Split box

Model	HSB60-W	HSB100-W
General conditions		
Power source	230V 50Hz	
Recommended fuse	6 A	
Pipe size refrigerant (ref) Gas	OD12.7 (1/2”)	OD15.88 (5/8”)
Pipe size refrigerant (ref) Liquid	OD6.35 (1/4”)	OD9.52 (3/8”)
Indoor unit (split type, splitbox)		
IP grade	IP21	
Connection water system	Compression fitting 22mm	Compression fitting 28mm
Connection refrigerant system	Flare	
Maximum allowed water pressure	1.0MPa	
Maximum allowed water temperature	90 °C	
Maximum allowed refrigerant pressure	4.15MPa	
Maximum allowed refrigerant temperature	110°C	
Supply heating temperature range	25 — 58°C	25 — 60°C
Supply cooling temperature range	7 — 25°C	
Heat exchanger	Plate heat exchanger Alfa Laval ACH18-52H-F	Plate heat exchanger Alfa Laval ACH-30EQ-80H
Total volume heat exchanger (water side)	1 L	1.12 L
Water quality	≤ EU-directive nr. 98/83/EF	
Ambient conditions	5 — 35°C Max. relative humidity 95%	
Height	400mm	
Width	460mm	
Depth	250mm	
Weight netto	16kg	18kg
Weight including packaging	19kg	21kg
Part number MHIAE	MCD001A016	MCD001A018
Enclosed		
	Wall bracket for mounting	
	Ball valve with particle filter	
	-	Flare reduction

Tank unit

Model	PT300	PT500
Volume total	279 L	476 L
Volume coil	9.4 L	13 L
Area coil	1.6 m²	2.13 m²
Material coil	Steel - S235 ϕ33.7 × 2.6 mm	
Material tank	Steel – S275g=3.0 mm	
Cabinet	Side / Top / – plate (PS)	Side / Top – plate (PS)
Material	Side – plate polystyrene g=1 mm Top – plate polystyrene g=2 mm	
Color (powder coated 1 layer)	Side – White Top – RAL7001	
Isolation tank	EPS200 (30kg/ m³) + Nonwoven PET (1 kg/m²)	
Stand by heat loss	90W (PN-EN 12897:2016;(EU) No 812/2013)	98W (PN-EN 12897:2016;(EU) No 812/2013)
Design pressure tank	1.0 MPa (10 bar)	
Design pressure coil	1.6 MPa (16 bar)	
Power coil 70/10/45°C (2.5m³/h)	26 kW	34 kW
Efficiency coil 70/10/45°C	640 L/h	855 L/h
Water quality sanitary hot water	≤EU directive nr.98/83/EF	
Water quality, system	≤EU directive nr.98/83/EF	
Max. operating temperature tank	85°C	
Min. operating temperature tank	5°C	
Max. operating temperature coil	110°C	
Connection water system	G1” external thread	
Connection sanitary hot water	G1” external thread	
Inner surface corrosion protection	Enamel - DIN 4753-3:2013 - Part 3	
Corrosion protection	Mg-anode	
Height (adjustment)	1634 mm ($20_{+15/-0}$)	1835 mm ($20_{+15/-0}$)
Min. required ceiling height	2000 mm	
Width	ϕ673 mm	ϕ832 mm
Depth	743 mm	897 mm
Weight net product	115 kg	156 kg
Weight incl. pallet incl. packing	140 kg	196 kg
Weight packaging: Wood	29 kg	39 kg
Weight packaging: EPS	0.5 kg	
Weight packaging: Plastics	0.1 kg	
Packaging volume /dim	1.1 m³/ 1840 × 790 × 750 (mm)	1.75 m³/ 2040 × 950 × 910 (mm)
Part number	MCD001A009	MCD001A010

