

Technical Data Sheet

Compressor model **GS30TB_T**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R134a**
 Compressor status

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	29,95 cm ³	Voltage/Frequency	220-240V 50Hz
Refrigerant	R134a	Diameter	39,98 mm	Voltage range	198-264 V
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	23,85 mm	Type	CSR
Expansion	Capillar/Valve	Net Weight	22,25 Kg	Phase number	1 PH
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Locked Rotor Amps (LRA)	29,00 A
Max. ambient temp.	43,0 °C	Oil charge	700 cm ³	Max. Cont. Current (MCC)	8,80 A
Compatible refriger.	R1234yf	HP	7/8 hp	Main W. resist. at 25°C	2,04 Ω
				Start W. resist. at 25°C	8,06 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.550 kCal/h	2.464 W
COP	2,70 W/W	2,30 W/W
EER	2,32 kCal/Wh	1,99 kCal/Wh
Input Power	1.100 W	1.070 W
Current	5,50 A	5,35 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	108-130 μF 330 V		
Run capacitor	16 μF 420 V		
Relay	Option 1	Option 2	
Reference	3ARR3 3AV3	RVA 2L..	
Pick-Up	224-252 V	224-252 V	
Drop-Out	40-90 V	40-105 V	
Protector	Option 1	Option 2	
Reference	MRA38088	T0419	
Current	22,00 A	22,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 57,00 °C	105,00 / 61,00 °C	

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	540	475	2,74	1,32	1,14
40	-20	824	583	3,15	1,64	1,41
40	-15	1.157	682	3,55	1,97	1,70
40	-10	1.538	771	3,93	2,32	1,99
40	-5	1.967	851	4,29	2,69	2,31
40	0	2.445	922	4,62	3,08	2,65
40	5	2.970	983	4,91	3,51	3,02
40	7,2	3.217	1.007	5,03	3,72	3,19
40	10	3.544	1.035	5,17	3,98	3,43

45	-25	460	443	2,62	1,21	1,04
45	-20	722	561	3,06	1,50	1,29
45	-15	1.033	670	3,50	1,79	1,54
45	-10	1.392	769	3,92	2,10	1,81
45	-5	1.799	859	4,32	2,44	2,09
45	0	2.254	939	4,70	2,79	2,40
45	5	2.758	1.010	5,04	3,18	2,73
45	7,2	2.995	1.038	5,18	3,36	2,89
45	10	3.310	1.071	5,35	3,59	3,09

50	-25	380	412	2,51	1,07	0,92
50	-20	620	539	2,98	1,34	1,15
50	-15	909	658	3,45	1,61	1,38
50	-10	1.245	766	3,91	1,89	1,62
50	-5	1.630	866	4,36	2,19	1,88
50	0	2.064	956	4,78	2,51	2,16
50	5	2.545	1.037	5,18	2,86	2,46
50	7,2	2.772	1.069	5,34	3,02	2,59
50	10	3.075	1.108	5,54	3,23	2,78

55	-25	300	380	2,40	0,92	0,79
55	-20	518	517	2,90	1,16	1,00
55	-15	784	645	3,40	1,41	1,22
55	-10	1.099	764	3,90	1,67	1,44
55	-5	1.462	873	4,39	1,95	1,67
55	0	1.873	973	4,86	2,24	1,93
55	5	2.333	1.063	5,31	2,55	2,19
55	7,2	2.550	1.100	5,50	2,70	2,32
55	10	2.840	1.144	5,73	2,89	2,48

60	-25	220	348	2,29	0,73	0,63
60	-20	416	495	2,81	0,98	0,84
60	-15	660	633	3,35	1,21	1,04
60	-10	953	762	3,89	1,46	1,25
60	-5	1.293	880	4,42	1,71	1,47
60	0	1.683	990	4,95	1,98	1,70
60	5	2.120	1.090	5,45	2,26	1,94
60	7,2	2.328	1.131	5,66	2,39	2,06
60	10	2.606	1.181	5,92	2,57	2,21

65	-25	140	317	2,19	0,51	0,44
65	-20	314	474	2,73	0,77	0,66
65	-15	536	621	3,30	1,00	0,86
65	-10	806	759	3,88	1,24	1,06
65	-5	1.125	888	4,46	1,47	1,27
65	0	1.492	1.007	5,03	1,72	1,48
65	5	1.907	1.117	5,59	1,99	1,71
65	7,2	2.105	1.162	5,82	2,11	1,81
65	10	2.371	1.217	6,12	2,27	1,95

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	582	478	2,75	1,22	1,05
40	-20	891	586	3,16	1,52	1,31
40	-15	1.251	686	3,57	1,82	1,58
40	-10	1.662	776	3,95	2,14	1,85
40	-5	2.123	856	4,31	2,48	2,14
40	0	2.635	928	4,65	2,84	2,45
40	5	3.198	989	4,94	3,23	2,79
40	7,2	3.462	1.013	5,06	3,42	2,95
40	10	3.812	1.042	5,20	3,66	3,16

