

TECHNICAL DATA SHEET



GSE

CONDENSERLESS WATER
CHILLER WITH SCREW
COMPRESSORS TO BE
CONNECTED WITH A REMOTE
CONDENSER (RCE) FOR
INDOOR INSTALLATION



GSE Range 67 - 1.900 kW

GSE

Condenserless water chiller with screw compressors to be connected with a remote condenser (RCE) for indoor installation



Screw compressors
Dry expansion evaporator

R134a

HFO
1234ze

General Description

Available on several models equipped with one or more centrifugal compressors, dimensioned to be used with refrigerant type R134a or with the new low GWP HFO-1234ze.

The units of the GSE series are assembled on a strong self-supporting metal screwed and welded structure, painted with epoxy powder with anti-rust coating for outdoor installation.

All units are supplied completely wired and ready to be connected to the user's plant.

Prior to delivery every machine is submitted to a performance test, with intervention tests of all the safety systems and components installed. Each unit is available with low-speed fans and compressor sound insulation kit (Low Noise LN version or Super Low Noise LLN) for installation in areas where noise emission must be kept to a minimum.

Typical units dimensions

Length: from 3.000 to 5.000 mm

Width: from 800 to 1.960 mm

Height: from 1.610 to 2.650 mm

Operating Weigth: from 1.597 kg to 10.952 kg



Length from 3.000 mm to 5.000 mm. The bigger sizes are delivered in two sections.

Condenserless chiller unit with screw compressors for indoor installation

Energymiser		GSE B135-34	GSE B140-34	GSE B150-34	GSE B160-34	GSE B170-34	GSE B180-34
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	66,9	83,7	95,5	114,9	129,1	162,3
Nominal power input	kW	23,1	28,3	34,4	38,8	43,8	52,9
E.E.R.	Coef.	2,9	2,96	2,78	2,96	2,95	3,07
Energy class		G	G	G	G	G	F
E.S.E.E.R.	Coef.	0	0	0	0	0	0
Noise Pressure Level	dB(A)	55	56	58	58	59	61
Distance	m	10	10	10	10	10	10
WORKING CONDITIONS							
Compressors type	Type	Screw	Screw	Screw	Screw	Screw	Screw
Compressors number	n°	1	1	1	1	1	1
Inlet water temp.	°C	12	12	12	12	12	12
Outlet water temp.	°C	6	6	6	6	6	6
Ambient temp.	°C	35	35	35	35	35	35
Evaporator type (*1)	Type	BPHE	BPHE	BPHE	BPHE	BPHE	BPHE
Power circuit voltage	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Control circuit voltage	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Total power input	kW	23,1	28,3	34,4	38,8	43,8	52,9
Total running current	A	41,8	49,2	59,1	67,2	75,4	84
Total max current	A	58	66	79	98	124	144
Total starting current	A	153	182	206	267	290	394
DIMENSIONS							
Length with cabinet	mm	3000	3000	3500	3500	3500	3800
Width	mm	800	800	800	800	800	1000
Height	mm	1610	1610	1810	1810	1810	2000
Shipping weight	kg	1580	1590	2090	2130	2250	2740
Operating weight	kg	1597	1609	2138	2184	2344	2827
(*1) S&T or BPHE: Shell and Tube - Brazed Plate Heat Exchanger							