Technical specifications

Outdoor units

Adapted to **RoHS** directive

Model				FDCW60VNX-W
Indoor unit heat exchanger				ACH18-52H-F
Power source				1 phase 230V 50Hz
Heating nominal capacity	condition 1		kW	2.70 (2.70 — 8.00)
	condition 2	High capacity	kW	5.08 (0.90 — 7.60)
		Low capacity	kW	2.64
Heating power consumption	condition 1		kW	0.88
	condition 2	High capacity	kW	0.99
		Low capacity	kW	0.49
COP	condition 1			3.06
	condition 2	High capacity		5.16
		Low capacity		5.42
Cooling nominal capacity	condition 1		kW	5.31 (0.60 — 6.30)
	condition 2		kW	7.54 (1.20 — 7.80)
Cooling power consumption	condition 1		kW	1.95
	condition 2		kW	2.11
EER	condition 1			2.73
	condition 2			3.57
Operation range (Outdoor air temperature)		Heating	°C	-20 — 43
		Cooling	°C	15 — 43
Operation range (Water temperature)		Heating	°C	25 — 58 (65 with immersion heater)
		Cooling	°C	7 — 25
System water flow			L/s	0.09 — 0.29
Min. system water flow at 100% circulation pump speed			L/s	0.19
Max. current			A	15
Recommended fuse rating			A	20
Starting current			A	5
Deviation, incoming supply				-15 — +10%
Max. refrigerant pipe length			m	30
Max. height difference between IU and OU			m	20
Outdoor unit	Height		mm	640
	Width		mm	800
	Depth		mm	290
	Weight		kg	46
	Color			Stucco white
	IP grade			IPX4
	Sound power level*1		dB(A)	52
	Sound power level (Silent mode)		dB(A)	56
	Sound power level (Max.)		dB(A)	65
	Sound pressure level		dB(A)	44
	Air flow (Cooling/Heating)		m^3/min	41.5/39.0
	Type of compressor			RMT5113SWE11 (Twin rotary type)
	Starting method			Direct line start
	Refrigerant oil		liter	0.45 M-MB75
	Heat exchanger			M shape fin & inner grooved tubing
	Ref control			Capillary tube+EEV
	Defrost control			Reversing cycle
	Fan			Propeller fan x 1
	Fan motor		W	34 x 1
	Shock & vibration absorber			Rubber sleeve (for compressor)
	Electric heater (crankcase/base)		W	-/110
	Safety equipment			Overload protection for fan motor Frost protection thermostat Internal thermostat for fan motor Abnormal discharge temperature protection
	Power and signal line from indoor unit			3 cores 2.0mm^2 + 2 cores 1.5mm^2
	Refrigerant			R32
	Refrigerant volume (pipe length without additional charge)		kg (m)	1.30 (15)
	Additional refrigerant charge		kg/m	0.02
	Dimensions, refrigerant pipe		mm (inch)	Gas pipe: OD 12.7 (1/2"), Liquid pipe: OD 6.35 (1/4")
	Refrigerant pipe connections			Flare
	Drain			Hole size: ϕ20 × 5 pcs.
	Insulation for piping			Necessary (both Liquid & Gas lines)
	Part number MHIAE			PCA003F147

Test conditions

		Water temperature	Outdoor air temperature
Heating	condition 1	45°Cout / 40°Cin	7°CDB / 6°CWB
	condition 2	35°Cout / 30°Cin	
Cooling	condition 1	7°Cout / 12°Cin	35°CDB
	condition 2	18°Cout / 23°Cin	

*1: Test condition for sound power level
Temperature condition: Heating condition 2, Low capacity
*2: Test condition for sound pressure level
Mike position 1m away in front of outdoor unit at the height of 1m

Technical specifications

RC-HY40-W	
Electrical data	
Power source voltage	230V 50Hz
Enclosure class	IP21
Rated value for impulse voltage	4kV
Option connections	
Max. number of air/water heat pumps	8
Max. number of sensors	8
Max. number of charge pumps with internal accessory cards	4
Max. number of charge pumps with external accessory cards	8
Max. number of outputs for additional heat step	3
Miscellaneous	
Area of operation	- 25 – 70 °C
Ambient temperature	5 – 35 °C
Dimensions and weight	
Width	354mm
Depth	123mm
Height	400mm
Net weight	4.4kg
Gross weight	4.6kg
Part number MHIAE	MCD501A004
Internet connection function*	Included
Language	English, Swedish, German, French, Spanish, Finnish, Lithuanian, Czech, Polish, Dutch, Norwegian, Danish, Estonian, Latvian, Russian, Italian, Hungarian, Slovenian, Turkish, Croatian, Romanian, Icelandic, Portuguese

*Function is provided by myUpTech AB., which monitors operation data and control unit through internet

Installation requirements

Indoor unit	HMA60-W	HMA100-W
Outdoor unit	**FDCW60VNX-W**	**FDCW71VNX-W**
Highest recommended supply / return temperature	55/45°C	
Max. pressure, climate system	0.3MPa (3.0 bar)	
Max. temperature, climate system	65°C	
Max. temperature in indoor unit	65°C	
Max. temperature from external heat source	65°C	
Max. supply temperature with compressor	58°C	60°C
Min. supply temperature cooling	7°C	
Max.supply temperature cooling	25°C	
Min. volume, climate system without under floor cooling application	50L	80L
Min. volume, climate system with under floor cooling application	50L	80L
Max. flow, climate system	0.29L/s	0.38L/s
Min. flow, climate system	0.09L/s	0.19L/s
Nominal system flow heating (△T=5K)	0.29L/s (6kW, 7/45°C)	0.38L/s (8kW, 7/45°C)
Nominal system flow cooling (△T=5K)	0.29L/s (6kW, 35/7°C)	0.34L/s (7.1kW, 35/7°C)

External circulation pump must be used when the pressure drop in the system is greater than the available external pressure. In such case, a bypass line with non-return valve must be installed.

