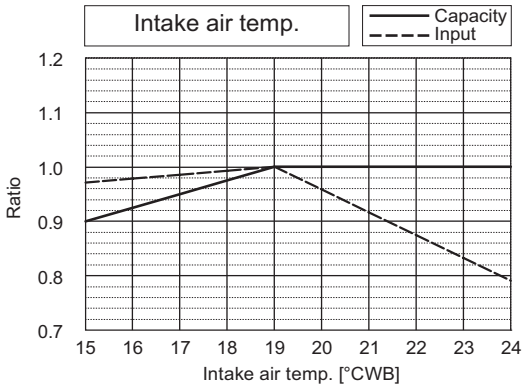
*The drawing indicates characteristic per unit.

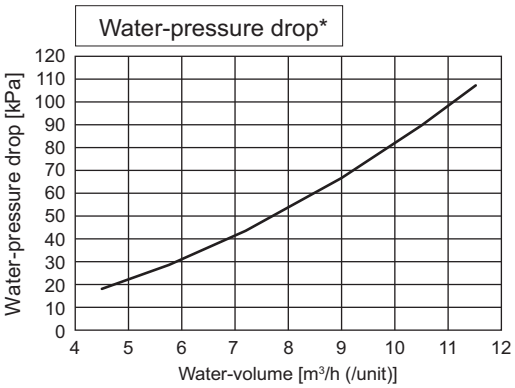
7. CAPACITY TABLES

		PQHY-P900YSLM-A	PQRY-P900YSLM-A
Nominal Cooling Capacity	kW	101.0	101.0
	BTU/h	344,600	344,600
Input	kW	19.38	19.38



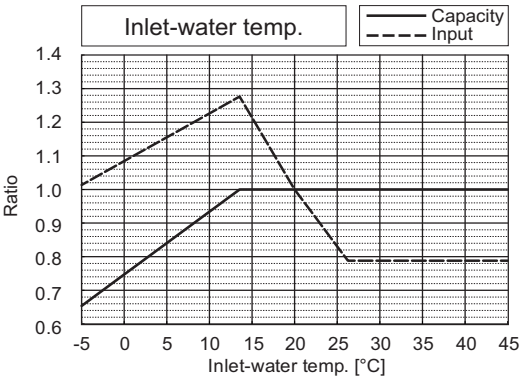


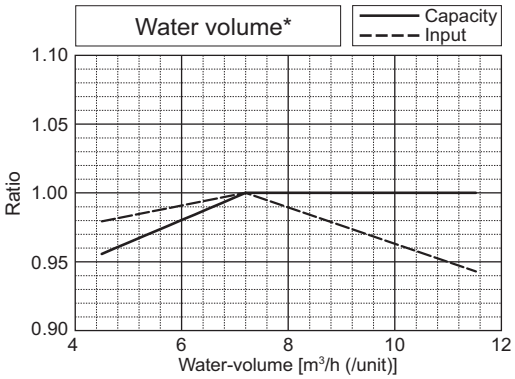


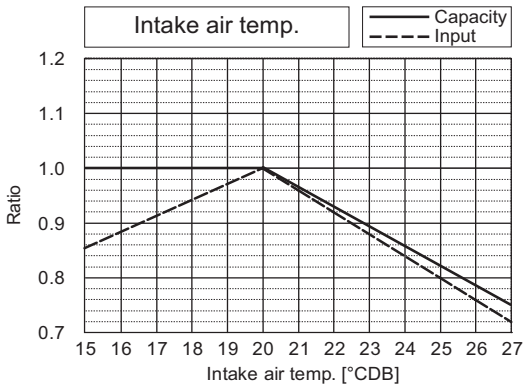


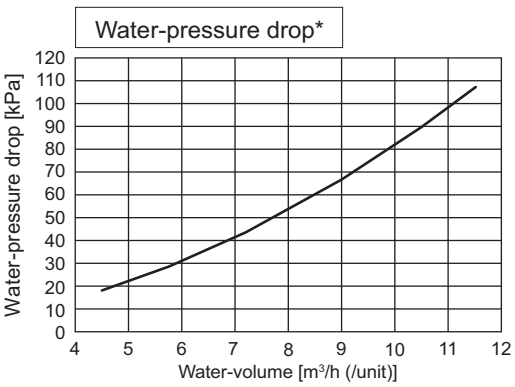
*The drawing indicates characteristic per unit.

		PQHY-P900YSLM-A	PQRY-P900YSLM-A
Nominal Heating Capacity	kW	113.0	113.0
	BTU/h	385,600	385,600
Input	kW	19.74	19.74









*The drawing indicates characteristic per unit.

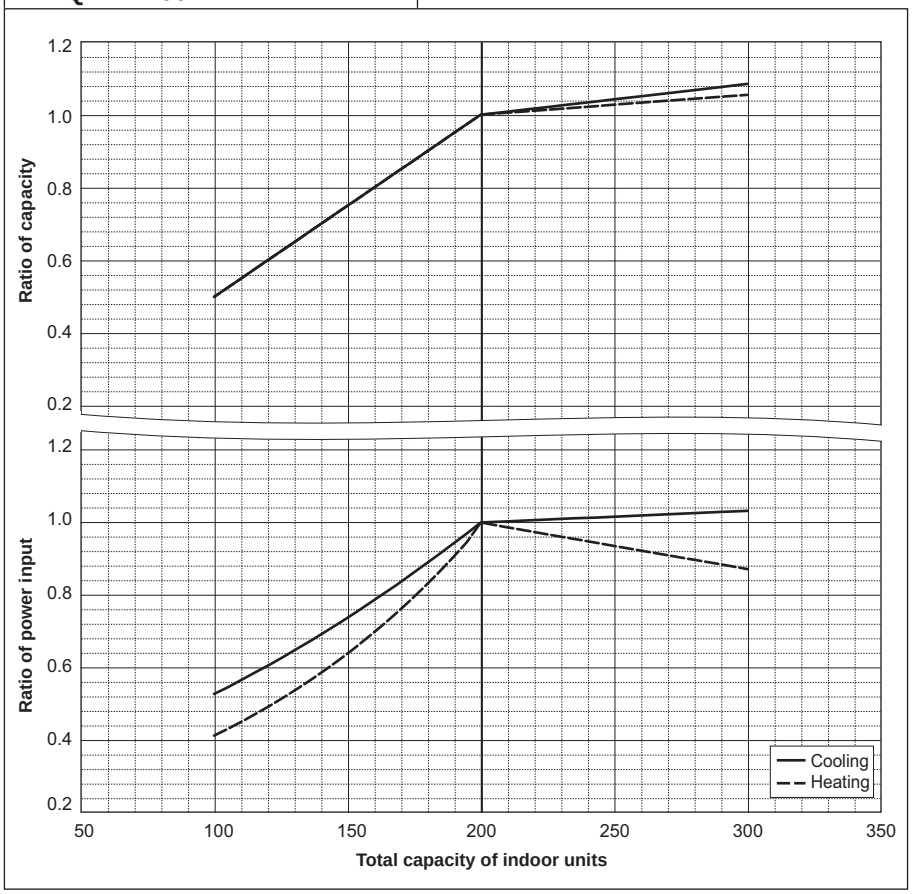
7-2. Correction by total indoor

CITY MULTI system have different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

