

# Technical Data Sheet

Compressor model **GS34TF\_V**  
 Voltage **220-230V 60Hz ~1**  
 Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	34,42 cm <sup>3</sup>	Nominal Power	1 hp
Refrigerant	R134a	Diameter	42,86 mm	Voltage/Frequency	220-230V 60Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	23,85 mm	Voltage range	187-253 V
Expansion	Capillar/Valve	Net Weight	22,70 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	887 cm <sup>3</sup>	Locked Rotor Amps (LRA)	44,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	12,00 A
				Main W. resist. at 25°C	1,30 Ω
				Start W. resist. at 25°C	6,21 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	3.420 kCal/h	3.327 W
COP	2,50 W/W	2,17 W/W
EER	2,15 kCal/Wh	1,87 kCal/Wh
Input Power	1.590 W	1.535 W
Current	7,30 A	7,08 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	230 V 60 Hz	230 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	88-108 μF 330 V			
Run capacitor	16 μF 450 V			
Relay	Option 1	Option 2		
Reference	3ARR3 10A3	RVA 3AM..		
Pick-Up	239-270 V	239-270 V		
Drop-Out	50-110 V	50-110 V		
Protector	Option 1	Option 2		
Reference	MRA38142	T0257		
Current	24,00 A	24,00 A		
Time check	7,5-14 seg	6,0-16 seg		
Disc temp. (Open/Close)	120,00 / 52,00 °C	120,00 / 52,00 °C		

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	870	720	3,53	1,41	1,21
40	-20	1.258	833	4,05	1,75	1,51
40	-15	1.700	949	4,57	2,08	1,79
40	-10	2.196	1.065	5,09	2,40	2,06
40	-5	2.747	1.184	5,61	2,70	2,32
40	0	3.353	1.304	6,12	2,99	2,57
40	5	4.012	1.426	6,63	3,27	2,81
40	7,2	4.320	1.480	6,85	3,39	2,92
40	10	4.727	1.549	7,14	3,55	3,05

45	-25	753	703	3,46	1,25	1,07
45	-20	1.112	825	4,02	1,57	1,35
45	-15	1.526	949	4,57	1,87	1,61
45	-10	1.994	1.074	5,13	2,16	1,86
45	-5	2.517	1.200	5,68	2,44	2,10
45	0	3.094	1.329	6,23	2,71	2,33
45	5	3.725	1.459	6,77	2,97	2,55
45	7,2	4.020	1.517	7,00	3,08	2,65
45	10	4.411	1.591	7,30	3,23	2,77

50	-25	637	687	3,38	1,08	0,93
50	-20	967	817	3,98	1,38	1,18
50	-15	1.352	948	4,57	1,66	1,43
50	-10	1.792	1.082	5,16	1,93	1,66
50	-5	2.286	1.217	5,75	2,19	1,88
50	0	2.835	1.354	6,33	2,44	2,09
50	5	3.437	1.492	6,90	2,68	2,30
50	7,2	3.720	1.553	7,15	2,79	2,39
50	10	4.095	1.632	7,47	2,92	2,51

55	-25	520	670	3,30	0,90	0,78
55	-20	822	808	3,94	1,18	1,02
55	-15	1.179	948	4,57	1,45	1,24
55	-10	1.590	1.090	5,20	1,70	1,46
55	-5	2.056	1.233	5,82	1,94	1,67
55	0	2.576	1.378	6,43	2,17	1,87
55	5	3.150	1.525	7,04	2,40	2,07
55	7,2	3.420	1.590	7,30	2,50	2,15
55	10	3.779	1.673	7,63	2,63	2,26

60	-25	403	653	3,22	0,72	0,62
60	-20	677	800	3,90	0,98	0,85
60	-15	1.005	948	4,57	1,23	1,06
60	-10	1.388	1.098	5,24	1,47	1,26
60	-5	1.825	1.250	5,89	1,70	1,46
60	0	2.317	1.403	6,54	1,92	1,65
60	5	2.863	1.558	7,17	2,14	1,84
60	7,2	3.120	1.627	7,45	2,23	1,92
60	10	3.463	1.715	7,80	2,35	2,02

65	-25	287	637	3,14	0,52	0,45
65	-20	532	792	3,86	0,78	0,67
65	-15	832	948	4,57	1,02	0,88
65	-10	1.186	1.106	5,27	1,25	1,07
65	-5	1.594	1.266	5,96	1,46	1,26
65	0	2.058	1.428	6,64	1,68	1,44
65	5	2.575	1.591	7,30	1,88	1,62
65	7,2	2.820	1.663	7,59	1,97	1,70
65	10	3.147	1.756	7,96	2,08	1,79

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	937	724	3,55	1,29	1,12
40	-20	1.358	838	4,07	1,62	1,40
40	-15	1.836	954	4,60	1,92	1,66
40	-10	2.371	1.071	5,12	2,21	1,91
40	-5	2.964	1.191	5,64	2,49	2,15
40	0	3.613	1.312	6,15	2,75	2,38
40	5	4.320	1.435	6,67	3,01	2,60
40	7,2	4.649	1.490	6,89	3,12	2,70
40	10	5.084	1.560	7,18	3,26	2,82

