

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS20/25/32VMA-A1

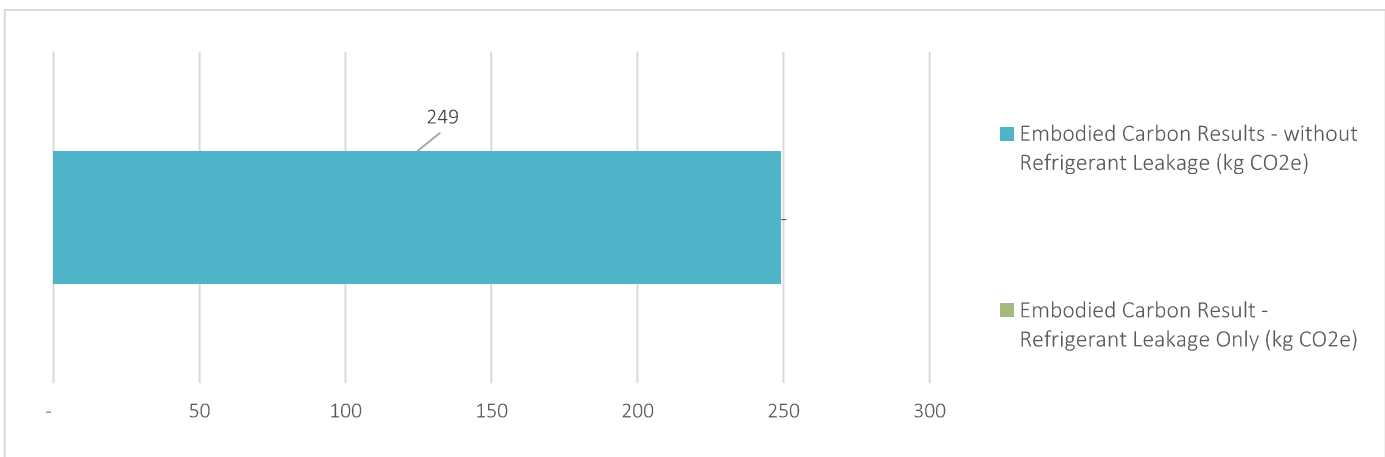
General Information

Date of assessment	14/01/2026
Name of assessor and organisation	RI/Mitsubishi Electric
Contact details of assessor	embodied.carbon@meuk.mee.com

Embodied Carbon Result with 'Mid-level TM65 Calculation' Method (kg CO₂e) - Total

Result (kgCO ₂ e) - Total	249
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Embodied Carbon Result per kW (kg CO ₂ e/kW)	Capacity [kW]	
Result	2.2	113.27
(kgCO ₂ e/kW)	2.8	89.00
	3.6	69.22



Product Information

Type of product	VRF Indoor Unit
Capacity of equipment [kW]*	2.2/2.8/3.6
Product weight (kg)	21.00
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Type of refrigerant	R32
Refrigerant GWP	675
Energy consumption of the factory per unit of product [kW]	25.14
Location of manufacture	UK
Product Complexity	Category 3: High

*Nominal cooling capacity conditions as per data book

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Embodied Carbon Results Breakdown (kg CO ₂ e)	
A1: Material extraction	120
A2: Transport	17
A3: Manufacturing	30
A4: Transport to Site	0
B1: Use	-
B3: Repair	17
C1: Deconstruction	-
C2: Transport	0
C3: Waste Processing	7
C4: Disposal	0

Embodied Carbon Results - without Refrigerant Leakage (kg CO ₂ e)	
A1-C4 (excluding B1,C1)	192
A1-C4 with Buffer Factor (excluding B1, C1)	249

Embodied Carbon Result - Refrigerant Leakage Only (kg CO ₂ e)	
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	-

Assumptions	
A1: Material carbon coefficient source	TM65 Table 2.1 & The ICE Database
B1: Refrigerant annual leakage rate (%)	6
C1: Refrigerant end of life recovery rate (%)	97
B3: Materials replaced as part of repair (%)	10% (TM65 Assumption)
C4: Percentage of product going to landfill (%)	30

