

Technical Data Sheet

Compressor model **HPY16AAb**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R600a**

APPLICATION

Application Low Back Pressure
 Refrigerant R600a
 Evaporating Temp. -35,0 °C to -10,0 °C
 Expansion Capillar
 Comp. Cooling Static
 Max. ambient temp. 43,0 °C

COMPRESSOR

Displacement 16,15 cm³
 Diameter 31,19 mm
 Stroke 21,13 mm
 Net Weight 10,75 Kg
 Oil type ISO VG 10 MINER
 Oil charge 300 cm³

MOTOR

Nominal Power 1/4 hp
 Voltage/Frequency 220-240V 50Hz
 Voltage range 187-264 V
 Type RSCR
 Phase number 1 PH
 Locked Rotor Amps (LRA) 11,70 A
 Max. Cont. Current (MCC) 1,90 A
 Main W. resist. at 25°C 10,91 Ω
 Start W. resist. at 25°C 17,33 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	208 kCal/h	181 W
COP	1,51 W/W	1,19 W/W
EER	1,30 kCal/Wh	1,03 kCal/Wh
Input Power	160 W	152 W
Current	0,80 A	0,76 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

Run capacitor	5 µF 400 V			
Relay	Option 1			
Reference	PTC K100			
Voltage	200-240 V			
Resistance	14.00 Ω			
Protector	Option 1	Option 2	Option 3	Option 4
Reference	MSP304LZ	4TM319NFBYY	T0490	AE11FU
Current	9,40 A	12,00 A	9,40 A	9,40 A
Time check	7,5-14 seg	5-15 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	120,00 / 61,00 °C	120,00 / 61,00 °C	130,00 / 62,00 °C	120,00 / 62,00 °C

This product is approved for R290 and R600a regarding explosion safety according to standard EN 60335-1 and EN 60335-2-34

ASHRAE

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-35	129	115	0,59	1,30	1,12
40	-30	170	130	0,66	1,52	1,31
40	-25	222	147	0,74	1,75	1,51
40	-23,3	242	154	0,77	1,83	1,57
40	-20	285	167	0,83	1,98	1,71
40	-15	359	189	0,93	2,21	1,90
40	-10	444	213	1,05	2,42	2,08

45	-35	121	114	0,59	1,23	1,06
45	-30	161	130	0,66	1,43	1,23
45	-25	211	149	0,75	1,65	1,42
45	-23,3	231	156	0,78	1,72	1,48
45	-20	272	170	0,85	1,87	1,60
45	-15	345	193	0,95	2,08	1,79
45	-10	429	218	1,07	2,28	1,96

50	-35	114	114	0,58	1,16	1,00
50	-30	151	131	0,66	1,34	1,16
50	-25	200	151	0,76	1,55	1,33
50	-23,3	219	158	0,79	1,62	1,39
50	-20	260	173	0,86	1,75	1,51
50	-15	331	197	0,97	1,96	1,68
50	-10	413	224	1,10	2,15	1,85

55	-35	106	113	0,58	1,09	0,94
55	-30	142	132	0,67	1,26	1,08
55	-25	189	152	0,76	1,45	1,24
55	-23,3	208	160	0,80	1,51	1,30
55	-20	248	176	0,87	1,64	1,41
55	-15	317	201	0,99	1,84	1,58
55	-10	398	229	1,12	2,02	1,74

60	-35	98	112	0,58	1,02	0,88
60	-30	133	132	0,67	1,17	1,01
60	-25	179	154	0,77	1,35	1,16
60	-23,3	197	162	0,81	1,41	1,21
60	-20	236	179	0,89	1,53	1,32
60	-15	304	205	1,01	1,72	1,48
60	-10	383	234	1,14	1,90	1,63

CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-35	141	115	0,59	1,23	1,06
40	-30	189	130	0,66	1,45	1,25
40	-25	247	147	0,74	1,68	1,45
40	-23,3	269	154	0,77	1,75	1,51
40	-20	316	167	0,83	1,89	1,64
40	-15	395	189	0,93	2,09	1,81
40	-10	485	213	1,05	2,28	1,97