45	-25	808	707	3,47	1,14	0,99
45	-20	1.195	829	4,04	1,44	1,25
45	-15	1.640	954	4,60	1,72	1,49
45	-10	2.141	1.080	5,15	1,98	1,71
45	-5	2.700	1.207	5,71	2,24	1,93
45	0	3.316	1.337	6,26	2,48	2,14
45	5	3.989	1.468	6,80	2,72	2,35
45	7,2	4.303	1.526	7,04	2,82	2,44
45	10	4.719	1.601	7,34	2,95	2,55

50	-25	679	690	3,39	0,98	0,85
50	-20	1.033	821	4,00	1,26	1,09
50	-15	1.444	954	4,60	1,51	1,31
50	-10	1.911	1.088	5,19	1,76	1,52
50	-5	2.437	1.224	5,78	1,99	1,72
50	0	3.019	1.362	6,36	2,22	1,92
50	5	3.658	1.501	6,94	2,44	2,11
50	7,2	3.958	1.563	7,19	2,53	2,19
50	10	4.355	1.643	7,51	2,65	2,29

55	-25	550	674	3,32	0,82	0,71
55	-20	870	813	3,96	1,07	0,93
55	-15	1.247	954	4,60	1,31	1,13
55	-10	1.682	1.096	5,23	1,53	1,33
55	-5	2.173	1.241	5,85	1,75	1,51
55	0	2.722	1.387	6,47	1,96	1,70
55	5	3.327	1.535	7,08	2,17	1,87
55	7,2	3.612	1.600	7,34	2,26	1,95
55	10	3.990	1.684	7,68	2,37	2,05

60	-25	421	657	3,24	0,64	0,55
60	-20	708	804	3,92	0,88	0,76
60	-15	1.051	953	4,60	1,10	0,95
60	-10	1.452	1.104	5,26	1,31	1,14
60	-5	1.909	1.257	5,92	1,52	1,31
60	0	2.424	1.412	6,57	1,72	1,48
60	5	2.997	1.568	7,21	1,91	1,65
60	7,2	3.266	1.637	7,49	2,00	1,72
60	10	3.626	1.726	7,84	2,10	1,82

65	-25	292	640	3,16	0,46	0,39
65	-20	545	796	3,88	0,68	0,59
65	-15	855	953	4,60	0,90	0,77
65	-10	1.222	1.113	5,30	1,10	0,95
65	-5	1.646	1.274	5,99	1,29	1,12
65	0	2.127	1.437	6,67	1,48	1,28
65	5	2.666	1.601	7,34	1,66	1,44
65	7,2	2.921	1.674	7,64	1,74	1,51
65	10	3.261	1.767	8,00	1,85	1,59

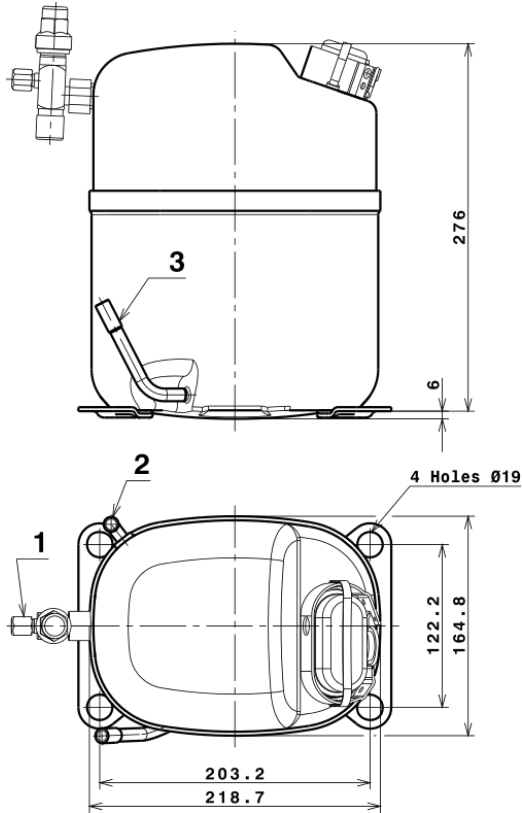
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	5,996,8297542449	1,141,2172108694	5,5081390392	105,24967995962
2	190,0845095895	11,7016570682	0,0470461640	3,5387690325202
3	-60,7572906780	5,1250317163	0,0201583570	-0,64040443732497
4	1,1266701347	0,0452569636	-0,0001138014	0,03345881163632
5	-1,4025278761	0,3420264853	0,0014421985	-0,0081708582060458