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS40VMA-A1

General Information

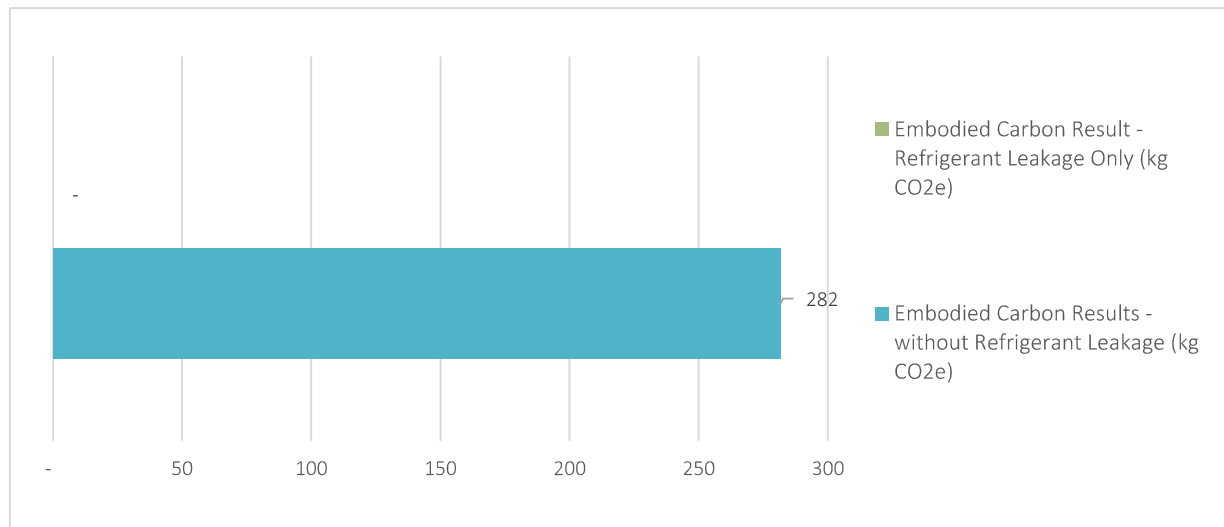
Date of assessment	31/03/2026
Name of assessor and organisation	RI/Mitsubishi Electric
Contact details of assessor	embodied.carbon@meuk.mee.com

Embodied Carbon Result with 'Mid-level TM65 Calculation' Method (kg CO₂e) - Total

Result (kgCO ₂ e) - Total	282
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Embodied Carbon Result per kW (kg CO₂e/kW)

Result (kgCO ₂ e/kW)	50.30
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Product Information

Type of product	VRF Indoor Unit
Capacity of equipment [kW]*	5.60
Product weight (kg)	25.00
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Type of refrigerant	R32
Refrigerant GWP	675
Energy consumption of the factory per unit of product [kW]	26.66
Location of manufacture	UK
Product Complexity	Category 3: High

*Nominal cooling capacity conditions as per data book

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Embodied Carbon Results Breakdown (kg CO ₂ e)	
A1: Material extraction	137
A2: Transport	20
A3: Manufacturing	32
A4: Transport to Site	0
B1: Use	-
B3: Repair	20
C1: Deconstruction	-
C2: Transport	0
C3: Waste Processing	8
C4: Disposal	0.1

Embodied Carbon Results - without Refrigerant Leakage (kg CO ₂ e)	
A1-C4 (excluding B1,C1)	217
A1-C4 with Buffer Factor (excluding B1, C1)	282

Embodied Carbon Result - Refrigerant Leakage Only (kg CO ₂ e)	
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	-

Assumptions	
A1: Material carbon coefficient source	TM65 Table 2.1 & The ICE Database
B1: Refrigerant annual leakage rate (%)	6
C1: Refrigerant end of life recovery rate (%)	97
B3: Materials replaced as part of repair (%)	10% (TM65 Assumption)
C4: Percentage of product going to landfill (%)	30

