

# Technical Data Sheet

Compressor model **HPY12AAb**  
 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 12,10 cm<sup>3</sup>  
 Diameter 27,00 mm  
 Stroke 21,13 mm  
 Net Weight 11,24 Kg  
 Oil type ISO VG 10 MINER  
 Oil charge 300 cm<sup>3</sup>

## MOTOR

Nominal Power 1/5 hp  
 Voltage/Frequency 220-240V 50Hz  
 Voltage range 187-264 V  
 Type RSCR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 10,90 A  
 Max. Cont. Current (MCC) 1,20 A  
 Main W. resist. at 25°C 14,17 Ω  
 Start W. resist. at 25°C 18,25 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	165 kCal/h	144 W
COP	1,50 W/W	1,18 W/W
EER	1,29 kCal/Wh	1,02 kCal/Wh
Input Power	128 W	122 W
Current	0,65 A	0,63 A

## APPROVALS

## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Run capacitor	4 µF 400 V			
Relay				
Reference				
Voltage				
Resistance				
Protector	Option 1	Option 2	Option 3	Option 4
Reference	MSP327LZ	4TM265NFBYY	T0500	AE18FU
Current	6,30 A	9,20 A	5,70 A	6,30 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	135,00 / 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 °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	100	92	0,51	1,26	1,09
40	-30	134	105	0,56	1,48	1,28
40	-25	175	119	0,61	1,72	1,48
40	-23,3	191	123	0,63	1,80	1,55
40	-20	225	133	0,67	1,97	1,69
40	-15	284	149	0,73	2,21	1,90
40	-10	350	166	0,80	2,45	2,11

45	-35	94	91	0,51	1,20	1,03
45	-30	126	105	0,56	1,40	1,20
45	-25	167	120	0,62	1,62	1,39
45	-23,3	183	125	0,64	1,70	1,46
45	-20	216	135	0,68	1,85	1,59
45	-15	273	152	0,75	2,08	1,79
45	-10	338	170	0,82	2,31	1,99

50	-35	88	91	0,50	1,13	0,97
50	-30	119	105	0,56	1,32	1,13
50	-25	159	121	0,62	1,52	1,31
50	-23,3	174	126	0,64	1,60	1,37
50	-20	206	138	0,69	1,74	1,50
50	-15	262	155	0,76	1,96	1,69
50	-10	326	174	0,83	2,18	1,87

55	-35	82	90	0,50	1,06	0,91
55	-30	112	106	0,56	1,23	1,06
55	-25	150	122	0,63	1,43	1,23
55	-23,3	165	128	0,65	1,50	1,29
55	-20	197	140	0,70	1,64	1,41
55	-15	251	158	0,77	1,84	1,59
55	-10	314	178	0,85	2,05	1,76

60	-35	76	89	0,50	0,99	0,85
60	-30	105	106	0,56	1,15	0,99
60	-25	142	123	0,63	1,34	1,15
60	-23,3	156	130	0,66	1,40	1,21
60	-20	187	142	0,71	1,53	1,32
60	-15	240	161	0,78	1,73	1,49
60	-10	302	182	0,87	1,93	1,66

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	109	92	0,51	1,19	1,03
40	-30	148	105	0,56	1,42	1,22
40	-25	195	119	0,61	1,65	1,42
40	-23,3	213	123	0,63	1,72	1,49
40	-20	250	133	0,67	1,87	1,62
40	-15	312	149	0,73	2,09	1,81
40	-10	383	166	0,80	2,30	1,99

45	-35	99	91	0,51	1,09	0,94
45	-30	135	105	0,56	1,28	1,11
45	-25	178	120	0,62	1,49	1,28
45	-23,3	195	125	0,64	1,56	1,35
45	-20	229	135	0,68	1,69	1,46
45	-15	288	152	0,75	1,89	1,64
45	-10	355	170	0,82	2,09	1,81