PQRY-P200YLM-A		
Nominal Cooling Capacity	kW	22.4
	BTU/h	76,400
Input	kW	3.71

PQRY-P200YLM-A		
Nominal Heating Capacity	kW	25.0
	BTU/h	85,300
Input	kW	3.97

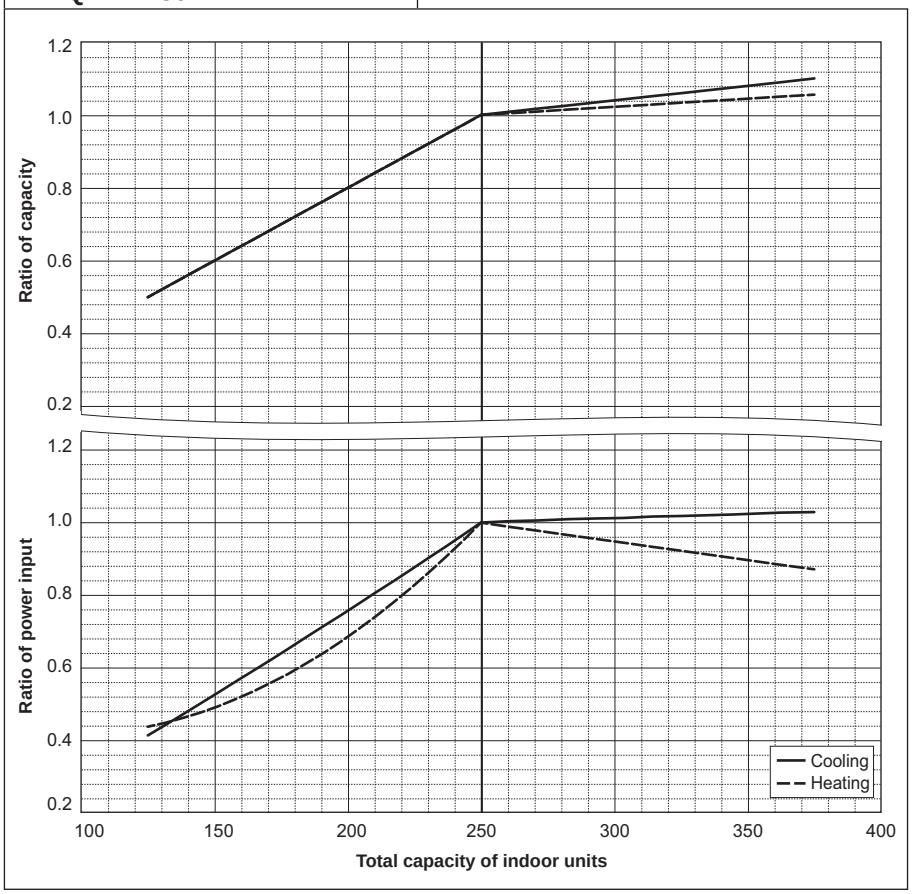
PQRY-P200YLM-A



PQRY-P250YLM-A		
Nominal Cooling Capacity	kW	28.0
	BTU/h	95,500
Input	kW	4.90

PQRY-P250YLM-A		
Nominal Heating Capacity	kW	31.5
	BTU/h	107,500
Input	kW	5.08

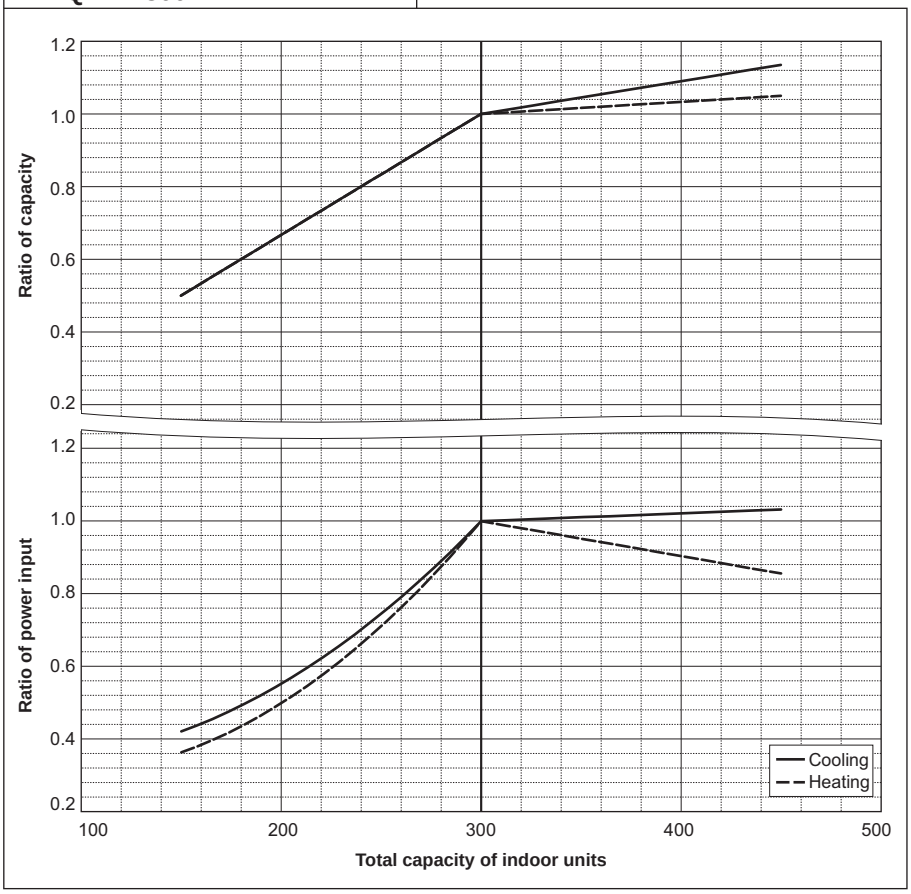
PQRY-P250YLM-A



PQRY-P300YLM-A		
Nominal Cooling Capacity	kW	33.5
	BTU/h	114,300
Input	kW	6.04

PQRY-P300YLM-A		
Nominal Heating Capacity	kW	37.5
	BTU/h	128,000
Input	kW	6.25

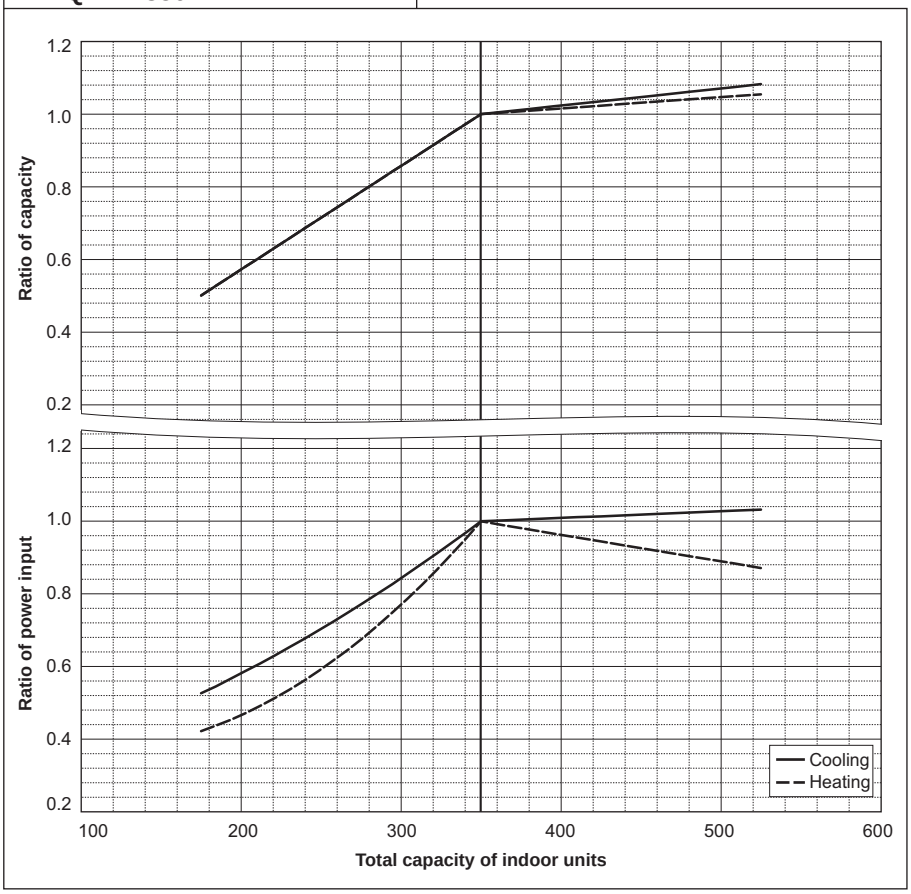
PQRY-P300YLM-A



PQRY-P350YLM-A		
Nominal Cooling Capacity	kW	40.0
	BTU/h	136,500
Input	kW	7.14

PQRY-P350YLM-A		
Nominal Heating Capacity	kW	45.0
	BTU/h	153,500
Input	kW	7.53

PQRY-P350YLM-A



7. CAPACITY TABLES

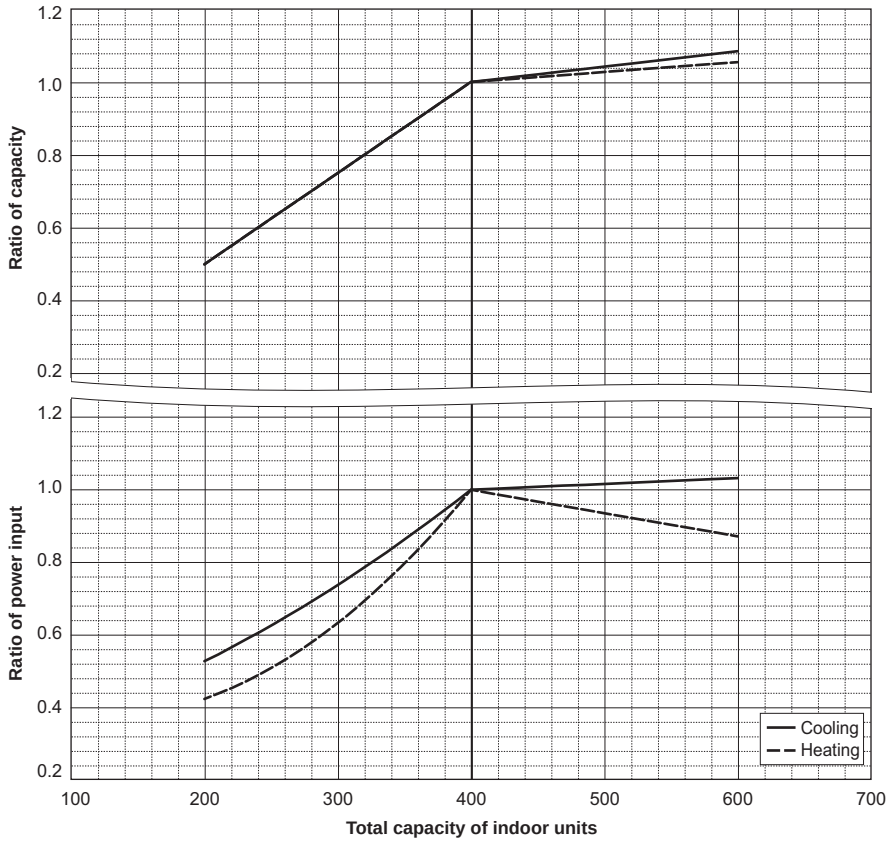
PQRY-P400YLM-A		
Nominal Cooling Capacity	kW	45.0
	BTU/h	153,500
Input	kW	8.03

PQRY-P400YLM-A		
Nominal Heating Capacity	kW	50.0
	BTU/h	170,600
Input	kW	8.37

PQRY-P400YSLM-A		
Nominal Cooling Capacity	kW	45.0
	BTU/h	153,500
Input	kW	7.70

PQRY-P400YSLM-A		
Nominal Heating Capacity	kW	50.0
	BTU/h	170,600
Input	kW	7.94

PQRY-P400Y(S)LM-A



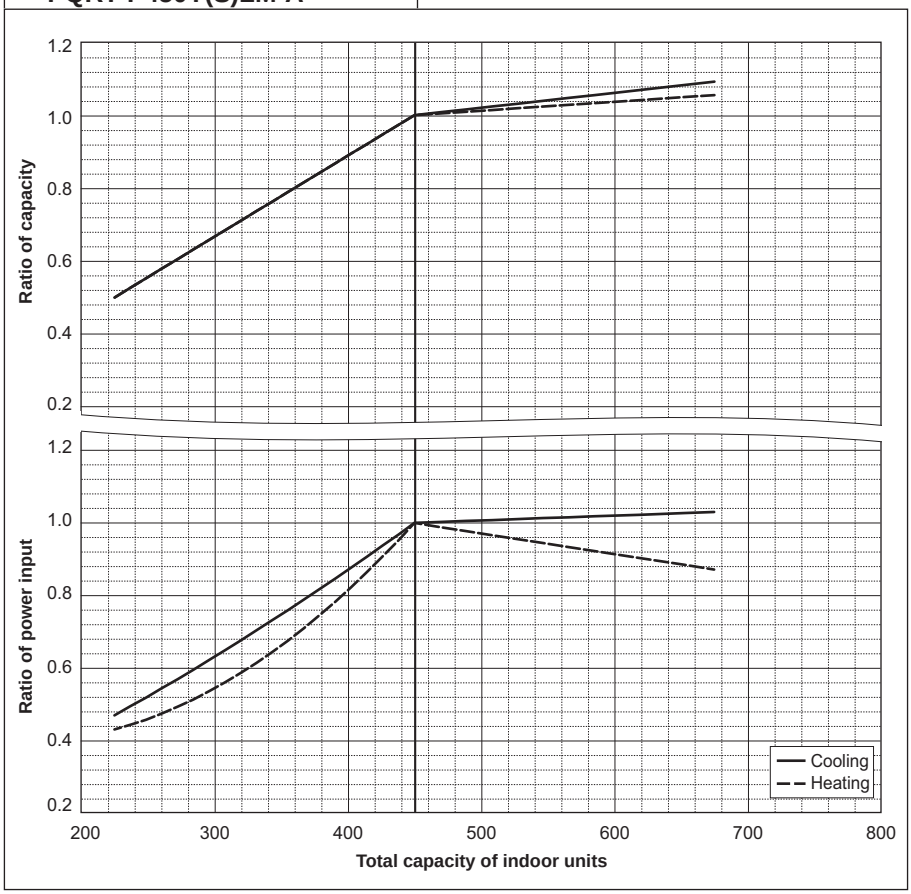
PQRY-P450YLM-A		
Nominal Cooling Capacity	kW	50.0
	BTU/h	170,600
Input	kW	9.29

PQRY-P450YLM-A		
Nominal Heating Capacity	kW	56.0
	BTU/h	191,100
Input	kW	9.79

PQRY-P450YSLM-A		
Nominal Cooling Capacity	kW	50.0
	BTU/h	170,600
Input	kW	8.78

PQRY-P450YSLM-A		
Nominal Heating Capacity	kW	56.0
	BTU/h	191,100
Input	kW	8.97

PQRY-P450Y(S)LM-A



7. CAPACITY TABLES

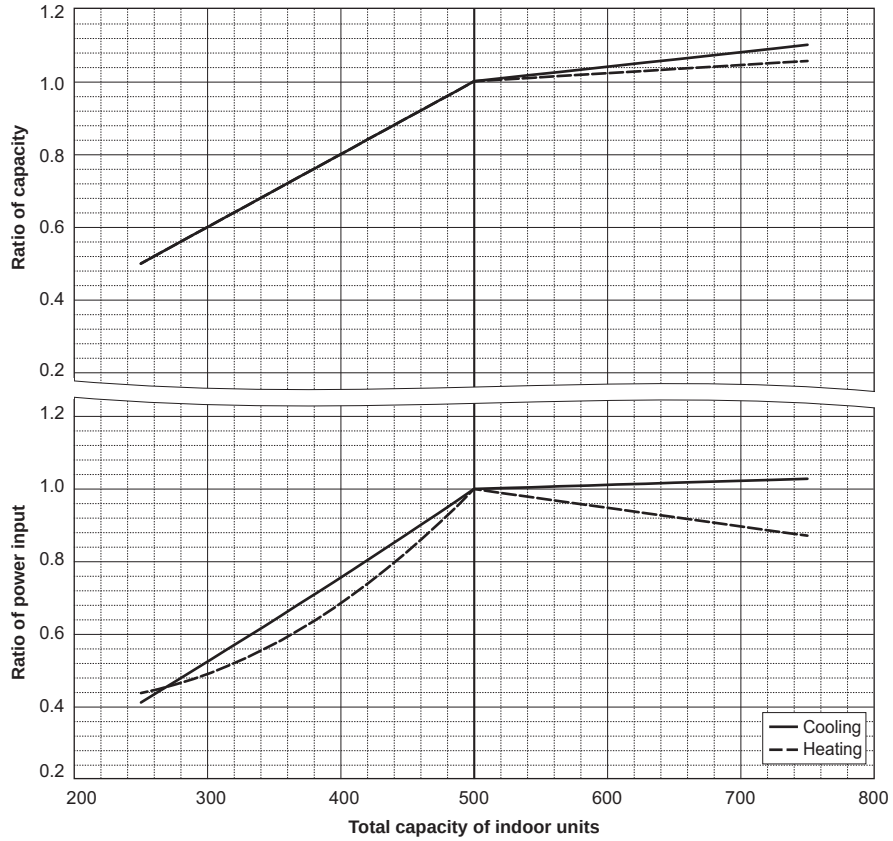
PQRY-P500YLM-A		
Nominal Cooling Capacity	kW	56.0
	BTU/h	191,100
Input	kW	11.17

PQRY-P500YLM-A		
Nominal Heating Capacity	kW	63.0
	BTU/h	215,000
Input	kW	11.43

PQRY-P500YSLM-A		
Nominal Cooling Capacity	kW	56.0
	BTU/h	191,100
Input	kW	10.12

PQRY-P500YSLM-A		
Nominal Heating Capacity	kW	63.0
	BTU/h	215,000
Input	kW	10.16

PQRY-P500Y(S)LM-A



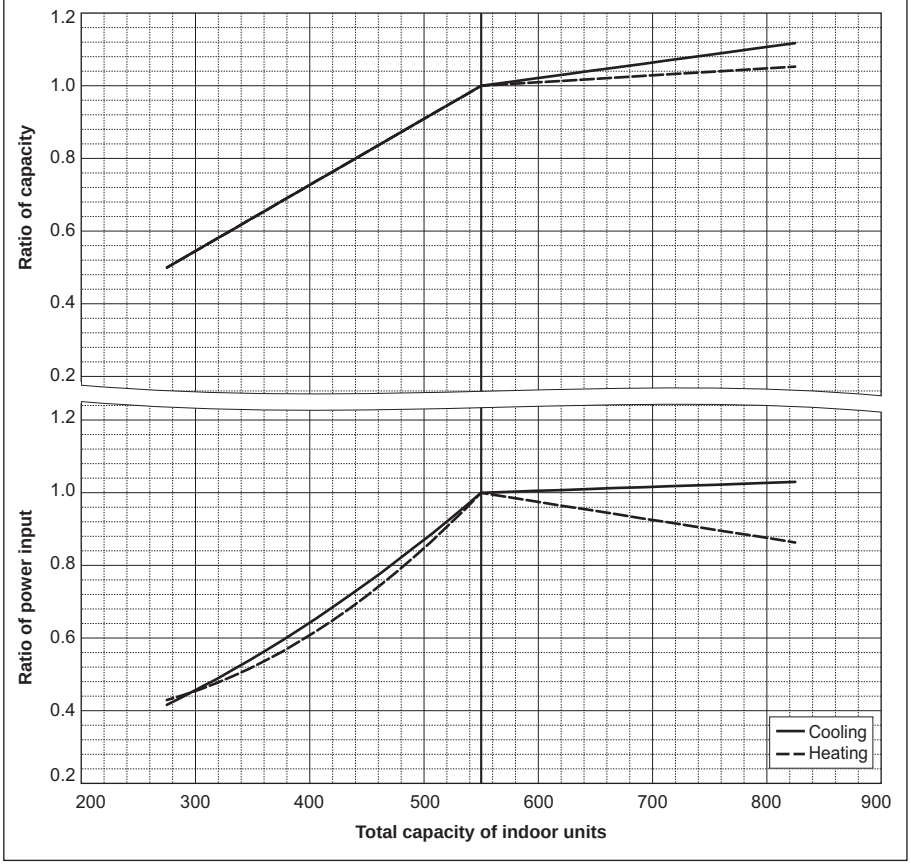
PQRY-P550YLM-A		
Nominal Cooling Capacity	kW	63.0
	BTU/h	215,000
Input	kW	12.54

PQRY-P550YLM-A		
Nominal Heating Capacity	kW	69.0
	BTU/h	235,400
Input	kW	12.27

PQRY-P550YSLM-A		
Nominal Cooling Capacity	kW	63.0
	BTU/h	215,000
Input	kW	11.55

PQRY-P550YSLM-A		
Nominal Heating Capacity	kW	69.0
	BTU/h	235,400
Input	kW	11.31

PQRY-P550Y(S)LM-A



7. CAPACITY TABLES

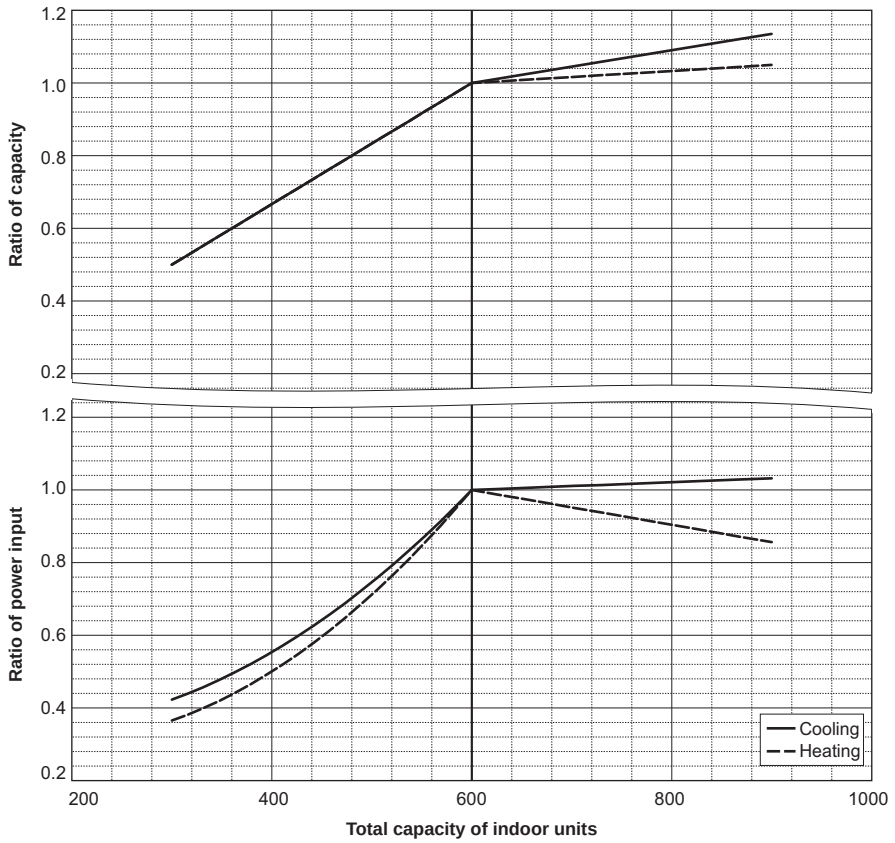
PQRY-P600YLM-A		
Nominal Cooling Capacity	kW	69.0
	BTU/h	235,400
Input	kW	14.49