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS50VMA-A1

General Information

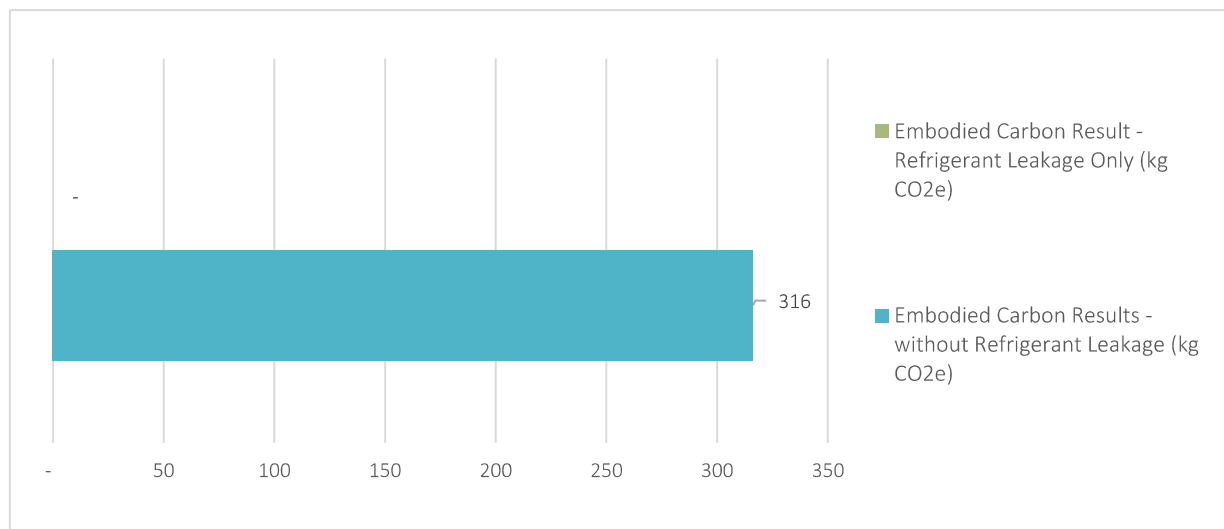
Date of assessment	31/03/2026
Name of assessor and organisation	RI/Mitsubishi Electric
Contact details of assessor	embodied.carbon@meuk.mee.com

Embodied Carbon Result with 'Mid-level TM65 Calculation' Method (kg CO₂e) - Total

Result (kgCO ₂ e) - Total	316
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Embodied Carbon Result per kW (kg CO₂e/kW)

Result (kgCO ₂ e/kW)	56.47
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Product Information

Type of product	VRF Indoor Unit
Capacity of equipment [kW]*	5.60
Product weight (kg)	30.00
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Type of refrigerant	R32
Refrigerant GWP	675
Energy consumption of the factory per unit of product [kW]	25.14
Location of manufacture	UK
Product Complexity	Category 3: High

*Nominal cooling capacity conditions as per data book

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS50VMA-A1

Embodied Carbon Results Breakdown (kg CO₂e)

A1: Material extraction	160
A2: Transport	24
A3: Manufacturing	30
A4: Transport to Site	0
B1: Use	-
B3: Repair	22
C1: Deconstruction	-
C2: Transport	0
C3: Waste Processing	7
C4: Disposal	0.1

Embodied Carbon Results - without Refrigerant Leakage (kg CO₂e)

A1-C4 (excluding B1,C1)	243
A1-C4 with Buffer Factor (excluding B1, C1)	316

Embodied Carbon Result - Refrigerant Leakage Only (kg CO₂e)

B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	-
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Assumptions

A1: Material carbon coefficient source	TM65 Table 2.1 & The ICE Database
B1: Refrigerant annual leakage rate (%)	6
C1: Refrigerant end of life recovery rate (%)	97
B3: Materials replaced as part of repair (%)	10% (TM65 Assumption)
C4: Percentage of product going to landfill (%)	30

