

# Technical Data Sheet

Compressor model **HLY99RAa**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R600a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	9,95 cm <sup>3</sup>	Nominal Power	1/6 hp
Refrigerant	R600a	Diameter	25,40 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	19,62 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	9,31 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	300 cm <sup>3</sup>	Locked Rotor Amps (LRA)	8,50 A
				Max. Cont. Current (MCC)	1,70 A
				Main W. resist. at 25°C	15,73 Ω
				Start W. resist. at 25°C	20,00 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	470 kCal/h	458 W
COP	2,35 W/W	2,03 W/W
EER	2,02 kCal/Wh	1,75 kCal/Wh
Input Power	233 W	226 W
Current	1,34 A	1,31 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			
Relay	Option 1			
Reference	2014 108.			
Pick-Up	2,70 A			
Drop-Out	2,30 A			
Protector	Option 1	Option 2	Option 3	
Reference	AE22FHY	MRP61AMJ	T0073	
Current	6,20 A	6,90 A	6,20 A	
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 62,00 °C	90,00 / 57,00 °C	110,00 / 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	125	114	0,91	1,28	1,10
40	-20	163	128	0,96	1,48	1,28
40	-15	212	142	1,01	1,73	1,49
40	-10	271	157	1,06	2,01	1,73
40	-5	340	171	1,11	2,31	1,98
40	0	419	186	1,16	2,62	2,25
40	5	508	201	1,22	2,94	2,53
40	7,2	551	208	1,25	3,08	2,65
40	10	608	217	1,28	3,27	2,81

45	-25	116	116	0,92	1,16	1,00
45	-20	151	131	0,97	1,35	1,16
45	-15	197	146	1,02	1,57	1,35
45	-10	253	161	1,08	1,82	1,57
45	-5	319	177	1,13	2,10	1,80
45	0	396	193	1,19	2,39	2,05
45	5	483	209	1,25	2,68	2,31
45	7,2	524	216	1,28	2,82	2,42
45	10	580	226	1,31	2,99	2,57

50	-25	106	117	0,92	1,05	0,91
50	-20	139	133	0,98	1,21	1,04
50	-15	182	150	1,03	1,42	1,22
50	-10	236	166	1,09	1,65	1,42
50	-5	299	183	1,15	1,90	1,63
50	0	373	200	1,22	2,17	1,87
50	5	457	217	1,28	2,45	2,10
50	7,2	497	225	1,31	2,57	2,21
50	10	551	234	1,35	2,73	2,35

55	-25	97	119	0,93	0,95	0,82
55	-20	127	136	0,99	1,09	0,93
55	-15	167	153	1,05	1,27	1,09
55	-10	218	171	1,11	1,48	1,27
55	-5	279	189	1,17	1,72	1,48
55	0	350	207	1,24	1,97	1,69
55	5	431	225	1,31	2,23	1,92
55	7,2	470	233	1,34	2,35	2,02
55	10	522	243	1,38	2,50	2,15

60	-25	88	121	0,94	0,84	0,73
60	-20	115	139	1,00	0,96	0,83
60	-15	153	157	1,06	1,13	0,97
60	-10	200	176	1,13	1,33	1,14
60	-5	258	195	1,20	1,55	1,33
60	0	327	214	1,27	1,78	1,53
60	5	405	233	1,34	2,02	1,74
60	7,2	443	241	1,37	2,13	1,84
60	10	494	252	1,41	2,28	1,96

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	135	115	0,92	1,18	1,02
40	-20	177	129	0,96	1,37	1,19
40	-15	230	143	1,01	1,61	1,39
40	-10	293	158	1,06	1,86	1,61
40	-5	368	172	1,11	2,13	1,84
40	0	453	187	1,17	2,42	2,09
40	5	549	202	1,22	2,71	2,34
40	7,2	595	209	1,25	2,84	2,46
40	10	656	218	1,28	3,01	2,60

45	-25	124	116	0,92	1,07	0,92
45	-20	163	131	0,97	1,24	1,07
45	-15	212	147	1,02	1,45	1,25
45	-10	273	162	1,08	1,68	1,45
45	-5	344	178	1,14	1,93	1,67
45	0	426	194	1,19	2,19	1,90
45	5	519	210	1,25	2,47	2,13
45	7,2	563	218	1,28	2,59	2,24
45	10	623	227	1,32	2,74	2,37

50	-25	114	118	0,93	0,97	0,83
50	-20	149	134	0,98	1,11	0,96
50	-15	195	151	1,04	1,30	1,12
50	-10	252	167	1,10	1,51	1,30
50	-5	320	184	1,16	1,74	1,50
50	0	399	201	1,22	1,98	1,71
50	5	489	218	1,28	2,24	1,93
50	7,2	531	226	1,31	2,35	2,03
50	10	589	236	1,35	2,50	2,16

55	-25	103	120	0,93	0,86	0,75
55	-20	135	137	0,99	0,99	0,85
55	-15	178	154	1,05	1,16	1,00
55	-10	232	172	1,11	1,35	1,17
55	-5	297	190	1,18	1,56	1,35
55	0	372	208	1,24	1,79	1,55
55	5	458	226	1,31	2,03	1,75
55	7,2	500	234	1,35	2,13	1,84
55	10	555	245	1,39	2,27	1,96

