

# EAHV-M1500YCL-N

### CIBSE TM65 Embodied Carbon Mid-level Calculation

**Assesment Date:** 10th June 2021

Assessor /

**Organisation:** Mitsubishi Electric

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Embodied Carbon Result with 'Mid-level TM65 Calculation' Method Total:

**23,831** (kg CO<sub>2</sub>e)



### EAHV-M1500YCL-N - Product Information

| Type of product  | A2W Heat Pump    |
|--|------------------|
| Capacity of equipment (kW)                                       | 150              |
| Product weight (kg)  | 1280             |
| Material breakdown for at least 95% of the product weight? (Y/N) | Υ                |
| Service life of the product (years)                              | 15               |
| Type of refrigerant  | R32              |
| Refrigerant GWP  | 675              |
| Energy consumption of the factory per unit of product (kWh)      | 14.95            |
| Location of manufacture  | Japan            |
| Product Complexity   | Category 3: High |





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Embodied Carbon Results - without Refrigerant Leakage (kg CO e)



| Embodied Carbon Results Breakdown (kg CO₂e) |       |
|---|-------|
| A1: Material extraction                     | 8,594 |
| A2: Transport                               | 1,014 |
| A3: Manufacturing                           | 26    |
| A4: Transport to Site                       | 275   |
| B1: Use                                     | 9,315 |
| B3: Repair                                  | 993   |
| C1: Deconstruction                          | 311   |
| C2: Transport                               | 17    |
| C3: Waste Processing                        | 4     |
| C4: Disposal                                | 3     |

| Embodied Sarbon Results Without Reingerant Leanage (Rg 602e) |        |
|--|--------|
| A1-C4 (excluding B1,C1)                                      | 10,927 |
| A1-C4 with Buffer Factor (excluding B1, C1)                  | 14,206 |

#### Embodied Carbon Result - Refrigerant Leakage Only (kg CO2e) B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life) 9,626

| Assumptions                                     |                                   |
|---|-----------------------------------|
| A1: Material carbon coefficient source          | TM65 Table 2.1 & The ICE Database |
| B1: Refrigerant annual leakage rate (%)         | 2 (TM65 Assumption)               |
| C1: Refrigerant end of life recovery rate (%)   | 99 (TM65 Assumption)              |
| B3: Materials replaced as part of repair (%)    | 10 (TM65 Assumption)              |
| C4: Percentage of product going to landfill (%) | <b>30</b> (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-631), R454B (GWP-631), R410A (GWP-1304), R513A (GWP-631), R407C (GWP-1650), R407C (GWP-1650) or R134a (GWP-1300).

Effective as of July 2021