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS63VMA-A1

General Information

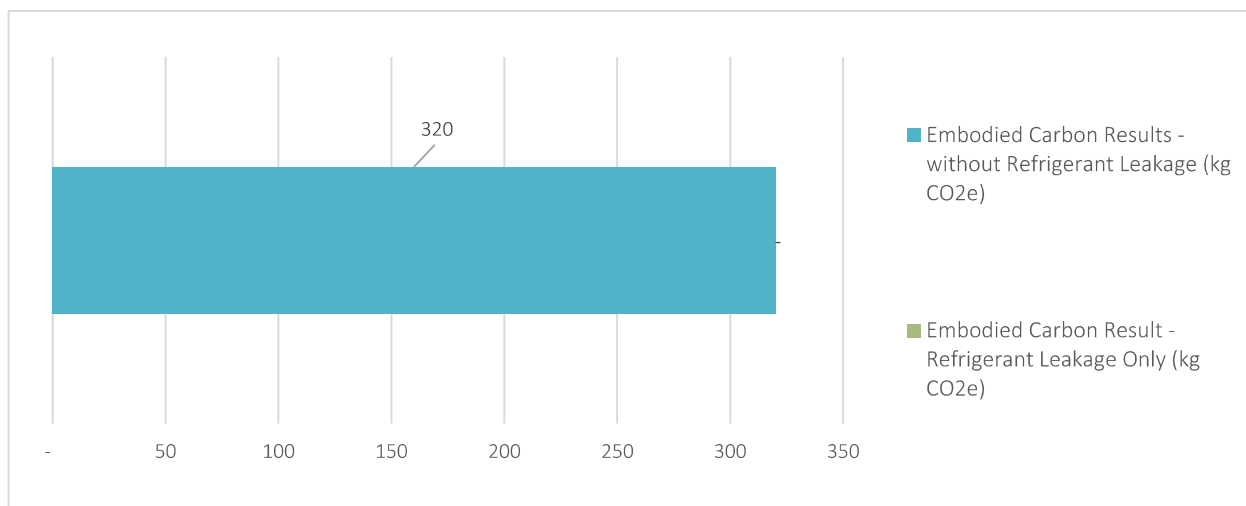
Date of assessment	05/03/2026
Name of assessor and organisation	RI/Mitsubishi Electric
Contact details of assessor	embodied.carbon@meuk.mee.com

Embodied Carbon Result with 'Mid-level TM65 Calculation' Method (kg CO₂e) - Total

Result (kgCO ₂ e) - Total	320
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Embodied Carbon Result per kW (kg CO₂e/kW)

Result (kgCO ₂ e/kW)	45.07
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Product Information

Type of product	VRF Indoor Unit
Capacity of equipment [kW]*	7.10
Product weight (kg)	30.00
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Type of refrigerant	R32
Refrigerant GWP	675
Energy consumption of the factory per unit of product [kW]	26.66
Location of manufacture	UK
Product Complexity	Category 3: High

*Nominal cooling capacity conditions as per data book

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PEFY-MS63VMA-A1

Embodied Carbon Results Breakdown (kg CO ₂ e)	
A1: Material extraction	160
A2: Transport	24
A3: Manufacturing	32
A4: Transport to Site	0
B1: Use	-
B3: Repair	22
C1: Deconstruction	-
C2: Transport	0
C3: Waste Processing	8
C4: Disposal	0

Embodied Carbon Results - without Refrigerant Leakage (kg CO ₂ e)	
A1-C4 (excluding B1,C1)	246
A1-C4 with Buffer Factor (excluding B1, C1)	320

Embodied Carbon Result - Refrigerant Leakage Only (kg CO ₂ e)	
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	-

Assumptions	
A1: Material carbon coefficient source	TM65 Table 2.1 & The ICE Database
B1: Refrigerant annual leakage rate (%)	6
C1: Refrigerant end of life recovery rate (%)	97
B3: Materials replaced as part of repair (%)	10% (TM65 Assumption)
C4: Percentage of product going to landfill (%)	30