Condenserless chiller unit with screw compressors for indoor installation

GSE B190-34	GSE B1110-34	GSE B1125-34	GSE B1140-34	GSE B1160-34	GSE B1180-34	GSE B1210-34	GSE B1240-34	GSE B235-34	GSE B240-34	GSE B250-34
R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
184,7	219,5	243,2	278,5	319,9	375,7	422	464,3	133,8	167,4	191
60,4	71	78,1	90,1	102,7	121,2	136,3	149,8	46,2	56,6	68,8
3,06	3,09	3,11	3,09	3,11	3,1	3,1	3,1	2,9	2,96	2,78
F	F	F	F	F	F	F	F	G	G	G
0	0	0	0	0	0	0	0	0	0	0
62	64	63	63	63	63	63	65	59	60	62
10	10	10	10	10	10	10	10	10	10	10
Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw
1	1	1	1	1	1	1	1	2	2	2
12	12	12	12	12	12	12	12	12	12	12
6	6	6	6	6	6	6	6	6	6	6
35	35	35	35	35	35	35	35	35	35	35
BPHE	BPHE	BPHE	BPHE	S&T	S&T	S&T	S&T	BPHE	BPHE	BPHE
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	400/3/50	400/3/50
230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
60,4	71	78,1	90,1	102,7	121,2	136,3	149,8	46,2	56,6	68,8
98,5	120,1	133,8	152,8	169,6	195,7	227,1	248	83,6	98,4	118,2
155	182	215	214	280	310	320	360	116	132	158
439	520	612	665	436	465	586	650	201,9	238,6	280,3
3800	3800	3800	3800	4000	4000	4000	4000	3800	3800	3800
1000	1000	1000	1000	1200	1200	1200	1200	800	800	800
2000	2000	2000	2000	2450	2450	2450	2450	1810	1810	2000
2760	2880	2690	2710	3250	3290	3360	3500	2610	2630	3080
2840	3013	2805	2820	3360	3392	3462	3653	2704	2717	3160

Condenserless chiller unit with screw compressors for indoor installation

Energymiser		GSE B260-34	GSE B270-34	GSE B280-34	GSE B290-34	GSE B2110-34	GSE B2125-34
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	229,8	258,2	324,6	369,4	439	486,4
Nominal power input	kW	77,6	87,6	105,8	120,8	142	156,2
E.E.R.	Coef.	2,96	2,95	3,07	3,06	3,09	3,11
Energy class		G	G	F	F	F	F
E.S.E.E.R.	Coef.	0	0	0	0	0	0
Noise Pressure Level	dB(A)	62	63	65	66	68	67
Distance	m	10	10	10	10	10	10
WORKING CONDITIONS							
Compressors type	Type	Screw	Screw	Screw	Screw	Screw	Screw
Compressors number	n°	2	2	2	2	2	2
Inlet water temp.	°C	12	12	12	12	12	12
Outlet water temp.	°C	6	6	6	6	6	6
Ambient temp.	°C	35	35	35	35	35	35
Evaporator type (*1)	Type	BPHE	BPHE	S&T	S&T	S&T	S&T
Power circuit voltage	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Control circuit voltage	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Total power input	kW	77,6	87,6	105,8	120,8	142	156,2
Total running current	A	134,4	150,8	168	197	240,2	267,6
Total max current	A	196	248	288	310	364	430
Total starting current	A	335,1	371,2	449	515	620,3	707,4
DIMENSIONS							
Length with cabinet	mm	3800	3800	4000	4000	4000	4000
Width	mm	1000	1000	1000	1000	1000	1000
Height	mm	2000	2000	2250	2250	2250	2250
Shipping weight	kg	3000	3020	3830	3840	3960	4010
Operating weight	kg	3115	3135	3940	3946	4119	4163
(*1) S&T or BPHE: Shell and Tube - Brazed Plate Heat Exchanger							

Condenserless chiller unit with screw compressors for indoor installation

GSE B2140-34	GSE B2160-34	GSE B2180-34	GSE B2210-34	GSE B2240-34	GSE B3180-34	GSE B3210-34	GSE B3240-34	GSE B4180-34	GSE B4210-34	GSE B4240-34
R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
557	639,8	751,4	844	928,6	1127,1	1266	1392,9	1502,8	1688	1857,2
180,2	205,4	242,4	272,6	299,6	363,6	408,9	449,4	484,8	545,2	599,2
3,09	3,11	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1
F	F	F	F	F	F	F	F	F	F	F
0	0	0	0	0	0	0	0	0	0	0
67	67	67	67	69	68	68	70	70	70	72
10	10	10	10	10	10	10	10	10	10	10
Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw
2	2	2	2	2	3	3	3	4	4	4
12	12	12	12	12	12	12	12	12	12	12
6	6	6	6	6	6	6	6	6	6	6
35	35	35	35	35	35	35	35	35	35	35
S&T	S&T	S&T	S&T	S&T	S&T	S&T	S&T	S&T	S&T	S&T
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	400/3/50	400/3/50
230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
180,2	205,4	242,4	272,6	299,6	363,6	408,9	449,4	484,8	545,2	599,2
305,6	339,2	391,4	454,2	496	587,1	681,3	744	782,8	908,4	992
428	560	620	640	720	930	960	1080	1240	1280	1440
790,9	726,8	819,6	974,3	1069	1720,6	2012,1	2200,6	3051,7	3553	3882,5
4000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
1000	1400	1400	1400	1400	1600	1600	1600	1960	1960	1960
2250	2450	2450	2450	2450	2450	2450	2450	2650	2650	2650
4050	5530	5570	5740	5840	7520	7750	7890	9470	9820	10000
4191	5792	5826	5988	6081	7926	8148	8277	9982	10316	10482

