TM65ANZ Mid Level Calculation

R32 HYBRID OUTDOOR UNIT - EMBODIED CARBON







Assessment Date:

23rd March 2023

Assessor / Organisation:

Mitsubishi Electric

Contact:

compliance@bdt.co.nz

Valid Country:

New Zealand

PURY-EM300YNW-A1

Outdoor Unit

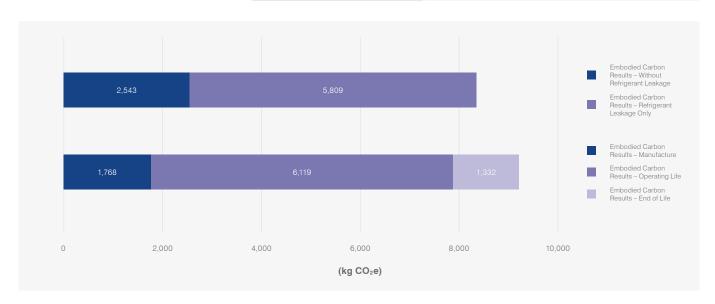
Designed for simultaneous heating and cooling with heat recovery, R32 Hybrid is a unique 2-Pipe Heat Recovery VRF System that replaces refrigerant with water between the Hybrid Branch Circuit Controller and the indoor units. This exclusive Mitsubishi Electric technology provides the comfort and safety of a traditional hydronic system while offering the flexibility and control of modern VRF or VRV systems.

Calculation of product embodied carbon under TM65 ANZ local addendum by CIBSE.

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

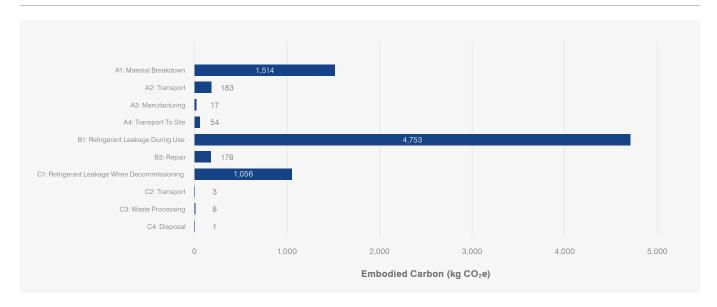
8,352 (kg CO₂e)

PRODUCT INFORMATION	
Type of product	Heat Pump
Equipment capacity	33.5kW
Product weight	231kg
Material breakdown for at least 95% of product weight	Yes
Product service life	15 years
Type of refrigerant	R32
Refrigerant charge	5.2kg
Country of origin	Japan
Product complexity	Category 3: High





Results Breakdown



Summary of Embodied Carbon Results (kg CO₂e)

A1 – C4 (Excluding B1 and C1)	1,956
A1 – C4 with Buffer Factor (Excluding B1 and C1)	2,543
B1: Refrigerant Leakage During Life + C1: Refrigerant Leakage at End of Life	5,809

Calculation Assumptions

A1: Material carbon coefficient source	TM65 ANZ Table 2.1
A4: Transport to site distances	10,000km by sea, 300km by road (TM65 ANZ assumption)
B1: Refrigerant annual leakage rate	9% (TM65 ANZ assumption)
B3: Materials replaced as part of repair	10% (TM65 ANZ assumption)
C1: End of life leakage rate	30% (TM65 ANZ assumption)
C4: Percentage of unit being recycled	70% (TM65 ANZ assumption)

Note: Data is correct at time of document publication and may be subject to vary based on manufacturing and shipping variations on a case by case basis.

For more information please visit our website or call our Applied Products Team. www.mitsubishi-electric.co.nz | 0800 784 382









