

# M&E Contractor Insights

## A low-carbon product overview



Mitsubishi Electric has an extensive range of energy-efficient, low-carbon, heating, ventilation and cooling solutions suitable for all commercial projects


**Embodied Carbon**  
CIBSE Mid-Level TM65 calculation data available for many products



### We have low-carbon solutions available for:



### HEAT PUMPS



**Ecodan CAHV-R Air Source Heat Pump**  
Robust, low-carbon system for the provision of sanitary hot water and space heating

**CONTINUOUS HEATING PROVISION**  
70°C outlet temperature down to -2°C ambient temperature

**WATER FLOW TEMPERATURES**  
from 24°C to 70°C without boost heaters equals cost & energy savings

**LOWER GWP R454C** refrigerant (GWP 146)

**ADVANCED HEAT** exchange design for a shorter defrost time

**REDUCED EMBODIED CARBON**

**ABILITY TO ROTATE** units offers extended product life

**EASY TO INSTALL** and maintain


**HERMETICALLY SEALED** monobloc design

**DESIGN FLEXIBILITY** for a wide range of commercial applications

**LOW FREQUENCY COMPRESSOR CONTROL** improves energy efficiency

**NEEDS ONLY WATER AND ELECTRICAL CONNECTIONS**

**MULTIPLE UNIT CASCADE CONTROL** from 7.8kW to 640kW capacity



**Ecodan CO<sub>2</sub> QAHV Air Source Heat Pump**  
Energy efficient low carbon solution for sustainable provision of commercial sanitary hot water

**UTILISES CO<sub>2</sub> AS REFRIGERANT** (GWP 1)

**78%**  
Overall carbon savings of 78% compared to typical gas boiler

**SIGNIFICANT SAVINGS** in running costs and carbon emissions compared to direct electric heating systems

**SEASONAL EFFICIENCIES** for sanitary hot water at 65°C equals 3

**BOOSTS BREEAM** points – up to 3 points

**M-NET READY CONNECTION** for ease of control

**LEAVING WATER TEMPERATURE UP TO 90°C**

**MODULAR SYSTEM FOR EASE OF INSTALLATION AND SCALABILITY**  
Connect up to 16 units for a total system capacity of 640kW



**MEHP-iS-G07 Air Source Heat Pump**  
Top level energy efficiencies with a compact modular design

**HOT WATER UP TO 65°C**  
Operating range as low as -20°C ambient

**EXCEPTIONAL PERFORMANCE** at part-load operating condition

**R32 USES LOWER GWP R32** (GWP 675)

**SMART COORDINATED DEFROST** for maximum energy efficiency

**COMPACT DESIGN** and modular expansion

**PLUG & PLAY SOLUTION:** options for factory fitted pumps and buffer vessel

**Best-in-class for LOW NOISE LEVELS**



**MECH-iF Air Cooled Chiller**  
High performance, high efficiency, and a wide operating range

**345kW TO 921kW CAPACITY**

**BEST-IN-CLASS SEASONAL EFFICIENCY** in a compact footprint


**3 NOISE CONFIGURATIONS**

**PATENTED REDUCED ENERGY DEPLETION (RED)** Cooler for maximum energy saving potential

**LOWER GWP R1234ZE** (G04) or R513A (G05) REFRIGERANT

**VARIABLE SPEED DRIVE (VSD)** single screw compressor

**ELECTROMAGNETIC INTERFERENCE (EMI) FILTERS**



**e-Series Heat Pumps & Chillers**  
Exceptional energy efficiency and a wide operating range

**USES LOWER GWP R32** (GWP 675)

**35%**  
less plant space needed

**MODULAR DESIGN** simplifies lifting and installation

**EXCEPTIONAL ENERGY EFFICIENCY** – SEER 5.52

**EASILY SCALABLE - CONNECT UP TO 6 UNITS FOR SYSTEM CAPACITY FROM 150kW TO 1,080kW**

### CLIMAVENETA HEAT PUMPS & CHILLERS



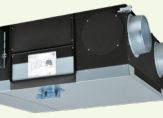
**Climaveneta Heat Pumps & Chillers**  
Fully customisable and highly energy efficient

Range includes options with **LOW GWP REFRIGERANTS**


**EXTENSIVE OPTION LIST** allows systems to be configured for almost any project requirement

**EASY INTEGRATION** with BEMS

### VENTILATION



**Lossnay Mechanical Ventilation with Heat Recovery**  
Supplies fresh air while simultaneously extracting stale air



**s-AIRME Compact AHU**  
Highly advanced and energy efficient AHU systems – easy to install and commission

**M-NET CONNECTION** for easy integration of control

**IMPROVES AIR QUALITY** and saves energy

**WIDE RANGE OF AIR VOLUMES**

**RECOVERS HEAT ENERGY FOR MAXIMUM EFFICIENCY**

**SELF-SUPPORTING, COMPACT ONE-PIECE CONSTRUCTION** for maximum air tightness and minimal thermal bridging

**EASY AIR FLOW COMMISSIONING** with selectable target air volume control

**Mr. SLIM.** Mr Slim R32 Power Inverter heat pump technology enables energy efficient tempering of fresh air

**FULLY INTEGRATED CONTROLS** and single point power supply for ease of installation

**CONSTANT VOLUME EC PLUG FANS** for greater efficiency and cost savings

**PLATE HEAT EXCHANGER** for effective heat recovery

Contact the M&E Contractor sales team for more information  
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