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PEFY-MS80_100VMA-A1

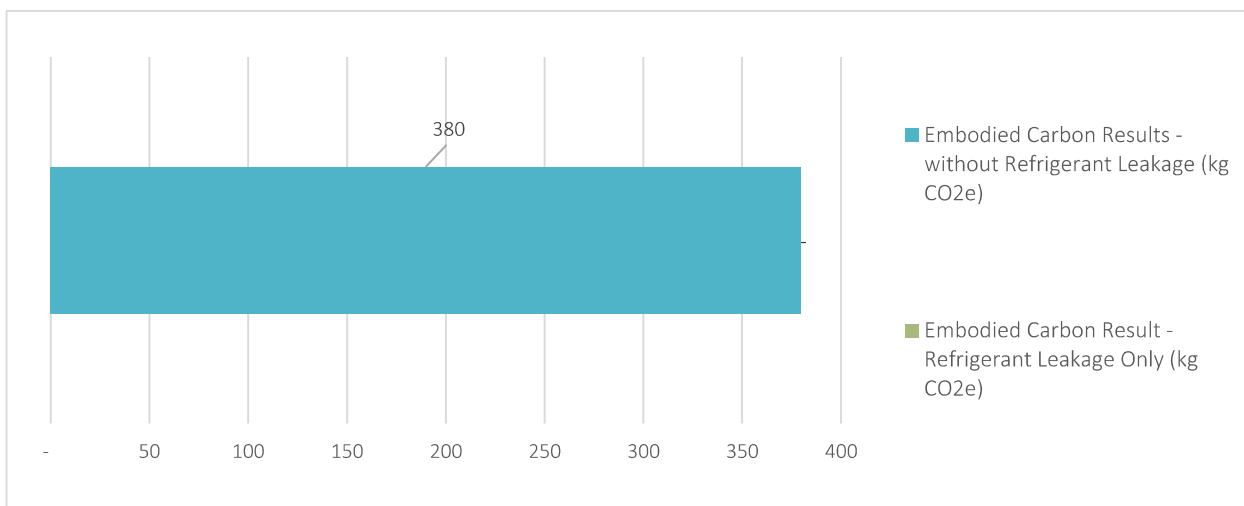
General Information

Date of assessment	31/03/2026
Name of assessor and organisation	RI/Mitsubishi Electric
Contact details of assessor	embodied.carbon@meuk.mee.com

Embodied Carbon Result with 'Mid-level TM65 Calculation' Method (kg CO₂e) - Total

Result (kgCO ₂ e) - Total	380
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Embodied Carbon Result per kW (kg CO ₂ e/kW)	Capacity [kW]	
Result	9	42.18
(kgCO ₂ e/kW)	11.2	33.90



Product Information

Type of product	VRF Indoor Unit
Capacity of equipment [kW]*	9/11.2
Product weight (kg)	37.00
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Type of refrigerant	R32
Refrigerant GWP	675
Energy consumption of the factory per unit of product [kW]	26.66
Location of manufacture	UK
Product Complexity	Category 3: High

*Nominal cooling capacity conditions as per data book

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS80_100VMA-A1

Embodied Carbon Results Breakdown (kg CO ₂ e)	
A1: Material extraction	196
A2: Transport	29
A3: Manufacturing	32
A4: Transport to Site	0
B1: Use	-
B3: Repair	27
C1: Deconstruction	-
C2: Transport	0
C3: Waste Processing	8
C4: Disposal	0

Embodied Carbon Results - without Refrigerant Leakage (kg CO ₂ e)	
A1-C4 (excluding B1,C1)	292
A1-C4 with Buffer Factor (excluding B1, C1)	380

Embodied Carbon Result - Refrigerant Leakage Only (kg CO ₂ e)	
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	-

Assumptions	
A1: Material carbon coefficient source	TM65 Table 2.1 & The ICE Database
B1: Refrigerant annual leakage rate (%)	6
C1: Refrigerant end of life recovery rate (%)	97
B3: Materials replaced as part of repair (%)	10% (TM65 Assumption)
C4: Percentage of product going to landfill (%)	30