PQRY-P600YLM-A		
Nominal Heating Capacity	kW	76.5
	BTU/h	261,000
Input	kW	14.51

PQRY-P600YSLM-A		
Nominal Cooling Capacity	kW	69.0
	BTU/h	235,400
Input	kW	12.84

PQRY-P600YSLM-A		
Nominal Heating Capacity	kW	76.5
	BTU/h	261,000
Input	kW	12.75

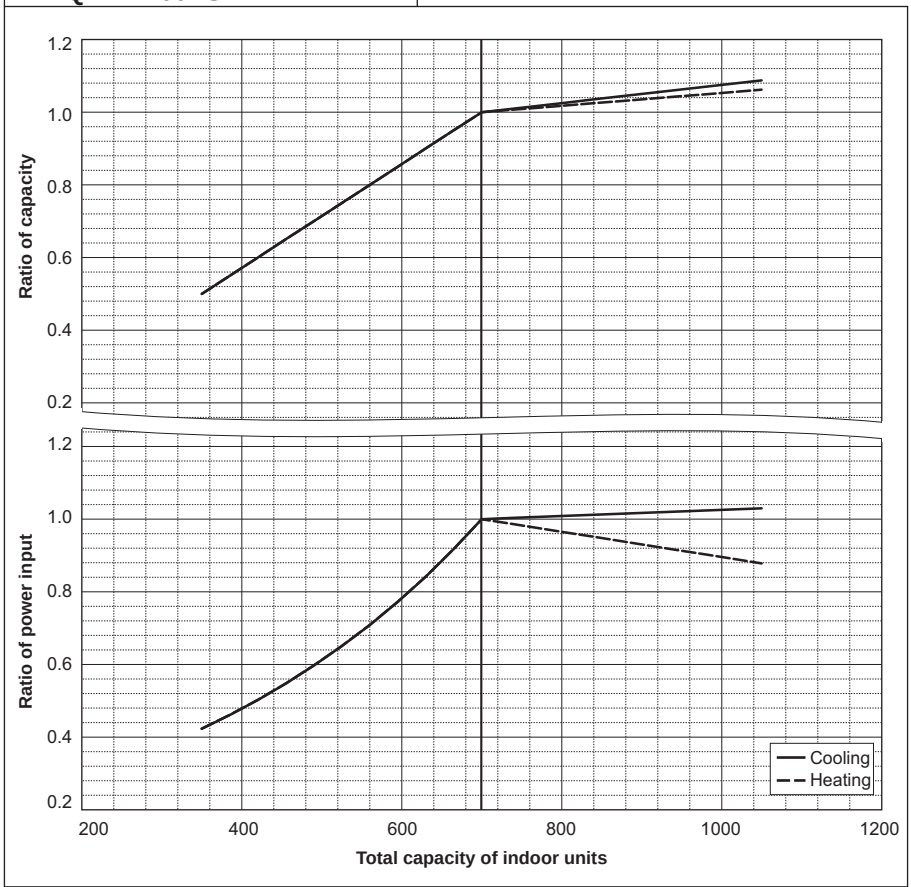
PQRY-P600Y(S)LM-A



PQRY-P700YSLM-A		
Nominal Cooling Capacity	kW	80.0
	BTU/h	273,000
Input	kW	14.73

PQRY-P700YSLM-A		
Nominal Heating Capacity	kW	88.0
	BTU/h	300,300
Input	kW	14.73

PQRY-P700YSLM-A

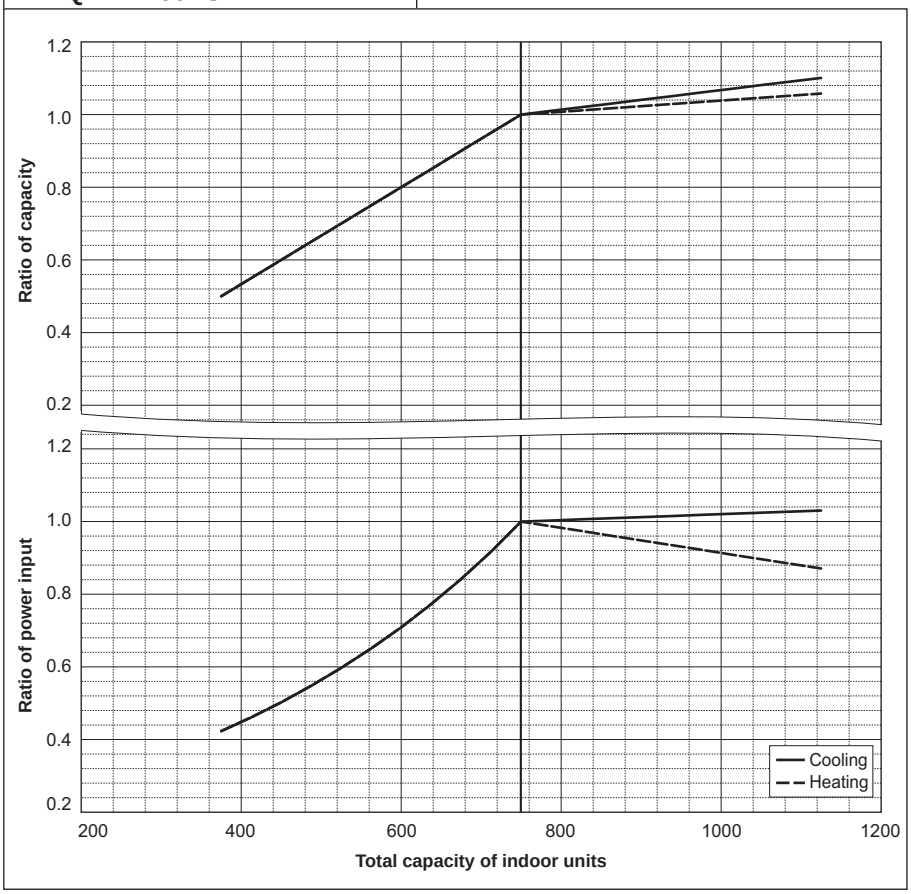


7. CAPACITY TABLES

PQRY-P750YSLM-A		
Nominal Cooling Capacity	kW	85.0
	BTU/h	290,000
Input	kW	15.64

PQRY-P750YSLM-A		
Nominal Heating Capacity	kW	95.0
	BTU/h	324,100
Input	kW	15.90

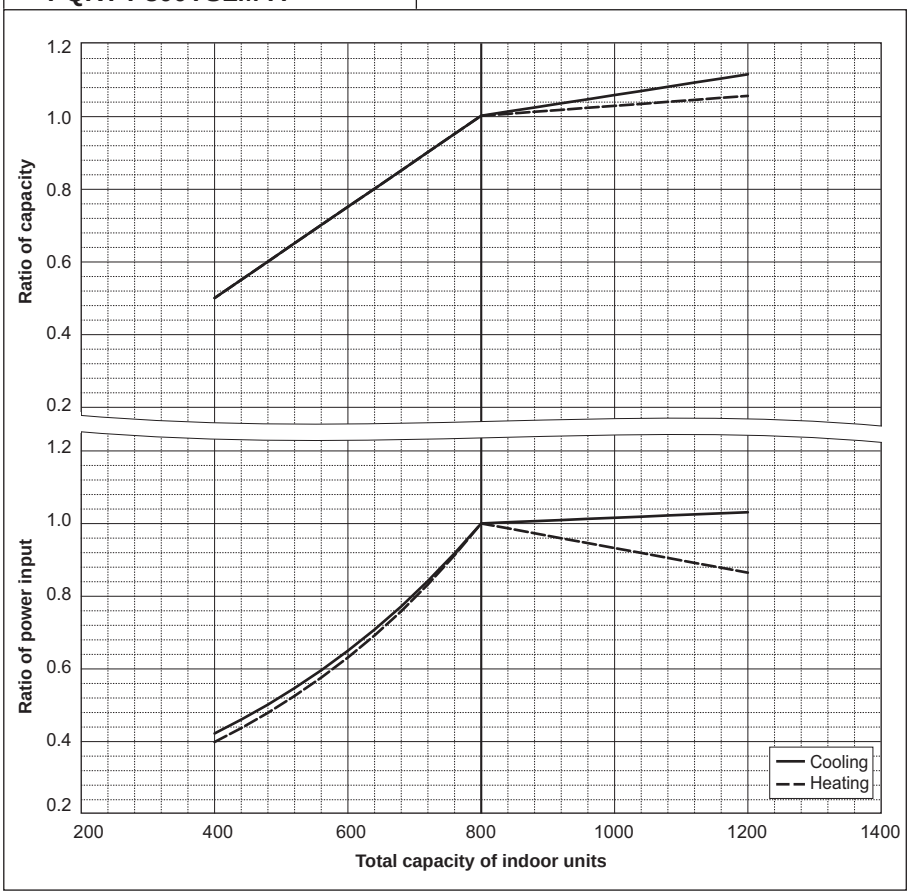
PQRY-P750YSLM-A



PQRY-P800YSLM-A		
Nominal Cooling Capacity	kW	90.0
	BTU/h	307,100
Input	kW	16.57

PQRY-P800YSLM-A		
Nominal Heating Capacity	kW	100.0
	BTU/h	341,200
Input	kW	16.75

PQRY-P800YSLM-A

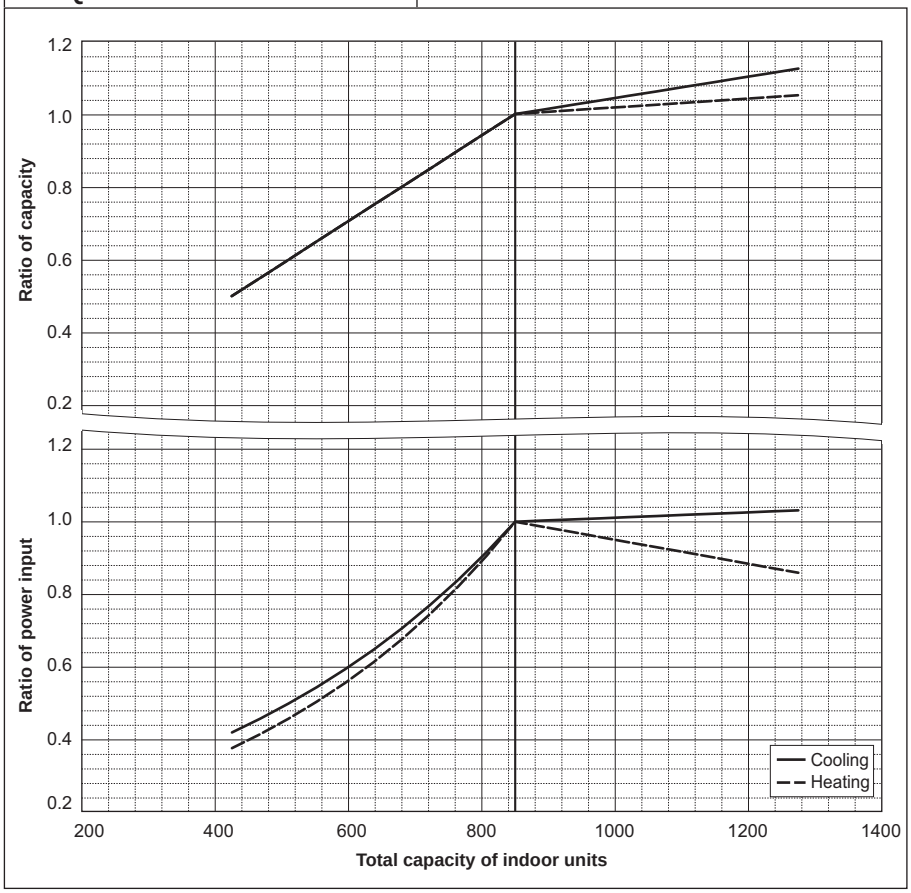


7. CAPACITY TABLES

PQRY-P850YSLM-A		
Nominal Cooling Capacity	kW	96.0
	BTU/h	327,600
Input	kW	18.03

PQRY-P850YSLM-A		
Nominal Heating Capacity	kW	108.0
	BTU/h	368,500
Input	kW	18.49

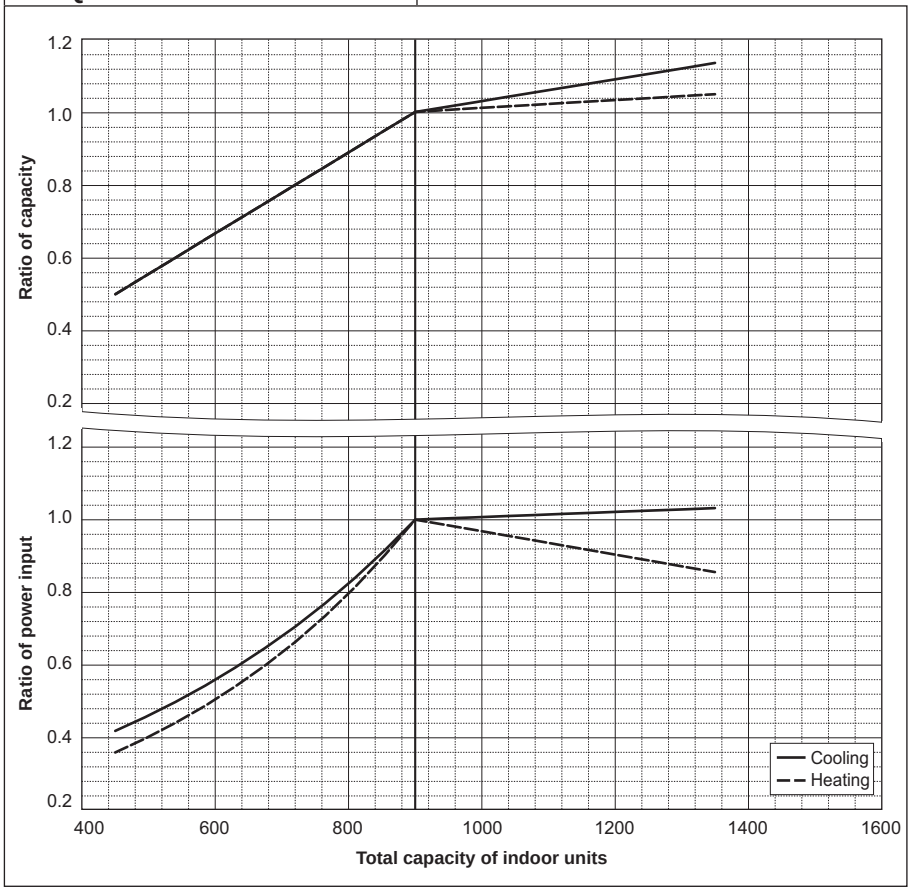
PQRY-P850YSLM-A



PQRY-P900YSLM-A		
Nominal Cooling Capacity	kW	101.0
	BTU/h	344,600
Input	kW	19.38

