

# 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 <sup>3</sup>	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	187-255 V
Expansion	Capillar/Valve	Net Weight	12,12 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 <sup>3</sup>	Locked Rotor Amps (LRA)	14,50 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	4,10 A
				Main W. resist. at 25°C	6,12 Ω
				Start W. resist. at 25°C	17,65 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.030 kCal/h	1.003 W
COP	2,37 W/W	2,05 W/W
EER	2,04 kCal/Wh	1,77 kCal/Wh
Input Power	505 W	488 W
Current	2,75 A	2,68 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	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

	Option 1	Option 2		
Starting capacitor	47- 56 µF 330 V			
Relay	Option 1	Option 2		
Reference	2014 149.	QLZ-7.8A		
Pick-Up	7,80 A	7,80 A		
Drop-Out	6,65 A	6,65 A		
Protector	Option 1	Option 2		
Reference	T0266	B110-105		
Current	11,00 A	11,00 A		
Time check	7,5-14 seg	7,5-16 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C		

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	290	230	1,69	1,47	1,26
40	-20	383	257	1,78	1,74	1,49
40	-15	496	285	1,88	2,02	1,74
40	-10	628	314	1,99	2,32	2,00
40	-5	779	345	2,10	2,63	2,26
40	0	950	377	2,23	2,93	2,52
40	5	1.140	410	2,36	3,23	2,78
40	7,2	1.230	425	2,42	3,37	2,89
40	10	1.350	444	2,50	3,53	3,04

45	-25	268	233	1,70	1,34	1,15
45	-20	355	264	1,80	1,56	1,34
45	-15	460	296	1,92	1,81	1,56
45	-10	585	329	2,04	2,07	1,78
45	-5	730	363	2,17	2,34	2,01
45	0	893	398	2,31	2,61	2,24
45	5	1.077	435	2,46	2,88	2,47
45	7,2	1.163	452	2,53	3,00	2,58
45	10	1.279	473	2,62	3,14	2,70

50	-25	247	237	1,71	1,21	1,04
50	-20	326	271	1,83	1,40	1,20
50	-15	425	306	1,96	1,61	1,39
50	-10	543	343	2,10	1,84	1,58
50	-5	680	381	2,24	2,08	1,79
50	0	837	420	2,40	2,32	1,99
50	5	1.013	460	2,56	2,56	2,20
50	7,2	1.097	478	2,64	2,67	2,29
50	10	1.209	502	2,74	2,80	2,41

55	-25	225	240	1,72	1,09	0,94
55	-20	297	278	1,85	1,24	1,07
55	-15	389	317	2,00	1,43	1,23
55	-10	500	357	2,15	1,63	1,40
55	-5	630	398	2,31	1,84	1,58
55	0	780	441	2,48	2,06	1,77
55	5	949	485	2,67	2,28	1,96
55	7,2	1.030	505	2,75	2,37	2,04
55	10	1.138	530	2,86	2,49	2,15

60	-25	203	243	1,73	0,97	0,84
60	-20	269	285	1,88	1,10	0,94
60	-15	353	327	2,04	1,26	1,08
60	-10	457	371	2,20	1,43	1,23
60	-5	581	416	2,38	1,62	1,40
60	0	724	463	2,57	1,82	1,56
60	5	886	510	2,77	2,02	1,74
60	7,2	963	532	2,86	2,11	1,81
60	10	1.067	559	2,99	2,22	1,91

65	-25	182	247	1,74	0,86	0,74
65	-20	240	292	1,91	0,96	0,82
65	-15	318	338	2,08	1,09	0,94
65	-10	415	385	2,26	1,25	1,08
65	-5	531	434	2,45	1,42	1,22
65	0	667	484	2,66	1,60	1,38
65	5	822	535	2,88	1,79	1,54
65	7,2	897	558	2,98	1,87	1,61
65	10	997	588	3,11	1,97	1,70

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	312	231	1,69	1,35	1,17
40	-20	414	258	1,78	1,60	1,39
40	-15	536	287	1,89	1,87	1,62
40	-10	678	316	2,00	2,15	1,85
40	-5	841	347	2,11	2,42	2,09
40	0	1.024	379	2,24	2,70	2,33
40	5	1.228	413	2,37	2,98	2,57
40	7,2	1.324	428	2,43	3,09	2,67
40	10	1.452	447	2,51	3,24	2,80

45	-25	288	235	1,70	1,23	1,06
45	-20	381	265	1,81	1,44	1,24
45	-15	494	297	1,93	1,66	1,44
45	-10	628	330	2,05	1,90	1,64
45	-5	783	365	2,18	2,15	1,85
45	0	958	401	2,32	2,39	2,06
45	5	1.153	438	2,47	2,63	2,27
45	7,2	1.245	455	2,54	2,74	2,37
45	10	1.368	476	2,63	2,87	2,48