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS125VMA-A1

General Information

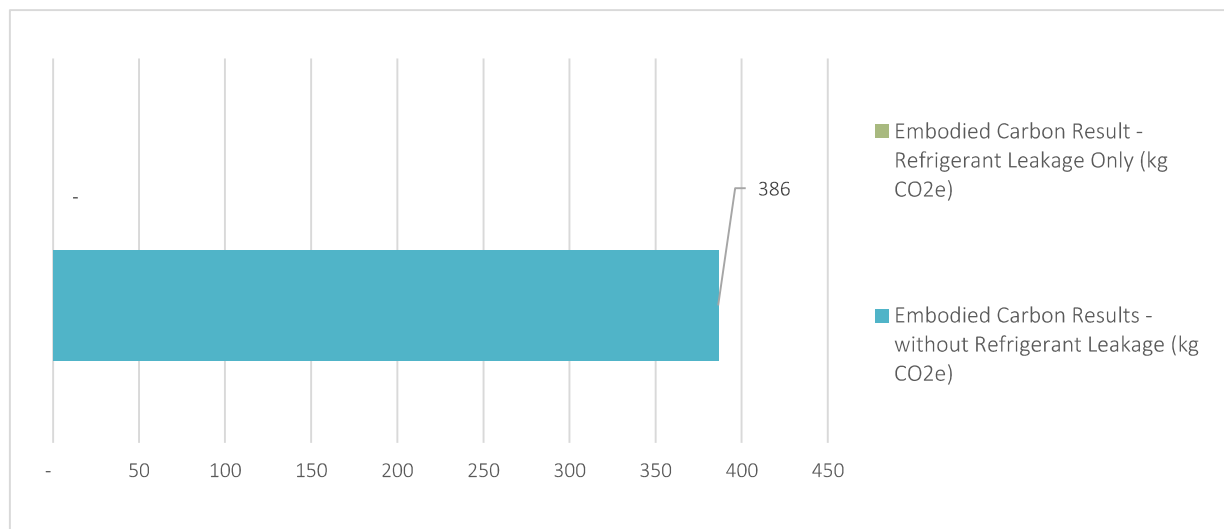
Date of assessment	26/02/2026
Name of assessor and organisation	RI/Mitsubishi Electric
Contact details of assessor	embodied.carbon@meuk.mee.com

Embodied Carbon Result with 'Mid-level TM65 Calculation' Method (kg CO₂e) - Total

Result (kgCO ₂ e) - Total	386
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Embodied Carbon Result per kW (kg CO₂e/kW)

Result (kgCO ₂ e/kW)	27.60
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Product Information

Type of product	VRF Indoor Unit
Capacity of equipment [kW]*	14.00
Product weight (kg)	38.00
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Type of refrigerant	R32
Refrigerant GWP	675
Energy consumption of the factory per unit of product [kW]	26.66
Location of manufacture	UK
Product Complexity	Category 3: High

*Nominal cooling capacity conditions as per data book

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PEFY-MS125VMA-A1

Embodied Carbon Results Breakdown (kg CO ₂ e)	
A1: Material extraction	198
A2: Transport	30
A3: Manufacturing	32
A4: Transport to Site	2
B1: Use	-
B3: Repair	27
C1: Deconstruction	-
C2: Transport	1
C3: Waste Processing	8
C4: Disposal	0.1

Embodied Carbon Results - without Refrigerant Leakage (kg CO ₂ e)	
A1-C4 (excluding B1,C1)	297
A1-C4 with Buffer Factor (excluding B1, C1)	386

Embodied Carbon Result - Refrigerant Leakage Only (kg CO ₂ e)	
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	-

Assumptions	
A1: Material carbon coefficient source	TM65 Table 2.1 & The ICE Database
B1: Refrigerant annual leakage rate (%)	6
C1: Refrigerant end of life recovery rate (%)	97
B3: Materials replaced as part of repair (%)	10% (TM65 Assumption)
C4: Percentage of product going to landfill (%)	30

