

# Technical Data Sheet

Compressor model **GX21TB**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	20,72 cm <sup>3</sup>	Nominal Power	5/8 hp
Refrigerant	R134a	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,62 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	16,13 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm <sup>3</sup>	Locked Rotor Amps (LRA)	26,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	7,70 A
				Main W. resist. at 25°C	3,04 Ω
				Start W. resist. at 25°C	22,50 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	1.595 kCal/h	1.549 W
COP	2,18 W/W	1,88 W/W
EER	1,88 kCal/Wh	1,63 kCal/Wh
Input Power	850 W	823 W
Current	5,30 A	5,19 A

## 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	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

	Option 1	Option 2		
Starting capacitor	72- 88 μF 330 V			
Relay	Option 1	Option 2		
Reference	2014 180.	QLZ-16.7A		
Pick-Up	16,70 A	16,70 A		
Drop-Out	14,00 A	14,00 A		
Protector	Option 1	Option 2		
Reference	MRA38128	T0535		
Current	17,00 A	18,00 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C	135,00 / 52,00 °C		

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	420	385	3,70	1,27	1,09
40	-20	576	438	3,85	1,53	1,32
40	-15	762	491	4,00	1,81	1,55
40	-10	979	544	4,17	2,09	1,80
40	-5	1.227	598	4,34	2,39	2,05
40	0	1.505	652	4,53	2,69	2,31
40	5	1.814	706	4,73	2,99	2,57
40	7,2	1.960	730	4,82	3,12	2,68
40	10	2.154	761	4,94	3,29	2,83

45	-25	382	385	3,70	1,15	0,99
45	-20	525	444	3,86	1,37	1,18
45	-15	698	503	4,04	1,61	1,39
45	-10	902	563	4,23	1,86	1,60
45	-5	1.137	623	4,43	2,12	1,83
45	0	1.402	683	4,64	2,39	2,05
45	5	1.698	743	4,87	2,66	2,29
45	7,2	1.838	770	4,97	2,78	2,39
45	10	2.025	804	5,11	2,93	2,52

50	-25	343	385	3,70	1,04	0,89
50	-20	473	450	3,88	1,22	1,05
50	-15	634	516	4,08	1,43	1,23
50	-10	825	581	4,29	1,65	1,42
50	-5	1.047	647	4,51	1,88	1,62
50	0	1.299	714	4,76	2,12	1,82
50	5	1.582	781	5,02	2,36	2,03
50	7,2	1.717	810	5,13	2,46	2,12
50	10	1.896	848	5,29	2,60	2,24

55	-25	305	385	3,70	0,92	0,79
55	-20	422	456	3,90	1,08	0,92
55	-15	570	528	4,12	1,25	1,08
55	-10	748	600	4,35	1,45	1,25
55	-5	957	672	4,60	1,66	1,42
55	0	1.196	745	4,88	1,87	1,61
55	5	1.466	818	5,17	2,09	1,79
55	7,2	1.595	850	5,30	2,18	1,88
55	10	1.767	891	5,48	2,31	1,98

60	-25	267	385	3,70	0,81	0,69
60	-20	371	463	3,92	0,93	0,80
60	-15	506	540	4,15	1,09	0,94
60	-10	671	619	4,41	1,26	1,08
60	-5	867	697	4,69	1,45	1,24
60	0	1.093	776	5,00	1,64	1,41
60	5	1.350	855	5,32	1,84	1,58
60	7,2	1.473	890	5,47	1,93	1,66
60	10	1.638	935	5,67	2,04	1,75

65	-25	228	385	3,70	0,69	0,59
65	-20	320	469	3,93	0,79	0,68
65	-15	441	553	4,19	0,93	0,80
65	-10	594	637	4,48	1,08	0,93
65	-5	777	722	4,79	1,25	1,08
65	0	990	807	5,12	1,43	1,23
65	5	1.235	892	5,48	1,61	1,38
65	7,2	1.352	930	5,65	1,69	1,45
65	10	1.509	978	5,87	1,79	1,54