PQRY-P900YSLM-A		
Nominal Heating Capacity	kW	113.0
	BTU/h	385,600
Input	kW	19.74

PQRY-P900YSLM-A

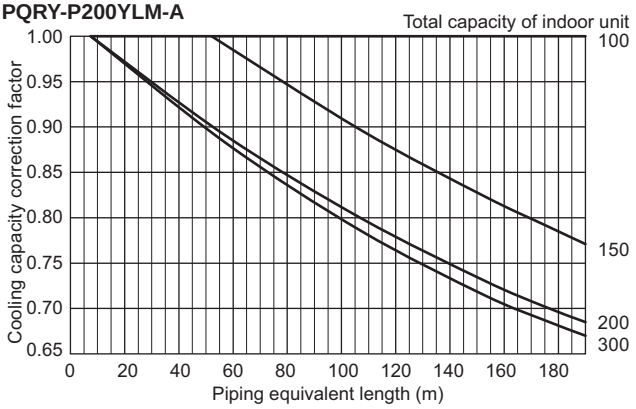


7-3. Correction by refrigerant piping length

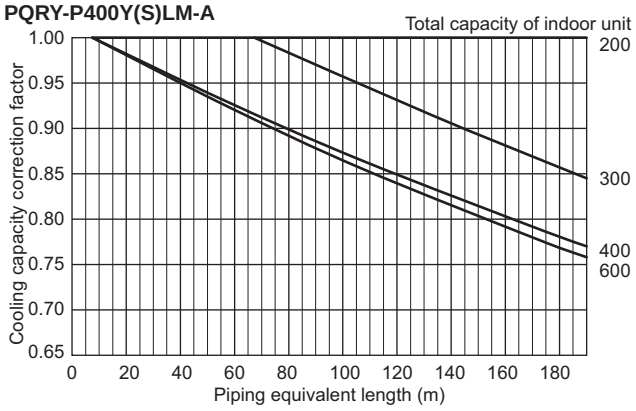
CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. However, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 7-3-1 and 7-3-2, the capacity can be observed. 7-3-3 shows how to obtain the equivalent length of piping.

