

# Technical Data Sheet

Compressor model **GPY16RDb**  
 Voltage **115V 60Hz ~1**  
 Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High Back Pressure	Displacement	16,15 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R134a	Diameter	31,19 mm	Voltage/Frequency	115V 60Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	98-132 V
Expansion	Capillar/Valve	Net Weight	12,15 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	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	46,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	12,50 A
				Main W. resist. at 25°C	0,89 Ω
				Start W. resist. at 25°C	4,55 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	1.560 kCal/h	1.518 W
COP	2,31 W/W	2,00 W/W
EER	1,99 kCal/Wh	1,73 kCal/Wh
Input Power	785 W	760 W
Current	7,95 A	7,74 A



## TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (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	115 V 60 Hz	115 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	250 µF 160 V		
Run capacitor	20 µF 250 V		
Relay	Option 1	Option 2	
Reference	2014 191. + NTC3î©	QLZ-24.4A + NTC3î©	
Pick-Up	24,40 A	24.4 A	
Drop-Out	20,30 A	20.3 A	
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	-15	716	479	5,69	1,74	1,49
40	-10	914	531	6,04	2,00	1,72
40	-5	1.141	586	6,42	2,26	1,95
40	0	1.398	643	6,84	2,53	2,17
40	5	1.684	703	7,30	2,79	2,40
40	7,2	1.820	730	7,51	2,90	2,49
40	10	2.001	765	7,79	3,04	2,62

45	-15	671	487	5,74	1,60	1,38
45	-10	859	541	6,11	1,84	1,59
45	-5	1.077	599	6,51	2,09	1,80
45	0	1.325	658	6,95	2,34	2,01
45	5	1.602	720	7,43	2,59	2,22
45	7,2	1.733	748	7,65	2,69	2,32
45	10	1.909	785	7,95	2,83	2,43

50	-15	625	494	5,79	1,47	1,27
50	-10	804	552	6,18	1,70	1,46
50	-5	1.013	611	6,60	1,93	1,66
50	0	1.251	673	7,07	2,16	1,86
50	5	1.519	738	7,57	2,40	2,06
50	7,2	1.647	767	7,80	2,50	2,15
50	10	1.817	804	8,11	2,63	2,26

55	-15	580	502	5,84	1,34	1,16
55	-10	750	562	6,25	1,55	1,33
55	-5	949	624	6,70	1,77	1,52
55	0	1.178	688	7,18	1,99	1,71
55	5	1.437	755	7,71	2,21	1,90
55	7,2	1.560	785	7,95	2,31	1,99
55	10	1.725	824	8,27	2,43	2,09

60	-15	535	510	5,89	1,22	1,05
60	-10	695	572	6,32	1,41	1,22
60	-5	885	636	6,79	1,62	1,39
60	0	1.105	703	7,29	1,83	1,57
60	5	1.354	772	7,84	2,04	1,75
60	7,2	1.473	803	8,10	2,13	1,83
60	10	1.633	844	8,44	2,25	1,94

65	-15	489	517	5,94	1,10	0,95
65	-10	640	582	6,39	1,28	1,10
65	-5	821	649	6,88	1,47	1,27
65	0	1.031	718	7,41	1,67	1,44
65	5	1.272	789	7,99	1,87	1,61
65	7,2	1.387	822	8,25	1,96	1,69
65	10	1.541	863	8,61	2,08	1,79

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	771	482	5,70	1,60	1,38
40	-10	985	534	6,06	1,84	1,59
40	-5	1.230	590	6,45	2,09	1,80
40	0	1.506	647	6,87	2,33	2,01
40	5	1.814	707	7,33	2,56	2,21
40	7,2	1.959	735	7,54	2,67	2,30
40	10	2.152	770	7,83	2,79	2,41

45	-15	719	489	5,76	1,47	1,27
45	-10	921	544	6,13	1,69	1,46
45	-5	1.154	602	6,54	1,92	1,66
45	0	1.419	662	6,98	2,14	1,85
45	5	1.715	725	7,47	2,37	2,04
45	7,2	1.855	753	7,69	2,46	2,13
45	10	2.042	790	7,99	2,58	2,23

50	-15	666	497	5,81	1,34	1,16
50	-10	857	555	6,20	1,55	1,33
50	-5	1.079	615	6,63	1,76	1,52
50	0	1.332	677	7,10	1,97	1,70
50	5	1.616	742	7,60	2,18	1,88
50	7,2	1.751	772	7,84	2,27	1,96
50	10	1.932	810	8,15	2,39	2,06

55	-15	614	505	5,86	1,22	1,05
55	-10	793	565	6,27	1,40	1,21
55	-5	1.003	627	6,72	1,60	1,38
55	0	1.245	692	7,21	1,80	1,55
55	5	1.518	760	7,74	2,00	1,73
55	7,2	1.648	790	7,99	2,09	1,80
55	10	1.822	830	8,32	2,20	1,90

60	-15	561	512	5,91	1,09	0,95
60	-10	729	575	6,34	1,27	1,10
60	-5	928	640	6,82	1,45	1,25
60	0	1.158	707	7,33	1,64	1,41
60	5	1.419	777	7,88	1,83	1,58
60	7,2	1.544	809	8,14	1,91	1,65
60	10	1.712	849	8,49	2,02	1,74

65	-15	508	520	5,96	0,98	0,84
65	-10	665	585	6,42	1,14	0,98
65	-5	852	652	6,91	1,31	1,13
65	0	1.071	722	7,45	1,48	1,28
65	5	1.321	794	8,03	1,66	1,44
65	7,2	1.440	827	8,30	1,74	1,50
65	10	1.601	869	8,66	1,84	1,59

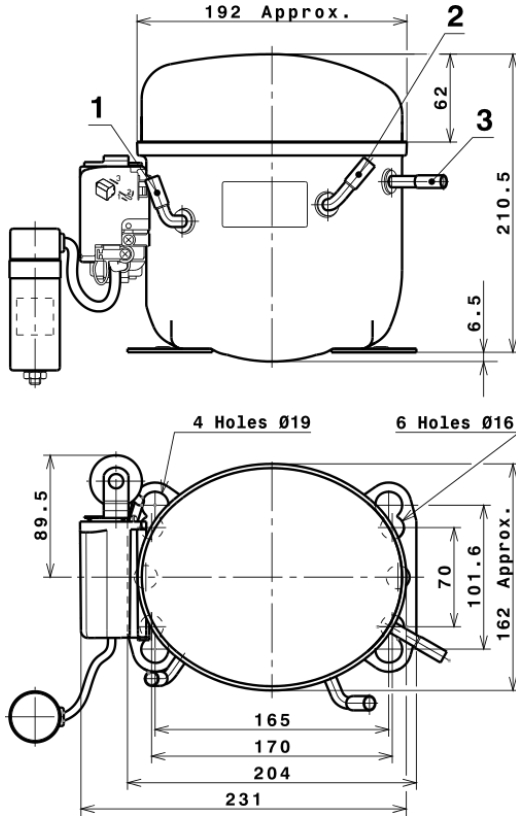
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.210,4991789595	541,0069934185	6,0081229104	36,394967637284
2	77,4313958593	8,2756798882	0,0572428072	1,346478443064
3	-18,1135073280	3,0750798817	0,0244236661	-0,081262013667806
4	0,6159798862	0,0572720858	0,0009077429	0,018941898266971
5	-0,4923793654	0,0998237949	0,0009197428	0,00070079448823364

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

## 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

### CSR CONNECTION (CURRENT RELAY + NTC) (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 HBP