Condenserless chiller unit with screw compressors for indoor installation

Greenmiser		GSE F150-ZE	GSE F160-ZE	GSE F170-ZE	GSE F180-ZE	GSE F190-ZE	GSE F1100-ZE
CHILLER PERFORMANCE							
Refrigerant		HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE
Total cooling capacity	kW	77,5	93,5	106,1	121,2	135,9	147,9
Nominal power input	kW	25,7	29,1	33,2	38,6	43,6	47,5
E.E.R.	Coef.	3,02	3,21	3,2	3,14	3,12	3,11
Energy class		G	F	F	F	F	F
E.S.E.E.R.	Coef.	0	0	0	0	0	0
Noise Pressure Level	dB(A)	54	61	61	61	61	62
Distance	m	10	10	10	10	10	10
WORKING CONDITIONS							
Compressors type	Type	Screw	Screw	Screw	Screw	Screw	Screw
Compressors number	n°	1	1	1	1	1	1
Inlet water temp.	°C	12	12	12	12	12	12
Outlet water temp.	°C	6	6	6	6	6	6
Ambient temp.	°C	35	35	35	35	35	35
Evaporator type (*1)	Type	BPHE	BPHE	BPHE	BPHE	BPHE	BPHE
Power circuit voltage	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Control circuit voltage	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Total power input	kW	25,7	29,1	33,2	38,6	43,6	47,5
Total running current	A	41,7	47,2	53,8	62,6	70,7	77
Total max current	A	80	98	125	145	160	175
Total starting current	A	20,6	26,2	29,8	37,3	42,3	40,1
DIMENSIONS							
Length with cabinet	mm	3000	3000	3500	3500	3500	3800
Width	mm	800	800	800	800	800	1000
Height	mm	1610	1610	1810	1810	1810	2000
Shipping weight	kg	1790	1810	2090	2130	2260	2400
Operating weight	kg	1807	1829	2138	2184	2354	2487
(*1) S&T or BPHE: Shell and Tube - Brazed Plate Heat Exchanger							

Condenserless chiller unit with screw compressors for indoor installation

GSE F1110-ZE	GSE F1125-ZE	GSE F1140-ZE	GSE F1160-ZE	GSE F1180-ZE	GSE F1210-ZE	GSE F1240-ZE	GSE F250-ZE	GSE F260-ZE	GSE F270-ZE	GSE F280-ZE
HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE
171,2	194,6	225	259	302,7	341,1	373,8	155	187	212,2	242,4
51	57,5	67,1	76,7	89,9	101,5	111,1	51,4	58,2	66,4	77,2
3,36	3,38	3,35	3,38	3,37	3,36	3,36	3,02	3,21	3,2	3,14
F	F	F	F	F	F	F	G	F	F	F
0	0	0	0	0	0	0	0	0	0	0
64	66	65	66	64	66	69	58	65	65	65
10	10	10	10	10	10	10	10	10	10	10
Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw
1	1	1	1	1	1	1	2	2	2	2
12	12	12	12	12	12	12	12	12	12	12
6	6	6	6	6	6	6	6	6	6	6
35	35	35	35	35	35	35	35	35	35	35
BPHE	BPHE	BPHE	BPHE	S&T	S&T	S&T	BPHE	BPHE	BPHE	BPHE
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	400/3/50	400/3/50
230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
51	57,5	67,1	76,7	89,9	101,5	111,1	51,4	58,2	66,4	77,2
82,7	93,3	108,8	124,3	145,9	164,6	180,1	83,4	94,4	107,6	125,2
180	198	221	283	315	356	427	160	196	250	290
45,7	56,2	57,9	43,6	46,5	58,6	65	135,4	154,7	176,3	206,45
3800	3800	3800	4000	4000	4000	4000	3800	3800	3800	3800
1000	1000	1000	1200	1200	1200	1200	800	800	800	1000
2000	2000	2000	2450	2450	2450	2450	1810	1810	2000	2000
2910	2710	2730	3490	3510	3510	3620	3010	3060	3090	3010
3043	2825	2840	3600	3612	3612	3773	3104	3147	3170	3125