7-3-1. Cooling capacity correction

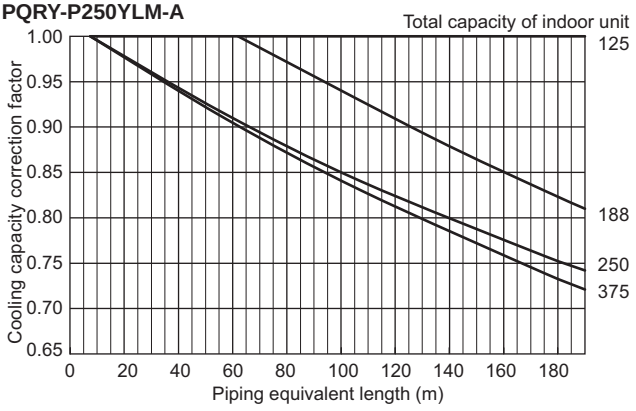
PQRY-P200YLM-A



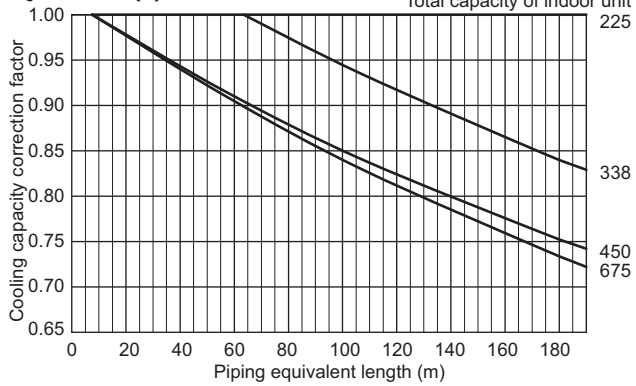
PQRY-P400Y(S)LM-A



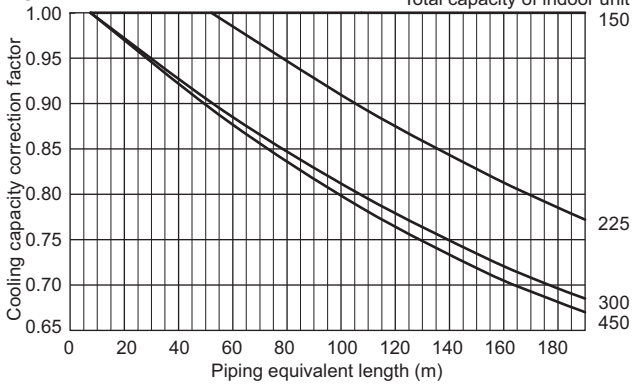
PQRY-P250YLM-A



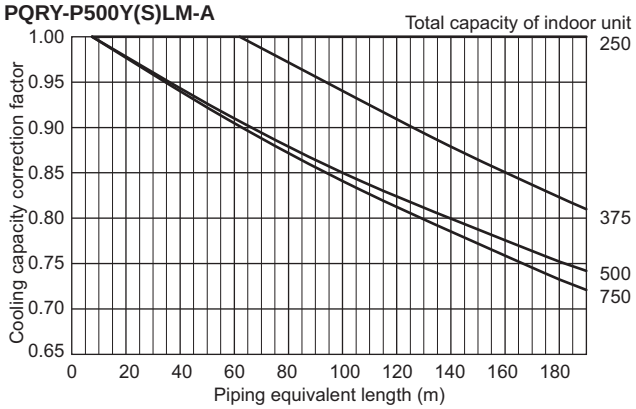
PQRY-P450Y(S)LM-A



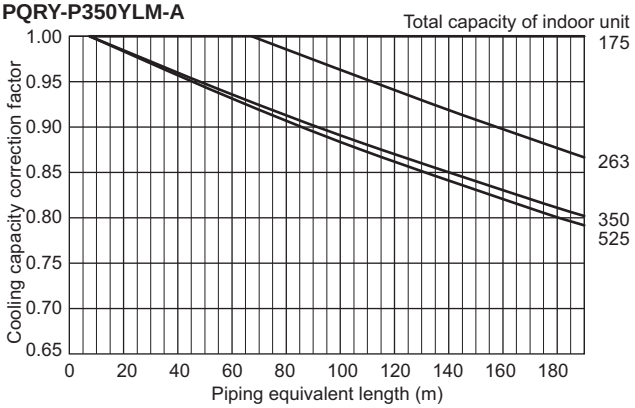
PQRY-P300YLM-A



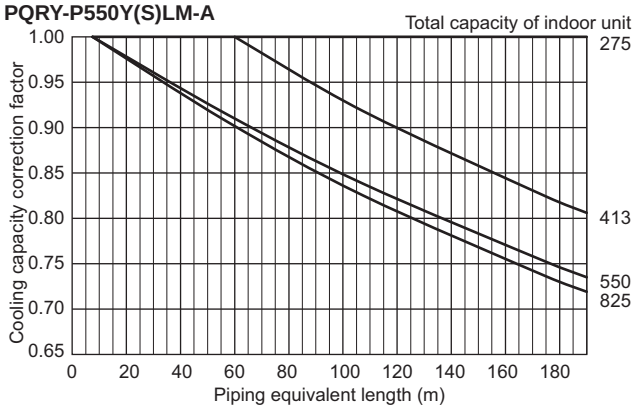
PQRY-P500Y(S)LM-A



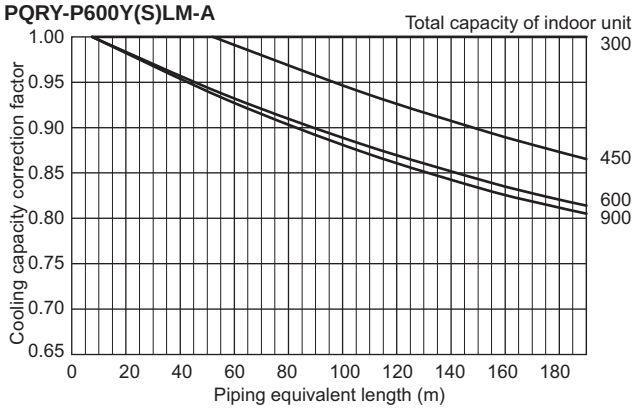
PQRY-P350YLM-A



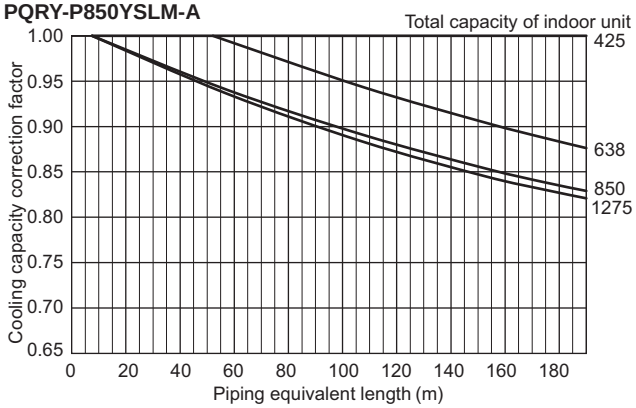
PQRY-P550Y(S)LM-A



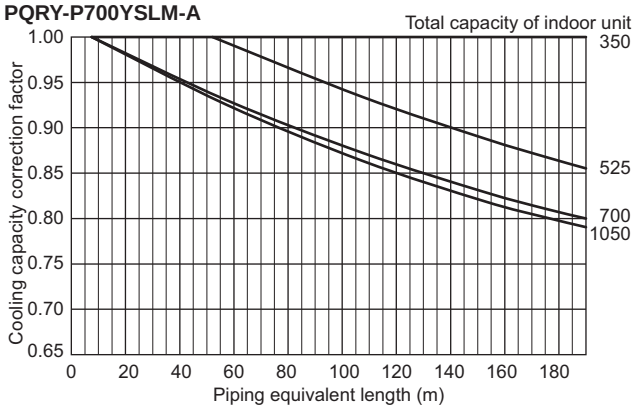
PQRY-P600Y(S)LM-A



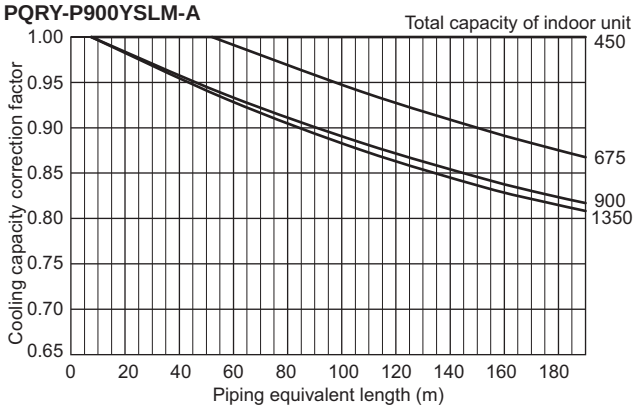
PQRY-P850YSLM-A



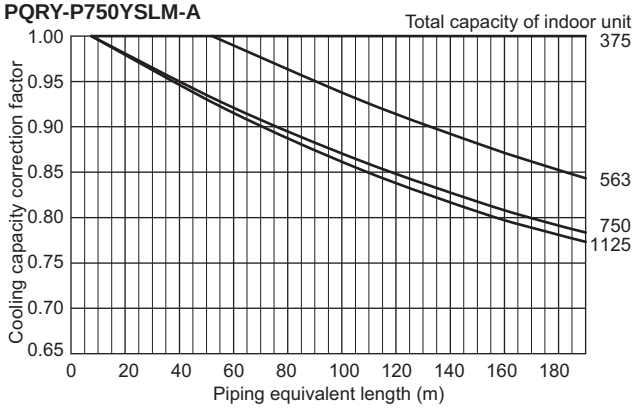
PQRY-P700YSLM-A



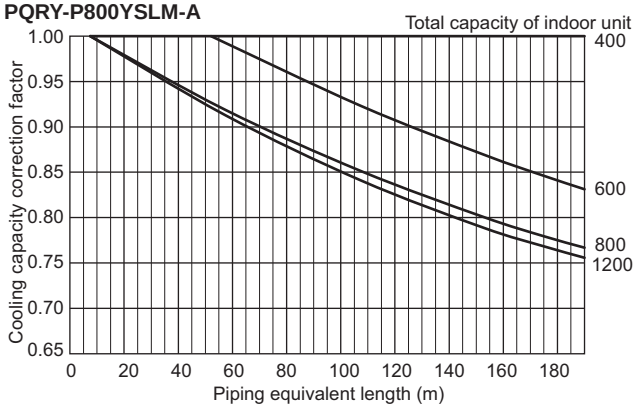
PQRY-P900YSLM-A



PQRY-P750YSLM-A

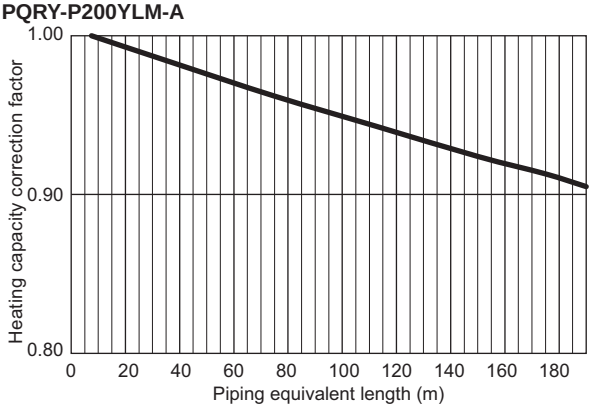


PQRY-P800YSLM-A

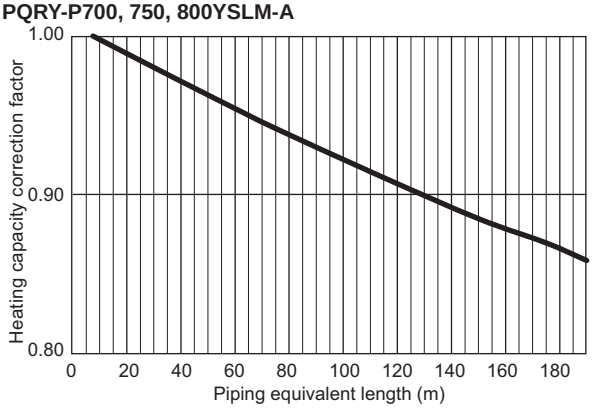


7-3-2. Heating capacity correction

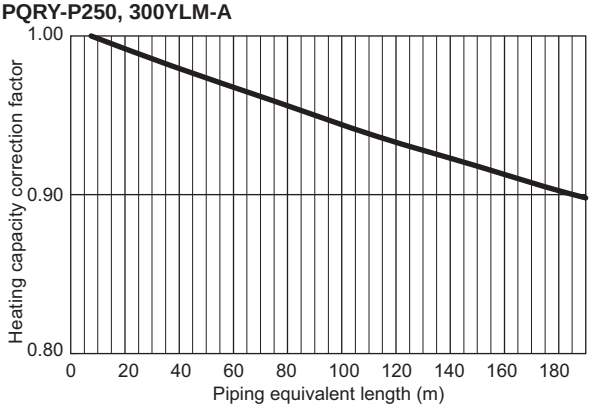
PQRY-P200YLM-A



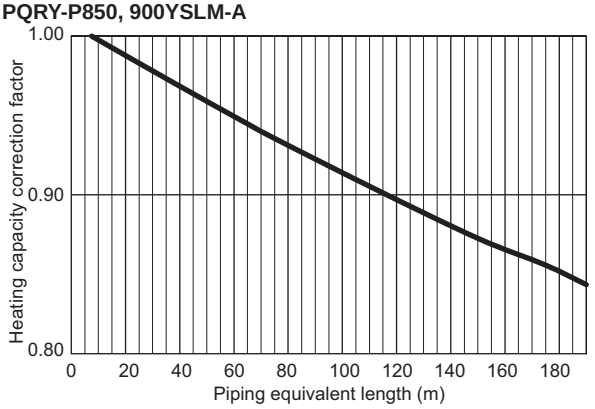
PQRY-P700, 750, 800YSLM-A



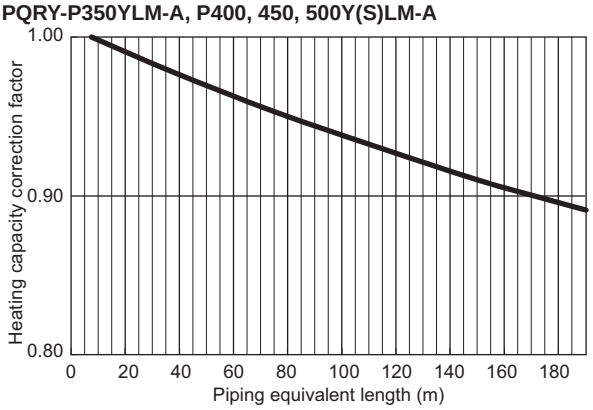
PQRY-P250, 300YLM-A



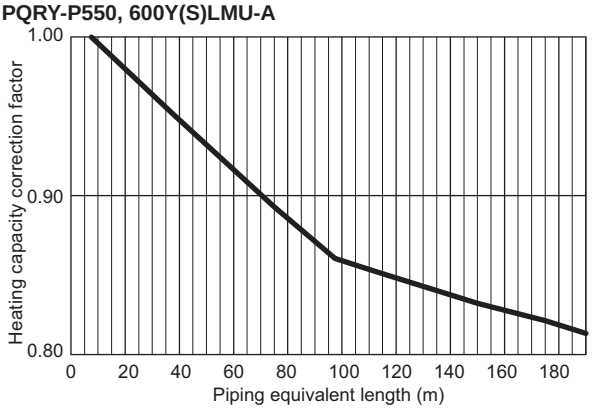
PQRY-P850, 900YSLM-A



PQRY-P350YLM-A, P400, 450, 500Y(S)LM-A



PQRY-P550, 600Y(S)LMU-A



7-3-3. How to obtain the equivalent piping length

1 **PQRY-P200YLM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 × number of bends in the piping) m

2 **PQRY-P250, 300YLM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 × number of bends in the piping) m

3 **PQRY-P350, 400, 450, 500, 550, 600Y(S)LM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bends in the piping) m

4 **PQRY-P700, 750, 800YSLM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 × number of bends in the piping) m

5 **PQRY-P850, 900YSLM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 × number of bends in the piping) m

7-4. Correction by port counts of the BC controller

Indoor unit sizes P200 and P250 must be connected to 2 ports on the BC controller.
Indoor unit sizes from P100 to P140 should normally be connected to 2 ports on the BC controller (set BC controller DIP-SW 4-6 to its ON position).
In cases whereby indoor unit sizes from P100 to P140 are connected to only 1port on the BC controller (set BC controller DIP-SW 4-6 to its OFF position), the cooling capacity of the indoor unit should be multiplied by a correction factor of **0.97.**

CITY MULTI
SYSTEM DESIGN WY SERIES

1. Piping Design

1-1. R410A Piping material

Refrigerant pipe for CITY MULTI shall be made of phosphorus deoxidized copper, and has two types.
A. Type-O: Soft copper pipe (annealed copper pipe), can be easily bent with human's hand.
B. Type-1/2H pipe: Hard copper pipe (Straight pipe), being stronger than Type-O pipe of the same radical thickness.

The maximum operation pressure of R410A air conditioner is 4.30 MPa [623psi]. The refrigerant piping should ensure the safety under the maximum operation pressure. MITSUBISHI ELECTRIC recommends pipe size as Table1, or You shall follow the local industrial standard. Pipes of radical thickness 0.7mm or less shall not be used.

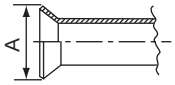
Table 1. Copper pipe size and radial thickness for R410A CITY MULTI.

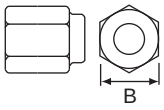
Size (mm)	Size (inch)	Radial thickness (mm)	Radial thickness (mil)	Pipe type
ø6.35	ø1/4"	0.8	[32]	Type-O
ø9.52	ø3/8"	0.8	[32]	Type-O
ø12.7	ø1/2"	0.8	[32]	Type-O
ø15.88	ø5/8"	1.0	[40]	Type-O
ø19.05	ø3/4"	1.2	[48]	Type-O
ø19.05	ø3/4"	1.0	[40]	Type-1/2H or H
ø22.2	ø7/8"	1.0	[40]	Type-1/2H or H
ø25.4	ø1"	1.0	[40]	Type-1/2H or H
ø28.58	ø1-1/8"	1.0	[40]	Type-1/2H or H
ø31.75	ø1-1/4"	1.1	[44]	Type-1/2H or H
ø34.93	ø1-3/8"	1.2	[48]	Type-1/2H or H
ø41.28	ø1-5/8"	1.4	[56]	Type-1/2H or H

* For pipe sized ø19.05 (3/4") for R410A air conditioner, choice of pipe type is up to you.
* The figures in the radial thickness column are based on the Japanese standards and provided only as a reference. Use pipes that meet the local standards.

Flare

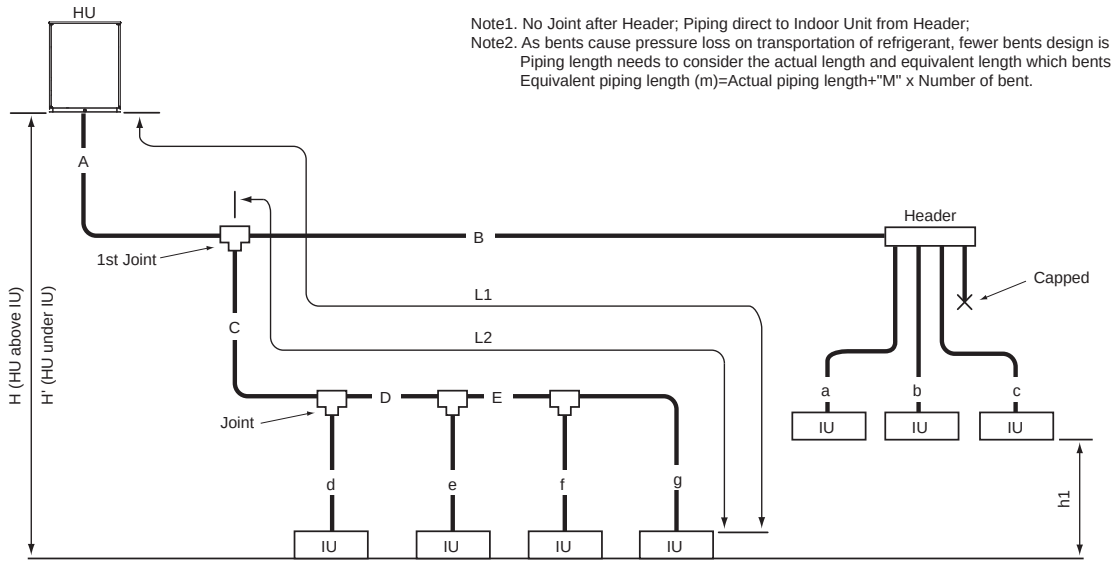
Due to the relative higher operation pressure of R410A compared to R22, the flare connection should follow dimensions mentioned below so as to achieve enough the air-tightness.

Flare pipe	Pipe size	A (For R410A) (mm[in.])
	ø6.35 [1/4"]	9.1
	ø9.52 [3/8"]	13.2
	ø12.70 [1/2"]	16.6
	ø15.88 [5/8"]	19.7
	ø19.05 [3/4"]	24.0

Flare nut	Pipe size	B (For R410A) (mm[in.])
	ø6.35 [1/4"]	17.0
	ø9.52 [3/8"]	22.0
	ø12.70 [1/2"]	26.0
	ø15.88 [5/8"]	29.0
	ø19.05 [3/4"]	36.0

1-2. Piping Design

1-2-1. PQHY-P200-600YLM Piping



Note1. No Joint after Header; Piping direct to Indoor Unit from Header;
Note2. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.

Fig. 1-2-1A Piping scheme

IU: Indoor unit , HU: Heat source unit

Piping length **(m [ft.])**

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+a+b+c+d+e+f+g	*1	-
Farthest IU from HU (L1)	A+C+D+E+g / A+B+c	165 [541']	190 [623']
Farthest IU from first Joint (L2)	C+D+E+g / B+c	40 [131']	40 [131']
Height between HU and IU (HU above IU)	H	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and IU	h1	15 [49']	-

HU: Heat source Unit, IU: Indoor Unit
*1 300 [984] for PQHY-P200-300YLM, 500 [1640] for PQHY-P350-600YLM

Bent equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
PQHY-P200YLM	0.35 [1.15]
PQHY-P250YLM	0.42 [1.38]
PQHY-P300YLM	0.42 [1.38]
PQHY-P350YLM	0.50 [1.64]
PQHY-P400YLM	0.50 [1.64]
PQHY-P450YLM	0.50 [1.64]
PQHY-P500YLM	0.50 [1.64]
PQHY-P550YLM	0.50 [1.64]
PQHY-P600YLM	0.50 [1.64]

Table 1 Piping "A" size selection rule **(mm [in.])**

Heat source unit	Pipe(Liquid)	Pipe(Gas)
PQHY-P200YLM	ø9.52 [3/8"]	ø19.05 [3/4"]
PQHY-P250YLM	ø9.52 [3/8"]*1	ø22.20 [7/8"]
PQHY-P300YLM	ø9.52 [3/8"]*2	ø22.20 [7/8"]
PQHY-P350YLM	ø12.70 [1/2"]	ø28.58 [1-1/8"]
PQHY-P400-600YLM	ø15.88 [5/8"]	ø28.58 [1-1/8"]

*1. L1>=90m [295ft.], ø12.70mm [1/2in.]; L1<90m [295ft.], ø9.52mm [3/8in.]
*2. L1>=40m [131ft.], ø12.70mm [1/2in.]; L1<40m [131ft.], ø9.52mm [3/8in.]

Table 2 Piping"B","C","D","E"size selection rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P140	ø9.52 [3/8"]	ø15.88 [5/8"]
P141 ~ P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201 ~ P300	ø9.52 [3/8"]	ø22.20 [7/8"]
P301 ~ P400	ø12.70 [1/2"]	ø28.58 [1-1/8"]
P401 ~ P650	ø15.88 [5/8"]	ø28.58 [1-1/8"]
P651 ~ P800	ø19.05 [3/4"]	ø34.93 [1-3/8"]
P801 ~	ø19.05 [3/4"]	ø41.28 [1-5/8"]

Table 3 Piping "a","b","c","d","e","f","g" size selection rule **(mm [in.])**

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P15,P20,P25,P32,P40,P50,GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63,P71,P80,P100,P125,P140,GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Table 4-1 Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P200	CMY-Y102SS-G2
P201 ~ P400	CMY-Y102LS-G2
P401 ~ P650	CMY-Y202S-G2
P651 ~	CMY-Y302S-G2

*Concerning detailed usage of Joint parts, refer to its Installation Manual.

Table 4-2

See the table below for the first joint of the heat source unit described below.

Heat source unit model	Joint model
P250 to P300	CMY-Y102LS-G2
P350 to P600	CMY-Y202S-G2

Table 5 Header selection rule

	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104-G	CMY-Y108-G	CMY-Y1010-G
Total down-stream Indoor capacity	<=P200	<=P350	<=P600

* CMY-Y104-G can directly connect PQHY-P200YLM-A, but can NOT directly connect PQHY-P250YLM-A or above;
* CMY-Y108-G can directly connect PQHY-P200-350YLM-A, but can NOT directly connect PQHY-P400Y(S)LM-A or above;
* CMY-Y1010-G can directly connect PQHY-P200-600Y(S)LM-A;
* CMY-Y104-G can NOT connect P200,P250 Indoor, but CMY-Y108, Y1010-G can do;
* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;
For example, PEFY-P32VMA-E, its capacity is P32;
Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.
For example, PEFY-P25VMA-E+PEFY-P32VMA-E: Total Indoor capacity=P25+P32=P57
Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.
i.e. A>=B; A>=C>=D

1-2-2. PQHY-P400-900YSLM Piping

Note1. No Joint after Header; Piping direct to Indoor Unit from Header;
Note2. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.

