

Subtype Ecodan Power+ CAHV

Certificate Holder	Mitsubishi Electric Air Conditioning Systems Europe LTD
Address	Nettlehill Road, Houston Industrial Estate
ZIP	EH54 5EQ
City	Livingston
Country	GB
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)
Subtype title	Ecodan Power+ CAHV
Registration number	037-0113-23
Heat Pump Type	Outdoor Air/Water
Refrigerant	R454C
Mass of Refrigerant	9 kg
Certification Date	30.06.2023
Testing basis	HP Keymark scheme rules rev. no. 10
Testing laboratory	SZU Brno, CZ

Model CAHV-R450YA-HPB(-BS)

Model name	CAHV-R450YA-HPB(-BS)
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	35.00 kW	35.00 kW
EI input	10.20 kW	14.08 kW
COP	3.43	2.48

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	76 dB(A)	76 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	140 %	127 %
Prated	26.90 kW	27.00 kW
SCOP	3.57	3.24
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	23.80 kW	23.80 kW
COP Tj = -7°C	2.60	2.08
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	15.30 kW	14.70 kW
COP Tj = +2°C	3.33	3.22
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.30 kW	13.90 kW
COP Tj = +7°C	5.20	4.60

Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	8.70 kW	13.70 kW
COP Tj = 12°C	5.05	5.81
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	23.80 kW	23.80 kW
COP Tj = Tbiv	2.60	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	26.90 kW	27.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.21	1.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	70 °C	70 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	65 W	65 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	15556 kWh	17161 kWh