

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GPY12LAa**
Voltage **220-240V 50Hz ~1**
Refrigerant **R134a**

APPLICATION

Application	Low Back Pressure
Refrigerant	R134a
Evaporating Temp.	-35,0 °C to -10,0 °C
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 °C
Compatible refriger.	R1234yf

COMPRESSOR

Displacement	12,10 cm ³
Diameter	27,00 mm
Stroke	21,13 mm
Net Weight	12,78 Kg
Oil type	ISO VG 32 ESTER
Oil charge	350 cm ³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-264 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	13,00 A
Max. Cont. Current (MCC)	2,40 A
Main W. resist. at 25°C	7,50 Ω
Start W. resist. at 25°C	12,00 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	265 kCal/h	225 W
COP	1,30 W/W	1,00 W/W
EER	1,12 kCal/Wh	0,87 kCal/Wh
Input Power	237 W	224 W
Current	1,60 A	1,56 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

	Option 1	Option 2	Option 3
Starting capacitor	64- 77 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	Option 3
Reference	MRP61AMK	T0138	AE86FHY
Current	7,80 A	7,70 A	7,70 A
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 62,00 °C	105,00 / 62,00 °C



ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	140	158	1,38	1,03	0,89
40	-30	195	183	1,44	1,24	1,06
40	-25	266	212	1,52	1,46	1,26
40	-23,3	294	222	1,55	1,54	1,33
40	-20	354	243	1,62	1,69	1,46
40	-15	459	279	1,75	1,92	1,65
40	-10	580	317	1,90	2,13	1,83

45	-35	133	158	1,38	0,98	0,84
45	-30	187	185	1,45	1,17	1,01
45	-25	257	216	1,53	1,38	1,19
45	-23,3	285	227	1,57	1,46	1,25
45	-20	344	250	1,64	1,60	1,38
45	-15	447	287	1,78	1,81	1,56
45	-10	567	328	1,94	2,01	1,73

50	-35	127	158	1,38	0,93	0,80
50	-30	179	187	1,45	1,11	0,95
50	-25	248	220	1,55	1,31	1,12
50	-23,3	275	232	1,58	1,38	1,18
50	-20	333	256	1,66	1,51	1,30
50	-15	435	296	1,81	1,71	1,47
50	-10	553	338	1,99	1,90	1,64

55	-35	120	158	1,38	0,88	0,76
55	-30	171	190	1,46	1,05	0,90
55	-25	238	224	1,56	1,24	1,06
55	-23,3	265	237	1,60	1,30	1,12
55	-20	322	263	1,69	1,43	1,23
55	-15	423	304	1,85	1,62	1,39
55	-10	540	349	2,04	1,80	1,55

60	-35	113	158	1,38	0,83	0,72
60	-30	163	192	1,46	0,99	0,85
60	-25	229	229	1,57	1,16	1,00
60	-23,3	255	242	1,62	1,23	1,05
60	-20	312	269	1,71	1,35	1,16
60	-15	411	313	1,88	1,53	1,31
60	-10	527	360	2,09	1,70	1,46

65	-35	107	158	1,38	0,79	0,68
65	-30	155	194	1,47	0,93	0,80
65	-25	220	233	1,59	1,10	0,94
65	-23,3	245	247	1,63	1,16	0,99
65	-20	301	275	1,73	1,27	1,09
65	-15	399	321	1,92	1,44	1,24
65	-10	513	370	2,14	1,61	1,39

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	153	158	1,38	0,97	0,83
40	-30	217	183	1,44	1,19	1,02
40	-25	297	212	1,52	1,41	1,21
40	-23,3	328	222	1,55	1,48	1,28
40	-20	393	243	1,62	1,62	1,40
40	-15	505	279	1,75	1,81	1,57
40	-10	631	317	1,90	1,99	1,72

45	-35	140	158	1,38	0,88	0,76
45	-30	199	185	1,45	1,07	0,93
45	-25	273	216	1,53	1,27	1,09
45	-23,3	302	227	1,57	1,33	1,15
45	-20	364	250	1,64	1,46	1,26
45	-15	469	287	1,78	1,63	1,41
45	-10	591	328	1,94	1,80	1,56

50	-35	126	158	1,38	0,80	0,69
50	-30	180	187	1,45	0,96	0,83
50	-25	249	220	1,55	1,13	0,98
50	-23,3	276	232	1,58	1,19	1,03
50	-20	334	256	1,66	1,30	1,13
50	-15	434	296	1,81	1,47	1,27
50	-10	550	338	1,99	1,63	1,40

55	-35	113	158	1,38	0,72	0,62
55	-30	162	190	1,46	0,85	0,74
55	-25	225	224	1,56	1,00	0,87
55	-23,3	250	237	1,60	1,06	0,91
55	-20	304	263	1,69	1,16	1,00
55	-15	399	304	1,85	1,31	1,13
55	-10	509	349	2,04	1,46	1,26

60	-35	100	158	1,38	0,64	0,55
60	-30	143	192	1,46	0,75	0,64
60	-25	201	229	1,57	0,88	0,76
60	-23,3	224	242	1,62	0,93	0,80
60	-20	275	269	1,71	1,02	0,88
60	-15	364	313	1,88	1,16	1,01
60	-10	468	360	2,09	1,30	1,13

