

# Technical Data Sheet

ENGINEERING  
TOMORROW



Compressor model **GPY16LAa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	16,15 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R134a	Diameter	31,19 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-35,0 °C to -10,0 °C	Stroke	21,13 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	11,73 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)	18,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	3,00 A
				Main W. resist. at 25°C	5,69 Ω
				Start W. resist. at 25°C	11,60 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	360 kCal/h	306 W
COP	1,32 W/W	1,02 W/W
EER	1,13 kCal/Wh	0,88 kCal/Wh
Input Power	318 W	301 W
Current	2,21 A	2,15 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °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	Option 2		
Reference	2014 145.	QLZ-7.1A		
Pick-Up	7,10 A	7,10 A		
Drop-Out	6,00 A	6,00 A		
Protector	Option 1	Option 2		
Reference	MRT40AMK	T0137		
Current	9,50 A	9,50 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 61,00 °C	110,00 / 61,00 °C		



## ASHRAE

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-35	184	210	1,88	1,02	0,88
40	-30	263	240	1,97	1,27	1,09
40	-25	361	276	2,08	1,52	1,31
40	-23,3	399	290	2,12	1,60	1,38
40	-20	480	318	2,21	1,75	1,51
40	-15	618	366	2,38	1,96	1,69
40	-10	775	420	2,58	2,15	1,85

45	-35	176	211	1,89	0,97	0,84
45	-30	253	245	1,98	1,20	1,03
45	-25	349	284	2,10	1,43	1,23
45	-23,3	386	299	2,15	1,50	1,29
45	-20	465	330	2,25	1,64	1,41
45	-15	601	382	2,43	1,83	1,57
45	-10	756	439	2,65	2,00	1,72

50	-35	168	211	1,89	0,92	0,79
50	-30	243	249	1,99	1,13	0,97
50	-25	337	292	2,13	1,34	1,15
50	-23,3	373	309	2,18	1,41	1,21
50	-20	450	342	2,29	1,53	1,32
50	-15	584	397	2,49	1,71	1,47
50	-10	737	459	2,73	1,87	1,61

55	-35	160	212	1,89	0,88	0,75
55	-30	232	253	2,01	1,07	0,92
55	-25	324	301	2,15	1,25	1,08
55	-23,3	360	318	2,21	1,32	1,13
55	-20	436	354	2,33	1,43	1,23
55	-15	567	413	2,55	1,60	1,37
55	-10	718	478	2,81	1,75	1,50

60	-35	152	213	1,89	0,83	0,71
60	-30	222	258	2,02	1,00	0,86
60	-25	312	309	2,18	1,17	1,01
60	-23,3	347	327	2,24	1,23	1,06
60	-20	421	366	2,37	1,34	1,15
60	-15	550	429	2,61	1,49	1,28
60	-10	699	497	2,89	1,63	1,41

65	-35	144	213	1,89	0,79	0,68
65	-30	212	262	2,03	0,94	0,81
65	-25	299	317	2,21	1,10	0,95
65	-23,3	334	337	2,27	1,15	0,99
65	-20	407	378	2,42	1,25	1,08
65	-15	534	444	2,67	1,40	1,20
65	-10	680	517	2,98	1,53	1,32

## CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-35	200	210	1,88	0,95	0,82
40	-30	292	240	1,97	1,22	1,05
40	-25	403	276	2,08	1,46	1,26
40	-23,3	444	290	2,12	1,53	1,32
40	-20	531	318	2,21	1,67	1,44
40	-15	678	366	2,38	1,85	1,60
40	-10	844	420	2,58	2,01	1,74

45	-35	184	211	1,89	0,87	0,75
45	-30	268	245	1,98	1,10	0,95
45	-25	370	284	2,10	1,30	1,13
45	-23,3	409	299	2,15	1,37	1,18
45	-20	491	330	2,25	1,49	1,29
45	-15	630	382	2,43	1,65	1,43
45	-10	788	439	2,65	1,79	1,55

50	-35	168	211	1,89	0,79	0,69
50	-30	244	249	1,99	0,98	0,85
50	-25	338	292	2,13	1,16	1,00
50	-23,3	375	309	2,18	1,21	1,05
50	-20	451	342	2,29	1,32	1,14
50	-15	583	397	2,49	1,47	1,27
50	-10	732	459	2,73	1,60	1,38

55	-35	151	212	1,89	0,71	0,62
55	-30	220	253	2,01	0,87	0,75
55	-25	306	301	2,15	1,02	0,88
55	-23,3	340	318	2,21	1,07	0,92
55	-20	411	354	2,33	1,16	1,00
55	-15	535	413	2,55	1,30	1,12
55	-10	677	478	2,81	1,42	1,22

60	-35	135	213	1,89	0,63	0,55
60	-30	195	258	2,02	0,76	0,66
60	-25	274	309	2,18	0,89	0,77
60	-23,3	305	327	2,24	0,93	0,81
60	-20	372	366	2,37	1,02	0,88
60	-15	487	429	2,61	1,14	0,98
60	-10	621	497	2,89	1,25	1,08

