MITSUBISHI ELECTRIC

ecodan®

COMMERCIAL RENEWABLE HEATING TECHNOLOGY

100%
NET REDUCTION
IN EMISSIONS BY
2050
SET BY THE UK GOVERNMENT

CLIMATE CHANGE ACT
RECOMMENDS
INTERIM
78%
CUT IN
EMISSIONS
BY 2035

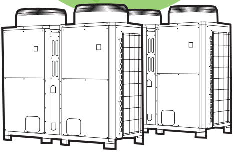
MEETING ENERGY & CARBON
REDUCTION TARGETS

UK's **10** POINT PLAN
TO INCREASE
EFFICIENCY STANDARDS
IN BUILDINGS,
UPGRADING
ALL TO EPC LEVEL C

THE UK MUST CUT EMISSIONS ACROSS THE WHOLE COUNTRY

A WIDE RANGE OF COMMERCIAL RENEWABLE HEATING SOLUTIONS
ARE AVAILABLE FOR BOTH
NEW BUILD AND REFURBISHMENT
PROJECTS

HELPING MEET THE
NET ZERO
TARGET



600,000
HEAT PUMPS
TO BE INSTALLED BY 2028

HEAT PUMP TECHNOLOGY
IS THE MASS MARKET
SOLUTION
FOR COMMERCIAL HEATING
& HOT WATER

Mitsubishi Electric have a wide range of commercial heating solutions

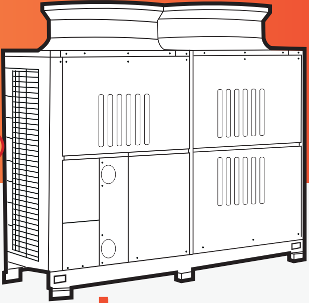
let's take a look at the range.

ecodan® CAHV

AIR SOURCE HEAT PUMP

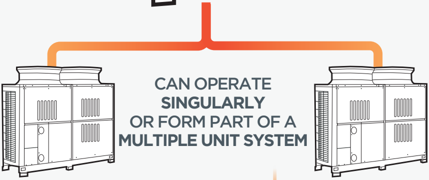
Designed for medium capacity commercial applications, the Ecodan CAHV can operate singularly, or form part of a multiple unit system providing both LTHW and DHW.

16 units - up to 640kW capacity | **70°C** Water Flow Temperature down to -20°C



50%
SPLIT REFRIGERANT CIRCUITS
ENSURES 50% BACK UP

7.8kW UP TO 640kW



CAN OPERATE **SINGULARLY** OR FORM PART OF A **MULTIPLE UNIT SYSTEM**

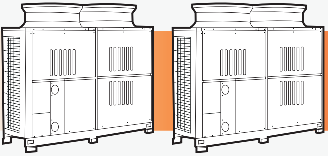
LOW
MAINTENANCE

LOW
ON-SITE
REFRIGERANT
VOLUME

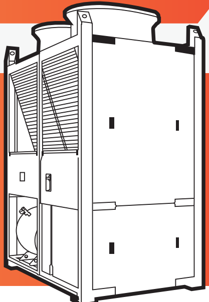
HERMETICALLY SEALED
MONOBLOC DESIGN

R454C
LOW GWP R454C REFRIGERANT

ADVANCED
HEAT
EXCHANGER
ENSURES SHORTER DEFROST TIMES



MULTIPLE UNIT CASCADE CONTROL



MEHP-iS-G07

AIR SOURCE HEAT PUMP

Category leading compact modular design with the ability to deliver top level energy efficiencies for a wide range of applications from comfort to industrial and IT cooling processes.

