Technical Data Sheet

Compressor model **GPY16RAa**

Voltage **220-240V 50Hz ~1**

Refrigerant **R134a**

APPLICATION

Application	High-Medium Back Pressure
Refrigerant	R134a
Evaporating Temp.	-25,0 ºC to 10,0 ºC
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 ºC
Compatible refriger.	R1234yf

COMPRESSOR

Displacement	16,15 cm³
Diameter	31,19 mm
Stroke	21,13 mm
Net Weight	11,99 Kg
Oil type	ISO VG 32 ESTER
Oil charge	450 cm³

MOTOR

Nominal Power	1/2 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-255 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	21,90 A
Max. Cont. Current (MCC)	6,20 A
Main W. resist. at 25ºC	4,10 Ω
Start W. resist. at 25ºC	11,36 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.351 kCal/h	1.317 W
COP	2,34 W/W	2,02 W/W
EER	2,01 kCal/Wh	1,75 kCal/Wh
Input Power	671 W	651 W
Current	3,95 A	3,85 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	HMBP (D)	**HMBP (C)**
Evaporating temp. (T_e)	7,2 ºC	5,0 ºC
Condensing temp. (T_c)	55,0 ºC	55,0 ºC
Liquid temp. ($T_{liq.}$)	46,0 ºC	55,0 ºC
Ambient temp. ($T_{amb.}$)	35,0 ºC	32,0 ºC
Suction temp. ($T_{suction}$)	35,0 ºC	32,0 ºC
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	72- 88 µF 330 V			
Relay	Option 1	Option 2		
Reference	2014 166.	QLZ-11.0A		
Pick-Up	11,00 A	11.0 A		
Drop-Out	9,35 A	9.35 A		
Protector	Option 1	Option 2		
Reference	T0268	B154-105		
Current	15,00 A	15,80 A		
Time check	7,5-14 seg	7,5-16 seg		
Disc temp. (Open/Close)	105,00 / 52,00 ºC	105,00 / 52,00 ºC		

Technical Data Sheet

cubigel compressors

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	371	318	2,62	1,36	1,17
40	-20	504	362	2,74	1,62	1,39
40	-15	661	407	2,88	1,89	1,63
40	-10	843	452	3,03	2,17	1,87
40	-5	1.048	497	3,20	2,45	2,11
40	0	1.277	544	3,38	2,73	2,35
40	5	1.531	590	3,58	3,02	2,59
40	7,2	1.650	611	3,67	3,14	2,70
40	10	1.808	638	3,79	3,30	2,84
45	-25	344	321	2,63	1,25	1,07
45	-20	466	368	2,76	1,47	1,27
45	-15	612	415	2,91	1,71	1,47
45	-10	782	463	3,07	1,96	1,69
45	-5	976	511	3,25	2,22	1,91
45	0	1.194	560	3,44	2,48	2,13
45	5	1.436	609	3,66	2,74	2,36
45	7,2	1.550	631	3,76	2,86	2,46
45	10	1.702	659	3,89	3,00	2,58
50	-25	317	325	2,64	1,14	0,98
50	-20	428	374	2,78	1,33	1,14
50	-15	562	424	2,94	1,54	1,33
50	-10	721	474	3,11	1,77	1,52
50	-5	904	525	3,30	2,00	1,72
50	0	1.110	576	3,51	2,24	1,93
50	5	1.341	628	3,75	2,48	2,14
50	7,2	1.451	651	3,85	2,59	2,23
50	10	1.596	680	4,00	2,73	2,35
55	-25	290	328	2,65	1,03	0,88
55	-20	389	380	2,80	1,19	1,02
55	-15	513	432	2,96	1,38	1,19
55	-10	660	485	3,15	1,58	1,36
55	-5	831	538	3,36	1,80	1,54
55	0	1.027	592	3,58	2,02	1,73
55	5	1.247	647	3,83	2,24	1,93
55	7,2	1.351	671	3,95	2,34	2,01
55	10	1.490	702	4,10	2,47	2,12
60	-25	263	331	2,66	0,92	0,79
60	-20	351	386	2,82	1,06	0,91
60	-15	463	441	2,99	1,22	1,05
60	-10	599	496	3,19	1,40	1,21
60	-5	759	552	3,41	1,60	1,38
60	0	944	609	3,66	1,80	1,55
60	5	1.152	666	3,92	2,01	1,73
60	7,2	1.251	691	4,05	2,11	1,81
60	10	1.384	723	4,22	2,23	1,91
65	-25	236	335	2,67	0,82	0,71
65	-20	313	392	2,83	0,93	0,80
65	-15	413	449	3,02	1,07	0,92
65	-10	538	507	3,23	1,23	1,06
65	-5	687	566	3,47	1,41	1,21
65	0	860	625	3,73	1,60	1,38
65	5	1.057	685	4,02	1,80	1,54
65	7,2	1.152	711	4,15	1,88	1,62
65	10	1.278	745	4,33	2,00	1,72

