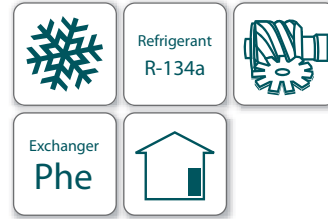




Cooling capacity: 120 kW ÷ 570 kW



GENERAL CHARACTERISTICS

- Stepless capacity control
- Frame 3100 and 3200 single screw compressors; star - delta standard start
- Direct expansion plate to plate type evaporator, one per circuit; heat exchanger made of stainless steel brazed plates and covered with a 10 mm closed cell insulation material.
- Direct expansion shell and tube condenser, one per circuit; copper tubes rolled into steel tube sheets; victaulic water connections.
- R134a refrigerant
- Microtech III controller compatible with BMS

VERSIONS

SE Standard efficiency	EER up to 4,41 ESEER up to 5,37
ME Condenserless	EER up to 3,63

SOUND LEVELS

Standard sound	70,0 ÷ 74,4 dB(A)
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STANDARD OPTIONS

- Wye delta starter (Y-Δ)
- Double set point
- Phase monitor
- Evaporator victaulic kit
- 20 mm evaporator insulation
- Condenser victaulic kit
- Condenser Water Side Design 16 Bar
- Condenser 2 passes (Δ t 4-8°C)
- Evaporator flow switch
- Electronic expansion device
- Discharge line shut off valve
- Suction line shut off valve
- High pressure side manometers
- Hour run meter
- General fault contactor
- Main switch interlock
- Emergency stop

OPTIONS ON REQUEST

- Soft starter
- Heat pump version / Brine version
- Compressor thermal relays
- Under / overvoltage control
- Energy meter
- Capacitors cosφ 0.9
- Current limit - display
- Condenser double flanges kit
- 20mm condenser insulation
- Evaporator area guards
- Cu-ni 90-10 condenser tubes
- Water pressure differential switch on evaporator
- Low pressure side manometers
- Fork-lift kit
- Rubber anti vibration mount
- Sound proof system
- Set-point reset, demand limit and alarm from external device
- Double pressure relief valve with diverter
- Automatic circuit breakers
- Ground fault relay

TECHNICAL DATA WHB SE ST - cooling only



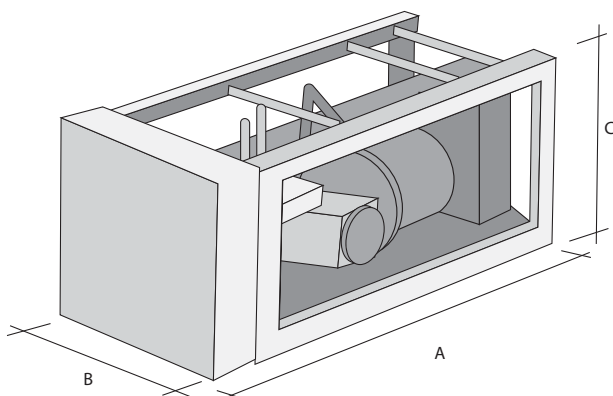
WHB SE ST		034.1	040.1	043.1	051.1	057.1	071.1	080.1	085.2	094.2	102.2	108.2	114.2	128.2	142.2	151.2	159.2
Cooling Capacity ¹	kW	120	146	155	178	208	256	285	310	334	357	386	416	464	513	541	570
Unit power input ¹	kW	27,3	33,3	38,5	44,2	49,3	58,7	68,3	77,0	82,7	88,4	98,6	98,6	108	117	127	137
EER	--	4,40	4,38	4,03	4,03	4,22	4,37	4,18	4,03	4,04	4,04	3,91	4,22	4,30	4,38	4,26	4,16
ESEER	--	5,01	4,67	4,67	4,66	4,75	5,20	4,46	4,80	4,84	5,00	4,79	5,17	5,27	5,37	5,25	4,81
Heating Capacity ²	kW	142	172	188	216	249	305	340	377	405	432	466	499	554	610	645	681
Unit power input ²	kW	32,9	40,1	46,4	53,5	59,6	71,7	80,8	92,9	99,9	107	113	119	131	143	152	162
COP ²	--	4,32	4,29	4,05	4,04	4,18	4,26	4,21	4,06	4,05	4,04	4,12	4,19	4,22	4,26	4,23	4,22
Sound Pressure ³	dB(A)	71,4	71,4	71,4	71,4	71,4	70,0	70,0	74,4	74,4	74,4	74,4	74,4	73,8	73,0	73,0	73,0
Compressor	Type	Semi-hermetic single screw compressor															
Quantity	No.	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Minimum capacity	%	25	25	25	25	25	25	25	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
Refrigerant	Type	R-134a															
N. of circuits	No.	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Evaporator	Type	Brased plate, one per circuit															
Quantity	No.	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Water volume	l	14,3	18,1	14,4	16,7	20,3	26,1	26,1	28,8	31,1	33,3	36,9	40,5	46,4	52,2	52,2	52,2
Nominal Water pressure drop	kPa	15	13	40	38	36	28	33	40	40	38	38	36	36	28	28	33
Water connections size	mm	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2	76,2
Condenser	Type	Shell&Tube															
Quantity	No.	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Water volume	l	20,0	20,1	22,7	25,3	28,7	28,7	32,0	45,4	48,0	50,6	54,0	57,3	57,3	57,3	60,7	64,0
Nominal Water pressure drop	kPa	20	12	11	11	11	16	26	11	11	11	11	11	11	16	16	26
Water connections size	"	2"½	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
Standard voltage	V/ph/Hz	400 V / 3ph / 50 Hz															