Use an overflow valve if system flow cannot be guaranteed.

Indoor unit	HMS60-W	HMS100-W
Outdoor unit	**FDCW60VNX-W**	**FDCW71VNX-W**
Highest recommended supply / return temperature	55/45°C	
Max. pressure, climate system	0.3MPa (3.0bar)	
Max. temperature, climate system	65°C	
Max. temperature in indoor unit	65°C	
Max. temperature from external heat source	65°C	
Max. supply temperature with compressor	58°C	60°C
Min. supply temperature cooling	7°C	
Max. supply temperature cooling	25°C	
Min. volume, climate system without under floor cooling application	50L	80L
Min. volume, climate system with under floor cooling application	50L	80L
Max. flow, climate system	0.29L/s	0.38L/s
Min. flow, climate system	0.09L/s	0.19L/s
Nominal system flow heating (△T=5K)	0.29L/s (6kW, 7/45°C)	0.38L/s (8kW, 7/45°C)
Nominal system flow cooling (△T=5K)	0.29L/s (6kW, 35/7°C)	0.34L/s (7.1kW, 35/7°C)

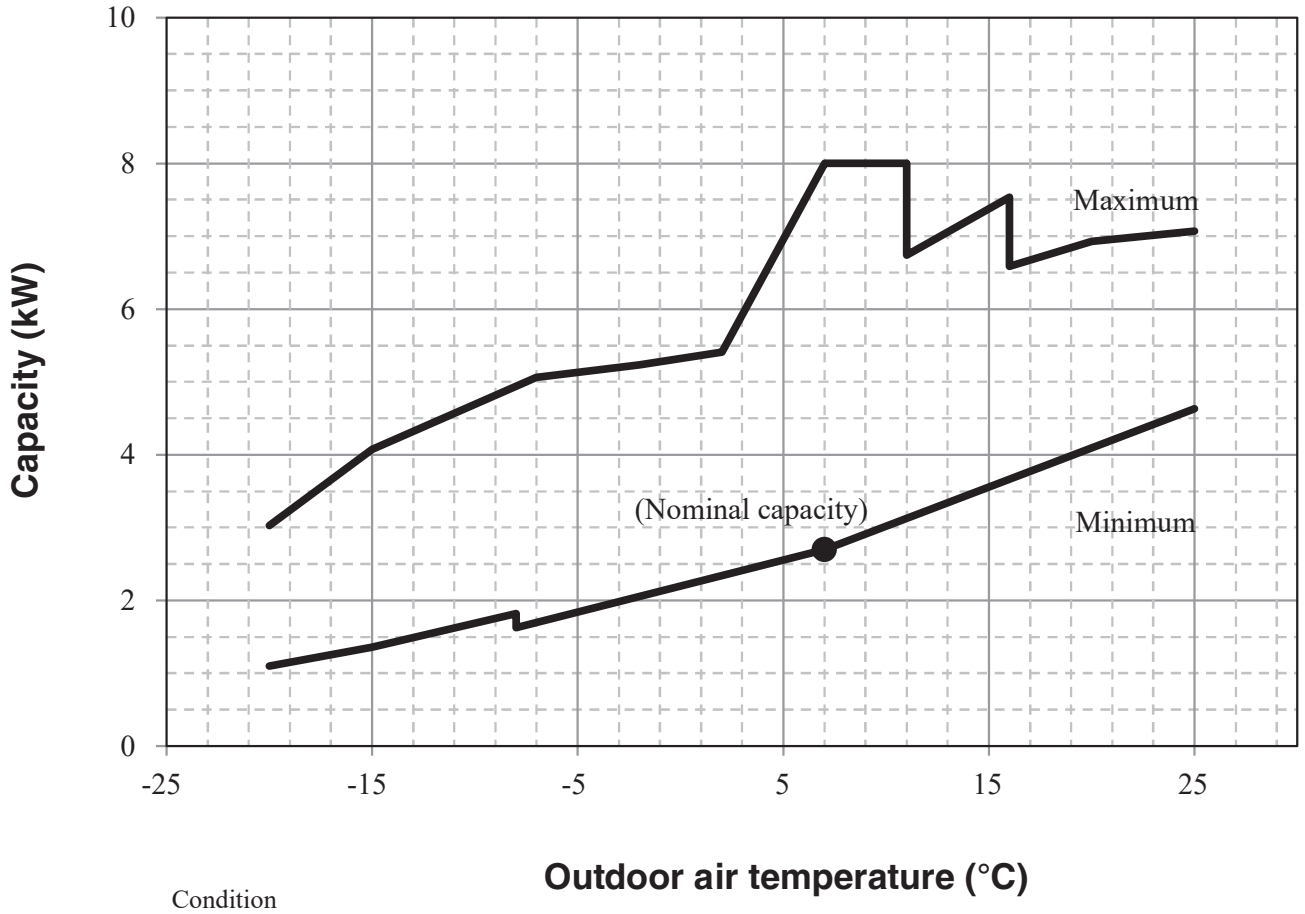
External circulation pump must be used when the pressure drop in the system is greater than the available external pressure. In such case, a bypass line with non-return valve must be installed.