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	452	387	3,71	1,17	1,01
40	-20	622	440	3,85	1,41	1,22
40	-15	824	493	4,01	1,67	1,44
40	-10	1.058	547	4,18	1,93	1,67
40	-5	1.324	601	4,35	2,20	1,90
40	0	1.623	656	4,54	2,48	2,14
40	5	1.954	710	4,74	2,75	2,38
40	7,2	2.109	735	4,84	2,87	2,48
40	10	2.316	766	4,96	3,03	2,61

45	-25	409	387	3,71	1,06	0,91
45	-20	564	446	3,87	1,26	1,09
45	-15	750	506	4,05	1,48	1,28
45	-10	969	566	4,24	1,71	1,48
45	-5	1.220	626	4,44	1,95	1,68
45	0	1.503	687	4,66	2,19	1,89
45	5	1.819	748	4,89	2,43	2,10
45	7,2	1.968	775	4,99	2,54	2,19
45	10	2.166	809	5,13	2,68	2,31

50	-25	366	387	3,71	0,95	0,82
50	-20	505	453	3,89	1,12	0,96
50	-15	677	518	4,09	1,31	1,13
50	-10	880	585	4,30	1,51	1,30
50	-5	1.116	651	4,53	1,71	1,48
50	0	1.384	718	4,77	1,93	1,66
50	5	1.684	785	5,03	2,14	1,85
50	7,2	1.826	815	5,16	2,24	1,94
50	10	2.016	853	5,31	2,36	2,04

55	-25	323	387	3,71	0,83	0,72
55	-20	447	459	3,91	0,97	0,84
55	-15	603	531	4,12	1,14	0,98
55	-10	791	603	4,36	1,31	1,13
55	-5	1.012	676	4,62	1,50	1,29
55	0	1.264	749	4,89	1,69	1,46
55	5	1.549	823	5,19	1,88	1,63
55	7,2	1.685	855	5,32	1,97	1,70
55	10	1.866	897	5,50	2,08	1,80

60	-25	280	387	3,71	0,72	0,62
60	-20	388	465	3,92	0,83	0,72
60	-15	529	543	4,16	0,97	0,84
60	-10	702	622	4,43	1,13	0,97
60	-5	907	701	4,71	1,29	1,12
60	0	1.145	781	5,02	1,47	1,27
60	5	1.414	861	5,34	1,64	1,42
60	7,2	1.543	896	5,50	1,72	1,49
60	10	1.716	941	5,70	1,82	1,58

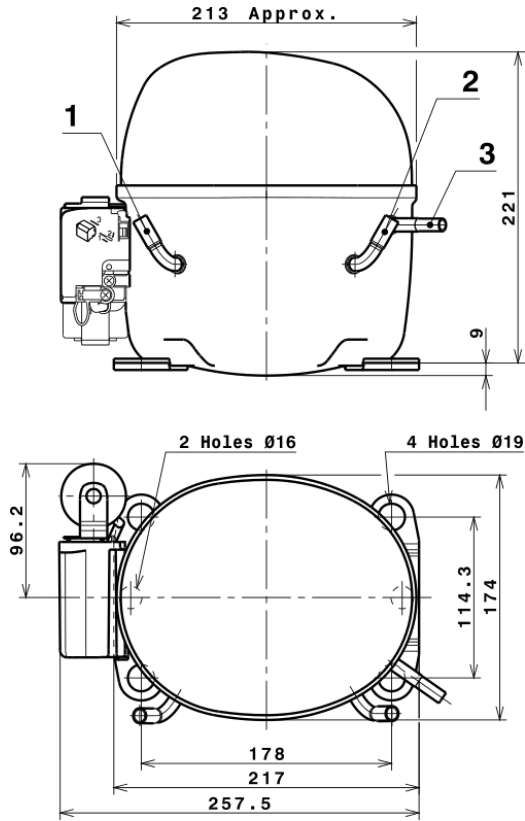
65	-25	236	387	3,71	0,61	0,53
65	-20	330	471	3,94	0,70	0,60
65	-15	455	556	4,20	0,82	0,71
65	-10	613	641	4,49	0,96	0,83
65	-5	803	726	4,80	1,11	0,96
65	0	1.025	812	5,14	1,26	1,09
65	5	1.279	898	5,51	1,42	1,23
65	7,2	1.401	936	5,68	1,50	1,29
65	10	1.566	984	5,90	1,59	1,37

