

Technical Data Sheet

Compressor model **HPY14RAa**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R600a**

APPLICATION

Application High Back Pressure
 Refrigerant R600a
 Evaporating Temp. -15,0 °C to 10,0 °C
 Expansion Capillar/Valve
 Comp. Cooling Fan cooled
 Max. ambient temp. 43,0 °C

COMPRESSOR

Displacement 14,32 cm³
 Diameter 29,37 mm
 Stroke 21,13 mm
 Net Weight 9,74 Kg
 Oil type ISO VG 46 MINER
 Oil charge 350 cm³

MOTOR

Nominal Power 1/5 hp
 Voltage/Frequency 220-240V 50Hz
 Voltage range 198-255 V
 Type CSIR
 Phase number 1 PH
 Locked Rotor Amps (LRA) 10,20 A
 Max. Cont. Current (MCC) 2,60 A
 Main W. resist. at 25°C 11,70 Ω
 Start W. resist. at 25°C 27,65 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	680 kCal/h	668 W
COP	2,40 W/W	2,08 W/W
EER	2,07 kCal/Wh	1,80 kCal/Wh
Input Power	329 W	320 W
Current	2,00 A	1,97 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (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	Option 2	
Reference	2014 127.	QLZ-4.8A	
Pick-Up	4,80 A	4,8 A	
Drop-Out	4,10 A	4,1 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

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	-15	328	207	1,60	1,84	1,58
40	-10	414	226	1,65	2,13	1,83
40	-5	511	245	1,70	2,43	2,09
40	0	621	263	1,76	2,74	2,36
40	5	743	283	1,83	3,06	2,63
40	7,2	800	291	1,86	3,20	2,75
40	10	876	302	1,89	3,38	2,90

45	-15	307	213	1,62	1,67	1,44
45	-10	388	233	1,67	1,94	1,66
45	-5	481	254	1,73	2,21	1,90
45	0	587	274	1,80	2,49	2,14
45	5	704	295	1,87	2,78	2,39
45	7,2	760	304	1,90	2,91	2,50
45	10	834	315	1,95	3,08	2,65

50	-15	285	219	1,63	1,52	1,30
50	-10	362	241	1,69	1,75	1,51
50	-5	452	263	1,76	2,00	1,72
50	0	553	284	1,83	2,26	1,94
50	5	666	307	1,91	2,53	2,17
50	7,2	720	316	1,95	2,65	2,28
50	10	792	329	2,00	2,80	2,41

55	-15	264	225	1,65	1,36	1,17
55	-10	337	248	1,72	1,58	1,36
55	-5	422	272	1,79	1,81	1,55
55	0	519	295	1,87	2,05	1,76
55	5	628	319	1,96	2,29	1,97
55	7,2	680	329	2,00	2,40	2,07
55	10	749	342	2,05	2,55	2,19

60	-15	243	231	1,67	1,22	1,05
60	-10	311	256	1,74	1,42	1,22
60	-5	392	281	1,82	1,63	1,40
60	0	485	306	1,91	1,85	1,59
60	5	590	331	2,01	2,08	1,78
60	7,2	640	342	2,05	2,18	1,87
60	10	707	356	2,11	2,31	1,99

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	354	208	1,61	1,70	1,47
40	-10	447	227	1,66	1,97	1,70
40	-5	552	246	1,71	2,25	1,94
40	0	671	265	1,77	2,53	2,19
40	5	802	284	1,83	2,82	2,44
40	7,2	864	293	1,86	2,95	2,55
40	10	946	304	1,90	3,12	2,69

45	-15	330	214	1,62	1,54	1,33
45	-10	417	234	1,68	1,78	1,54
45	-5	518	255	1,74	2,03	1,76
45	0	631	276	1,80	2,29	1,98
45	5	757	296	1,87	2,56	2,21
45	7,2	817	305	1,91	2,67	2,31
45	10	896	317	1,95	2,83	2,44

50	-15	305	220	1,64	1,39	1,20
50	-10	388	242	1,70	1,60	1,39
50	-5	483	264	1,76	1,83	1,58
50	0	592	286	1,84	2,07	1,79
50	5	713	308	1,92	2,31	2,00
50	7,2	770	318	1,96	2,42	2,09
50	10	846	331	2,01	2,56	2,21

55	-15	281	226	1,65	1,24	1,07
55	-10	358	250	1,72	1,44	1,24
55	-5	449	273	1,79	1,64	1,42
55	0	552	297	1,88	1,86	1,61
55	5	668	320	1,97	2,08	1,80
55	7,2	723	331	2,01	2,18	1,89
55	10	797	344	2,06	2,31	2,00

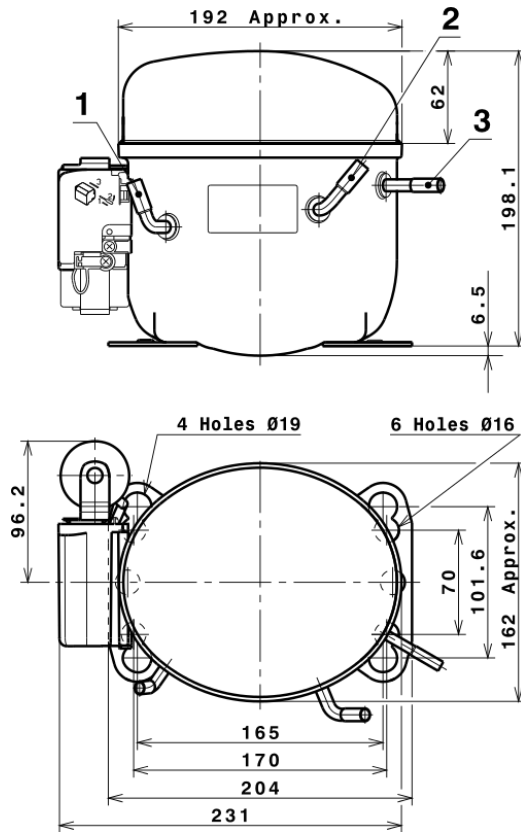
60	-15	256	232	1,67	1,10	0,95
60	-10	329	257	1,74	1,28	1,11
60	-5	414	282	1,82	1,47	1,27
60	0	512	307	1,91	1,67	1,44
60	5	623	332	2,01	1,87	1,62
60	7,2	676	344	2,06	1,97	1,70
60	10	747	358	2,12	2,09	1,80

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	981,7947690395	184,6364012880	1,4629843829	9,2128416401543
2	32,9373364845	1,4769435781	0,0009053704	0,3188218602066
3	-8,1356114064	2,1640943124	0,0079763097	-0,028812446913004
4	0,2501464096	0,0040222802	0,0001694877	0,0039015764120843
5	-0,2122331470	0,0620655274	0,0003143219	-0,00013788549404463

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)



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 HBP

