

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GPY16LAB**
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	16,15 cm³
Diameter	31,19 mm
Stroke	21,13 mm
Net Weight	11,83 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-264 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	18,00 A
Max. Cont. Current (MCC)	2,90 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	1,42 W/W	1,09 W/W
EER	1,22 kCal/Wh	0,95 kCal/Wh
Input Power	295 W	280 W
Current	1,52 A	1,47 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

Starting capacitor	47- 56 µF 330 V			
Run capacitor	10 µF 420 V			
Relay	Option 1	Option 2		
Reference	2014 145. + NTC15Ω	QLZ-7.1+NTC15		
Pick-Up	7,00 A	7.00 A		
Drop-Out	5,90 A	5.90 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		

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	184	200	1,21	1,07	0,92
40	-30	263	228	1,30	1,34	1,15
40	-25	361	261	1,40	1,61	1,38
40	-23,3	399	273	1,44	1,70	1,46
40	-20	480	299	1,53	1,87	1,61
40	-15	618	341	1,70	2,11	1,81
40	-10	775	388	1,90	2,32	2,00

45	-35	176	201	1,22	1,02	0,88
45	-30	253	232	1,31	1,27	1,09
45	-25	349	267	1,42	1,52	1,31
45	-23,3	386	281	1,47	1,60	1,38
45	-20	465	308	1,57	1,76	1,51
45	-15	601	353	1,74	1,98	1,70
45	-10	756	403	1,96	2,18	1,88

50	-35	168	201	1,22	0,97	0,83
50	-30	243	235	1,32	1,20	1,03
50	-25	337	274	1,44	1,43	1,23
50	-23,3	373	288	1,49	1,51	1,30
50	-20	450	317	1,60	1,65	1,42
50	-15	584	365	1,79	1,86	1,60
50	-10	737	417	2,03	2,05	1,77

55	-35	160	202	1,22	0,92	0,79
55	-30	232	239	1,33	1,13	0,97
55	-25	324	280	1,47	1,35	1,16
55	-23,3	360	295	1,52	1,42	1,22
55	-20	436	326	1,64	1,56	1,34
55	-15	567	377	1,85	1,75	1,51
55	-10	718	432	2,10	1,93	1,66

60	-35	152	203	1,22	0,87	0,75
60	-30	222	242	1,34	1,07	0,92
60	-25	312	286	1,49	1,27	1,09
60	-23,3	347	302	1,55	1,33	1,15
60	-20	421	335	1,67	1,46	1,26
60	-15	550	388	1,90	1,65	1,42
60	-10	699	447	2,17	1,82	1,56

65	-35	144	203	1,22	0,82	0,71
65	-30	212	246	1,35	1,00	0,86
65	-25	299	292	1,51	1,19	1,02
65	-23,3	334	309	1,57	1,25	1,08
65	-20	407	344	1,71	1,37	1,18
65	-15	534	400	1,95	1,55	1,33
65	-10	680	461	2,25	1,71	1,47

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	200	200	1,21	1,00	0,87
40	-30	292	228	1,30	1,28	1,11
40	-25	403	261	1,40	1,54	1,33
40	-23,3	444	273	1,44	1,63	1,40
40	-20	531	299	1,53	1,78	1,54
40	-15	678	341	1,70	1,99	1,72
40	-10	844	388	1,90	2,17	1,88

45	-35	184	201	1,22	0,92	0,79
45	-30	268	232	1,31	1,16	1,00
45	-25	370	267	1,42	1,39	1,20
45	-23,3	409	281	1,47	1,46	1,26
45	-20	491	308	1,57	1,60	1,38
45	-15	630	353	1,74	1,79	1,54
45	-10	788	403	1,96	1,96	1,69

50	-35	168	201	1,22	0,83	0,72
50	-30	244	235	1,32	1,04	0,90
50	-25	338	274	1,44	1,24	1,07
50	-23,3	375	288	1,49	1,30	1,13
50	-20	451	317	1,60	1,42	1,23
50	-15	583	365	1,79	1,60	1,38
50	-10	732	417	2,03	1,76	1,52

55	-35	151	202	1,22	0,75	0,65
55	-30	220	239	1,33	0,92	0,80
55	-25	306	280	1,47	1,09	0,95
55	-23,3	340	295	1,52	1,15	1,00
55	-20	411	326	1,64	1,26	1,09
55	-15	535	377	1,85	1,42	1,23
55	-10	677	432	2,10	1,57	1,35