CECOMAF

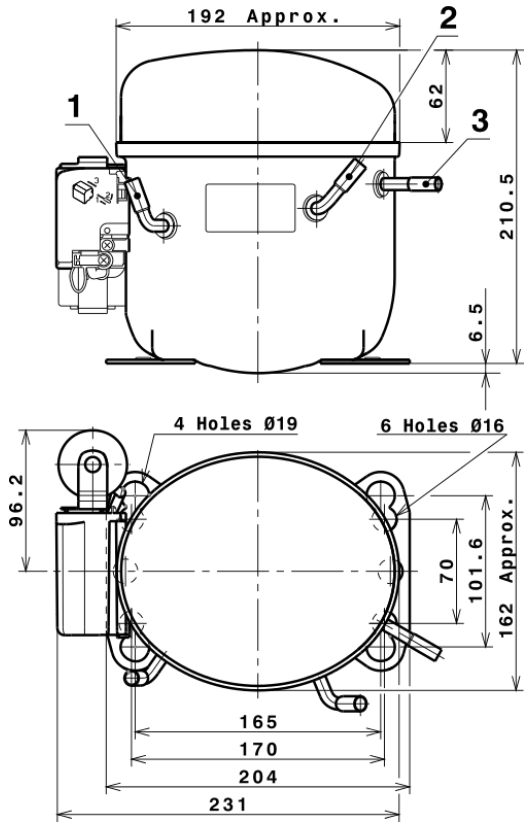
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	400	320	2,63	1,25	1,08
40	-20	544	364	2,75	1,50	1,29
40	-15	715	409	2,89	1,75	1,51
40	-10	910	454	3,04	2,00	1,73
40	-5	1.131	500	3,21	2,26	1,95
40	0	1.377	547	3,39	2,52	2,18
40	5	1.648	594	3,59	2,77	2,40
40	7,2	1.776	615	3,69	2,89	2,49
40	10	1.945	642	3,81	3,03	2,62
45	-25	369	323	2,64	1,14	0,99
45	-20	500	370	2,77	1,35	1,17
45	-15	657	417	2,91	1,57	1,36
45	-10	839	465	3,08	1,80	1,56
45	-5	1.047	514	3,26	2,04	1,76
45	0	1.280	563	3,46	2,27	1,96
45	5	1.538	613	3,68	2,51	2,17
45	7,2	1.659	635	3,78	2,61	2,26
45	10	1.821	663	3,91	2,75	2,37
50	-25	338	326	2,65	1,04	0,89
50	-20	456	376	2,79	1,21	1,05
50	-15	600	426	2,94	1,41	1,22
50	-10	769	477	3,12	1,61	1,39
50	-5	963	528	3,31	1,82	1,58
50	0	1.182	580	3,53	2,04	1,76
50	5	1.427	632	3,76	2,26	1,95
50	7,2	1.543	655	3,87	2,36	2,03
50	10	1.698	685	4,02	2,48	2,14
55	-25	307	330	2,65	0,93	0,80
55	-20	412	382	2,80	1,08	0,93
55	-15	542	434	2,97	1,25	1,08
55	-10	698	488	3,16	1,43	1,24
55	-5	879	542	3,37	1,62	1,40
55	0	1.085	596	3,60	1,82	1,57
55	5	1.317	651	3,85	2,02	1,75
55	7,2	1.427	675	3,97	2,11	1,83
55	10	1.574	707	4,13	2,23	1,92
60	-25	276	333	2,66	0,83	0,72
60	-20	368	388	2,82	0,95	0,82
60	-15	485	443	3,00	1,09	0,95
60	-10	627	499	3,20	1,26	1,09
60	-5	795	555	3,43	1,43	1,24
60	0	988	612	3,67	1,61	1,39
60	5	1.206	670	3,94	1,80	1,56
60	7,2	1.311	695	4,07	1,88	1,63
60	10	1.450	728	4,24	1,99	1,72
65	-25	245	336	2,67	0,73	0,63
65	-20	324	394	2,84	0,82	0,71
65	-15	427	452	3,03	0,95	0,82
65	-10	557	510	3,24	1,09	0,94
65	-5	711	569	3,48	1,25	1,08
65	0	891	629	3,75	1,42	1,22
65	5	1.096	689	4,04	1,59	1,37
65	7,2	1.194	716	4,18	1,67	1,44
65	10	1.326	750	4,36	1,77	1,53