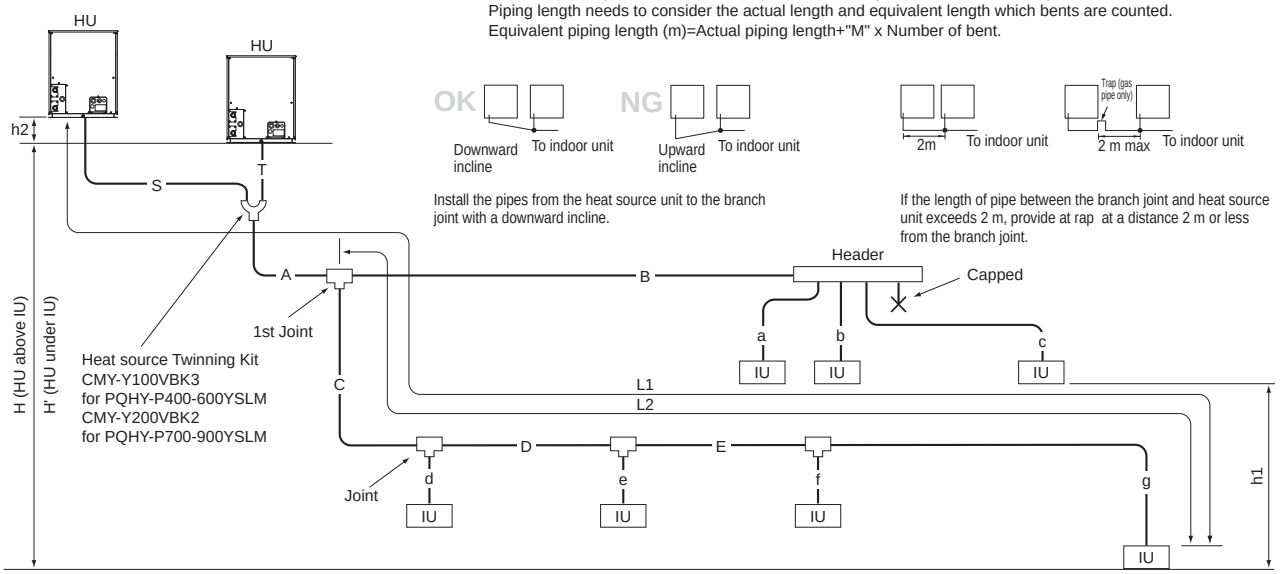


Fig. 1-2-2A Piping scheme

IU: Indoor unit , HU: Heat source unit

Piping length **(m [ft.])**

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	S+T+A+B+C+D+E+a+b+c+d+e+f+g	500 [1640']	-
Distance between HU and HU	S+T	10[32']	-
Height between HU and HU	h2	0.1[0.3']	-
Farthest IU from HU (L1)	S(T)+A+C+D+E+g / S(T)+A+B+c	165 [541']	190 [623']
Farthest IU from the first Joint (L2)	C+D+E+g / B+c	40 [131']	40 [131']
Height between HU and IU (HU above IU)	H	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and IU	h1	15 [49']	-

HU: Heat source Unit, IU: Indoor Unit

Bent equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
PQHY-P400YSLM	0.50 [1.64]
PQHY-P450YSLM	0.50 [1.64]
PQHY-P500YSLM	0.50 [1.64]
PQHY-P550YSLM	0.50 [1.64]
PQHY-P600YSLM	0.50 [1.64]
PQHY-P700YSLM	0.70 [2.29]
PQHY-P750YSLM	0.70 [2.29]
PQHY-P800YSLM	0.70 [2.29]
PQHY-P850YSLM	0.80 [2.62]
PQHY-P900YSLM	0.80 [2.62]

Table 1 Piping "A" size selection rule **(mm [in.])**

Heat source unit	Pipe(Liquid)	Pipe(Gas)
PQHY-P400-600YSLM	ø15.88 [5/8"]	ø28.58 [1-1/8"]
PQHY-P700-800YSLM	ø19.05 [3/4"]	ø34.93 [1-3/8"]
PQHY-P850-900YSLM	ø19.05 [3/4"]	ø41.28 [1-5/8"]

For Piping size "S","T", please refer to specification of the Twinning kit CMY-Y100VBK3, CMY-Y200VBK2 at the Heat source unit's external drawing.

Table 2 Piping"B","C","D","E"size selection rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P140	ø9.52 [3/8"]	ø15.88 [5/8"]
P141 ~ P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201 ~ P300	ø9.52 [3/8"]	ø22.20 [7/8"]
P301 ~ P400	ø12.70 [1/2"]	ø28.58 [1-1/8"]
P401 ~ P650	ø15.88 [5/8"]	ø28.58 [1-1/8"]
P651 ~ P800	ø19.05 [3/4"]	ø34.93 [1-3/8"]
P801 ~	ø19.05 [3/4"]	ø41.28 [1-5/8"]

Table 3 Piping "a","b","c","d","e","f","g" size selection rule (mm [in.])

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P15,P20,P25,P32,P40,P50,GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63,P71,P80,P100,P125,P140,GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Table 4-1 Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P200	CMY-Y102SS-G2
P201 ~ P400	CMY-Y102LS-G2
P401 ~ P650	CMY-Y202S-G2
P651 ~	CMY-Y302S-G2

*Concerning detailed usage of joint parts, refer to its Installation Manual.
*The total capacity of the units in the downstream of the branch joint on at least one of the piping lines that are connected to the branch joint should be 650 or below.
If the total capacity of the units in the downstream of the branch joints on both lines is 650 or above use two branch joints (CMY-Y302S-G2).

Table 4-2
See the table below for the first joint of the heat source unit described below.

Heat source unit model	Joint model
P400 to P600	CMY-Y202S-G2
P700 to P900	CMY-Y302S-G2

Table 5 Header selection rule

	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104-G	CMY-Y108-G	CMY-Y1010-G
Total down-stream Indoor capacity	<=P200	<=P350	<=P600

* CMY-Y104-G can directly connect PQHY-P200YLM-A, but can NOT directly connect PQHY-P250YLM-A or above;
* CMY-Y108-G can directly connect PQHY-P200-350YLM-A, but can NOT directly connect PQHY-P400Y(S)LM-A or above;
* CMY-Y1010-G can directly connect PQHY-P200-600Y(S)LM-A;
* CMY-Y104-G can NOT connect P200,P250 Indoor, but CMY-Y108, Y1010-G can do;
* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;
For example, PEFY-P32VMA-E, its capacity is P32;
Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.
For example, PEFY-P25VMA-E+PEFY-P32VMA-E: Total Indoor capacity=P25+P32=P57
Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.
i.e. A>=B; A>=C>=D

1-3. Refrigerant charging calculation

At the time of shipping, the heat source unit is charged with the refrigerant. As this charge does not include the amount needed for extended piping, additional charging for each refrigerant line will be required on site. In order that future servicing may be properly provided, always keep a record of the size and length of each refrigerant line and the amount of additional charge by writing it in the space provided on the heat source unit.

(1) Calculation of additional refrigerant charge

- Calculate the amount of additional charge based on the length of the piping extension and the size of the refrigerant line.
- Use the table below as a guide to calculate the amount of additional charging and charge the system accordingly.
- If the calculation results in a fraction of less than 0.1kg, round up to the next 0.1kg. For example, if the result of the calculation was 12.33kg, round the result up to 12.4kg.

* When connecting PEFY-P20VMA3-E units, add 0.54 kg of refrigerant for each of these units.

* When connecting PEFY-P25/32/40VMA3-E units, add 0.74 kg of refrigerant for each of these units.

* When connecting PEFY-P50/63/71/80/100/125VMA3-E units, add 1.16 kg of refrigerant for each of these units.

<Additional Charge>

Units "m" and "kg"

<Formula>

• When the piping length from the heat source unit to the farthest indoor unit is 30.5 m (100 ft) or shorter

Amount of additional charge (kg)	=	ø19.05 total length × 0.29 (kg/m)	+	ø15.88 total length × 0.2 (kg/m)	+	ø12.7 total length × 0.12 (kg/m)	+	ø9.52 total length × 0.06 (kg/m)	+	ø6.35 total length × 0.024 (kg/m)

+

Heat source unit model	Amount (kg)
P200	0
P250	0
P300	0
P350	0
P400	0
P450	0
P500	0
P550	1
P600	1

+

Total capacity of connected indoor units	Amount (kg)
80 or below	2.0
81 to 160	2.5
161 to 330	3.0
331 to 390	3.5
391 to 480	4.5
481 to 630	5.0
631 to 710	6.0
711 to 800	8.0
801 to 890	9.0
891 to 1070	10.0
1071 to 1250	12.0
1251 or above	14.0

• When the piping length from the heat source unit to the farthest indoor unit is longer than 30.5 m (100 ft)

Amount of additional charge (kg)	=	ø19.05 total length × 0.26 (kg/m)	+	ø15.88 total length × 0.18 (kg/m)	+	ø12.7 total length × 0.11 (kg/m)	+	ø9.52 total length × 0.054 (kg/m)	+	ø6.35 total length × 0.021 (kg/m)

+

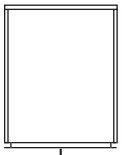
Heat source unit model	Amount (kg)
P200	0
P250	0
P300	0
P350	0
P400	0
P450	0
P500	0
P550	1
P600	1

+

Total capacity of connected indoor units	Amount (kg)
80 or below	2.0
81 to 160	2.5
161 to 330	3.0
331 to 390	3.5
391 to 480	4.5
481 to 630	5.0
631 to 710	6.0
711 to 800	8.0
801 to 890	9.0
891 to 1070	10.0
1071 to 1250	12.0
1251 or above	14.0

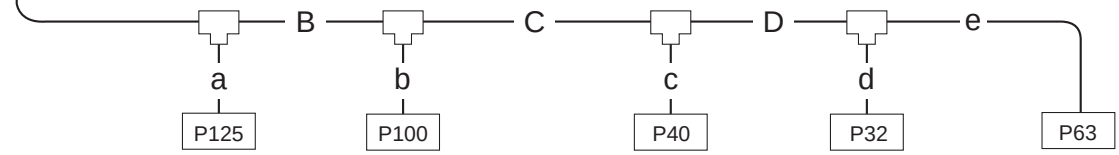
1. Piping Design

Example: PQHY-P350YLM



Indoor	1: P125	A: ø12.7	40 m	a: ø9.52	10 m
	2: P100	B: ø9.52	10 m	b: ø9.52	5 m
	3: P40	C: ø9.52	15 m	c: ø6.35	10 m
	4: P32	D: ø9.52	10 m	d: ø9.52	10 m
	5: P63			e: ø12.7	10 m

The total length of liquid pipe of each size is as follows:
ø12.7: A + e = 40 + 10 = 50 m
ø9.52: B + C + D + a + b + d = 10 + 15 + 10 + 10 + 5 + 10 = 60 m
ø6.35: c = 10 = 10 m



Additional refrigerant charge	=	Total length of liquid pipe sized ø19.05 x 0.26 (kg/m)	+	Total length of liquid pipe sized ø15.88 x 0.18 (kg/m)	+	Total length of liquid pipe sized ø12.7 x 0.11 (kg/m)	+	Total length of liquid pipe sized ø9.52 x 0.054 (kg/m)	+	Total length of liquid pipe sized ø6.35 x 0.021 (kg/m)	+ 0 + 3.5
(kg)		0 (m) x 0.26 (kg/m)		0 (m) x 0.18 (kg/m)		50 (m) x 0.11 (kg/m)		60 (m) x 0.054 (kg/m)		10 (m) x 0.021 (kg/m)	

= 0 + 0 + 50 x 0.11 + 60 x 0.054 + 10 x 0.021 + 0 + 3.5
= 12.5 (12.45) kg

■ **Limitation of the amount of refrigerant to be charged**

The above calculation result of the amount of refrigerant to be charged must become below the value in the table below.

Total index of the heat source units		P200 YLM	P250 YLM	P300 YLM	P350 YLM	P400 YLM	P450 YLM	P500 YLM	P550 YLM	P600 YLM	P400 YSLM	P450 YSLM	P500 YSLM	P550 YSLM	P600 YSLM
Maximum refrigerant charge	Factory charged	5.0kg	5.0kg	5.0kg	6.0kg	6.0kg	6.0kg	6.0kg	11.7kg	11.7kg	10.0kg	10.0kg	10.0kg	10.0kg	10.0kg
	Charged on site	21.0kg	28.0kg	29.5kg	41.5kg	50.0kg	51.5kg	53.5kg	55.5kg	57.0kg	50.0kg	51.5kg	53.5kg	54.5kg	55.5kg
	Total for system	26.0kg	33.0kg	34.5kg	47.5kg	56.0kg	57.5kg	59.5kg	67.2kg	68.7kg	60.0kg	61.5kg	63.5kg	64.5kg	65.5kg

Total index of the heat source units		P700 YSLM	P750 YSLM	P800 YSLM	P850 YSLM	P900 YSLM
Maximum refrigerant charge	Factory charged	12.0kg	12.0kg	12.0kg	12.0kg	12.0kg
	Charged on site	65.5kg	67.5kg	67.5kg	70.0kg	70.0kg
	Total for system	77.5kg	79.5kg	79.5kg	82.0kg	82.0kg

CITY MULTI
SYSTEM DESIGN WR2 SERIES

1. Piping Design

1-1. R410A Piping material

Refrigerant pipe for CITY MULTI shall be made of phosphorus deoxidized copper, and has two types.
A. Type-O: Soft copper pipe (annealed copper pipe), can be easily bent with human's hand.
B. Type-1/2H pipe: Hard copper pipe (Straight pipe), being stronger than Type-O pipe of the same radical thickness.

The maximum operation pressure of R410A air conditioner is 4.30 MPa [623psi]. The refrigerant piping should ensure the safety under the maximum operation pressure. MITSUBISHI ELECTRIC recommends pipe size as Table1, or You shall follow the local industrial standard. Pipes of radical thickness 0.7mm or less shall not be used.

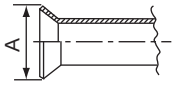
Table 1. Copper pipe size and radial thickness for R410A CITY MULTI.

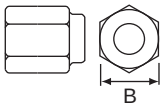
Size (mm)	Size (inch)	Radial thickness (mm)	Radial thickness (mil)	Pipe type
ø6.35	ø1/4"	0.8	[32]	Type-O
ø9.52	ø3/8"	0.8	[32]	Type-O
ø12.7	ø1/2"	0.8	[32]	Type-O
ø15.88	ø5/8"	1.0	[40]	Type-O
ø19.05	ø3/4"	1.2	[48]	Type-O
ø19.05	ø3/4"	1.0	[40]	Type-1/2H or H
ø22.2	ø7/8"	1.0	[40]	Type-1/2H or H
ø25.4	ø1"	1.0	[40]	Type-1/2H or H
ø28.58	ø1-1/8"	1.0	[40]	Type-1/2H or H
ø31.75	ø1-1/4"	1.1	[44]	Type-1/2H or H
ø34.93	ø1-3/8"	1.2	[48]	Type-1/2H or H
ø41.28	ø1-5/8"	1.4	[56]	Type-1/2H or H

* For pipe sized ø19.05 (3/4") for R410A air conditioner, choice of pipe type is up to you.
* The figures in the radial thickness column are based on the Japanese standards and provided only as a reference. Use pipes that meet the local standards.

Flare

Due to the relative higher operation pressure of R410A compared to R22, the flare connection should follow dimensions mentioned below so as to achieve enough the air-tightness.

Flare pipe	Pipe size	A (For R410A) (mm[in.])
	ø6.35 [1/4"]	9.1
	ø9.52 [3/8"]	13.2
	ø12.70 [1/2"]	16.6
	ø15.88 [5/8"]	19.7
	ø19.05 [3/4"]	24.0

Flare nut	Pipe size	B (For R410A) (mm[in.])
	ø6.35 [1/4"]	17.0
	ø9.52 [3/8"]	22.0
	ø12.70 [1/2"]	26.0
	ø15.88 [5/8"]	29.0
	ø19.05 [3/4"]	36.0

1-2. Piping Design

1-2-1. PQRY-P200-600YLM Piping
IF 16 ports or less are in use, I.e., if only one BC controller is in use with no sub BC controller

Note1. No Header usable on PQRY system.
Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P140 with 2 ports.
Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-6 to OFF).
However, the cooling capacity decreases a little (For details, refer to the chapter HEAT SOURCE UNITS, WR2 SERIES, 7-4. Correction by port counts of the BC controller).
Note7. Individual indoor units grouped together to connect to the BC controller via one port cannot operate individually in heating and cooling modes at the same time. I.e., they must all function in either heating or cooling together.
Note8. Indoor capactiy is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream.
For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.