60	-35	135	203	1,22	0,67	0,58
60	-30	195	242	1,34	0,81	0,70
60	-25	274	286	1,49	0,96	0,83
60	-23,3	305	302	1,55	1,01	0,87
60	-20	372	335	1,67	1,11	0,96
60	-15	487	388	1,90	1,25	1,08
60	-10	621	447	2,17	1,39	1,20

65	-35	119	203	1,22	0,58	0,50
65	-30	171	246	1,35	0,70	0,60
65	-25	242	292	1,51	0,83	0,72
65	-23,3	271	309	1,57	0,87	0,76
65	-20	332	344	1,71	0,96	0,83
65	-15	440	400	1,95	1,10	0,95
65	-10	566	461	2,25	1,23	1,06

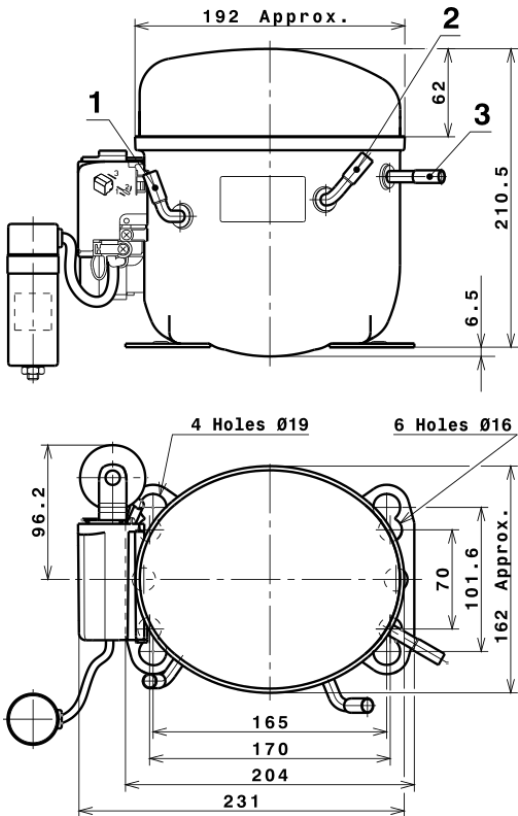
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.793,6080675781	342,6296802077	1,6980303805	32,008707087244
2	54,4161221731	7,5261485078	0,0404233929	1,0897624139068
3	-14,6053431734	4,1503201961	0,0197206409	-0,1119000180145
4	0,3595130739	0,0976637327	0,0007573734	0,0097474204674325
5	-0,3226340774	0,1146891376	0,0005523663	-0,0021260432368925