45	-25	494	446	2,63	1,11	0,96
45	-20	777	564	3,08	1,38	1,19
45	-15	1.111	673	3,51	1,65	1,42
45	-10	1.495	773	3,94	1,93	1,67
45	-5	1.930	864	4,35	2,24	1,93
45	0	2.417	945	4,73	2,56	2,21
45	5	2.953	1.016	5,08	2,91	2,51
45	7,2	3.206	1.045	5,22	3,07	2,65
45	10	3.541	1.078	5,39	3,28	2,84

50	-25	406	414	2,52	0,98	0,85
50	-20	663	542	2,99	1,22	1,06
50	-15	970	661	3,46	1,47	1,27
50	-10	1.329	771	3,93	1,72	1,49
50	-5	1.738	871	4,38	2,00	1,72
50	0	2.198	962	4,81	2,29	1,97
50	5	2.709	1.043	5,21	2,60	2,24
50	7,2	2.949	1.076	5,38	2,74	2,37
50	10	3.270	1.115	5,58	2,93	2,53

55	-25	317	382	2,41	0,83	0,72
55	-20	548	520	2,91	1,05	0,91
55	-15	830	649	3,41	1,28	1,10
55	-10	1.162	768	3,92	1,51	1,31
55	-5	1.545	878	4,41	1,76	1,52
55	0	1.979	979	4,89	2,02	1,75
55	5	2.464	1.070	5,35	2,30	1,99
55	7,2	2.693	1.107	5,54	2,43	2,10
55	10	2.999	1.152	5,77	2,60	2,25

60	-25	229	350	2,30	0,66	0,57
60	-20	434	498	2,82	0,87	0,75
60	-15	690	637	3,36	1,08	0,94
60	-10	996	766	3,91	1,30	1,12
60	-5	1.353	886	4,45	1,53	1,32
60	0	1.761	996	4,98	1,77	1,53
60	5	2.219	1.097	5,48	2,02	1,75
60	7,2	2.437	1.138	5,70	2,14	1,85
60	10	2.728	1.188	5,97	2,30	1,98

65	-25	141	318	2,19	0,44	0,38
65	-20	320	476	2,74	0,67	0,58
65	-15	549	624	3,31	0,88	0,76
65	-10	829	763	3,90	1,09	0,94
65	-5	1.160	893	4,48	1,30	1,12
65	0	1.542	1.013	5,06	1,52	1,32
65	5	1.974	1.124	5,62	1,76	1,52
65	7,2	2.181	1.169	5,86	1,86	1,61
65	10	2.457	1.225	6,16	2,01	1,73

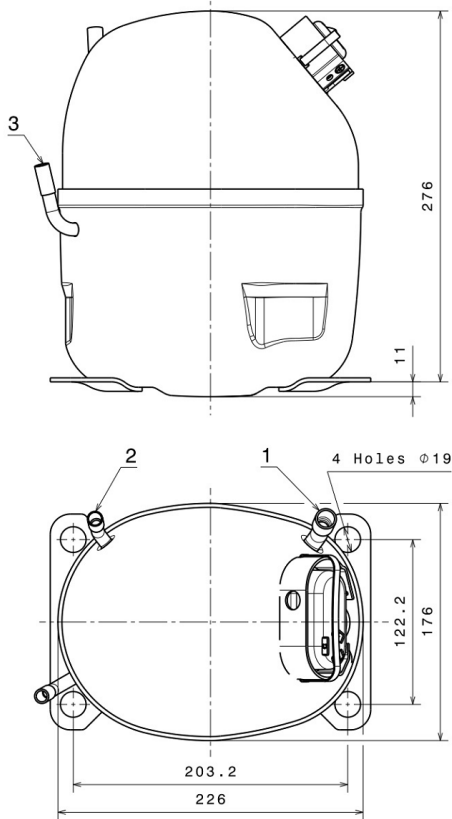
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.390,0783652635	810,5599046877	3,8798921221	76,750120577433
2	149,6795931096	-2,1667431072	0,0020666815	2,7982405482993
3	-44,7104185886	3,5252211898	0,0203617132	-0,46917937547332
4	0,9985408185	-0,1859651785	-0,0001701076	0,029120911056712
5	-1,0879711517	0,4013567592	0,0017493608	-0,0063395352344866

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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Technical Data Sheet

