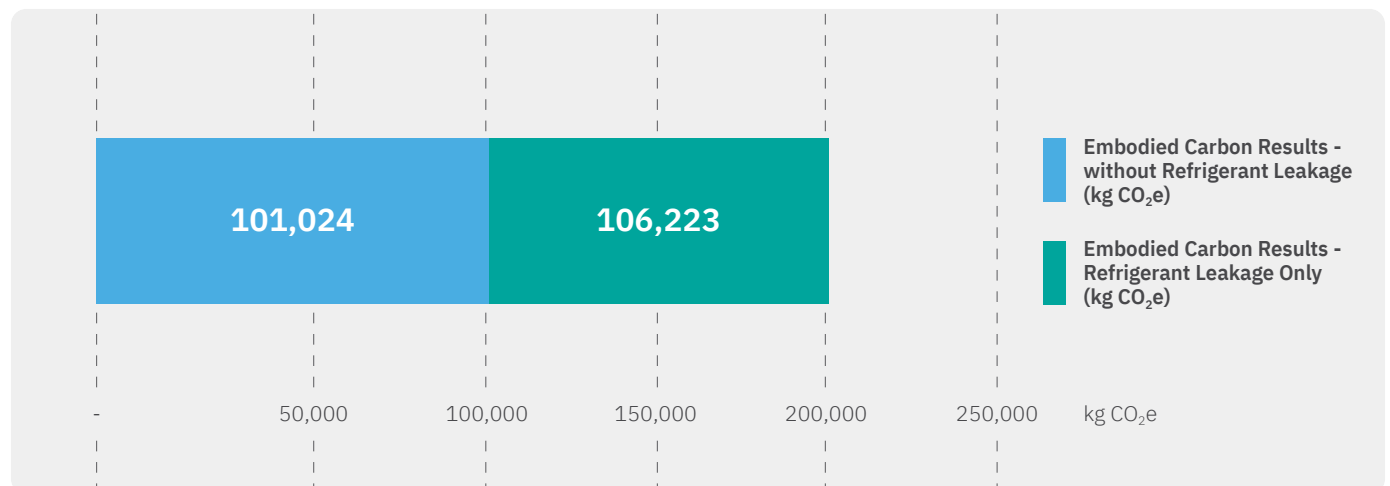


# i-FX-N-G05/SL-A 1152

## CIBSE TM65 Embodied Carbon Mid-level Calculation

<b>Assesment Date:</b>	1st July 2022	<b>Embodied Carbon Result with 'Mid-level TM65 Calculation' Method Total:</b>
<b>Assessor / Organisation:</b>	Mitsubishi Electric	
<b>Contact:</b>	embodied.carbon@meuk.mee.com	

**207,246** (kg CO<sub>2</sub>e)



### i-FX-N-G05/SL-A 1152 - Product Information

Type of product	A2W Heat Pump
Capacity of equipment (kW)	1100
Product weight (kg)	14,758
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Type of refrigerant	R513A
Refrigerant GWP*	573
Energy consumption of the factory per unit of product (kWh)	2582.4
Location of manufacture	Europe
Product Complexity	Category 3: High

\*IPCC AR5



# i-FX-N-G05/SL-A 1152

## CIBSE TM65 Embodied Carbon Mid-level Calculation



### Embodied Carbon Results Breakdown (kg CO<sub>2</sub>e)

A1: Material extraction	62,971
A2: Transport	341
A3: Manufacturing	3,512
A4: Transport to Site	2,848
B1: Use	102,796
B3: Repair	7,065
C1: Deconstruction	3,427
C2: Transport	187
C3: Waste Processing	749
C4: Disposal	38

### Embodied Carbon Results - without Refrigerant Leakage (kg CO<sub>2</sub>e)

A1-C4 (excluding B1,C1)	77,710
A1-C4 with Buffer Factor (excluding B1, C1)	101,024

### Embodied Carbon Result - Refrigerant Leakage Only (kg CO<sub>2</sub>e)

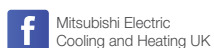
B1 (Refrigerant leakage during use) + C1 (Refrigerant leakage end of life)	106,223
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### Assumptions

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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Effective as of August 2022