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

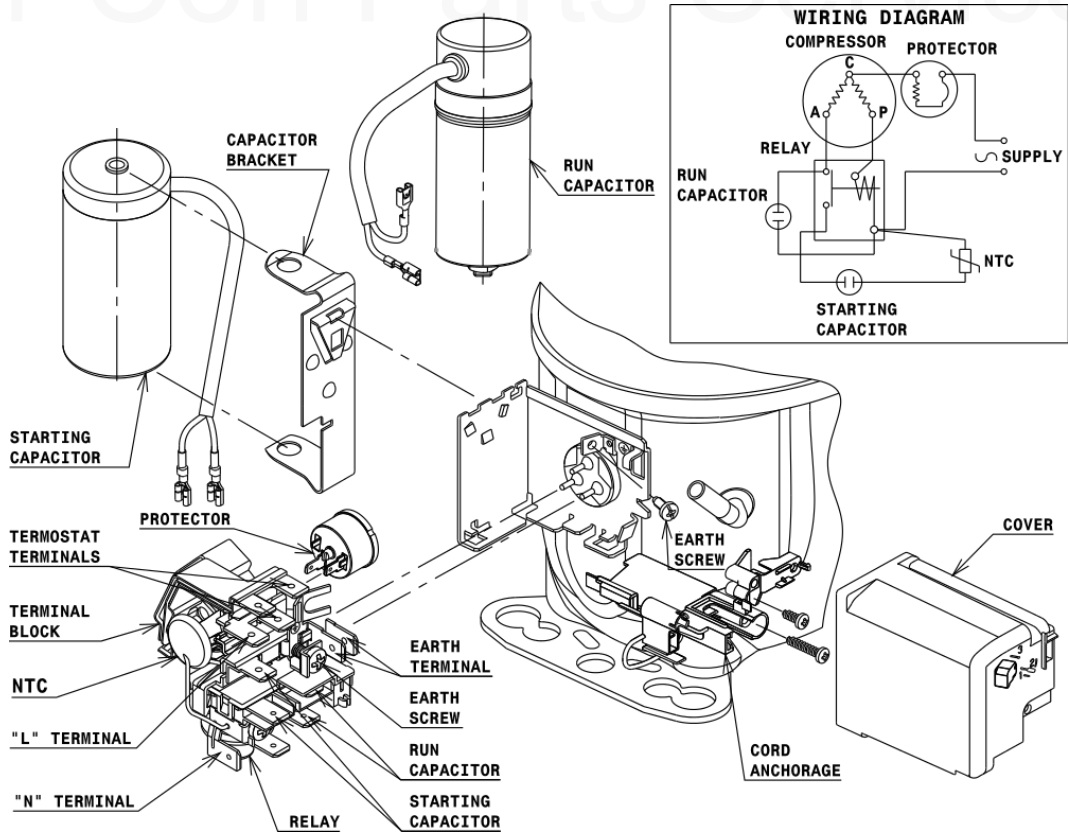
COMPRESSOR DIMENSIONS



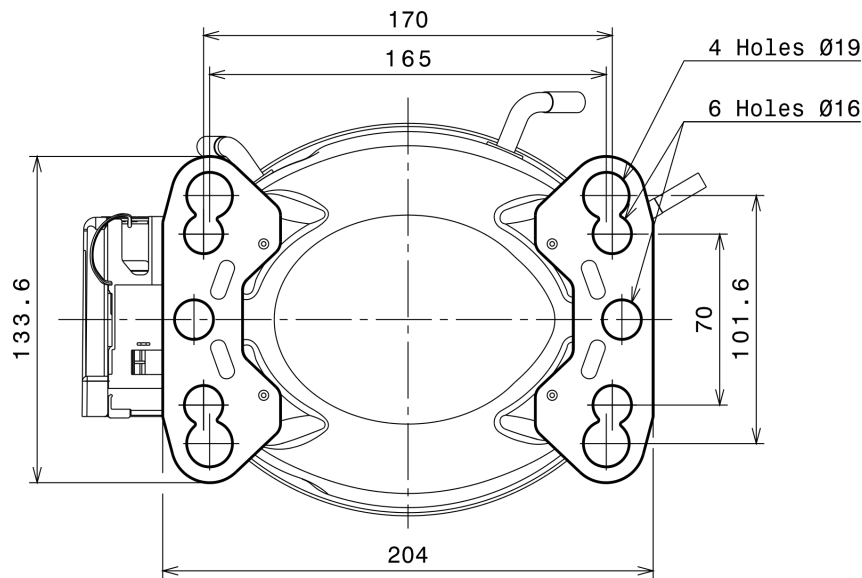
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (CURRENT RELAY + NTC) (L, P ranges)



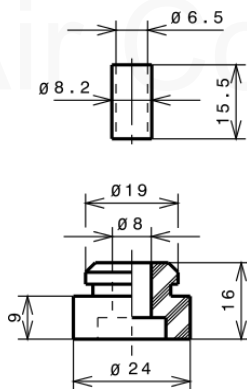
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

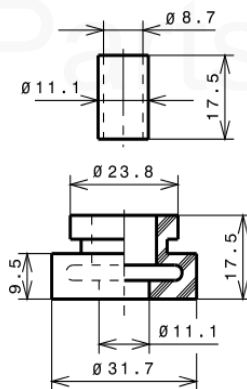
STANDARD

Ø16 holes (170x70 net)



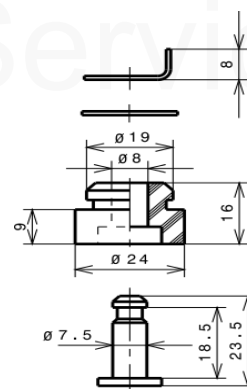
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a LBP