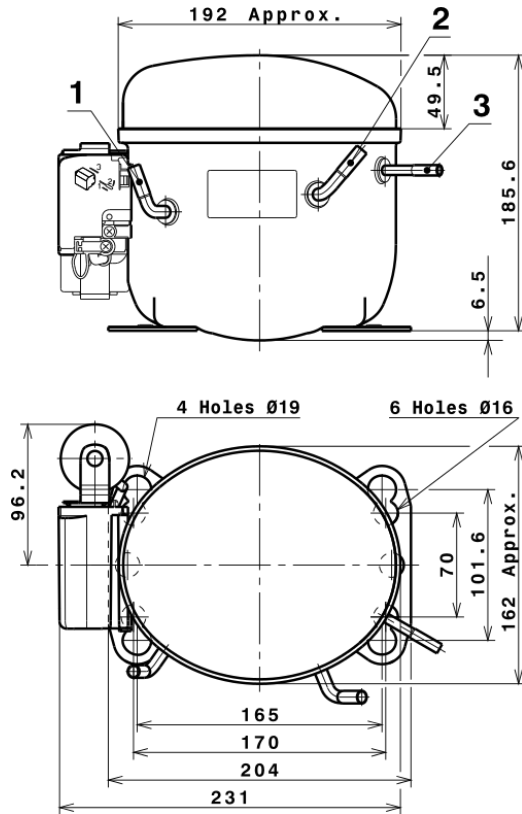
60	-25	93	121	0,94	0,76	0,66
60	-20	121	140	1,00	0,87	0,75
60	-15	161	158	1,06	1,02	0,88
60	-10	211	177	1,13	1,20	1,03
60	-5	273	196	1,20	1,39	1,20
60	0	345	215	1,27	1,61	1,39
60	5	428	234	1,34	1,83	1,58
60	7,2	468	243	1,38	1,93	1,67
60	10	522	254	1,42	2,06	1,78

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	665,7744856432	135,2735835281	0,9692243640	6,1257084554993
2	23,2260668038	1,4058139064	0,0048602441	0,23768205065145
3	-5,5564468727	1,4101863236	0,0053505293	-0,01772886493919
4	0,2111228098	0,0051886847	0,0000478744	0,0031539475966421
5	-0,1369608789	0,0427159081	0,0001681395	-0,00016254116383699

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

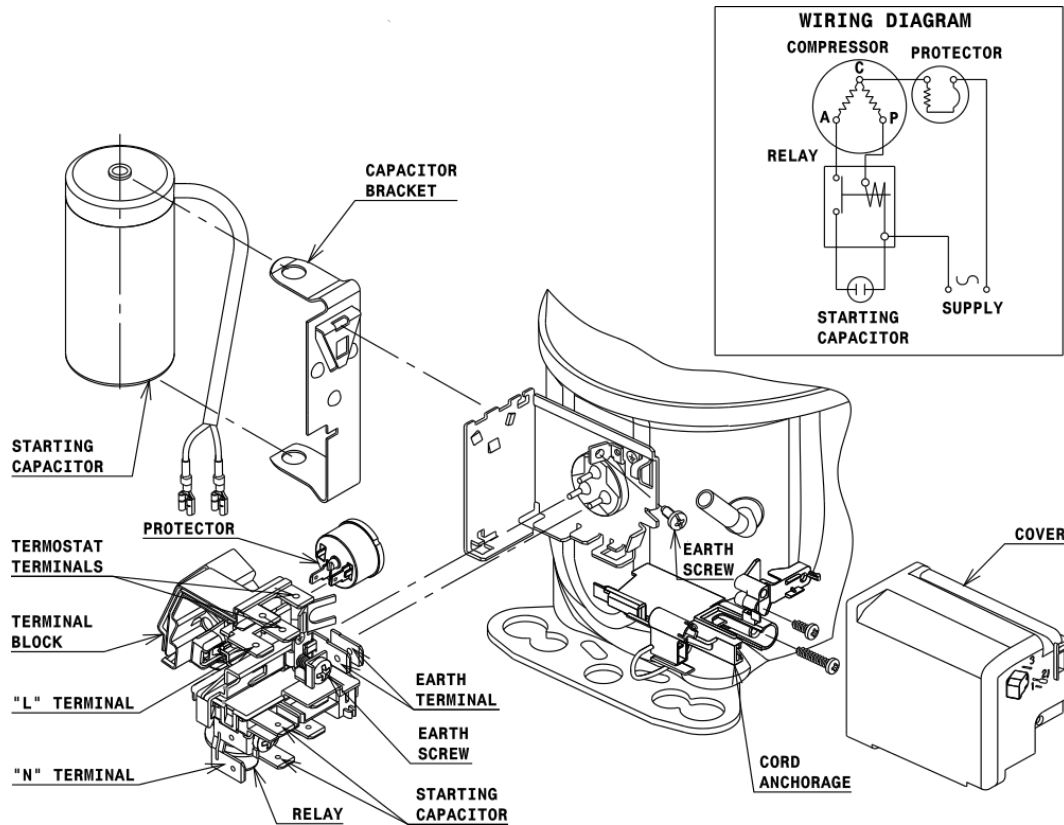


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 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

