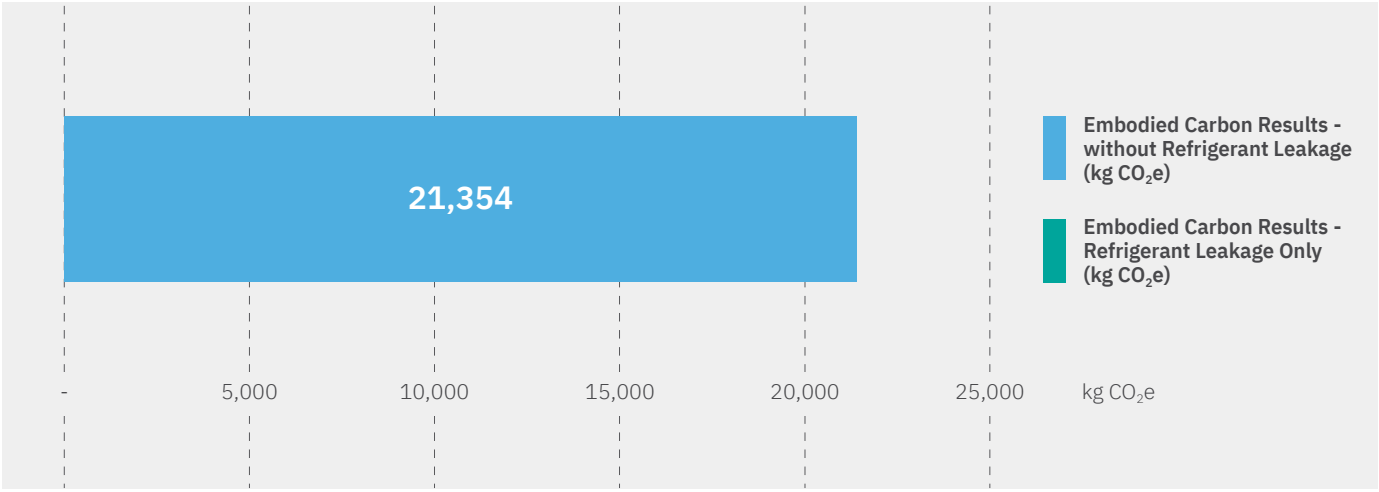
I.T. Cooling | TM65 Calculation

MEWALL 402

CIBSE TM65 Embodied Carbon Mid-level Calculation

Assesment Date:	3rd September 2025
Assessor / Organisation:	Mitsubishi Electric LES UK
Contact:	embodied.carbon@meuk.mee.com

Embodied Carbon with 'Mid-level TM65 Calculation' Method (kg CO_2e) Total: **21,354**



MEWALL 402 - Product Information

Type of product	**Air Handling Unit**
Capacity of equipment (kW)	**430**
Product weight (kg)	**2460**
Material breakdown for at least 95% of the product weight? (Y/N)	**Y**
Service life of the product (years)	**15**
Type of refrigerant	**N/A**
Refrigerant GWP	**N/A**
Energy consumption of the factory per unit of product (kWh)	**24.2**
Location of manufacture	**Europe**
Product Complexity	**Category 3: High**

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Embodied Carbon Results Breakdown (kg CO_2e)	
A1: Material extraction	**12,422**
A2: Transport	**1,948**
A3: Manufacturing	**33**
A4: Transport to Site	**483**
B1: Use	**N/A**
B3: Repair	**1,493**
C1: Deconstruction	**N/A**
C2: Transport	**32**
C3: Waste Processing	**7**
C4: Disposal	**7**

Embodied Carbon Results - without Refrigerant Leakage (kg CO_2e)	
A1-C4 (excluding B1,C1)	**16,426**
A1-C4 with Buffer Factor (excluding B1, C1)	**21,354**

Embodied Carbon Result - Refrigerant Leakage Only (kg CO_2e)	
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	**N/A**

Assumptions	
A1: Material carbon coefficient source	**TM65 Table 2.1 & The ICE Database**
B1: Refrigerant annual leakage rate (%)	**2**
C1: Refrigerant end of life recovery rate (%)	**99**
B3: Materials replaced as part of repair (%)	**10** (TM65 Assumption)
C4: Percentage of product going to landfill (%)	**30**

MITSUBISHI ELECTRIC
Changes for the Better

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Note: The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:466), R515B (GWP:292), R454C (GWP:148), R1234ze (GWP:7) or R1234yf (GWP:4). *These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a hydrocarbon, R290 (GWP:0.02). *These GWP values are based on IPCC 6th edition.

Effective as of September 2025

Green Gateway greengateway.mitsubishielectric.co.uk