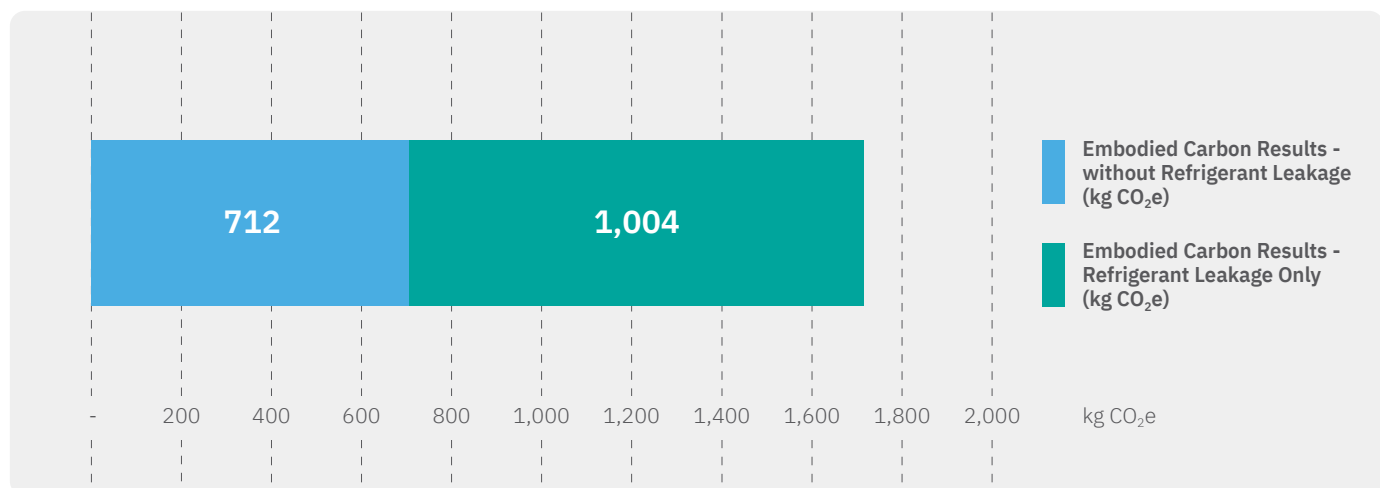


MXZ-4F83VF

CIBSE TM65 Embodied Carbon Mid-level Calculation

| | |
|---|--|
| <p>Assesment Date: 17th June 2021</p> <p>Assessor / Organisation: Mitsubishi Electric</p> <p>Contact: embodied.carbon@meuk.mee.com</p> | <p>Embodied Carbon Result with 'Mid-level TM65 Calculation' Method Total:</p> <div style="background-color: #76b82a; color: white; padding: 10px; border-radius: 5px; display: inline-block; font-weight: bold; font-size: 1.2em;">1,716 (kg CO₂e)</div> |
|---|--|



MXZ-4F83VF - Product Information

| | |
|--|--------------------|
| Type of product | Split Type Outdoor |
| Capacity of equipment (kW) | 2 |
| Product weight (kg) | 61 |
| 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 (kWh) | 0.0278 |
| Location of manufacture | Asia |
| Product Complexity | Category 3: High |



MXZ-4F83VF

CIBSE TM65 Embodied Carbon Mid-level Calculation



Embodied Carbon Results Breakdown (kg CO₂e)

| | |
|-------------------------|-----|
| A1: Material extraction | 432 |
| A2: Transport | 48 |
| A3: Manufacturing | 0.5 |
| A4: Transport to Site | 16 |
| B1: Use | 972 |
| B3: Repair | 50 |
| C1: Deconstruction | 32 |
| C2: Transport | 1 |
| C3: Waste Processing | 0 |
| C4: Disposal | 0.2 |

Embodied Carbon Results - without Refrigerant Leakage (kg CO₂e)

| | |
|---|-----|
| A1-C4 (excluding B1,C1) | 547 |
| A1-C4 with Buffer Factor (excluding B1, C1) | 712 |

Embodied Carbon Result - Refrigerant Leakage Only (kg CO₂e)

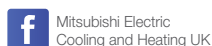
| | |
|--|-------|
| B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life) | 1,004 |
|--|-------|

Assumptions

| | |
|---|-----------------------------------|
| A1: Material carbon coefficient source | TM65 Table 2.1 & The ICE Database |
| B1: Refrigerant annual leakage rate (%) | 4 (TM65 Assumption) |
| C1: Refrigerant end of life recovery rate (%) | 98 (TM65 Assumption) |
| B3: Materials replaced as part of repair (%) | 10 (TM65 Assumption) |
| C4: Percentage of product going to landfill (%) | 30 (TM65 Assumption) |



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Note: The fuse rating is for guidance only. 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), R1234ze (GWP:7) or R1234yf (GWP:4). *These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

Effective as of July 2021