Capacity up to **110kW**, extendable to **220kW** with an optional twin module configuration

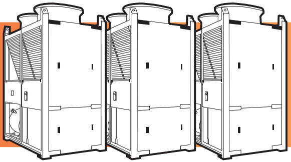
INDUSTRY LEADING SEASONAL PERFORMANCE

HOT WATER
UP TO
65°C

OPERATING RANGE
AS LOW AS
-20°C
AMBIENT

COLD WATER
DOWN TO
-12°C

BEST-IN-CLASS FOR
LOW NOISE LEVELS
Variable speed fans with brushless DC motors and inverter compressors in an acoustic enclosure as standard



COMPACT DESIGN
WITH MODULAR EXPANSION CAPABILITIES

WIDE RANGE OF OPTIONS AVAILABLE INCLUDING:

- INBUILT HYDRONIC PUMPS
- BUFFER VESSELS
- SMART LAN FUNCTIONS
- ENERGY METERS

SMART COORDINATED DEFROST
Smart control logic for coordinating the non-simultaneous start of defrosting cycles for a group of heat pumps

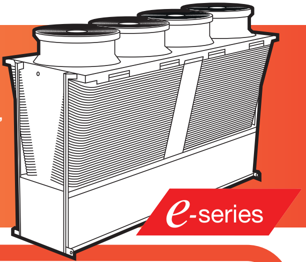
UTILISES LOWER GWP
R32
REFRIGERANT
(GWP 675)

EXCEPTIONAL PERFORMANCE
AT PART-LOAD OPERATING CONDITIONS

e-Series EAHV
AIR SOURCE HEAT PUMP

Designed for medium to large capacity LTHW commercial applications, the e-Series EAHV allows for up to 6 individual units to be connected together using a truly modular design. This modular approach reduces space requirements and simplifies lifting and installation.

6 units - up to 1,080kW | **55°C** Water Flow Temperature



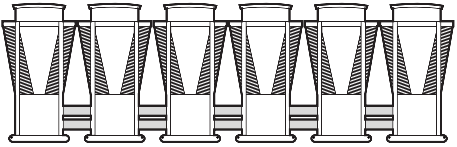
AVAILABLE WITH BUILT IN INTERNAL HEADERS
FOR SIMPLE & QUICK INSTALL

UTILISES LOWER GWP
R32
REFRIGERANT (GWP 675)

Y-SHAPED ALUMINIUM TUBE HEAT EXCHANGERS

REDUCE OVERALL REFRIGERANT VOLUME

ADD UP TO
6 INDIVIDUAL MODULES
THAT CAN BE CONNECTED FOR A SINGLE SYSTEM CAPACITY OF 1,080kW

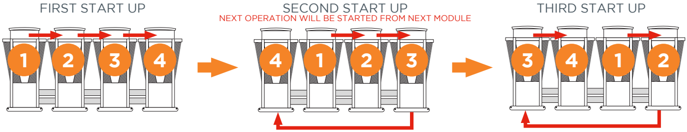


4

INVERTER SCROLL COMPRESSORS PER MODULE

PROVIDING HIGH LEVELS OF REDUNDANCY AND EXCEPTIONAL TURN DOWN

ROTATION FUNCTION


FIRST START UP

SECOND START UP

NEXT OPERATION WILL BE STARTED FROM NEXT MODULE

THIRD START UP

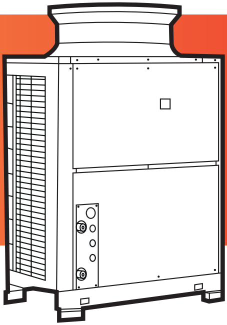
WHEN MULTIPLE MODULES ARE INSTALLED, BOTH THE NUMBER OF MODULES AND THE OPERATING TIME OF EACH CAN BE EQUALIZED ACCORDING TO THE SYSTEM LOAD FOR MAXIMUM EFFICIENCY

ecodan® QAHV

AIR SOURCE HEAT PUMP

Specifically designed for medium capacity commercial sanitary hot water application, where gas boilers, combined heat and power systems (CHP) or electric water heating have been traditionally utilised, the QAHV provides a low carbon, high temperature solution for a wide range of projects.