45	-35	128	114	0,59	1,12	0,97
45	-30	171	130	0,66	1,31	1,13
45	-25	225	149	0,75	1,51	1,31
45	-23,3	246	156	0,78	1,58	1,36
45	-20	290	170	0,85	1,71	1,47
45	-15	365	193	0,95	1,89	1,63
45	-10	450	218	1,07	2,06	1,78

50	-35	115	114	0,58	1,01	0,87
50	-30	154	131	0,66	1,17	1,01
50	-25	203	151	0,76	1,35	1,17
50	-23,3	223	158	0,79	1,41	1,22
50	-20	263	173	0,86	1,53	1,32
50	-15	334	197	0,97	1,70	1,47
50	-10	416	224	1,10	1,86	1,61

55	-35	102	113	0,58	0,90	0,78
55	-30	136	132	0,67	1,04	0,89
55	-25	181	152	0,76	1,19	1,03
55	-23,3	199	160	0,80	1,25	1,08
55	-20	237	176	0,87	1,35	1,17
55	-15	304	201	0,99	1,51	1,31
55	-10	381	229	1,12	1,66	1,44

60	-35	88	112	0,58	0,79	0,68
60	-30	119	132	0,67	0,90	0,78
60	-25	160	154	0,77	1,04	0,90
60	-23,3	176	162	0,81	1,09	0,94
60	-20	211	179	0,89	1,18	1,02
60	-15	273	205	1,01	1,33	1,15
60	-10	346	234	1,14	1,48	1,28

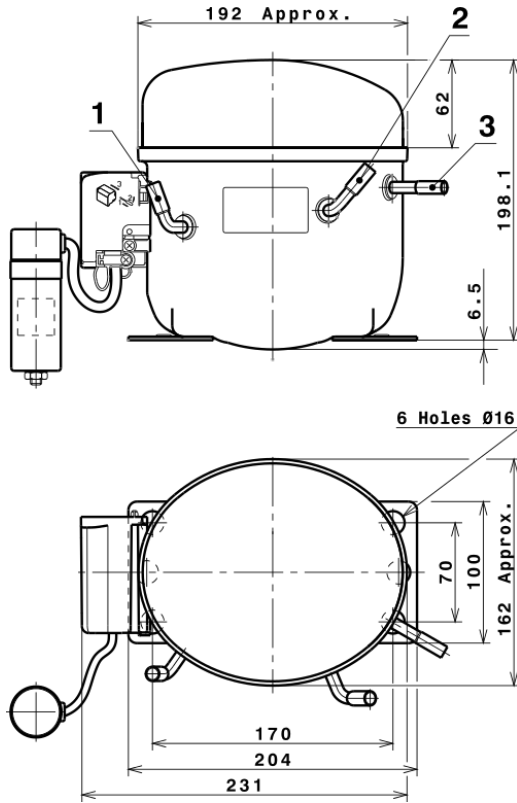
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.033,0612556961	211,5759090220	1,0389448780	10,462771990828
2	29,7847760870	4,2240428233	0,0193645144	0,33283626336177
3	-8,8073440418	1,5813688779	0,0073012858	-0,048351047110534
4	0,2059048971	0,0482766665	0,0002164737	0,0029863764923234
5	-0,1765082890	0,0490719031	0,0002268746	-0,00081251456639013