50	-25	263	238	1,71	1,10	0,95
50	-20	348	272	1,83	1,28	1,10
50	-15	453	308	1,96	1,47	1,27
50	-10	579	345	2,10	1,68	1,45
50	-5	725	383	2,25	1,89	1,64
50	0	891	422	2,41	2,11	1,82
50	5	1.078	463	2,57	2,33	2,01
50	7,2	1.166	481	2,65	2,42	2,09
50	10	1.285	505	2,75	2,54	2,20

55	-25	238	241	1,72	0,99	0,85
55	-20	315	279	1,86	1,13	0,97
55	-15	412	318	2,00	1,29	1,12
55	-10	529	359	2,16	1,47	1,27
55	-5	666	401	2,32	1,66	1,44
55	0	824	444	2,49	1,86	1,60
55	5	1.003	488	2,68	2,05	1,77
55	7,2	1.088	508	2,76	2,14	1,85
55	10	1.202	534	2,87	2,25	1,94

60	-25	213	245	1,74	0,87	0,75
60	-20	281	286	1,89	0,98	0,85
60	-15	370	329	2,04	1,12	0,97
60	-10	479	373	2,21	1,28	1,11
60	-5	608	419	2,39	1,45	1,25
60	0	758	466	2,58	1,63	1,41
60	5	928	514	2,79	1,81	1,56
60	7,2	1.009	535	2,88	1,89	1,63
60	10	1.118	563	3,00	1,99	1,72

65	-25	189	248	1,75	0,76	0,66
65	-20	248	293	1,91	0,85	0,73
65	-15	329	340	2,08	0,97	0,84
65	-10	429	388	2,27	1,11	0,96
65	-5	550	437	2,47	1,26	1,09
65	0	691	487	2,67	1,42	1,23
65	5	853	539	2,90	1,58	1,37
65	7,2	931	562	3,00	1,66	1,43
65	10	1.035	592	3,13	1,75	1,51

# Technical Data Sheet

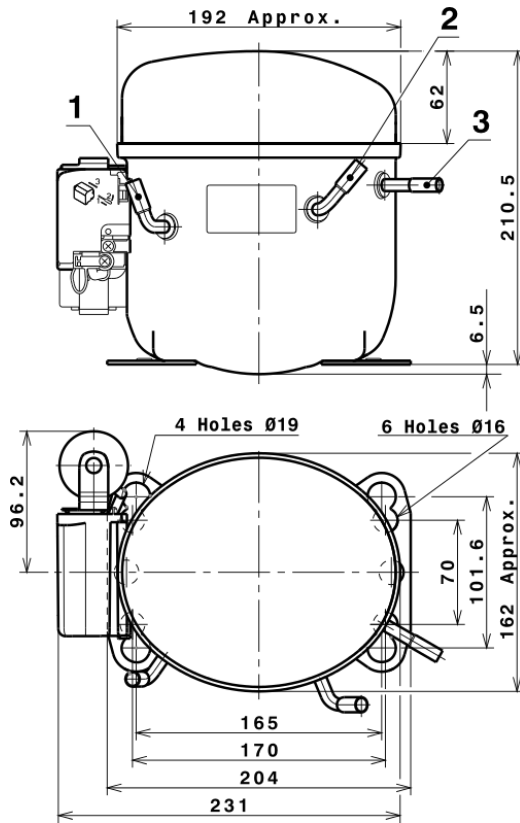
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.562,3845513342	211,5187011201	1,5253421701	25,986801453912
2	52,2068970847	0,8302725262	0,0020233974	0,97264573651585
3	-13,7823738035	4,4375676675	0,0185211485	-0,086751208599649
4	0,4007616840	0,0291225078	0,0002180301	0,011619520480849
5	-0,3506474747	0,1500976634	0,0006445923	-0,0012861540465607