40kW | **90°C** Water Flow Temperature



DESIGNED FOR COMMERCIAL SANITARY

HOT WATER APPLICATIONS

- A LOW CARBON SOLUTION -

HOSPITALS

HOTELS

LEISURE CENTRES

SHARED ACCOMMODATION

USES UNIQUE PATENTED SPIRAL GAS COOLER TO ENHANCE ENERGY EFFICIENCY

LOW OPERATIONAL NOISE LEVELS

-25 °C

FULL HEATING CAPACITY DOWN TO -3°C

CO_2 1

UTILISES CO_2 REFRIGERANT

90°C

WATER FLOW TEMPERATURES

OUTDOOR TEMPERATURE AND
OPERATES DOWN TO -25°C

WITH A GWP OF 1

WITHOUT BOOSTER HEATERS

M-NET

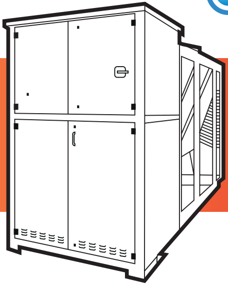
M-NET READY CONNECTION
- CAN BE CONTROLLED
ALONGSIDE CITY MULTI,
MR SLIM & E-SERIES SYSTEMS

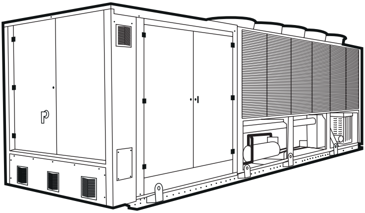
LOW
MAINTENANCE

**HIGH
EFFICIENCY
AT LOW
TEMPERATURES**

CLIMAVENETA

Climaveneta commercial heat pumps use a wide range of low and lower GWP refrigerants, alongside the latest fixed speed inverter scroll and screw compressors.





The Climaveneta range of heat pumps can easily be integrated into ever increasingly complex building systems. In order to maximise performance, reliability and overall system efficiency, the Climaveneta range of products bring advanced technology and know-how together in customisable packages to aid design, specification, installation and on-going operation.

Scalable
and fully
customisable

Multiple Heat
Exchanger
options

Air source &
water cooled
versions

Advanced
Technology

ecodan®

INDUSTRY
LEADING

★★★★★
• 5 YEAR •
★★★★★

e-series

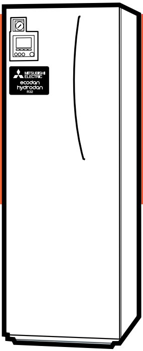
5 YEAR
WARRANTY

ecodan® hydrodan

WATER-TO-WATER HEAT PUMP

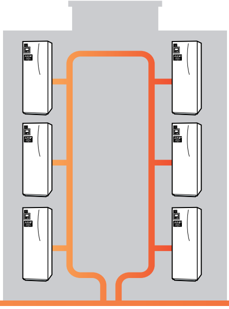
Low carbon heat pump designed to deliver highly energy efficient heating and hot water to multi-residential apartments via a 5th generation ambient heat network.

HOT WATER 20-60°C OPERATING RANGE



CAPACITY RANGE BETWEEN **1.1kW – 7.5kW**

CONNECTS TO A 5TH GENERATION AMBIENT TEMPERATURE **HEAT NETWORK**



YEAR-ROUND **HIGH EFFICIENCY HEATING** & HOT WATER PRODUCTION

170L INTEGRATED TANK

LOW QUANTITY OF **LOWER GWP**

R32

REFRIGERANT
(GWP 675)

ULTRA-LOW NOISE
output operating at 27dBA at 1m

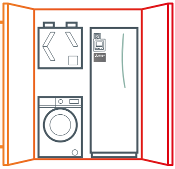
MELCloud™

INTERNET BASED CONTROLS
with smart speaker connectivity

PIC VALVE
ensures simple pressure balancing and flow control

COMPACT DESIGN

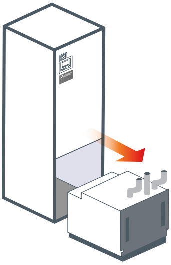
ENABLES IT TO BE EASILY CONCEALED WITHIN A UTILITY ROOM CUPBOARD

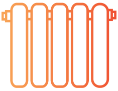


SIMPLE TO INSTALL AND MAINTAIN

Major connections all fitted to the top of the unit for ease of installation

Removable heat pump module makes maintenance and repairs simple





COMPATIBLE

WITH UNDERFLOOR HEATING, RADIATORS, FAN COILS AND FAN ASSISTED RADIATORS

CONSULTANT FOCUS

ecodan®

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