50	-35	89	91	0,50	0,98	0,85
50	-30	121	105	0,56	1,15	0,99
50	-25	161	121	0,62	1,33	1,15
50	-23,3	176	126	0,64	1,39	1,20
50	-20	209	138	0,69	1,52	1,31
50	-15	264	155	0,76	1,70	1,47
50	-10	328	174	0,83	1,88	1,63

55	-35	79	90	0,50	0,87	0,75
55	-30	107	106	0,56	1,02	0,88
55	-25	144	122	0,63	1,18	1,02
55	-23,3	158	128	0,65	1,23	1,07
55	-20	188	140	0,70	1,35	1,16
55	-15	240	158	0,77	1,52	1,31
55	-10	301	178	0,85	1,69	1,46

60	-35	68	89	0,50	0,77	0,66
60	-30	94	106	0,56	0,89	0,76
60	-25	127	123	0,63	1,03	0,89
60	-23,3	140	130	0,66	1,08	0,93
60	-20	168	142	0,71	1,18	1,02
60	-15	217	161	0,78	1,34	1,16
60	-10	273	182	0,87	1,50	1,30

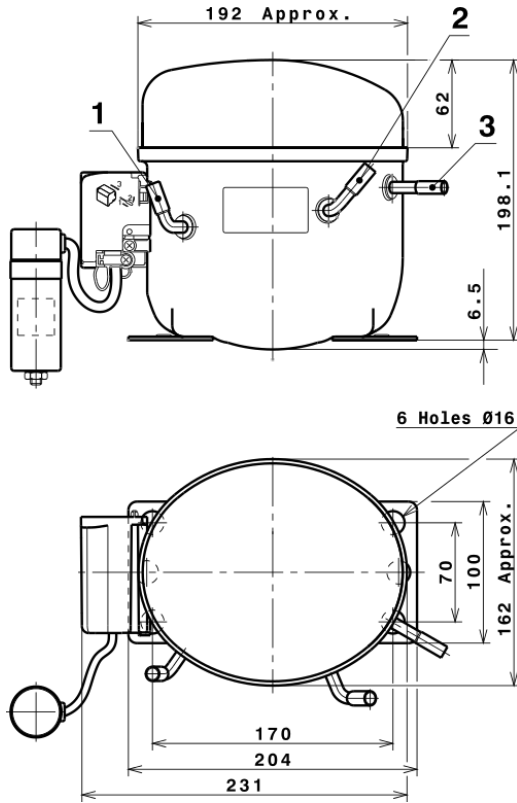
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	810,9189674710	159,4948799494	0,7764454051	8,1944880536462
2	23,0966246402	2,4605414462	0,0100713484	0,25650888571689
3	-6,9297102303	1,1996414315	0,0048259764	-0,037839949912592
4	0,1519368674	0,0212342154	0,0000921829	0,0022084603565255
5	-0,1394503777	0,0381654046	0,0001531652	-0,00063588096500096