COMPRESSOR DIMENSIONS

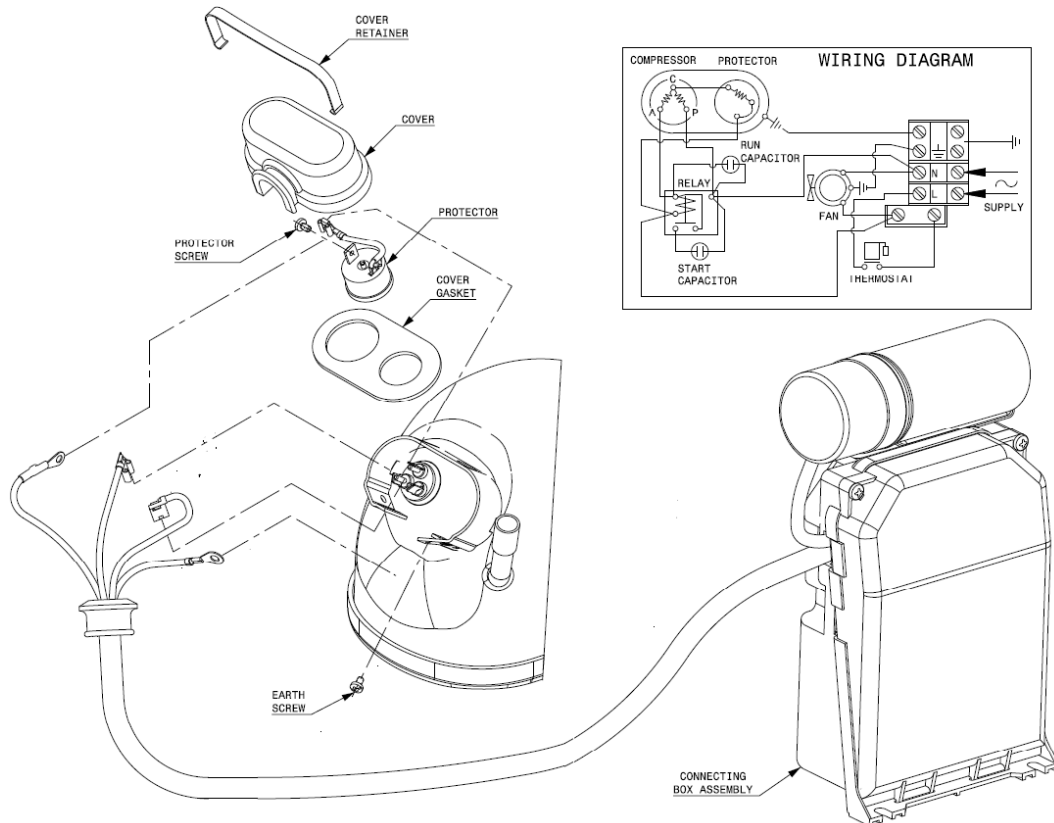


DESIGNATION INTERNAL DIAM.

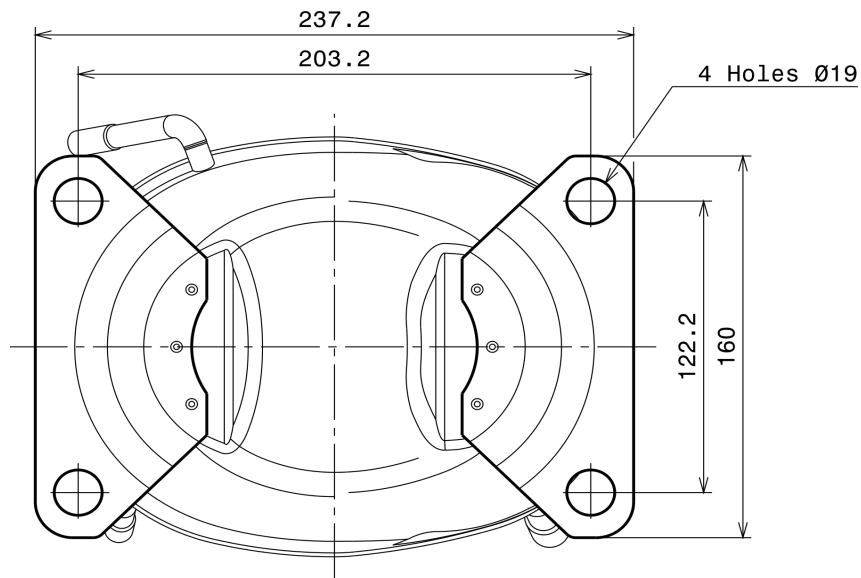
1	Suction	12,7 mm
2	Service	9,7 mm
3	Discharge	8,0 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (NS Range)



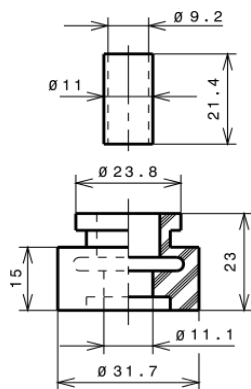
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (203.2x122.2 net)



SOA

SOA R134a HMBP

