

Technical Data Sheet

Compressor model **HPY16RAa**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R600a**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	16,15 cm ³	Nominal Power	1/4 hp
Refrigerant	R600a	Diameter	31,19 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	10,99 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 MINER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	350 cm ³	Locked Rotor Amps (LRA)	13,50 A
				Max. Cont. Current (MCC)	3,00 A
				Main W. resist. at 25°C	8,14 Ω
				Start W. resist. at 25°C	17,20 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	770 kCal/h	755 W
COP	2,45 W/W	2,12 W/W
EER	2,10 kCal/Wh	1,83 kCal/Wh
Input Power	366 W	356 W
Current	2,24 A	2,20 A



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °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		
Reference	2014 127.		
Pick-Up	4,80 A		
Drop-Out	4,10 A		
Protector	Option 1	Option 2	Option 3
Reference	MRP56AMK	T0057	AE39FHY
Current	9,40 A	8,50 A	9,00 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 / 61,00 °C	105,00 / 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 °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	211	183	1,70	1,34	1,15
40	-20	281	204	1,75	1,60	1,38
40	-15	365	225	1,80	1,89	1,62
40	-10	463	246	1,86	2,19	1,88
40	-5	576	268	1,92	2,50	2,15
40	0	702	290	1,98	2,82	2,42
40	5	843	312	2,05	3,14	2,70
40	7,2	910	322	2,09	3,29	2,83
40	10	999	335	2,13	3,47	2,98

45	-25	197	186	1,70	1,23	1,06
45	-20	261	209	1,76	1,46	1,25
45	-15	341	232	1,82	1,71	1,47
45	-10	434	255	1,88	1,98	1,70
45	-5	541	278	1,95	2,26	1,95
45	0	663	302	2,02	2,55	2,20
45	5	799	326	2,10	2,85	2,45
45	7,2	863	337	2,14	2,98	2,56
45	10	949	350	2,18	3,15	2,71

50	-25	182	190	1,71	1,12	0,96
50	-20	242	214	1,77	1,32	1,13
50	-15	316	239	1,84	1,54	1,33
50	-10	404	263	1,90	1,79	1,54
50	-5	507	289	1,98	2,04	1,76
50	0	624	314	2,06	2,31	1,99
50	5	755	340	2,15	2,58	2,22
50	7,2	817	351	2,19	2,70	2,32
50	10	900	366	2,24	2,86	2,46

55	-25	168	193	1,72	1,01	0,87
55	-20	223	219	1,78	1,18	1,02
55	-15	292	245	1,85	1,38	1,19
55	-10	375	272	1,93	1,60	1,38
55	-5	472	299	2,01	1,84	1,58
55	0	584	326	2,10	2,08	1,79
55	5	710	354	2,20	2,33	2,01
55	7,2	770	366	2,24	2,45	2,10
55	10	850	382	2,30	2,59	2,23

60	-25	154	196	1,73	0,91	0,78
60	-20	203	224	1,80	1,06	0,91
60	-15	267	252	1,87	1,23	1,06
60	-10	346	281	1,96	1,43	1,23
60	-5	438	309	2,05	1,65	1,42
60	0	545	338	2,14	1,87	1,61
60	5	666	368	2,25	2,11	1,81
60	7,2	723	381	2,29	2,21	1,90
60	10	801	397	2,36	2,34	2,02

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	228	184	1,70	1,24	1,07
40	-20	304	205	1,75	1,48	1,28
40	-15	395	226	1,80	1,75	1,51
40	-10	501	247	1,86	2,03	1,75
40	-5	623	269	1,92	2,31	2,00
40	0	759	291	1,99	2,61	2,25
40	5	911	314	2,06	2,90	2,51
40	7,2	982	324	2,09	3,03	2,62
40	10	1.078	337	2,14	3,20	2,77

45	-25	212	187	1,71	1,13	0,98
45	-20	282	210	1,76	1,34	1,16
45	-15	367	233	1,82	1,58	1,36
45	-10	467	256	1,88	1,82	1,58
45	-5	583	280	1,95	2,08	1,80
45	0	713	304	2,03	2,35	2,03
45	5	859	328	2,11	2,62	2,26
45	7,2	928	339	2,14	2,74	2,37
45	10	1.020	352	2,19	2,89	2,50

50	-25	195	191	1,71	1,02	0,88
50	-20	259	215	1,77	1,21	1,04
50	-15	339	240	1,84	1,41	1,22
50	-10	433	265	1,91	1,64	1,41
50	-5	543	290	1,98	1,87	1,62
50	0	667	316	2,07	2,11	1,83
50	5	807	342	2,15	2,36	2,04
50	7,2	873	353	2,19	2,47	2,14
50	10	962	368	2,25	2,61	2,26

55	-25	179	194	1,72	0,92	0,80
55	-20	237	220	1,79	1,08	0,93
55	-15	310	247	1,86	1,26	1,09
55	-10	399	273	1,93	1,46	1,26
55	-5	503	301	2,02	1,67	1,44
55	0	621	328	2,11	1,89	1,64
55	5	755	356	2,20	2,12	1,83
55	7,2	819	368	2,25	2,22	1,92
55	10	904	384	2,31	2,35	2,03