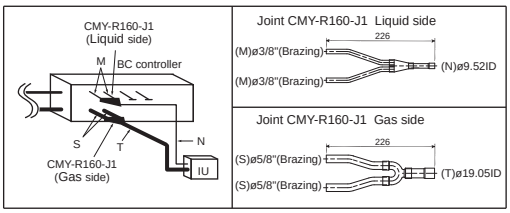


Fig. 1-2-1AA

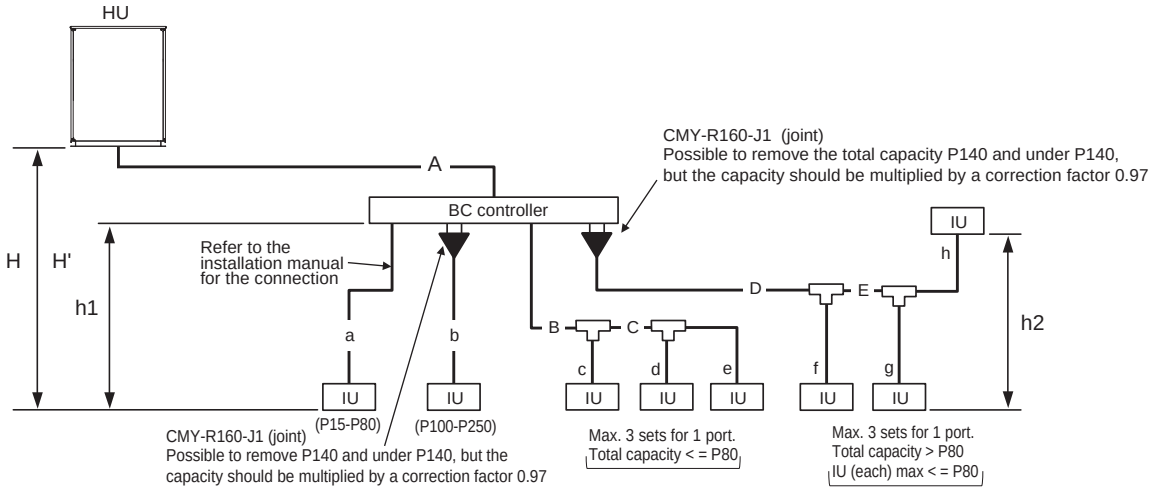


Fig. 1-2-1A Piping scheme

Piping length **(m [ft.])**

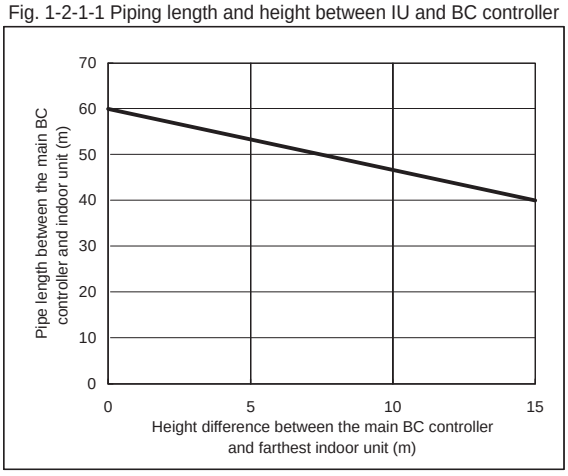
Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+a+b+c+d+e+f+g+h	*1	-
Farthest IU from HU	A+D+E+h	165 [541']	190 [623']
Distance between HU and BC	A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+h	40 [131'] *2	40 [131'] *2
Height between HU and IU (HU above IU)	H	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) *3	-
Height between IU and IU	h2	30 [98'] (20 [65']) *4	-

Bent equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
P200YLM	0.35 [1.15']
P250YLM	0.42 [1.38']
P300YLM	0.42 [1.38']
P350YLM	0.50 [1.64']
P400YLM	0.50 [1.64']
P450YLM	0.50 [1.64']
P500YLM	0.50 [1.64']
P550YLM	0.50 [1.64']
P600YLM	0.50 [1.64']

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller
*1. Refer to the section 1-2-4.
*2. Farthest Indoor from BC controller "D+E+h" can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P200, P250 connected.
Details refer to Fig. 1-2-1-1
*3. Distance of Indoor sized P200, P250 from BC must be less than 10 m [32 ft.] , if any.
*4. Distance of Indoor sized P200, P250 from IU must be less than 20 m [65 ft.] , if any.

Fig. 1-2-1-1 Piping length and height between IU and BC controller



Piping "A"size selection rule **(mm [in.])**

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P200YLM	ø15.88 [5/8"]	ø19.05 [3/4"]
P250-300YLM	ø19.05 [3/4"]	ø22.20 [7/8"]
P350-500YLM	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P550YLM	ø22.20 [7/8"]*	ø28.58 [1-1/8"]
P600YLM	ø22.20 [7/8"]*	ø34.93 [1-3/8"]

* When the piping length is 65 m or longer, use the ø28.58 [1-1/8] pipe for the part that exceeds 65 m.

Piping "B", "C", "D", "E" size seleciton rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
P140 or less	ø9.52 [3/8"]	ø15.88 [5/8"]
P141-P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201-P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Piping "a", "b", "c", "d", "e", "f", "g", "h" size selection rule **(mm [in.])**

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P15 to P50, GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63 to P140, GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

1-2-2. IF more than 16 ports are in use, or if there is more than one BC controller in use for one Heat source unit

Note1. No Header usable on PQRY system.
Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P140 with 2 ports.
Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-6 to OFF).
However, the cooling capacity decreases a little (For details, refer to the chapter HEAT SOURCE UNITS, WR2 SERIES, 7-4. Correction by port counts of the BC controller).
Note7. Individual indoor units grouped together to connect to the BC controller via one port cannot operate individually in heating and cooling modes at the same time. I.e., they must all function in either heating or cooling together.
Note8. For sub BC controller CMB-P-V-GB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that of a P350 unit.
For sub BC controller CMB-P1016V-HB1 the connectable indoor unit capacities may sum to equal that or a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that of a P450 unit.
Note9. Indoor capactiy is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream.
For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.

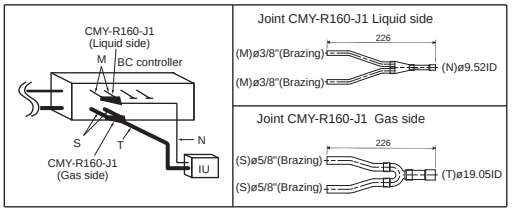


Fig. 1-2-2AA

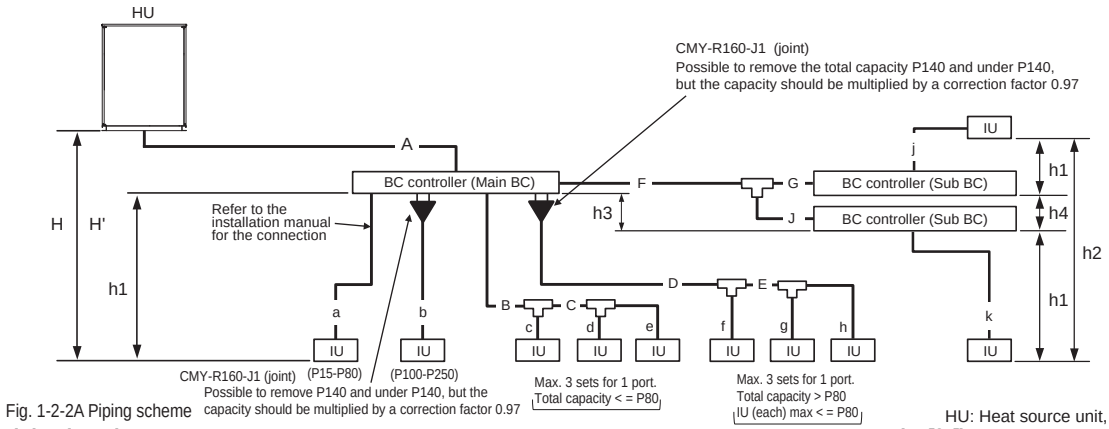


Fig. 1-2-2A Piping scheme

HU: Heat source unit, IU: Indoor unit

Piping length **(m [ft.])**

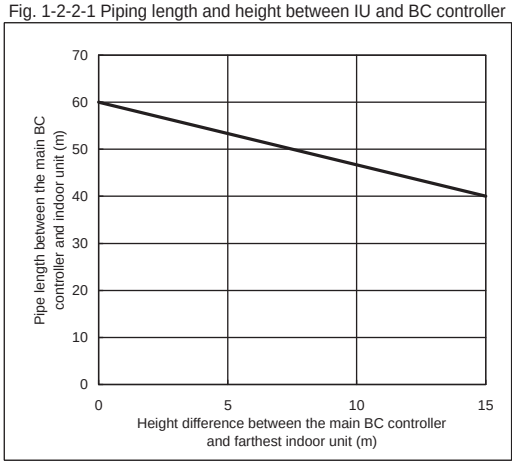
Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+F+G+J+a+b+c+d+e+f+g+h+j+k	*1	-
Farthest IU from HU	A+F+J+k	165 [541']	190 [623']
Distance between HU and BC	A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+h or F+J+k	40 [131'] *2	40 [131'] *2
Height between HU and IU (HU above IU)	H	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) *3	-
Height between IU and IU	h2	30 [98'] (20 [65']) *4	-
Heignt between BC(Main) and BC(Sub)	h3	15 [49'] (10 [32']) *5	-
Height between BC(Sub) and BC(Sub)	h4	10 [32']	-

Bent equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
P200YLM	0.35 [1.15']
P250YLM	0.42 [1.38']
P300YLM	0.42 [1.38']
P350YLM	0.50 [1.64']
P400YLM	0.50 [1.64']
P450YLM	0.50 [1.64']
P500YLM	0.50 [1.64']
P550YLM	0.50 [1.64']
P600YLM	0.50 [1.64']

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller
*1. Refer to the section 1-2-4.
*2. Farthest Indoor from BC controller "D+E+h or F+J+k " can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P200, P250 connected.
Details refer to Fig. 1-2-2-1
*3. Distance of Indoor sized P200, P250 from BC must be less than 10 m [32 ft.], if any.
*4. Distance of Indoor sized P200, P250 from IU must be less than 20 m [65 ft.], if any.
*5. Distance between BC (Main) and BC (Sub) must be less than 10 m, if two BC (Sub) are installed or Indoor sized P200 and/or P250 is connected.

Fig. 1-2-2-1 Piping length and height between IU and BC controller



Piping "A"size selection rule **(mm [in.])**

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P200YLM	ø15.88 [5/8"]	ø19.05 [3/4"]
P250-300YLM	ø19.05 [3/4"]	ø22.20 [7/8"]
P350-500YLM	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P550YLM	ø22.20 [7/8"]*	ø28.58 [1-1/8"]
P600YLM	ø22.20 [7/8"]*	ø34.93 [1-3/8"]

* When the piping length is 65 m or longer, use the ø28.58 [1-1/8] pipe for the part that exceeds 65 m.

Piping "B", "C", "D", "E" size seleciton rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
P140 or less	ø9.52 [3/8"]	ø15.88 [5/8"]
P141-P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201-P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Piping "F", "G", "J" size selection rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(HP Gas)	Pipe(LP Gas)
P200 or less	ø9.52 [3/8"]	ø15.88 [5/8"]	ø19.05 [3/4"]
P201 to P300	ø9.52 [3/8"]	ø19.05 [3/4"]	ø22.20 [7/8"]
P301 to P350	ø12.70 [1/2"]	ø19.05 [3/4"]	ø28.58 [1-1/8"]
P351 to P400	ø12.70 [1/2"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P401 to P450	ø15.88 [5/8"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]

HP : High pressure, LP:Low pressure

Piping "a", "b", "c", "d", "e", "f", "g", "h", "j", "k" size selection rule **(mm [in.])**

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P15 to P50, GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63 to P140, GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

1-2-3. IF more than 16 ports are in use, or if there is more than one BC controller in use for two heat source units

Note1. No Header usable on PQRY system.
Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P140 with 2 ports.
Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-6 to OFF).
However, the cooling capacity decreases a little (For details, refer to the chapter HEAT SOURCE UNITS, WR2 SERIES, 7-4. Correction by port counts of the BC controller).
Note7. Individual indoor units grouped together to connect to the BC controller via one port cannot operate individually in heating and cooling modes at the same time. I.e., they must all function in either heating or cooling together.
Note8. For sub BC controller CMB-P-V-GB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that of a P350 unit.
For sub BC controller CMB-P1016V-HB1 the connectable indoor unit capacities may sum to equal that or a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that of a P450 unit.
Note9. Indoor capactiy is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream.
For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.

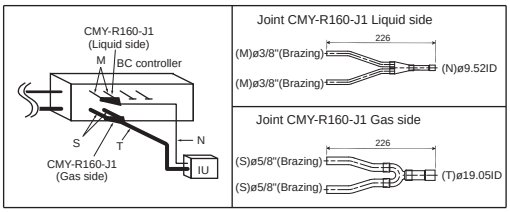


Fig. 1-2-3AA

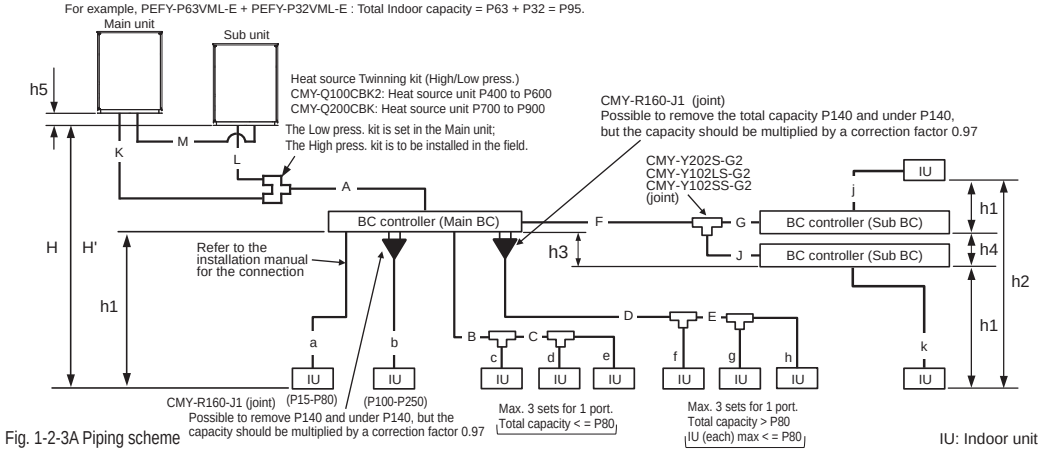


Fig. 1-2-3A Piping scheme

IU: Indoor unit

Piping length **(m [ft.])**

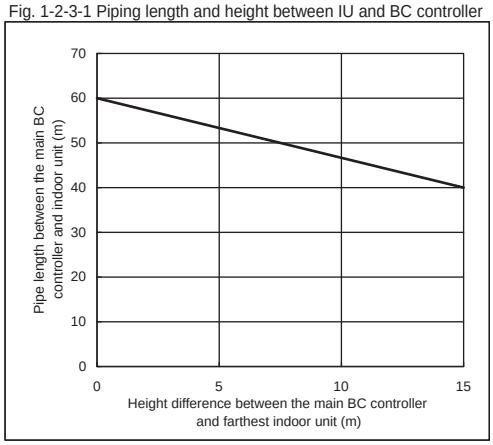
Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	K+L+M+A+B+C+D+E+F+G+J+a+b+c+d+e+f+g+h+j+k	*1	-
Farthest IU from HU	K(L)+A+F+J+k	165 [541']	190 [623']
Distance between HU and BC	K(L)+A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+h or F+G+j or F+J+k	40 [131'] *2	40 [131'] *2
Height between HU and IU (HU above IU)	H	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) *3	-
Height between IU and IU	h2	30 [98'] (20 [65']) *4	-
Height between BC(Main) and BC(Sub)	h3	15 [49'] (10 [32']) *5	-
Height between BC(Sub) and BC(Sub)	h4	10 [32']	-
Distance between Main unit and Sub unit	K+L or M	5 [16']	-
Height between Main unit and Sub unit	h5	0.1 [0.3']	-

Bent equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
P400YSLM	0.50 [1.64']
P450YSLM	0.50 [1.64']
P500YSLM	0.50 [1.64']
P550YSLM	0.50 [1.64']
P600YSLM	0.50 [1.64']
P700YSLM	0.70 [2.29']
P750YSLM	0.70 [2.29']
P800YSLM	0.70 [2.29']
P850YSLM	0.80 [2.62']
P900YSLM	0.80 [2.62']

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller
*1. Refer to the section 1-2-4.
*2. Farthest Indoor from BC controller "D+E+h or F+G+j or F+J+k " can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P200, P250 connected. Details refer to Fig.1-2-3-1
*3. Distance of Indoor sized P200, P250 from BC must be less than 10 m [32 ft.], if any.
*4. Distance of Indoor sized P200, P250 from IU must be less than 20 m [65 ft.], if any.
*5. Distance between BC (Main) and BC (Sub) must be less than 10 m, if two BC (Sub) are installed or Indoor sized P200 and/or P250 is connected.