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

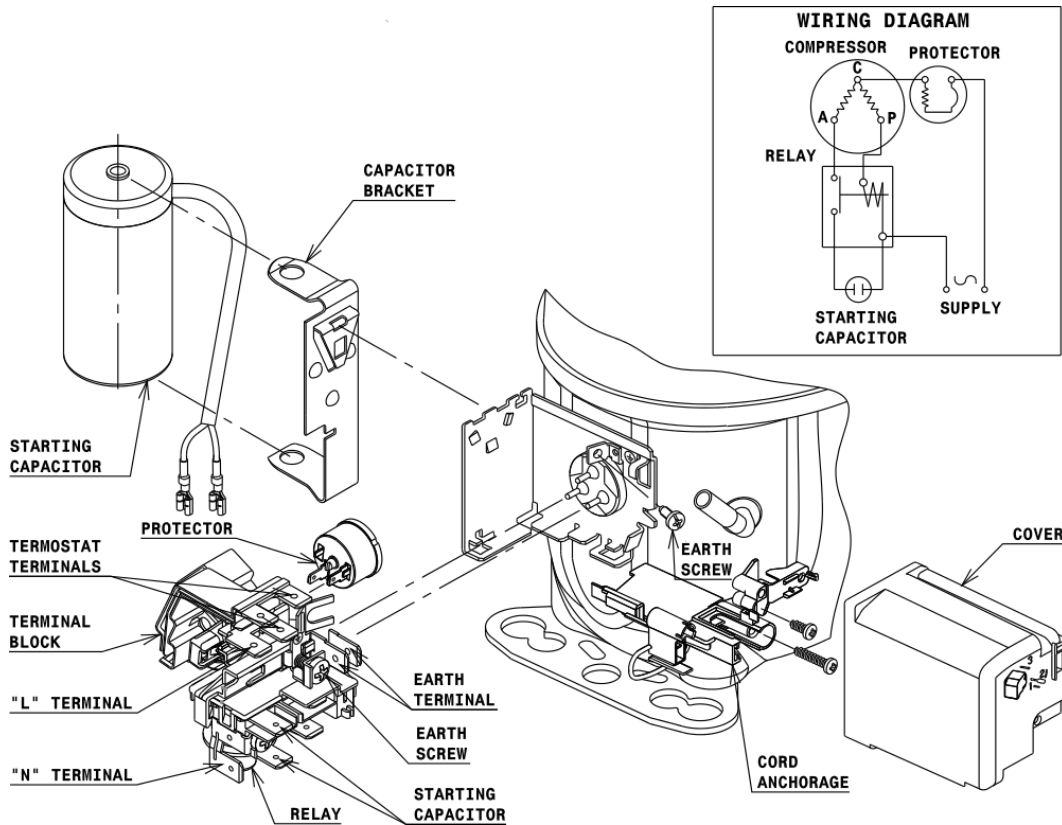
## COMPRESSOR DIMENSIONS



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

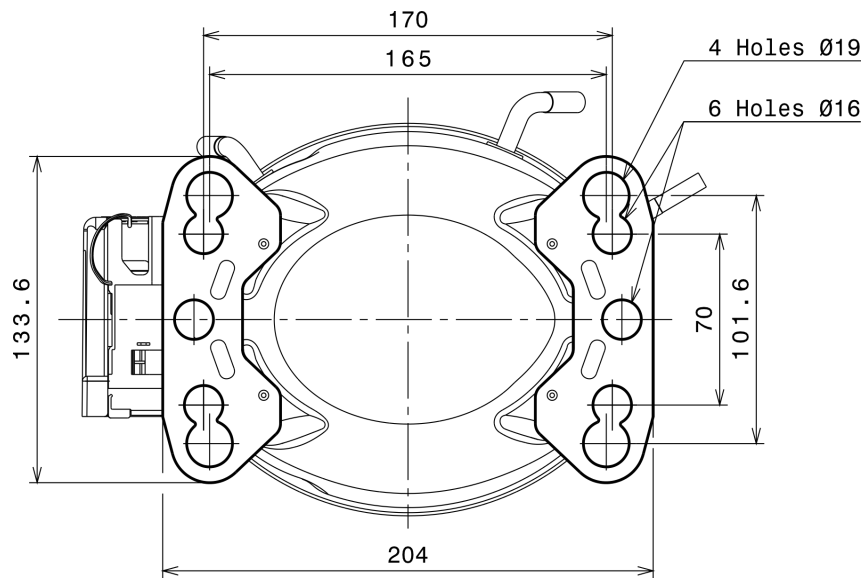
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

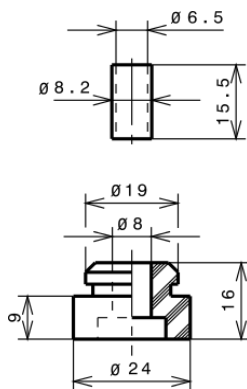
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

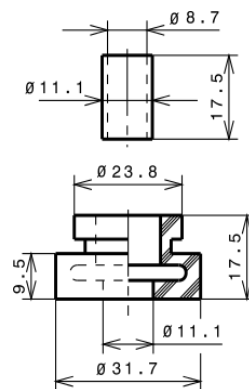
### STANDARD

Ø16 holes (170x70 net)



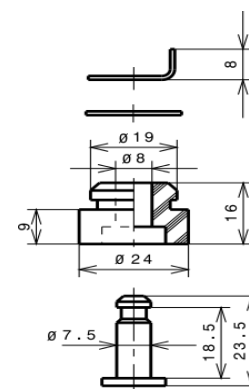
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HMBP

