

Technical Data Sheet

Compressor model **GPY12RAa**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R134a**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	12,10 cm ³	Nominal Power	3/8 hp
Refrigerant	R134a	Diameter	27,00 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	13,31 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	400 cm ³	Locked Rotor Amps (LRA)	14,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	4,20 A
				Main W. resist. at 25°C	5,30 Ω
				Start W. resist. at 25°C	16,75 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.020 kCal/h	992 W
COP	2,35 W/W	2,03 W/W
EER	2,02 kCal/Wh	1,76 kCal/Wh
Input Power	505 W	488 W
Current	2,85 A	2,78 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	47- 56 µF 330 V		
Relay	Option 1		
Reference	2014 149.		
Pick-Up	7,80 A		
Drop-Out	6,65 A		
Protector	Option 1	Option 2	
Reference	MRA38145	T0266	
Current	14,90 A	11,00 A	
Time check	2,8-5,2 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	280	234	1,79	1,39	1,20
40	-20	375	259	1,88	1,68	1,45
40	-15	489	286	1,98	1,99	1,71
40	-10	623	315	2,09	2,30	1,98
40	-5	775	345	2,21	2,61	2,25
40	0	948	378	2,33	2,92	2,51
40	5	1.140	411	2,47	3,22	2,77
40	7,2	1.230	427	2,53	3,35	2,88
40	10	1.351	447	2,61	3,51	3,02

45	-25	258	237	1,80	1,27	1,09
45	-20	346	266	1,90	1,51	1,30
45	-15	452	296	2,02	1,78	1,53
45	-10	578	329	2,14	2,05	1,76
45	-5	724	363	2,28	2,32	2,00
45	0	889	398	2,42	2,59	2,23
45	5	1.073	436	2,57	2,86	2,46
45	7,2	1.160	453	2,64	2,98	2,56
45	10	1.276	475	2,73	3,12	2,69

50	-25	237	240	1,81	1,15	0,99
50	-20	316	272	1,93	1,35	1,16
50	-15	416	306	2,06	1,58	1,36
50	-10	534	342	2,20	1,82	1,56
50	-5	672	380	2,34	2,06	1,77
50	0	829	419	2,50	2,30	1,98
50	5	1.006	460	2,67	2,54	2,19
50	7,2	1.090	479	2,74	2,65	2,28
50	10	1.202	503	2,84	2,78	2,39

55	-25	215	243	1,82	1,03	0,88
55	-20	287	279	1,95	1,20	1,03
55	-15	379	317	2,10	1,39	1,20
55	-10	490	356	2,25	1,60	1,38
55	-5	620	397	2,41	1,82	1,56
55	0	770	440	2,58	2,04	1,75
55	5	939	485	2,77	2,25	1,94
55	7,2	1.020	505	2,85	2,35	2,02
55	10	1.128	531	2,96	2,47	2,12

60	-25	193	246	1,83	0,91	0,79
60	-20	258	285	1,98	1,05	0,90
60	-15	342	327	2,14	1,22	1,05
60	-10	446	370	2,30	1,40	1,21
60	-5	569	414	2,48	1,60	1,37
60	0	711	461	2,67	1,79	1,54
60	5	873	509	2,87	1,99	1,71
60	7,2	950	531	2,96	2,08	1,79
60	10	1.054	559	3,08	2,19	1,88

65	-25	172	249	1,84	0,80	0,69
65	-20	229	292	2,00	0,91	0,78
65	-15	306	337	2,18	1,06	0,91
65	-10	402	383	2,36	1,22	1,05
65	-5	517	432	2,55	1,39	1,20
65	0	652	482	2,75	1,57	1,35
65	5	806	534	2,97	1,76	1,51
65	7,2	880	557	3,07	1,84	1,58
65	10	980	587	3,20	1,94	1,67

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	302	235	1,79	1,28	1,11
40	-20	405	261	1,89	1,55	1,34
40	-15	529	288	1,99	1,84	1,59
40	-10	673	317	2,10	2,12	1,84
40	-5	837	347	2,22	2,41	2,08
40	0	1.022	380	2,34	2,69	2,32
40	5	1.227	414	2,48	2,96	2,56
40	7,2	1.324	430	2,54	3,08	2,66
40	10	1.453	450	2,62	3,23	2,79