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2,585,8644075133	415,6298711277	3,5185455964	44,11338777195
2	87,5538421564	1,1045931484	0,0020802748	1,64700878339
3	-24,5910124737	6,4265576597	0,0264046219	-0,21053421219772
4	0,6329074718	0,0122324329	0,0004192823	0,018344468723747
5	-0,6357346088	0,2570623064	0,0010561849	-0,0037922690674376

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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## COMPRESSOR DIMENSIONS

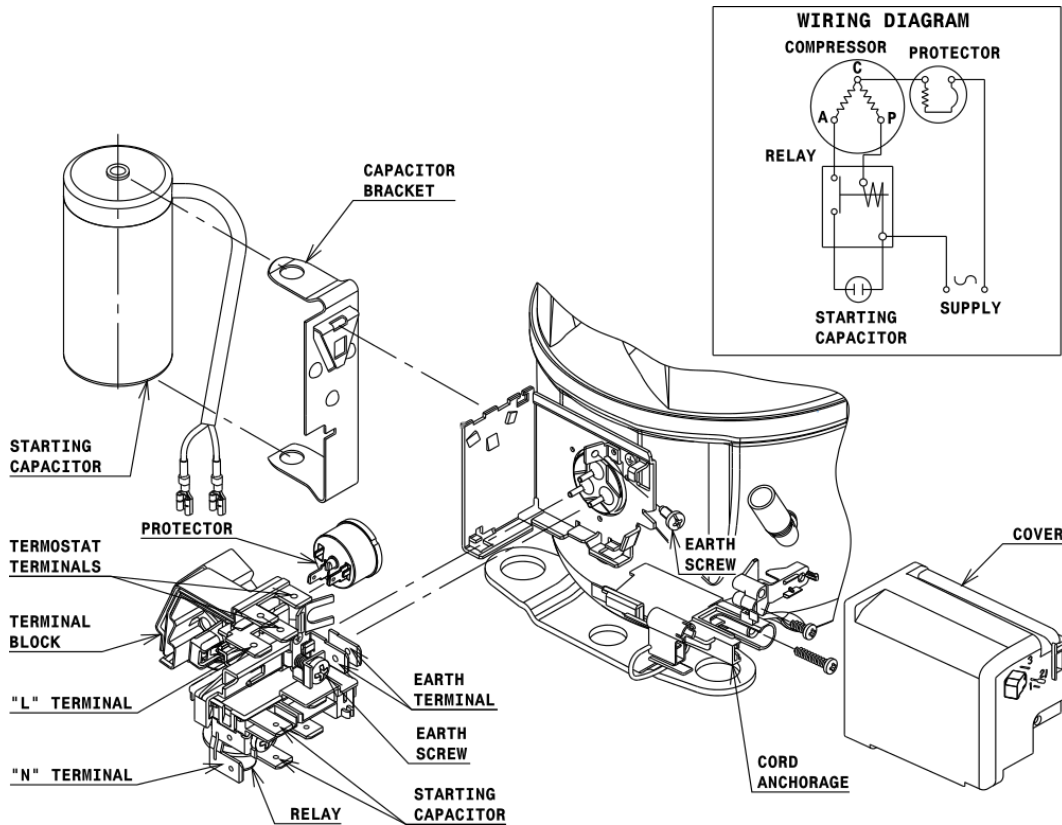


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Service	9,7 mm
2 Suction	9,7 mm
3 Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (X range)



# Technical Data Sheet

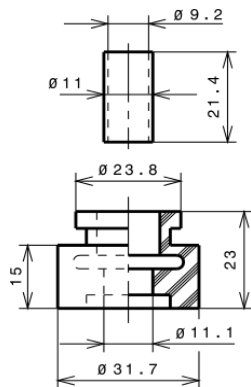
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R134a HMBP

