

# Technical Data Sheet

Compressor model **HPY16RAb**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R600a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	16,15 cm <sup>3</sup>	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	11,09 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 MINER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	350 cm <sup>3</sup>	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	2,64 W/W	2,29 W/W
EER	2,27 kCal/Wh	1,98 kCal/Wh
Input Power	339 W	330 W
Current	1,75 A	1,71 A



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	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		
Run capacitor	6 µF 400 V		
Relay	Option 1		
Reference	2014 127. + NTC15Ω		
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	173	1,10	1,42	1,22
40	-20	281	192	1,17	1,70	1,46
40	-15	365	211	1,24	2,01	1,73
40	-10	463	230	1,32	2,34	2,01
40	-5	576	250	1,39	2,68	2,31
40	0	702	269	1,47	3,03	2,61
40	5	843	289	1,55	3,39	2,92
40	7,2	910	298	1,58	3,55	3,05
40	10	999	309	1,63	3,76	3,23

45	-25	197	176	1,11	1,30	1,12
45	-20	261	196	1,19	1,55	1,33
45	-15	341	217	1,27	1,82	1,57
45	-10	434	238	1,35	2,12	1,82
45	-5	541	259	1,43	2,43	2,09
45	0	663	281	1,52	2,75	2,36
45	5	799	302	1,60	3,08	2,64
45	7,2	863	312	1,64	3,22	2,77
45	10	949	324	1,69	3,41	2,93

50	-25	182	179	1,12	1,18	1,02
50	-20	242	201	1,20	1,40	1,20
50	-15	316	223	1,29	1,65	1,41
50	-10	404	246	1,38	1,91	1,64
50	-5	507	269	1,47	2,19	1,89
50	0	624	292	1,56	2,49	2,14
50	5	755	315	1,65	2,79	2,40
50	7,2	817	325	1,69	2,92	2,51
50	10	900	338	1,75	3,09	2,66

55	-25	168	182	1,13	1,07	0,92
55	-20	223	206	1,22	1,26	1,08
55	-15	292	230	1,31	1,48	1,27
55	-10	375	254	1,41	1,72	1,48
55	-5	472	278	1,51	1,97	1,70
55	0	584	303	1,61	2,24	1,93
55	5	710	328	1,71	2,52	2,17
55	7,2	770	339	1,75	2,64	2,27
55	10	850	353	1,81	2,80	2,41

60	-25	154	185	1,14	0,97	0,83
60	-20	203	210	1,24	1,12	0,97
60	-15	267	236	1,34	1,32	1,13
60	-10	346	262	1,44	1,53	1,32
60	-5	438	288	1,55	1,77	1,52
60	0	545	314	1,65	2,02	1,73
60	5	666	341	1,76	2,27	1,95
60	7,2	723	353	1,81	2,39	2,05
60	10	801	368	1,87	2,53	2,18

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	228	174	1,10	1,31	1,13
40	-20	304	193	1,17	1,58	1,36
40	-15	395	212	1,25	1,86	1,61
40	-10	501	231	1,32	2,17	1,87
40	-5	623	251	1,40	2,48	2,14
40	0	759	271	1,48	2,80	2,42
40	5	911	291	1,56	3,13	2,71
40	7,2	982	300	1,59	3,28	2,83
40	10	1.078	311	1,64	3,46	2,99

45	-25	212	177	1,11	1,20	1,03
45	-20	282	197	1,19	1,43	1,23
45	-15	367	218	1,27	1,68	1,45
45	-10	467	239	1,35	1,95	1,69
45	-5	583	261	1,44	2,24	1,93
45	0	713	282	1,52	2,53	2,18
45	5	859	304	1,61	2,83	2,44
45	7,2	928	313	1,65	2,96	2,56
45	10	1.020	326	1,70	3,13	2,70

50	-25	195	180	1,12	1,08	0,94
50	-20	259	202	1,21	1,28	1,11
50	-15	339	225	1,29	1,51	1,30
50	-10	433	247	1,38	1,75	1,51
50	-5	543	270	1,47	2,01	1,73
50	0	667	293	1,57	2,27	1,96
50	5	807	317	1,66	2,55	2,20
50	7,2	873	327	1,70	2,67	2,31
50	10	962	340	1,76	2,82	2,44

55	-25	179	183	1,13	0,98	0,84
55	-20	237	207	1,23	1,15	0,99
55	-15	310	231	1,32	1,34	1,16
55	-10	399	255	1,42	1,56	1,35
55	-5	503	280	1,51	1,80	1,55
55	0	621	305	1,61	2,04	1,76
55	5	755	330	1,71	2,29	1,98
55	7,2	819	341	1,76	2,40	2,07
55	10	904	355	1,82	2,55	2,20

60	-25	162	186	1,15	0,87	0,75
60	-20	215	212	1,24	1,02	0,88
60	-15	282	237	1,34	1,19	1,03
60	-10	365	263	1,45	1,39	1,20
60	-5	462	290	1,55	1,60	1,38
60	0	575	316	1,66	1,82	1,57
60	5	703	343	1,77	2,05	1,77
60	7,2	764	355	1,81	2,15	1,86
60	10	846	370	1,88	2,29	1,98

