Heating | TM65 Calculation

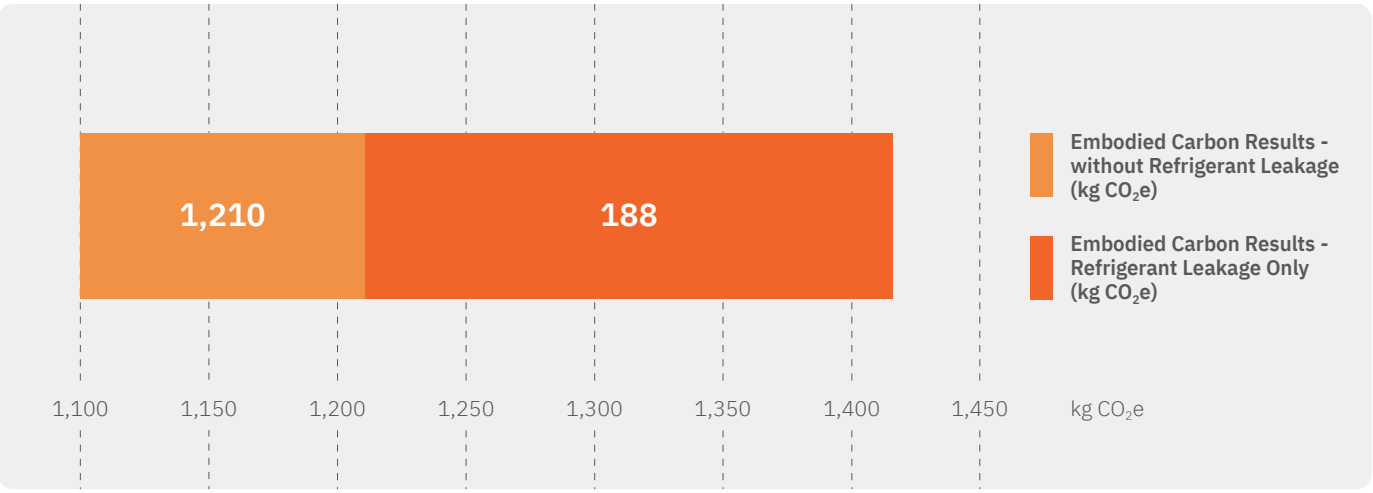
EHWT17D-MHEDW

CIBSE TM65 Embodied Carbon Mid-level Calculation

Assessment Date:	23rd March 2022
Assessor / Organisation:	Mitsubishi Electric
Contact:	embodied.carbon@meuk.mee.com

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

1,399 (kg CO_2e)



EHWT17D-MHEDW - Product Information

Type of product	**W2W Heat Pump**
Capacity of equipment (kW)	**7**
Product weight (kg)	**166**
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)	**30.014**
Location of manufacture	**UK**
Product Complexity	**Category 3: High**

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Embodied Carbon Results Breakdown (kg CO_2e)	
A1: Material extraction	**624**
A2: Transport	**131**
A3: Manufacturing	**73**
A4: Transport to Site	**7**
B1: Use	**182**
B3: Repair	**85**
C1: Deconstruction	**6**
C2: Transport	**2**
C3: Waste Processing	**9**
C4: Disposal	**0**

Embodied Carbon Results - without Refrigerant Leakage (kg CO_2e)	
A1-C4 (excluding B1,C1)	**931**
A1-C4 with Buffer Factor (excluding B1, C1)	**1,210**

Embodied Carbon Result - Refrigerant Leakage Only (kg CO_2e)	
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	**188**

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 (%)	**30** (TM65 Assumption)

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Changes for the Better

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IRELAND Mitsubishi Electric Europe, Westgate Business Park, Ballymount, Dublin 24, Ireland. Telephone: (01) 419 8800 Fax: (01) 419 8890 International code: (003531)

Note: Refer to 'Installation Manual' and 'Instruction Book' for further 'Technical Information'. 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), 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 April 2022

Green Gateway greengateway.mitsubishielectric.co.uk