Job Name: _____   Location: _____

Drawing Reference: _____   Schedule No. _____

System No.: _____   Date: _____

Ecodan (Hot Water Heat Pump Unit)

Standard Model…….……........………CAHV-P500YB-HPB
Seacoast (BS) Model……...…….. CAHV-P500YB-HPB-BS

GENERAL FEATURES

The Ecodan CAHV packaged hot water heat pump is designed to provide hot water up to 60°-70°C year round, making it an ideal replacement for a boiler system or, better still, an uncompromising method of heating sanitary hot water for commercial applications. This unit utilizes the unique flash injection technology as applied in the City Multi Hyperheat air conditioning product range.

Built in Heat Exchange Hot Water Heat Pump CAHV-500YB-HPB: Comes complete with an internal 316 stainless steel brazed plate heat exchanger. This allows for easy installation of connecting water pipes to where the hot water is required.

Ecodan Heat Pump ensures an exceptionally high level of reliability by utilizing "Backup Function*". If either of the compressors malfunctions, the other compressor keeps operating to avoid a complete stop of the system. "Rotation Function" is also available. When two or more units are in the system, the unit runs alternatively to ensure an optimum product life cycle for both of it's component units.

- Inlet or outlet water temperature control
- Temperature set point control by 0-10 V, 4-20 mA, 0-5 V or 2-10 V
- Pump interlock
- Error input or error output
- Can be connected and controlled by AG200 centralized controller

TECHNICAL SPECIFICATIONS

CAHV-P500YB-HPB

Power Supply:....................................3-phase 4-wire 380-400-
415 V 50/60 Hz

CAPACITY

kW 45
kcal/h 38,700
BTU/h 153,540
Power input | kW..............................25.6
Current input | A..............................43.17 - 41.01 - 39.53
COP (kW / kW)...............................1.76
Maximum current input | A *..........57.8 - 54.9 - 52.9
Water pressure drop.........................12.9kPa (1.87psi)

TEMPERATURE RANGE

Outlet water temperature ....25~70°C, 77~158°F
Outdoor temperature | D.B ....-20~40°C, -4~104°F
Circulating water volume range....7.5 m³/h-15.0m³/h

SOUND PRESSURE LEVEL (MEASURED IN ANECHOIC ROOM)

dB (A)......................................63

WATER PIPE DIAMETER AND TYPE

Inlet | mm (in.) ....38.1 (Rc 1 1/2") screw pipe
Outlet | mm (in.) ....38.1 (Rc 1 1/2") screw pipe
External finish.......................................Acrylic painted steel sheet
("-BS" Additional Surface Treatment for Salt Protection) <Munsell 5Y 8/1 or similar>

EXTERNAL DIMENSIONS (HxWxD)

mm ....1710 (1650 not including
legs) x 1978 x 759
in...67.3 (65.0 not including
legs) x 77.9 x 29.9
Net weight | kg (lb)............................511 (1127)
Accessories...Y-strainer Rc 1 1/2

* All electrical work shall comply with National (CEC) and local codes and regulations.

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DESIGN PRESSURE

R407C | MPa...3.85
Water | MPa...1.0

HEAT EXCHANGER

Water side...Copper brazed stainless
steel sheet
Air-side ....Plate fins and copper tubes

COMPRESSOR

Type...Inverter scroll
hermetic compressor
Manufacturer ....MITSUBISHI ELECTRIC
CORPORATION
Starting method...................................Inverter
Motor output | kW ....7.5 x 2
Case heater | kW...................................0.045 X 2
Lubricant..MEL 32

FAN

Air flow rate | m³/min .... 185 × 2
Air flow rate | L/s.................................3,083 × 2
Air flow rate | cfm................................6,532 × 2
External static pressure.....................0 Pa, 60Pa (0 mm H2O, 6.1mm H20)
Type and quantity ....Propeller fan x 2
Motor output | kW ....0.46 × 2
HIC (Heat inter-changer) circuit .....Copper pipe
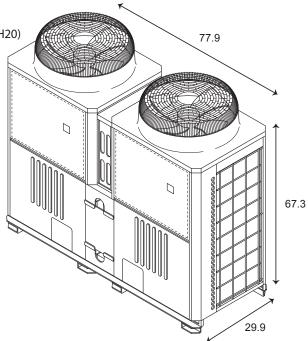
PROTECTION DEVICES

High pressure......................................High-pressure sensor and
switch set at 3.85 MPa
(643 psi)
Inverter circuit....................................Overheat and
overcurrent protection
Compressor ....Overheat protection
Fan motor...Thermal switch
Defrosting method ....Auto-defrost mode
(Reversed refrigerant circle)

REFRIGERANT

Type and factory charge | kg ....R407C, 5.5 kg x 2
Flow and temperature control.......LEV and HIC circuit

Measurements/Dimensions (H×W×D)
67.3 (without legs 65.0) × 77.9 × 29.9

77.9

67.3

29.9

MITSUBISHI ELECTRIC
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for a greener tomorrow

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