Use an overflow valve if system flow cannot be guaranteed.

Capacity diagram

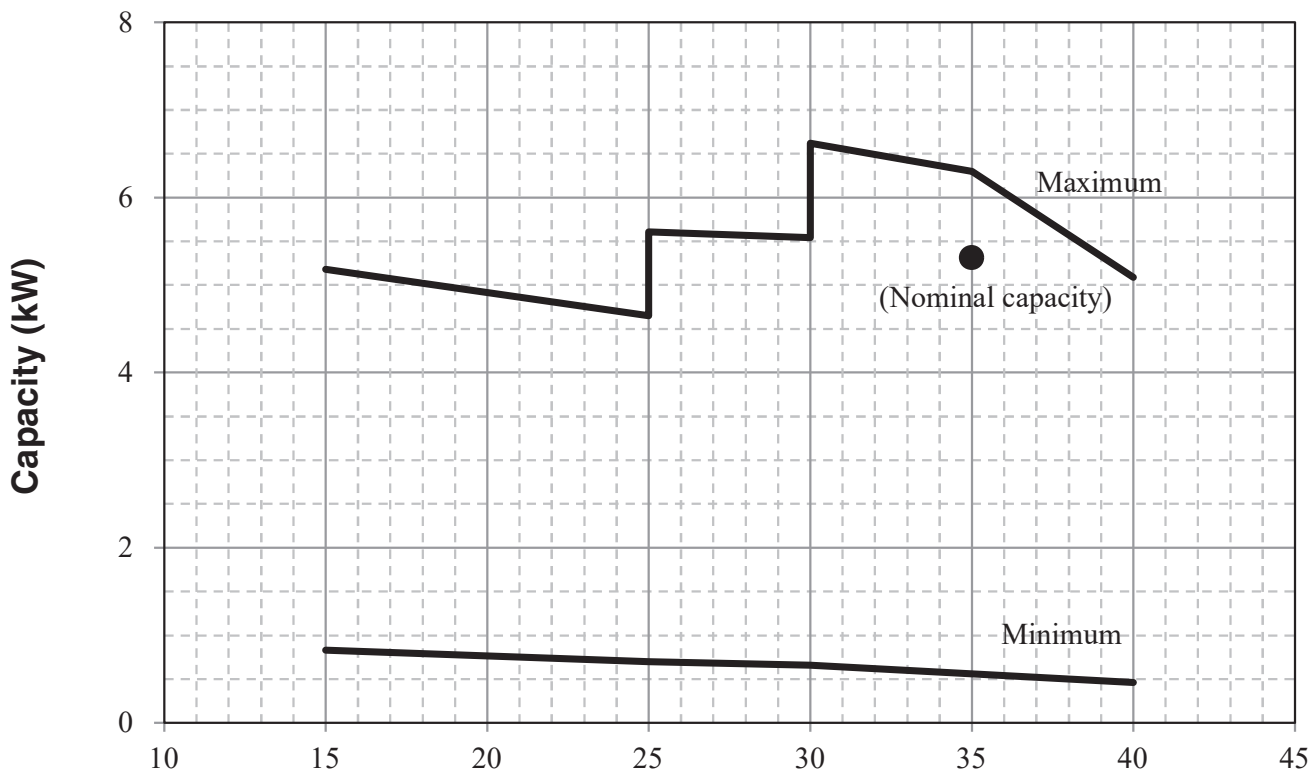
FDCW60VNX-W in combination with HMA60-W, HMS60-W or HSB60-W

Heating



Condition
Supply water temperature : 45ºC
Water flow rate : 1044L/*h*

Cooling



Condition
Supply water temperature : 7ºC
Water flow rate : 1008L/*h*