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

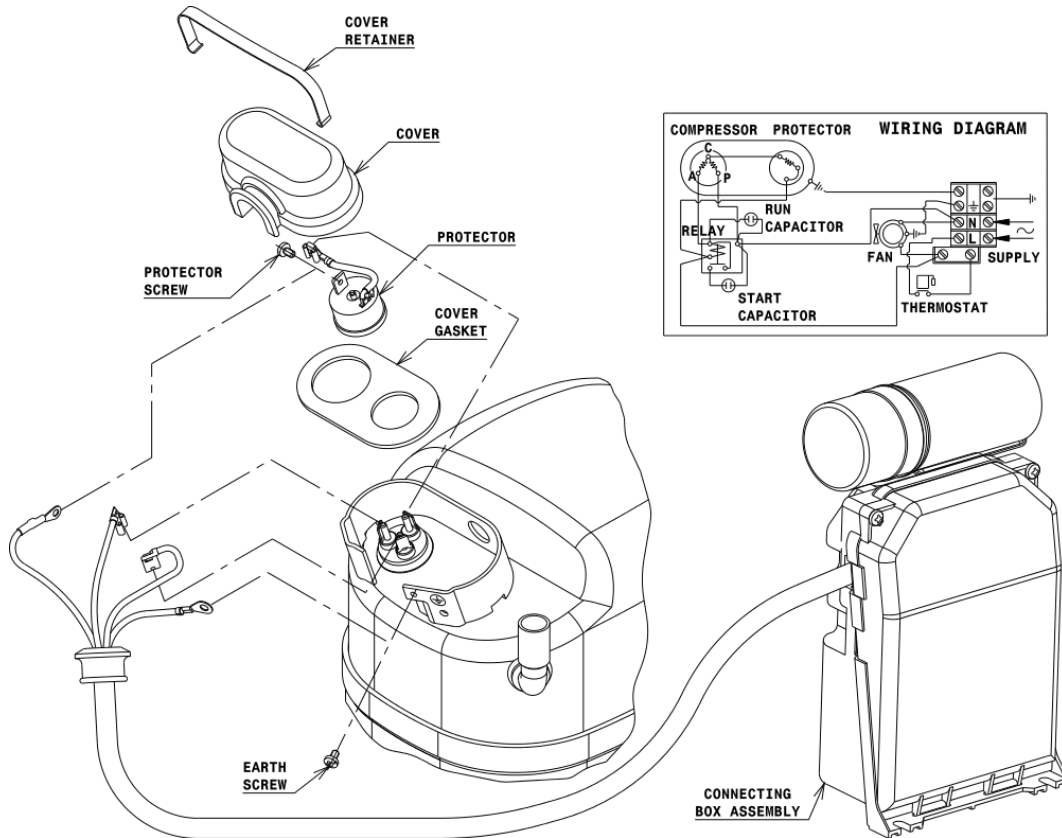
## COMPRESSOR DIMENSIONS



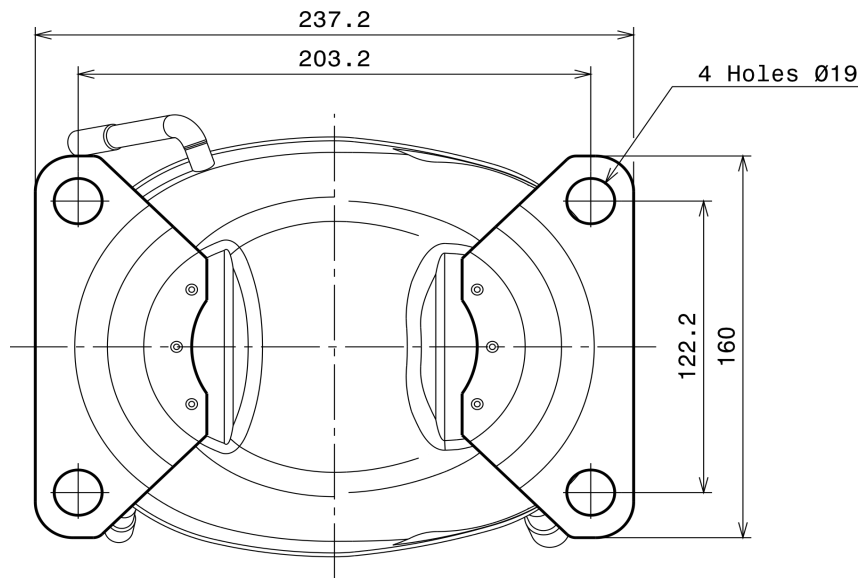
	DESIGNATION	INTERNAL DIAM.
1	Service Valve	5/8" SAE
2	Service	9,7 mm
3	Discharge	8,0 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (EXTERNAL CONNECTING BOX) (S range)



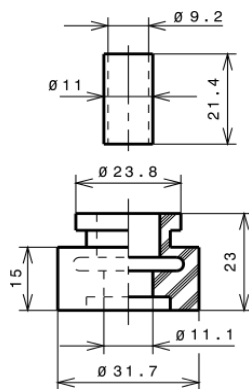
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

$\varnothing 19$  holes (203.2x122.2 net)



## SOA

SOA R134a HMBP