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS140VMA-A1

General Information

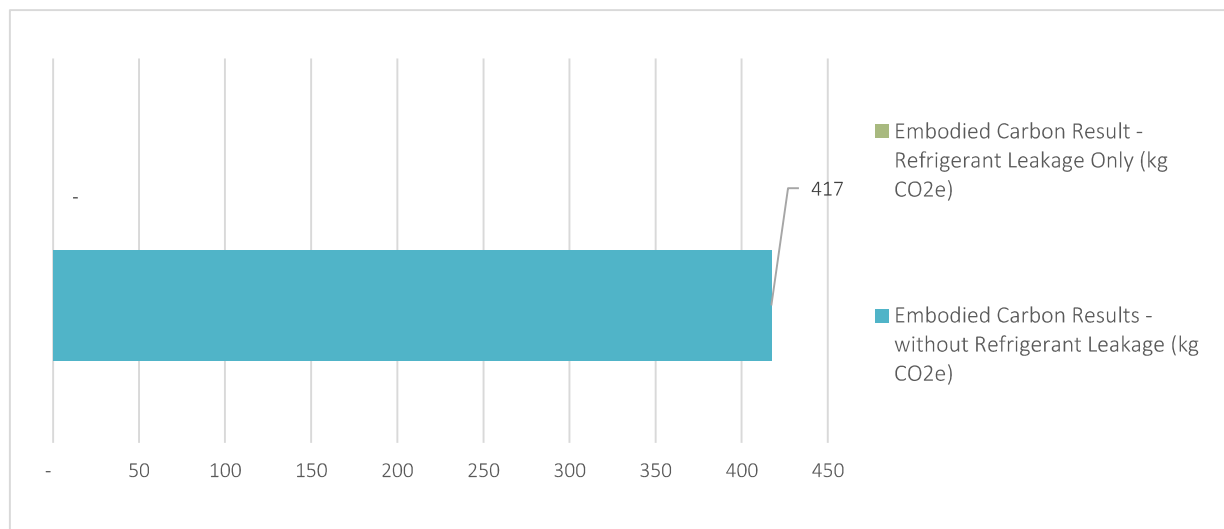
Date of assessment	31/03/2026
Name of assessor and organisation	RI/Mitsubishi Electric
Contact details of assessor	embodied.carbon@meuk.mee.com

Embodied Carbon Result with 'Mid-level TM65 Calculation' Method (kg CO₂e) - Total

Result (kgCO ₂ e) - Total	417
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Embodied Carbon Result per kW (kg CO₂e/kW)

Result (kgCO ₂ e/kW)	26.08
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Product Information

Type of product	VRF Indoor Unit
Capacity of equipment [kW]*	16.00
Product weight (kg)	42.00
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Type of refrigerant	R32
Refrigerant GWP	675
Energy consumption of the factory per unit of product [kW]	26.66
Location of manufacture	UK
Product Complexity	Category 3: High

*Nominal cooling capacity conditions as per data book

TM65 Embodied Carbon Mid-level Calculation

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PEFY-MS140VMA-A1

Embodied Carbon Results Breakdown (kg CO₂e)

A1: Material extraction	216
A2: Transport	33
A3: Manufacturing	32
A4: Transport to Site	2
B1: Use	-
B3: Repair	29
C1: Deconstruction	-
C2: Transport	1
C3: Waste Processing	8
C4: Disposal	0.1

Embodied Carbon Results - without Refrigerant Leakage (kg CO₂e)

A1-C4 (excluding B1,C1)	321
A1-C4 with Buffer Factor (excluding B1, C1)	417

Embodied Carbon Result - Refrigerant Leakage Only (kg CO₂e)

B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	-
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Assumptions

A1: Material carbon coefficient source	TM65 Table 2.1 & The ICE Database
B1: Refrigerant annual leakage rate (%)	6
C1: Refrigerant end of life recovery rate (%)	97
B3: Materials replaced as part of repair (%)	10% (TM65 Assumption)
C4: Percentage of product going to landfill (%)	30