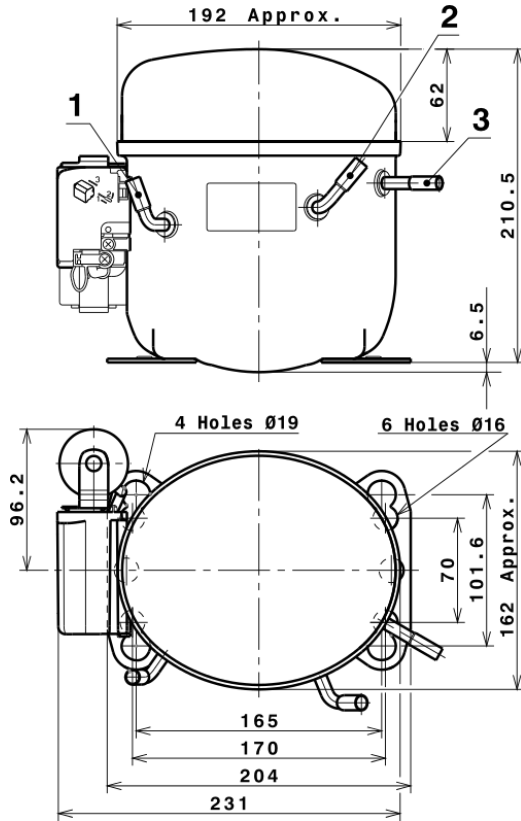
60	-25	162	197	1,73	0,82	0,71
60	-20	215	225	1,80	0,95	0,82
60	-15	282	254	1,88	1,11	0,96
60	-10	365	282	1,96	1,29	1,12
60	-5	462	311	2,05	1,49	1,28
60	0	575	340	2,15	1,69	1,46
60	5	703	370	2,25	1,90	1,64
60	7,2	764	383	2,30	2,00	1,72
60	10	846	400	2,37	2,12	1,83

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.121,8211193768	198,3086610581	1,6543279233	10,428668390324
2	38,0345710504	1,6997876792	0,0038689281	0,38898904497153
3	-9,4605780884	2,5002967102	0,0087199938	-0,03324396680418
4	0,2940274769	0,0075510313	0,0001370561	0,0044303815410935
5	-0,2461396551	0,0726287787	0,0002839974	-0,00057157251665929

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

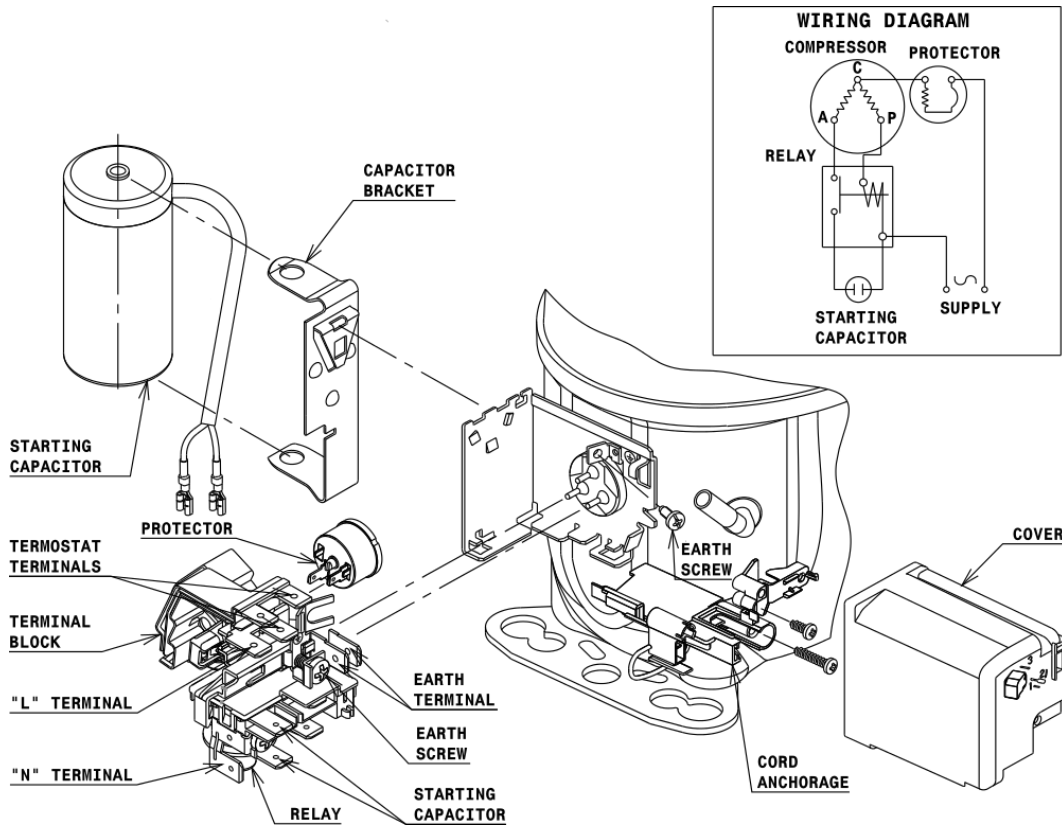


DESIGNATION INTERNAL DIAM.

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)



Technical Data Sheet

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 R600a HMBP