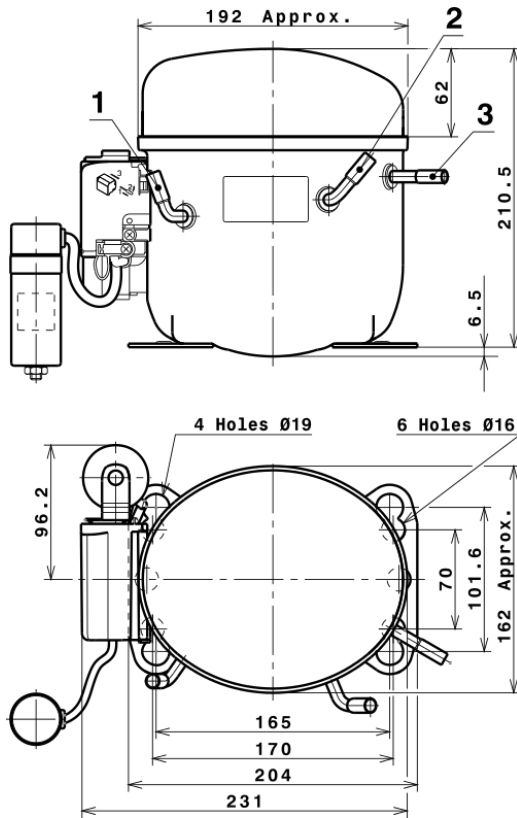
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.121,8211193768	184,1646287562	1,1254412815	10,428668390324
2	38,0345710504	1,3876278641	0,0052773574	0,38898904497153
3	-9,4605780884	2,3249514244	0,0093758545	-0,03324396680418
4	0,2940274769	0,0056465309	0,0000403331	0,0044303815410935
5	-0,2461396551	0,0683532762	0,0002804398	-0,00057157251665929

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

## COMPRESSOR DIMENSIONS

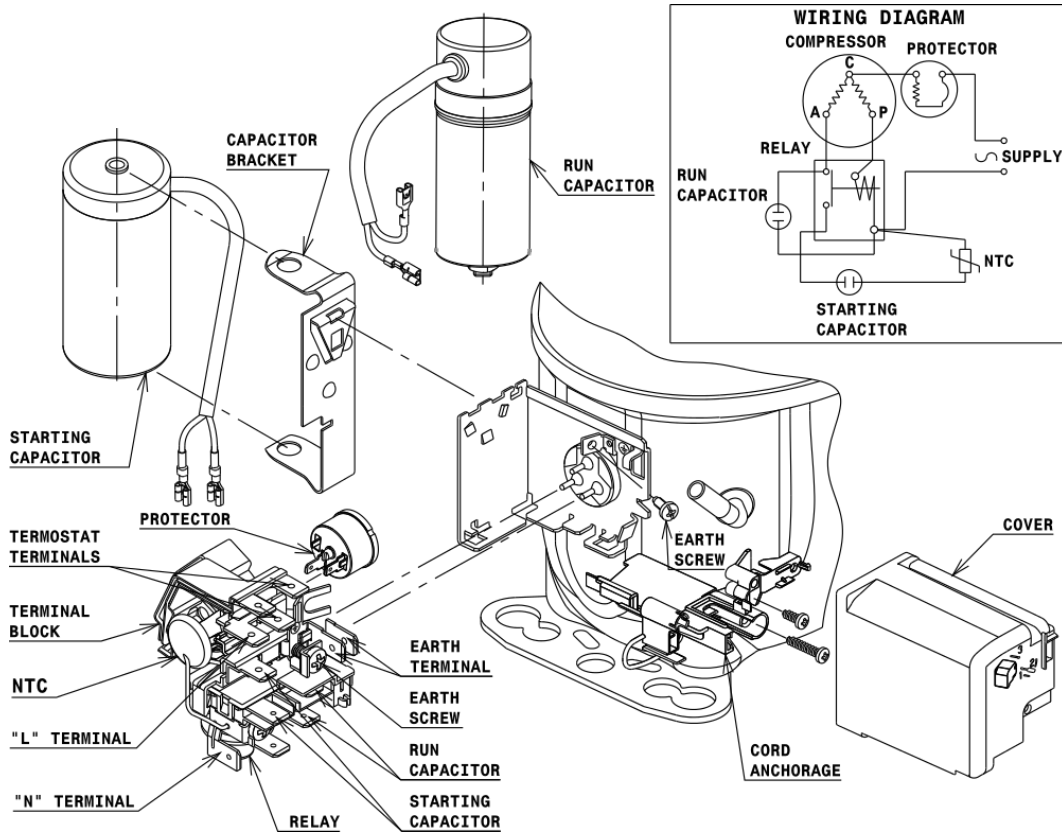


## DESIGNATION INTERNAL DIAM.

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

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (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