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.160,1817636339	426,4413355652	2,7911427355	36,640318551433
2	73,1160210372	5,4708798145	0,0202247214	1,3777802210271
3	-20,0247762843	3,3664747242	0,0160167459	-0,15845601753067
4	0,4980619762	0,0155692130	0,0004596931	0,014528986008497
5	-0,5502214214	0,1072539456	0,0005666928	-0,0036958309386737

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

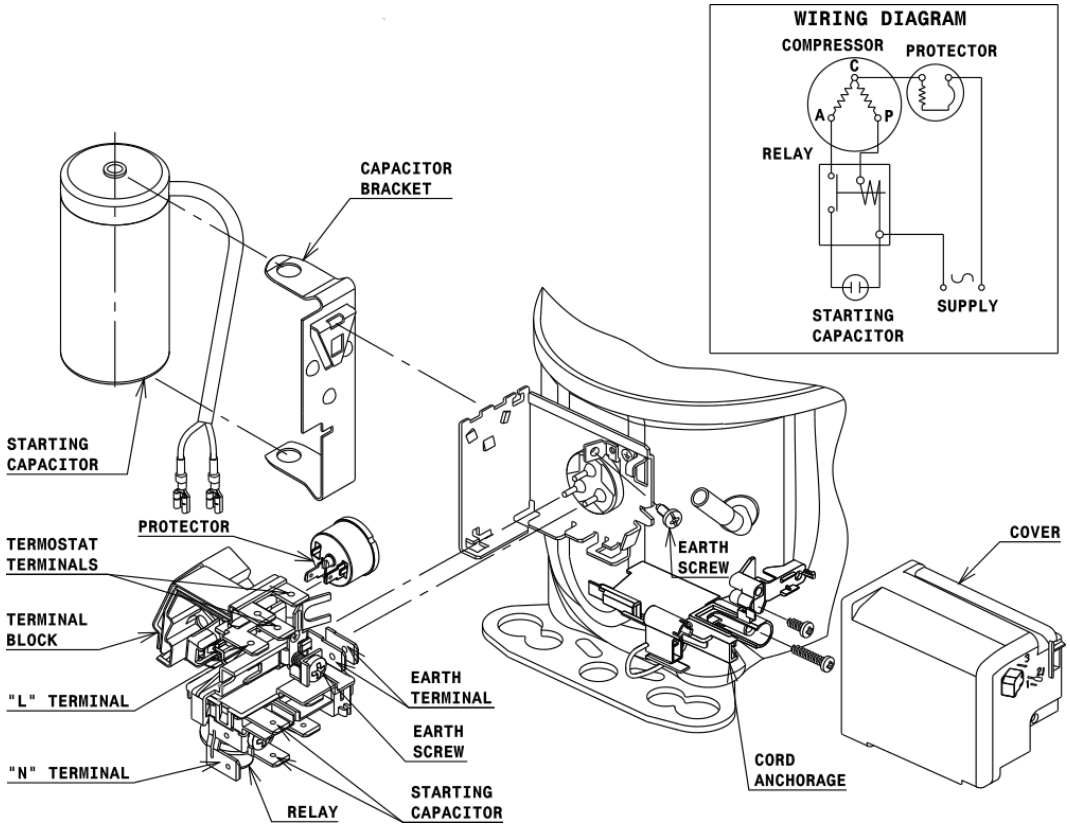
