Subtype FDCW140VNX-A

Certificate Holder	Mitsubishi Heavy Industries Air Conditioning Europe
Address	5 The Square
ZIP	UB11 1ET
City	Uxbridge, Middlesex
Country	GB
Certification Body	RISE CERT
Subtype title	FDCW140VNX-A
Registration number	012-SC0827-18
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	4 kg
Certification Date	21.01.2019
Testing basis	EN 14511:2013, EN 14825:2016, EN 12102:2017
Testing laboratory	RISE Research Institutes of Sweden

Model FDCW140VNX-A + HSB140	
Model name	FDCW140VNX-A + HSB140
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.03 kW	6.38 kW
El input	1.45 kW	2.04 kW
COP	4.85	3.13

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	176 %	134 %
Prated	14.50 kW	14.00 kW
SCOP	4.47	3.42
Tbiv	-8 °C	-8 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.90 kW	12.50 kW
COP Tj = -7°C	2.96	2.01
Pdh Tj = +2°C	7.90 kW	7.60 kW
COP Tj = +2°C	4.37	3.29
Pdh Tj = +7°C	5.10 kW	4.90 kW
COP Tj = +7°C	5.58	4.68
Pdh Tj = 12°C	6.40 kW	6.80 kW

COP Tj = 12°C	6.99	6.51
Pdh Tj = Tbiv	13.40 kW	12.70 kW
COP Tj = Tbiv	2.86	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	11.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.71	1.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	25 W	16 W
PSB	15 W	15 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.00 kW	3.00 kW
Annual energy consumption Qhe	6702 kWh	8431 kWh

Model FDCW140VNX-A + HMS140-S	
Model name	FDCW140VNX-A + HMS140-S
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 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

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	7.03 kW	6.38 kW
El input	1.45 kW	2.04 kW
COP	4.85	3.13

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	176 %	134 %
Prated	14.50 kW	14.00 kW
SCOP	4.47	3.42
Tbiv	-8 °C	-8 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.90 kW	12.50 kW
COP Tj = -7°C	2.96	2.01
Cdh Tj = -7 °C		
Pdh Tj = +2°C	7.90 kW	7.60 kW
COP Tj = +2°C	4.37	3.29
Cdh Tj = +2 °C		
Pdh Tj = +7°C	5.10 kW	4.90 kW

COP Tj = +7°C	5.58	4.68
Cdh Tj = +7 °C		
Pdh Tj = 12°C	6.40 kW	6.80 kW
COP Tj = 12°C	6.99	6.51
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	13.40 kW	12.70 kW
COP Tj = Tbiv	2.86	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.50 kW	11.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.71	1.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.970	0.980
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	25 W	25 W
PSB	15 W	15 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.00 kW	3.00 kW
Annual energy consumption Qhe	6702 kWh	8431 kWh