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

COMPRESSOR DIMENSIONS

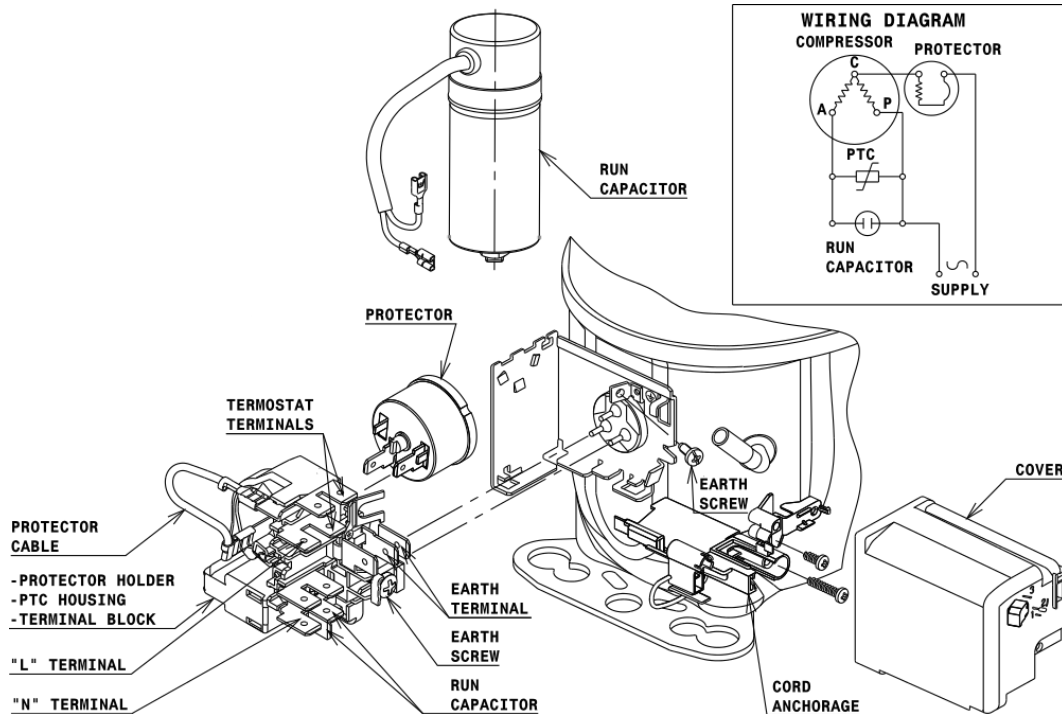


DESIGNATION INTERNAL DIAM.

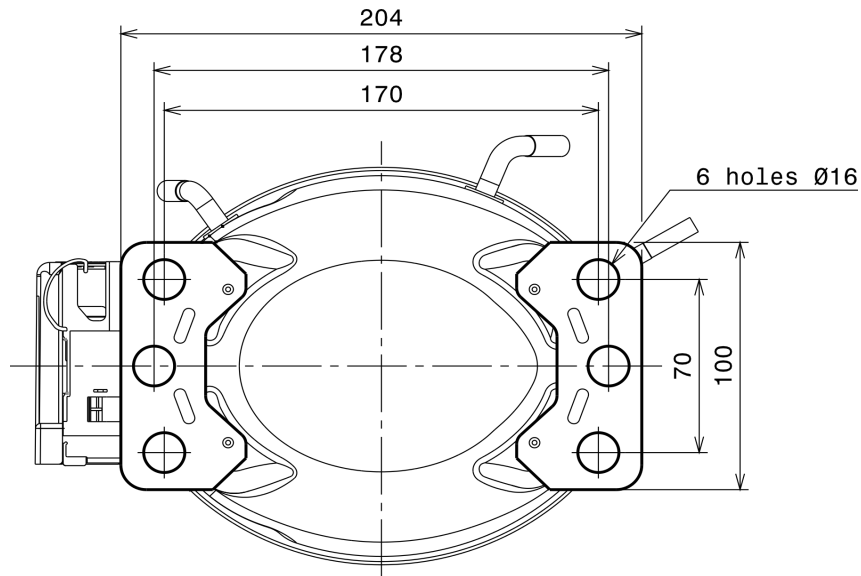
DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

RSCR CONNECTION (L, P ranges)



FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

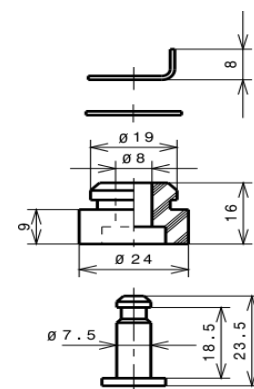
STANDARD

Ø16 holes (170x70 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R600a LBP