COMPRESSOR DIMENSIONS



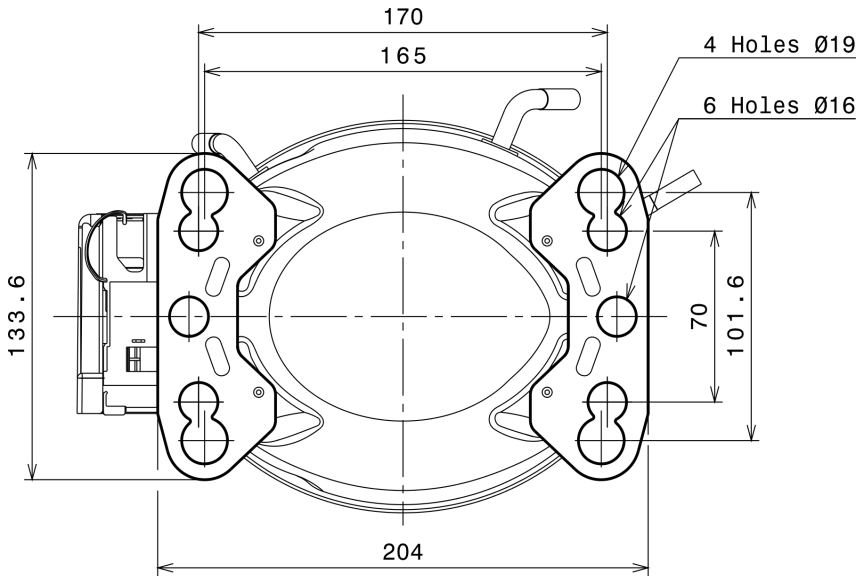
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



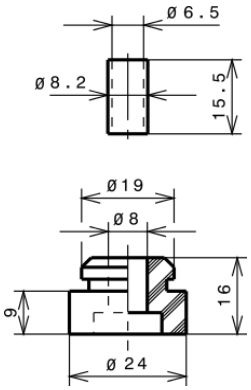
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

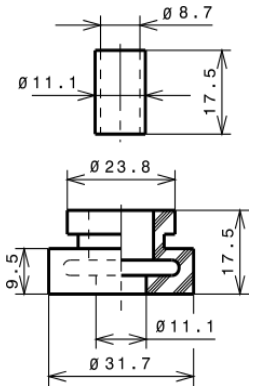
STANDARD

Ø16 holes (170x70 net)



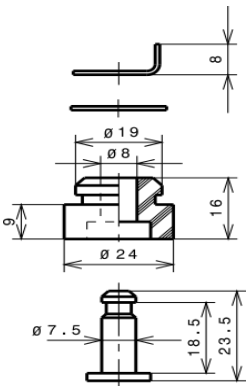
AMERICAN FEET

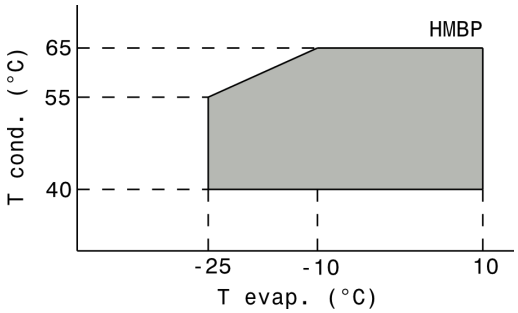
Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HMBP