Condenserless chiller unit with screw compressors for indoor installation

Greenmiser		GSE F290-ZE	GSE F2100-ZE	GSE F2110-ZE	GSE F2125-ZE	GSE F2140-ZE	GSE F2160-ZE
CHILLER PERFORMANCE							
Refrigerant		HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE
Total cooling capacity	kW	271,8	295,8	342,4	389,2	450	518
Nominal power input	kW	87,2	95	102	115	134,2	153,4
E.E.R.	Coef.	3,12	3,11	3,36	3,38	3,35	3,38
Energy class		F	F	F	F	F	F
E.S.E.E.R.	Coef.	0	0	0	0	0	0
Noise Pressure Level	dB(A)	65	66	68	70	69	70
Distance	m	10	10	10	10	10	10
WORKING CONDITIONS							
Compressors type	Type	Screw	Screw	Screw	Screw	Screw	Screw
Compressors number	n°	2	2	2	2	2	2
Inlet water temp.	°C	12	12	12	12	12	12
Outlet water temp.	°C	6	6	6	6	6	6
Ambient temp.	°C	35	35	35	35	35	35
Evaporator type (*1)	Type	BPHE	S&T	S&T	S&T	S&T	S&T
Power circuit voltage	V/Ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Control circuit voltage	V/Ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Total power input	kW	87,2	95	102	115	134,2	153,4
Total running current	A	141,4	154	165,4	186,6	217,6	248,6
Total max current	A	320	350	360	396	442	566
Total starting current	A	233,2	251	270,9	308	355,3	394,7
DIMENSIONS							
Length with cabinet	mm	3800	4000	4000	4000	4000	5000
Width	mm	1000	1000	1000	1000	1000	1400
Height	mm	2000	2250	2250	2250	2250	2450
Shipping weight	kg	3040	3160	4030	4060	4090	5990
Operating weight	kg	3155	3270	4189	4213	4231	6252
(*1) S&T or BPHE: Shell and Tube - Brazed Plate Heat Exchanger							

Condenserless chiller unit with screw compressors for indoor installation

GSE F2180-ZE	GSE F2210-ZE	GSE F2240-ZE	GSE F3180-ZE	GSE F3210-ZE	GSE F3240-ZE	GSE F4180-ZE	GSE F4210-ZE	GSE F4240-ZE		
HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE	HF01234ZE		
605,4	682,2	747,6	908,1	1023,3	1121,4	1210,8	1364,4	1495,2		
179,8	203	222,2	269,7	304,5	333,3	359,6	406	444,4		
3,37	3,36	3,36	3,37	3,36	3,36	3,37	3,36	3,36		
F	F	F	F	F	F	F	F	F		
0	0	0	0	0	0	0	0	0		
68	70	73	69	71	74	71	73	76		
10	10	10	10	10	10	10	10	10		
Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw	Screw		
2	2	2	3	3	3	4	4	4		
12	12	12	12	12	12	12	12	12		
6	6	6	6	6	6	6	6	6		
35	35	35	35	35	35	35	35	35		
S&T	S&T	S&T	S&T	S&T	S&T	S&T	S&T	S&T		
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		
230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50		
179,8	203	222,2	269,7	304,5	333,3	359,6	406	444,4		
291,8	329,2	360,2	437,7	493,8	540,3	583,6	658,4	720,4		
630	712	854	945	1068	1281	1260	1424	1708		
460,9	523,1	572,8	1182,7	1336,3	1462,4	2200,1	2483,6	2717,7		
5000	5000	5000	5000	5000	5000	5000	5000	5000		
1400	1400	1400	1600	1600	1600	1960	1960	1960		
2450	2450	2450	2450	2450	2450	2650	2650	2650		
6010	6050	6070	8180	8210	8240	10350	10430	10470		
6266	6298	6311	8586	8608	8627	10862	10926	10952		