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

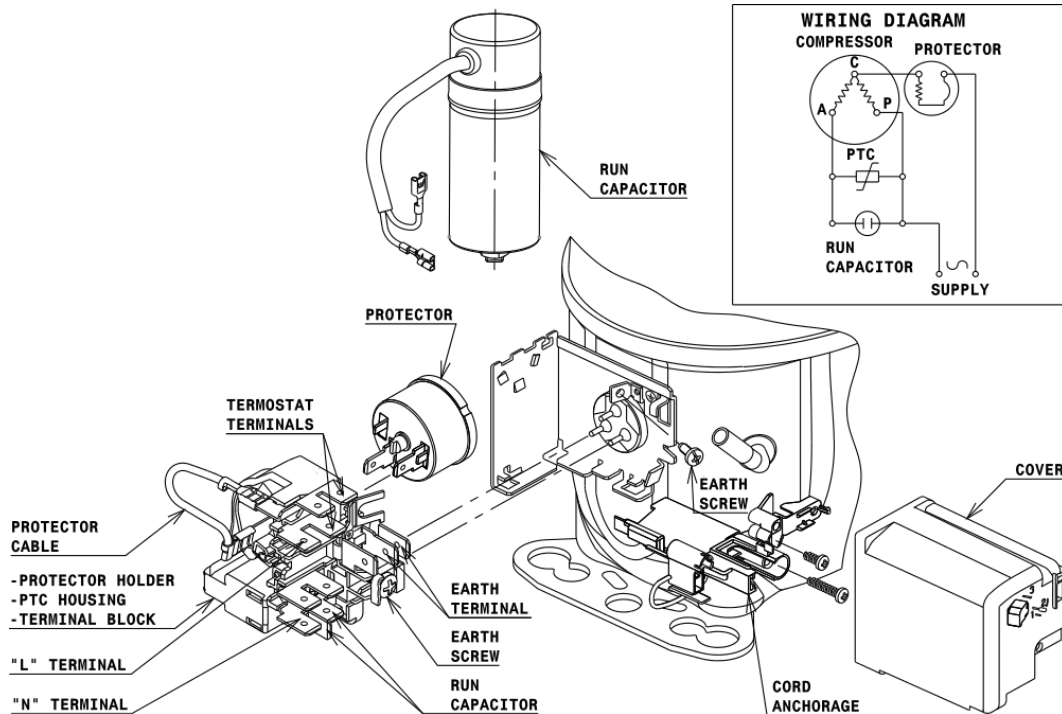
## COMPRESSOR DIMENSIONS



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

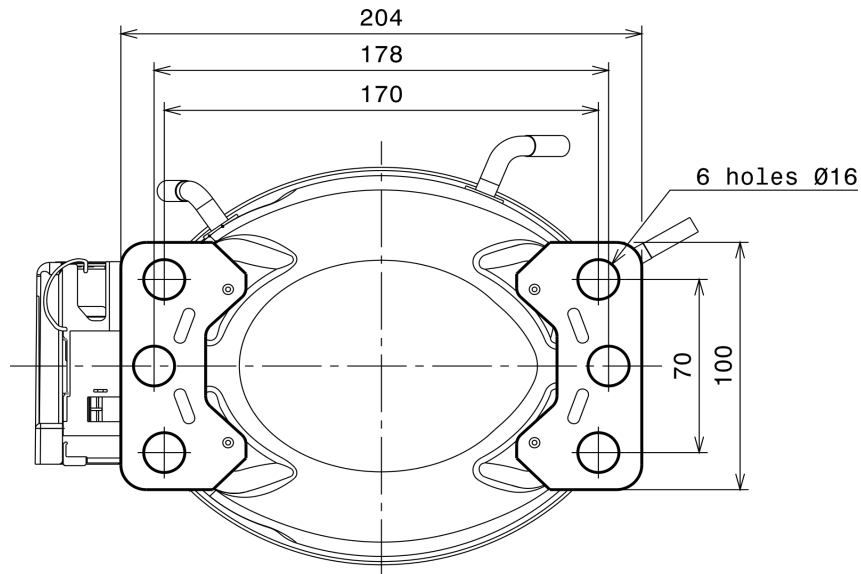
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSCR CONNECTION (L, P ranges)



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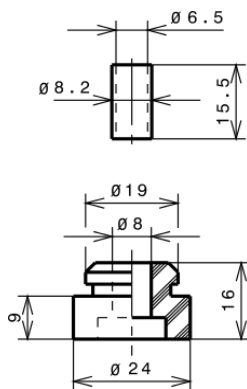
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

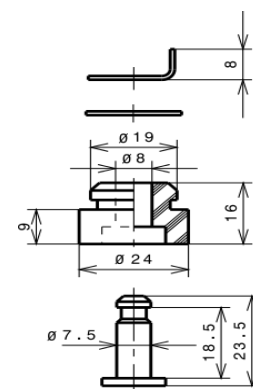
### STANDARD

Ø16 holes (170x70 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R600a LBP