NOTES:

- (1) 12/7°C entering/leaving evaporator water temperature; 30/35°C entering/leaving condenser water temperature
- (2) 12/7°C entering/leaving evaporator water temperature; 40/45°C entering/leaving condenser water temperature
- (3) At 1 m, according to ISO 3744, at free field semispherical conditions

Weight and dimensions		034.1	040.1	043.1	051.1	057.1	071.1	080.1	085.2	094.2	102.2	108.2	114.2	128.2	142.2	151.2	159.2
Shipping weight	kg	1177	1233	1334	1366	1416	1600	1607	2668	2700	2732	2782	2832	3016	3200	3207	3215
Operating weight	kg	1211	1276	1378	1415	1473	1663	1675	2755	2792	2830	2888	2946	3136	3327	3338	3350
(A) Length	mm	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684
(B) Width	mm	913	913	913	913	913	913	913	913	913	913	913	913	913	913	913	913
(C) Height	mm	1020	1020	1020	1020	1020	1020	1020	2000	2000	2000	2000	2000	2000	2000	2000	2000

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WHB

WATER COOLED CHILLER WITH SCREW COMPRESSORS

TECHNICAL DATA WHB ME ST - cooling only



WHB ME ST		034.1	040.1	043.1	051.1	057.1	071.1	080.1	085.2	094.2	102.2	108.2	114.2	128.2	142.2	151.2	159.2
Cooling Capacity ¹	kW	110	128	143	164	192	237	265	286	307	328	356	383	429	474	502	530
Unit power input ¹	kW	30,9	38,0	43,3	49,8	55,3	65,2	74,5	86,5	93,0	99,5	105	111	121	130	140	149
EER	--	3,55	3,36	3,31	3,30	3,47	3,63	3,56	3,31	3,30	3,30	3,39	3,47	3,56	3,63	3,59	3,56
Sound Pressure ²	dB(A)	71,4	71,4	71,4	71,4	71,4	70,0	70,0	74,4	74,4	74,4	74,4	74,4	73,8	73,0	73,0	73,0
Compressor	Type	Semi-hermetic single screw compressorX															
Quantity	No.	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Minimum capacity	%	25	25	25	25	25	25	25	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
Refrigerant	Type	R-134a															
N. of circuits	No.	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Evaporator	Type	Brased plate, one per circuit															
Quantity	No.	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Water volume	l	14	18	14	17	20	26	26	29	31	33	37	41	46	52	52	52
Nominal Water pressure drop	kPa	14	12	36	34	32	25	31	36	36	34	34	32	32	25	25	31
Water connections size	--	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Liquid connections Inlet	--	1 ³ / ₈ "	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"
Gas Discharge connections Outlet	--	2"	2 ¹ / ₈ "	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Standard voltage	V/ph/Hz	400 V / 3ph / 50 Hz															

NOTES:

- (1) 12/7°C entering/leaving evaporator water temperature; 45°C saturated discharge temperature at the compressor
- (2) At 1 m, according to ISO 3744, at free field semispherical conditions

Weight and dimensions		034.1	040.1	043.1	051.1	057.1	071.1	080.1	085.2	094.2	102.2	108.2	114.2	128.2	142.2	151.2	159.2
Shipping weight	kg	1124	1141	1237	1263	1305	1489	1489	2474	2500	2526	2568	2611	2795	2979	2979	2979
Operating weight	kg	1138	1159	1253	1281	1327	1518	1518	2505	2533	2562	2608	2655	2845	3036	3036	3036
(A) Length	mm	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684	2684
(B) Width	mm	913	913	913	913	913	913	913	913	913	913	913	913	913	913	913	913
(C) Height	mm	1020	1020	1020	1020	1020	1020	1020	2000	2000	2000	2000	2000	2000	2000	2000	2000

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