

# PURY-P300-YNW-A2

### CIBSE TM65 Embodied Carbon Mid-level Calculation

**Assesment Date:** 

11th August 2023

**Assessor / Organisation:** 

RI / Mitsubishi Electric LES UK

Contact:

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# Embodied Carbon with 'Mid-level TM65 Calculation' Method (kg CO₂e) Total:

12,482

Embodied Carbon Result per kW (kg CO <sub>2</sub> e/kW):						ties (kW)*		33.5 373
	2,384		1	10,098				Embodied Carbon - Without Refrigerant Leakage (kg CO <sub>2</sub> e)  Embodied Carbon - Refrigerant Leakage Only
-	2,000	4,000	6,000	8,000	10,000	12,000	14,000	(kg CŌ₂e) kg CO₂e

#### PURY-P300-YNW-A2 - Product Information

Type of product	VRF Outdoor Unit
Capacity of equipment (kW)*	33.5
Product weight (kg)	225
Material breakdown for at least 95% of the product weight? (Y/N)	Υ
Service life of the product (years)	15
Type of refrigerant	R410A
Refrigerant GWP	2088
Energy consumption of the factory per unit of product (kWh)	15.26
Location of manufacture	Japan
Product Complexity	Category 3: High

<sup>\*</sup>Nominal cooling capacity conditions as per data book



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Embodied Carbon Results Breakdown (kg CO₂e)	
A1: Material extraction	1,392
A2: Transport	178
A3: Manufacturing	28
A4: Transport to Site	52
B1: Use	9,772
B3: Repair	167
C1: Deconstruction	326
C2: Transport	3
C3: Waste Processing	13
C4: Disposal	1

Embodied Carbon Results - without Refrigerant Leakage (kg CO <sub>2</sub> e)	
A1-C4 (excluding B1,C1)	1,834
A1-C4 with Buffer Factor (excluding B1 C1)	2 384

#### Embodied Carbon Result - Refrigerant Leakage Only (kg CO2e)

B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life) 10,098

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



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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-1374), or R1234pt (GWP-7) or R123

Effective as of September 2023









