

PUMY-P250YBM

CIBSE TM65 Embodied Carbon Mid-level Calculation

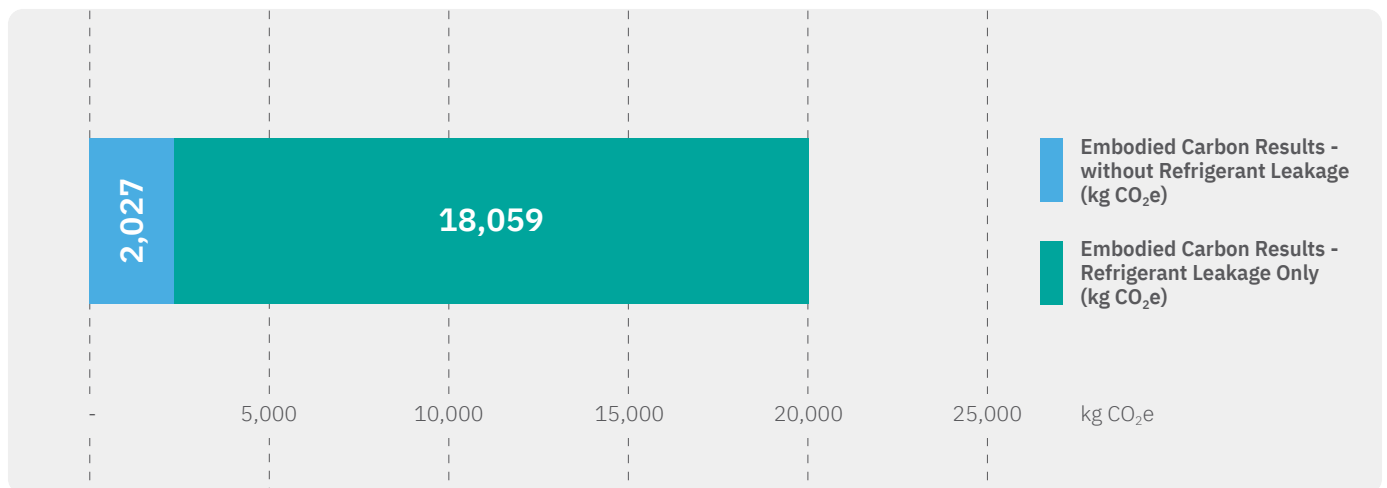
Assesment Date: 15th July 2021

Assessor / Organisation: James Chaplen
Mitsubishi Electric

Contact: embodied.carbon@meuk.mee.com

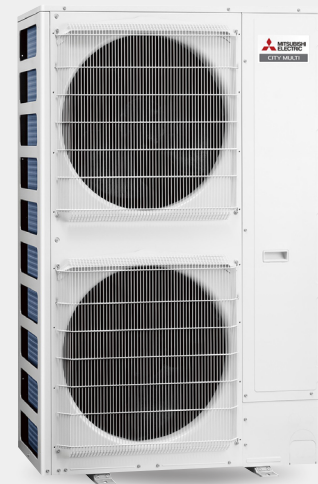
**Embodied Carbon Result with
'Mid-level TM65 Calculation'
Method Total:**

20,087 (kg CO₂e)



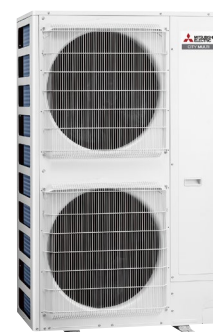
PUMY-P250YKM - Product Information

Type of product	VRF Outdoor Unit
Capacity of equipment (kW)	28
Product weight (kg)	196
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)	9.479
Location of manufacture	Asia
Product Complexity	Category 3: High



PUMY-P250YBM

CIBSE TM65 Embodied Carbon Mid-level Calculation



Embodied Carbon Results Breakdown (kg CO₂e)

A1: Material extraction	1,178
A2: Transport	155
A3: Manufacturing	32
A4: Transport to Site	47
B1: Use	17,477
B3: Repair	142
C1: Deconstruction	583
C2: Transport	2.6
C3: Waste Processing	3
C4: Disposal	0.5

Embodied Carbon Results - without Refrigerant Leakage (kg CO₂e)

A1-C4 (excluding B1,C1)	1,560
A1-C4 with Buffer Factor (excluding B1, C1)	2,027

Embodied Carbon Result - Refrigerant Leakage Only (kg CO₂e)

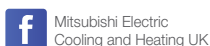
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	18,059
--	--------

Assumptions

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



Telephone: 01707 282880
 email: embodied.carbon@meuk.mee.com
 les.mitsubishielectric.co.uk



UNITED KINGDOM Mitsubishi Electric Europe Living Environment Systems Division, Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England. Telephone: 01707 282880 Fax: 01707 278881
 IRELAND Mitsubishi Electric Europe, Westgate Business Park, Ballymount, Dublin 24, Ireland. Telephone: (01) 419 8800 Fax: (01) 419 8890 International code: (003531)

Country of origin: United Kingdom - Japan - Thailand - Malaysia. ©Mitsubishi Electric Europe 2022. Mitsubishi and Mitsubishi Electric are trademarks of Mitsubishi Electric Europe B.V. The company reserves the right to make any variation in technical specification to the equipment described, or to withdraw or replace products without prior notification or public announcement. Mitsubishi Electric is constantly developing and improving its products. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. All goods are supplied subject to the Company's General Conditions of Sale, a copy of which is available on request. Third-party product and brand names may be trademarks or registered trademarks of their respective owners.

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 June 2022