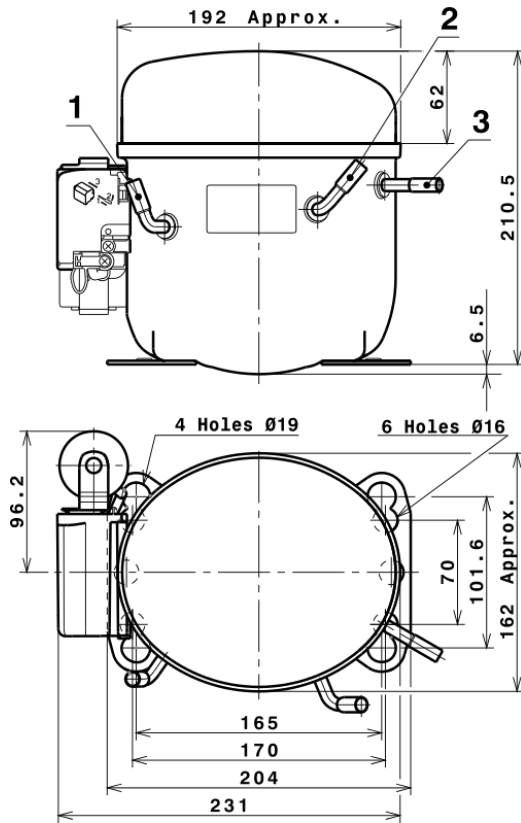
65	-35	87	158	1,38	0,55	0,48
65	-30	124	194	1,47	0,64	0,55
65	-25	177	233	1,59	0,76	0,66
65	-23,3	198	247	1,63	0,80	0,69
65	-20	245	275	1,73	0,89	0,77
65	-15	329	321	1,92	1,02	0,88
65	-10	428	370	2,14	1,15	1,00

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.341,8406809827	291,8352629660	1,8088199075	23,954115792032
2	41,6709122515	6,1578525721	0,0331320765	0,84116690793878
3	-10,6433430194	3,0580366169	0,0137701444	-0,076562947604989
4	0,3033265636	0,0694587980	0,0006030416	0,0081748032911788
5	-0,2290223882	0,0873724748	0,0003934327	-0,0012949936402098

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

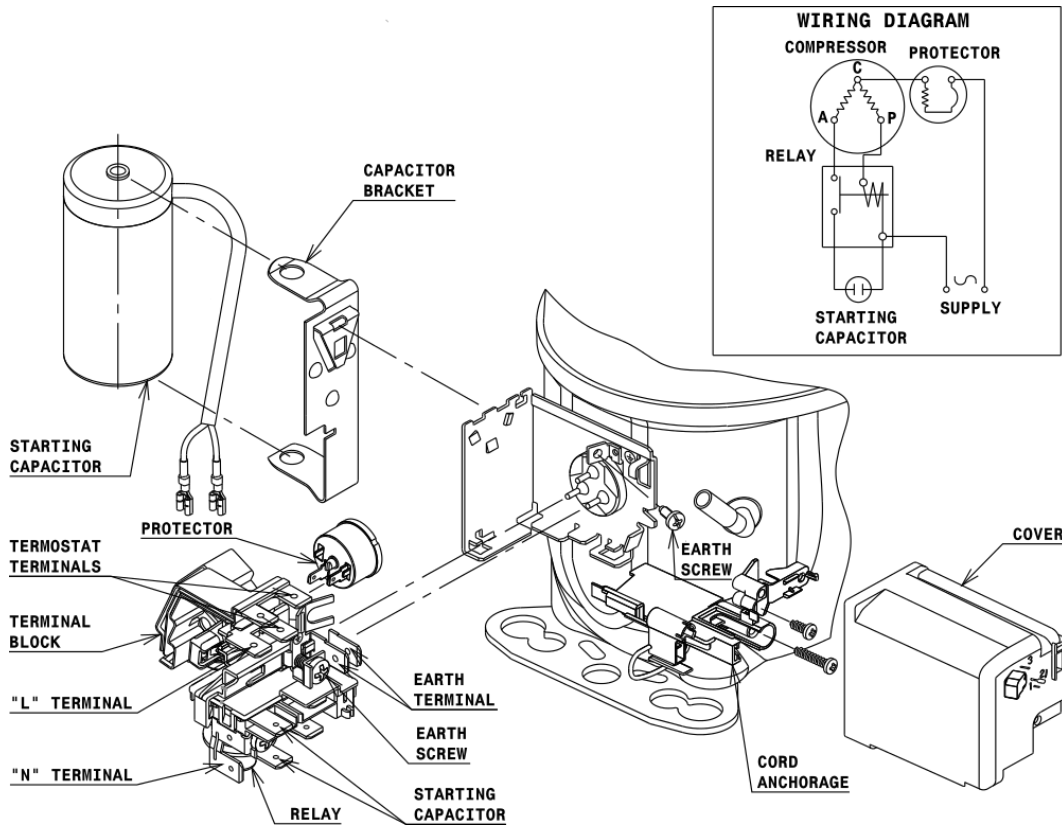


DESIGNATION INTERNAL DIAM.

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)



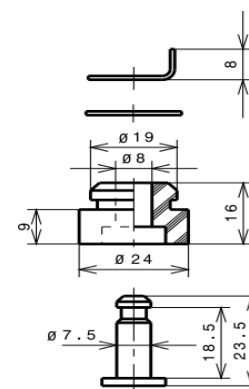
AMERICAN FEET

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



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R134a LBP