45	-25	277	238	1,80	1,16	1,00
45	-20	371	267	1,91	1,39	1,20
45	-15	486	298	2,03	1,63	1,41
45	-10	621	330	2,15	1,88	1,62
45	-5	777	365	2,28	2,13	1,84
45	0	952	401	2,43	2,38	2,05
45	5	1.149	439	2,58	2,62	2,26
45	7,2	1.242	456	2,65	2,72	2,35
45	10	1.365	478	2,74	2,85	2,47

50	-25	252	241	1,81	1,05	0,90
50	-20	338	274	1,94	1,23	1,07
50	-15	443	308	2,07	1,44	1,24
50	-10	570	344	2,20	1,65	1,43
50	-5	716	382	2,35	1,87	1,62
50	0	883	422	2,51	2,09	1,81
50	5	1.071	463	2,68	2,31	2,00
50	7,2	1.159	482	2,76	2,40	2,08
50	10	1.278	507	2,86	2,52	2,18

55	-25	228	244	1,82	0,93	0,80
55	-20	304	280	1,96	1,08	0,94
55	-15	401	318	2,10	1,26	1,09
55	-10	518	358	2,26	1,45	1,25
55	-5	656	399	2,42	1,64	1,42
55	0	814	443	2,59	1,84	1,59
55	5	992	488	2,78	2,03	1,76
55	7,2	1.077	508	2,86	2,12	1,83
55	10	1.191	535	2,97	2,23	1,92

60	-25	203	247	1,84	0,82	0,71
60	-20	270	287	1,98	0,94	0,81
60	-15	358	329	2,14	1,09	0,94
60	-10	467	372	2,31	1,26	1,08
60	-5	595	417	2,49	1,43	1,23
60	0	745	464	2,68	1,61	1,39
60	5	914	512	2,88	1,78	1,54
60	7,2	995	534	2,97	1,86	1,61
60	10	1.104	563	3,09	1,96	1,69

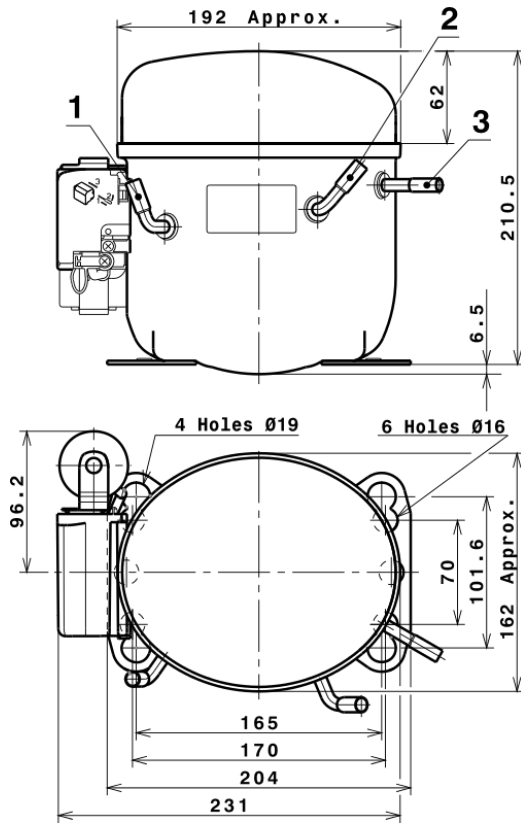
65	-25	178	250	1,85	0,71	0,61
65	-20	237	294	2,01	0,81	0,70
65	-15	316	339	2,18	0,93	0,81
65	-10	415	386	2,37	1,08	0,93
65	-5	535	434	2,56	1,23	1,06
65	0	675	485	2,77	1,39	1,20
65	5	836	537	2,98	1,56	1,34
65	7,2	913	561	3,08	1,63	1,41
65	10	1.017	591	3,21	1,72	1,49

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.581,1990897983	217,0742327584	1,6697010081	26,523394478211
2	53,4131919670	1,0378098159	0,0034204882	0,99996879372849
3	-14,3118790244	4,3151387838	0,0176981002	-0,10143803548552
4	0,4007519862	0,0394971661	0,0002158046	0,011613090663811
5	-0,3725889679	0,1479410124	0,0006163367	-0,0017914062655879

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
----------	---

COMPRESSOR DIMENSIONS



DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



Technical Data Sheet

FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HMBP

