



Indoor unit for the production of chilled water combined with a remote condenser, with semi-hermetic screw compressors optimized for R134a, shell and tube evaporator designed by Mitsubishi Electric Hydraulics & IT Cooling Systems S.p.A. and thermostatic expansion valve.

Base and supporting structure and panels are of galvanized epoxy powder coated steel with increased thickness.

Flexible and reliable unit; it easily adapts itself to different thermal load conditions thanks to the precise thermoregulation. The high performance's level is achieved thanks to the accurate sizing of all internal components.

Control



W3000SE Large

The W3000 SE Large controller offers advanced functions and algorithms.

The keypad is generously sized with full operating status display. The commands and detailed LCD display make access to the unit's settings easy and safe. These resources allow to consult and intervene on the unit by means of a multi-level menu, with selectable language setting.

The diagnostics includes a complete alarm management, with the "black-box" and alarm logging functions for enhanced analysis of the unit operation.

For multiple units' systems, the regulation of the resources, via optional proprietary devices, can be implemented. Energy metering, for both consumption and capacity, can also be developed. Supervision can be easily developed via proprietary devices or the integration in third party systems by means of the most common protocols as ModBus, Bacnet, Bacnet-over-IP, Echelon LonWorks.

Compatibility with the remote keyboard managing up to 10 units.

Availability of an internal real time clock for operation scheduling (4-day profiles with 10 hour belts).

The regulation features the continuous modulation of capacity, based on a dynamic dead band and referring to the leaving water temperature. As alternative, step-wise regulation is also available, referred to the return water temperature with selectable proportional- or proportional-integral logic.

Refrigerant



Versions

B Basic

Features

COMPACTNESS

Compactness in terms of overall size and weight, helping installation and working on site

ADAPTABILITY

Adaptability at the building's cooling request thanks to the continuous capacity regulation, assured by sophisticated control's logic.

WIDE OPERATING RANGE

Extensive range of operation with remote condenser operating up to 46°C air temperature

SILENT OPERATION

Extremely silent operation thanks to the accurate unit's design. Optional integral acoustic enclosure, reduces more the sound level beyond the best on market

Accessories

- Integral acoustical enclosure (type base or plus)
- Electronic expansion valve
- Soft start
- Set-up for remote connectivity with ModBus, Echelon, Bacnet, Bacnet over-IP.
- Remote control keyboard (distance to 200m and to 500m)

FOCS-ME / B		1001	1201	1301	1351	1601	1801	2002	2402	2602
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE										
COOLING										
Cooling capacity	(1) kW	218,9	261,7	295,4	333,0	389,0	444,8	418,5	516,4	591,4
Total power input	(1) kW	59,65	69,66	77,52	85,39	101,5	118,0	113,6	139,2	155,1
EER	(1) kW/kW	3,667	3,755	3,812	3,899	3,833	3,769	3,684	3,710	3,813
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN REFRIGERATION										
Water flow	(1) l/s	10,47	12,52	14,13	15,93	18,60	21,27	20,01	24,70	28,28
Pressure drop	(1) kPa	37,3	35,5	31,3	39,8	22,4	29,3	23,9	36,4	25,9
REFRIGERANT CIRCUIT										
Compressors nr.	N°	1	1	1	1	1	1	2	2	2
No. Circuits	N°	1	1	1	1	1	1	2	2	2
Refrigerant charge	kg									
NOISE LEVEL										
Sound Pressure	(2) dB(A)	62	65	65	65	65	65	65	65	67
Sound power level in cooling	(3)(4) dB(A)	94	97	97	97	97	97	97	97	99
SIZE AND WEIGHT										
A	(5) mm	2835	3120	3120	3120	3530	3530	3730	3730	4500
B	(5) mm	900	900	900	900	900	900	1150	1150	1150
H	(5) mm	1800	1800	1800	1800	1950	1950	2000	2000	2000
Operating weight	(5) kg	1380	1870	1910	1920	2640	2650	2750	3420	3710

FOCS-ME / B		2702	3202	3602	4202	4502	4802	5003	5203	5403
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE										
COOLING										
Cooling capacity	(1) kW	674,0	758,6	884,6	1000	1061	1120	1184	1251	1304
Total power input	(1) kW	171,0	202,2	235,8	264,9	277,4	290,0	319,6	336,6	353,3
EER	(1) kW/kW	3,942	3,752	3,751	3,775	3,825	3,862	3,705	3,717	3,691
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN REFRIGERATION										
Water flow	(1) l/s	32,23	36,28	42,31	47,84	50,72	53,56	56,60	59,82	62,36
Pressure drop	(1) kPa	36,3	46,1	45,9	40,0	45,0	50,2	56,0	44,1	47,9
REFRIGERANT CIRCUIT										
Compressors nr.	N°	2	2	2	2	2	2	3	3	3
No. Circuits	N°	2	2	2	2	2	2	3	3	3
Refrigerant charge	kg									
NOISE LEVEL										
Sound Pressure	(2) dB(A)	67	67	67	67	67	67	69	69	69
Sound power level in cooling	(3)(4) dB(A)	99	99	99	99	99	99	101	101	101
SIZE AND WEIGHT										
A	(5) mm	4500	4500	4500	4500	4500	4500	4425	4425	4425
B	(5) mm	1150	1150	1150	1150	1150	1150	1700	1700	1700
H	(5) mm	2000	2000	2000	2000	2000	2000	1900	1900	1900
Operating weight	(5) kg	3730	4600	5050	5220	5250	5280	6810	6840	6850

FOCS-ME / B		5414	5904	6404	6804	7204	7804	8404	9004	9604
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE										
COOLING										
Cooling capacity	(1) kW	1348	1433	1548	1660	1769	1886	2001	2121	2240
Total power input	(1) kW	342,1	373,3	405,6	438,6	471,7	500,6	529,9	554,8	580,1
EER	(1) kW/kW	3,940	3,839	3,817	3,785	3,750	3,767	3,776	3,823	3,861
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN REFRIGERATION										
Water flow	(1) l/s	64,46	68,55	74,04	79,37	84,61	90,17	95,68	101,4	107,1
Pressure drop	(1) kPa	36,3	41,1	35,2	40,4	45,9	52,7	40,1	45,1	50,3
REFRIGERANT CIRCUIT										
Compressors nr.	N°	4	4	4	4	4	4	4	4	4
No. Circuits	N°	4	4	4	4	4	4	4	4	4
Refrigerant charge	kg									
NOISE LEVEL										
Sound Pressure	(2) dB(A)	70	70	70	70	70	70	70	70	70
Sound power level in cooling	(3)(4) dB(A)	102	102	102	102	102	102	102	102	102
SIZE AND WEIGHT										
A	(5) mm	4500	4500	4500	4500	4500	4500	4500	4500	4500
B	(5) mm	2250	2250	2250	2250	2250	2250	2250	2250	2250
H	(5) mm	2000	2000	2000	2000	2000	2000	2000	2000	2000
Operating weight	(5) kg	7560	8400	9980	10010	10020	10190	10350	10420	10480

Notes

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Condensation temperature 47°C.
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, indoors.
- Unit in standard configuration/execution, without optional accessories.

The units highlighted in this publication contain HFC R134a [GWP₁₀₀ 1430] fluorinated greenhouse gases.

Dimensional drawing