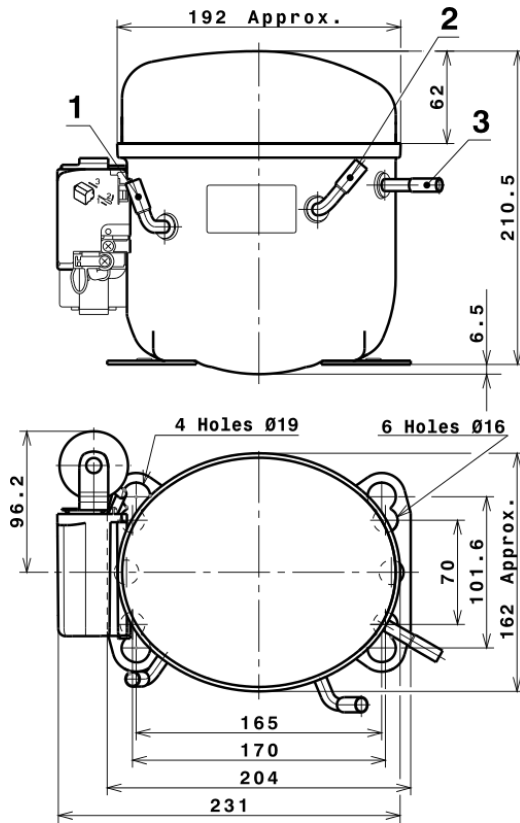
65	-35	119	213	1,89	0,56	0,48
65	-30	171	262	2,03	0,65	0,56
65	-25	242	317	2,21	0,76	0,66
65	-23,3	271	337	2,27	0,80	0,69
65	-20	332	378	2,42	0,88	0,76
65	-15	440	444	2,67	0,99	0,86
65	-10	566	517	2,98	1,10	0,95

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.793,6080675781	339,8132409354	2,2633237293	32,008707087244
2	54,4161221731	8,0452872243	0,0370188751	1,0897624139068
3	-14,6053431734	5,4882112160	0,0225162996	-0,1119000180145
4	0,3595130739	0,1231342004	0,0007463267	0,0097474204674325
5	-0,3226340774	0,1529145953	0,0006326332	-0,0021260432368925

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

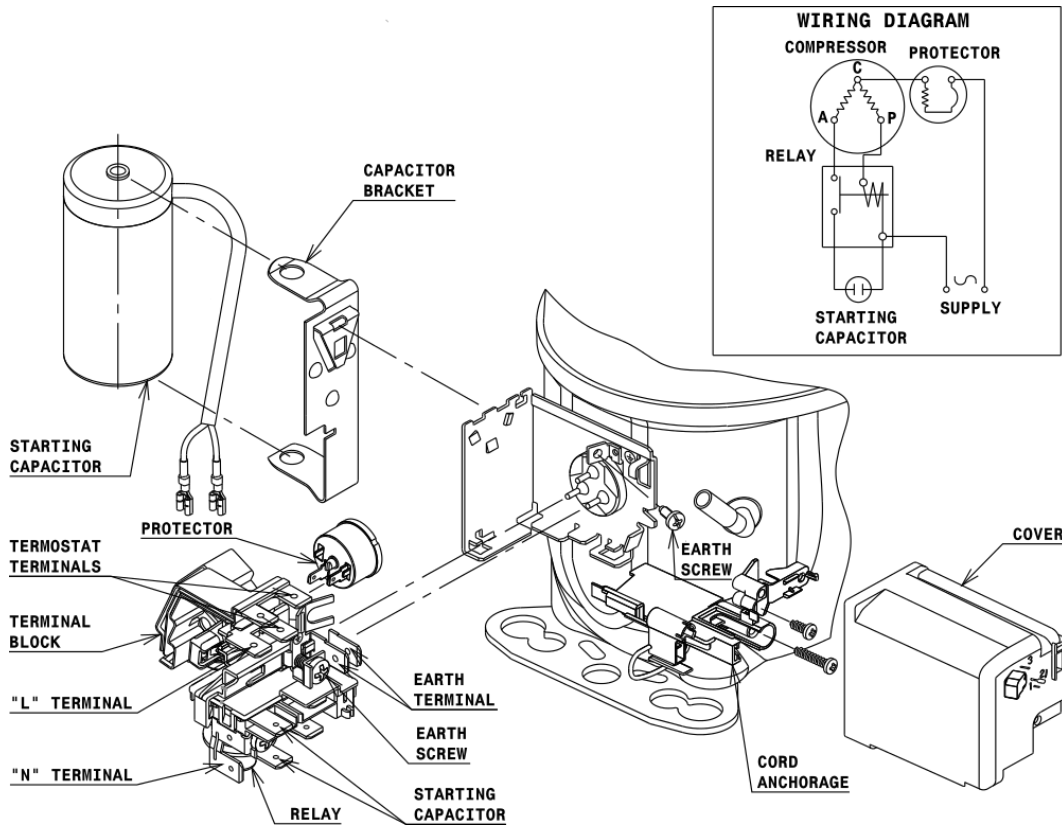


## DESIGNATION INTERNAL DIAM.

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

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

$\varnothing 16$  holes (170x70 net)



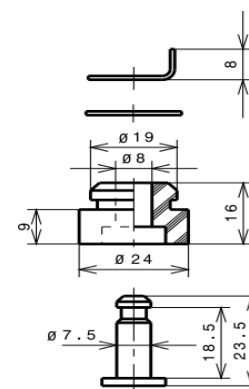
### AMERICAN FEET

$\varnothing 19$  holes (165x101.6 net)



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R134a LBP