Fig. 1-2-3-1 Piping length and height between IU and BC controller



Piping "A"size selection rule **(mm [in.])**

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P400-500YSLM	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P550YSLM	ø22.20 [7/8"]*	ø28.58 [1-1/8"]
P600YSLM	ø22.20 [7/8"]*	ø34.93 [1-3/8"]
P700-800YSLM	ø28.58 [1-1/8"]	ø34.93 [1-3/8"]
P850-900YSLM	ø28.58 [1-1/8"]	ø41.28 [1-5/8"]

* When the piping length is 65 m or longer, use the ø28.58 [1-1/8] pipe for the part that exceeds 65 m.

Piping "B", "C", "D", "E" size seleciton rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
P140 or less	ø9.52 [3/8"]	ø15.88 [5/8"]
P141-P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201-P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Piping "F", "G", "J" size selection rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(HP Gas)	Pipe(LP Gas)
P200 or less	ø9.52 [3/8"]	ø15.88 [5/8"]	ø19.05 [3/4"]
P201 to P300	ø9.52 [3/8"]	ø19.05 [3/4"]	ø22.20 [7/8"]
P301 to P350	ø12.70 [1/2"]	ø19.05 [3/4"]	ø28.58 [1-1/8"]
P351 to P400	ø12.70 [1/2"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P401 to P450	ø15.88 [5/8"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]

HP: High pressure, LP: Low pressure

Piping "K", "L", "M" size selection rule **(mm [in.])**

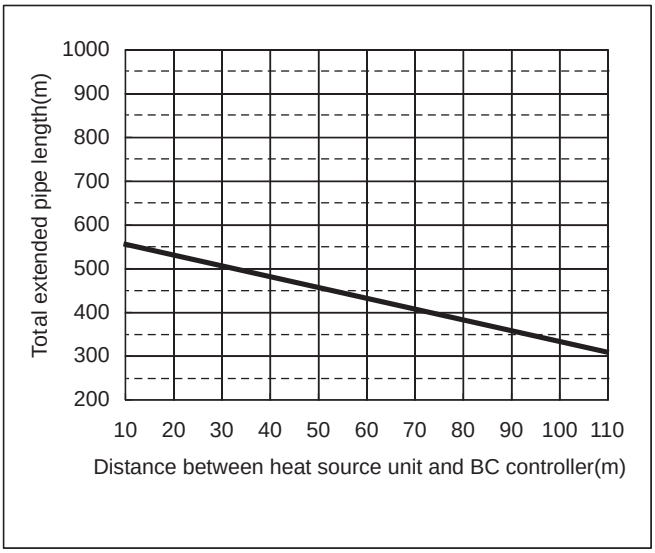
Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P400YSLM	ø15.88 [5/8"]	ø19.05 [3/4"]
P450-600YSLM	ø19.05 [3/4"]	ø22.20 [7/8"]
P700-900YSLM	ø22.20 [7/8"]	ø28.58 [1-1/8"]

Piping "a", "b", "c", "d", "e", "f", "g", "h", "j", "k" size selection rule **(mm [in.])**

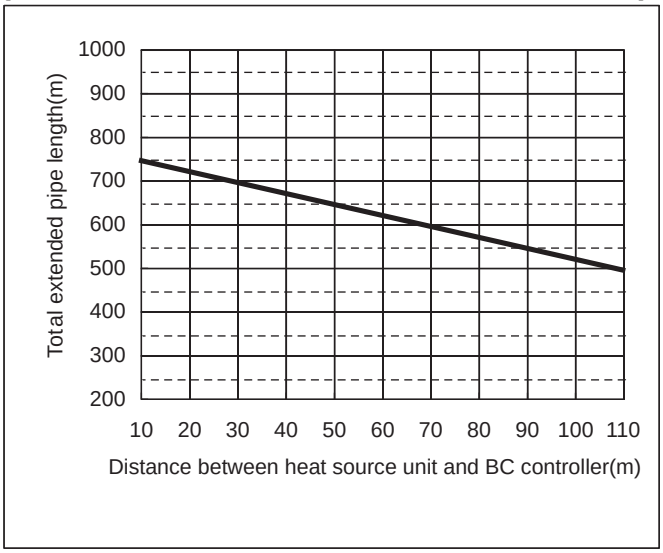
Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P15 to P50	ø6.35 [1/4"]	ø12.70 [1/2"]
P63 to P140	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

1-2-4. Total piping length restrictions

[PQRY-P200, 250, 300YLM-A]

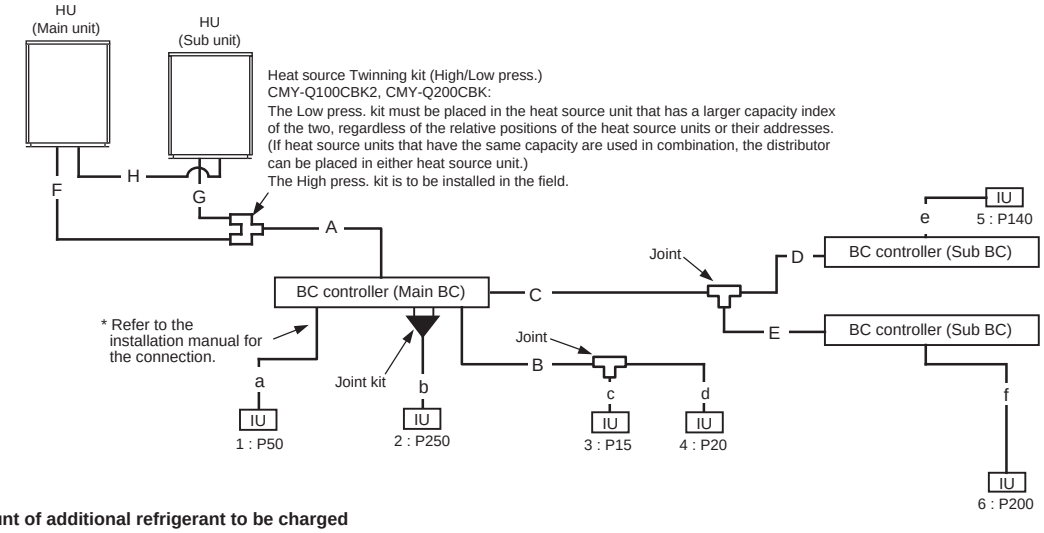


[PQRY-P350, 400, 450, 500, 550, 600YLM-A]
[PQRY-P400, 450, 500, 550, 600, 700 ,750, 800, 850, 900YSLM-A]



1-3. Refrigerant charging calculation

Sample connection (with 3 BC controller and 6 indoor units) (PQRY-P700YSLM)



■Amount of additional refrigerant to be charged

Refrigerant for extended pipes (field piping) is not factory-charged to the heat source unit. Add an appropriate amount of refrigerant for each pipes on site.
Record the size of each high pressure pipe and liquid pipe, and the amout of refrigerant that was charged on the heat source unit for future reference.

■Calculating the amount of additional refrigerant to be charged

The amount of refrigerant to be charged is calculated with the size of the on-site-installed high pressure pipes and liquid pipes, and their length.
Calculate the amount of refrigerant to be charged according to the formula below.
Round up the calculation result to the nearest 0.1kg. (i.e., 16.03 kg = 16.1 kg)

* When connecting PEFY-P20VMA3-E units, add 0.54 kg of refrigerant for each of these units.
* When connecting PEFY-P25/32/40VMA3-E units, add 0.74 kg of refrigerant for each of these units.
* When connecting PEFY-P50/63/71/80/100/125VMA3-E units, add 1.16 kg of refrigerant for each of these units.

<Amount of additional refrigerant to be charged>

■Calculating the amount of additional refrigerant to be charged

Units "m" and "kg"
<Formula>
• When the piping length from the heat source unit to the farthest indoor unit is 30.5 m (100 ft) or shorter

Amount of additional charge (kg)	=	High-pressure pipe ø28.58 total length × 0.36 (kg/m)	+	High-pressure pipe ø22.2 total length × 0.23 (kg/m)	+	High-pressure pipe ø19.05 total length × 0.16 (kg/m)	+	High-pressure pipe ø15.88 total length × 0.11 (kg/m)	+	Liquid pipe ø15.88 total length × 0.2 (kg/m)
	+	Liquid pipe ø12.7 total length × 0.12 (kg/m)	+	Liquid pipe ø9.52 total length × 0.06 (kg/m)	+	Liquid pipe ø6.35 total length × 0.024 (kg/m)				

+

BC controller	Amount (to be added for standard or main BC controller)
Standard/Main	3.0kg

+

Main BC controller	Amount
HA-type	2.0kg

+

Number of sub BC controllers	Amount (to be added for sub BC controller)
1	1.0kg
2	2.0kg

+

Total capacity of connected indoor units	Amount (to be added for indoor unit)
80 or below	2.0kg
81 to 160	2.5kg
161 to 330	3.0kg
331 to 390	3.5kg
391 to 480	4.5kg
481 to 630	5.0kg
631 to 710	6.0kg
711 to 800	8.0kg
801 to 890	9.0kg
891 to 1070	10.0kg
1071 to 1250	12.0kg
1251 or above	14.0kg

+

Heat source unit model		Amount (to be added for heat source unit)
Single	P550	1.0kg
	P600	1.0kg

• When the piping length from the heat source unit to the farthest indoor unit is longer than 30.5 m (100 ft)

Amount of additional charge (kg) = High-pressure pipe ø28.58 total length × 0.33 (kg/m) + High-pressure pipe ø22.2 total length × 0.21 (kg/m) + High-pressure pipe ø19.05 total length × 0.14 (kg/m) + High-pressure pipe ø15.88 total length × 0.1 (kg/m) + Liquid pipe ø15.88 total length × 0.18 (kg/m)

+ Liquid pipe ø12.7 total length × 0.11 (kg/m) + Liquid pipe ø9.52 total length × 0.054 (kg/m) + Liquid pipe ø6.35 total length × 0.021 (kg/m)

+

BC controller	Amount (to be added for standard or main BC controller)
Standard/Main	3.0kg

+

Main BC controller	Amount
HA-type	2.0kg

+

Number of sub BC controllers	Amount (to be added for sub BC controller)
1	1.0kg
2	2.0kg

+

Total capacity of connected indoor units	Amount (to be added for indoor unit)
80 or below	2.0kg
81 to 160	2.5kg
161 to 330	3.0kg
331 to 390	3.5kg
391 to 480	4.5kg
481 to 630	5.0kg
631 to 710	6.0kg
711 to 800	8.0kg
801 to 890	9.0kg
891 to 1070	10.0kg
1071 to 1250	12.0kg
1251 or above	14.0kg

+

Heat source unit model		Amount (to be added for heat source unit)
Single	P550	1.0kg
	P600	1.0kg

■Amount of factory charged refrigerant

heat source unit Model	Charged amount
P200 P250 P300	5.0 kg
P350 P400 P450 P500	6.0 kg
P550 P600	11.7 kg

■Sample calculation

Indoor	1: 50	A:	ø28.58	40m	a:	ø6.35	10m
	2: 250	B:	ø9.52	10m	b:	ø9.52	5m
	3: 15	C:	ø12.70	20m	c:	ø6.35	5m
	4: 20	D:	ø9.52	5m	d:	ø6.35	10m
	5: 140	E:	ø9.52	5m	e:	ø9.52	5m
	6: 200	F:	ø22.20	3m	f:	ø9.52	5m
		G:	ø22.20	1m			

The total length of each liquid line is as follows:
ø28.58: A = 40 m
ø22.20: F + G = 4 m
ø12.70: C = 20 m
ø9.52: B + D + E + b + e + f = 35 m
ø6.35: a + c + d = 25 m
Therefore,
<Calculation example>
Additional refrigerant charge
= 40 × 0.33 + 4 × 0.21 + 20 × 0.11 + 35 × 0.054 + 25 × 0.021 + 3 + 2 + 2 + 6
= 31.7 (31.655) kg

■Limitation of the amount of refrigerant to be charged

The above calculation result of the amount of refrigerant to be charged must become below the value in the table below.

Total index of the heat source units		P200 YLM	P250 YLM	P300 YLM	P350 YLM	P400 YLM	P450 YLM	P500 YLM	P550 YLM	P600 YLM	P400 YSLM	P450 YSLM	P500 YSLM	P550 YSLM	P600 YSLM
Maximum refrigerant charge	Factory charged	5.0kg	5.0kg	5.0kg	6.0kg	6.0kg	6.0kg	6.0kg	11.7kg	11.7kg	10.0kg	10.0kg	10.0kg	10.0kg	10.0kg
	Charged on site	27.0kg	32.0kg	33.0kg	52.0kg	52.0kg	53.0kg	55.0kg	57.0kg	58.0kg	52.0kg	53.0kg	55.0kg	61.5kg	64.5kg
	Total for system	32.0kg	37.0kg	38.0kg	58.0kg	58.0kg	59.0kg	61.0kg	68.7kg	69.7kg	62.0kg	63.0kg	65.0kg	71.5kg	74.5kg

Total index of the heat source units		P700 YSLM	P750 YSLM	P800 YSLM	P850 YSLM	P900 YSLM
Maximum refrigerant charge	Factory charged	12.0kg	12.0kg	12.0kg	12.0kg	12.0kg
	Charged on site	72.0kg	74.0kg	74.0kg	76.0kg	76.0kg
	Total for system	84.0kg	86.0kg	86.0kg	88.0kg	88.0kg

for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

⚠Warning

■Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
- Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, during repair, or at the time of disposal of the unit.
- It may also be in violation of applicable laws.
- MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.

■Our air-conditioning equipments and heat pumps contain a fluorinated greenhouse gas, R410A.

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