

Technical Data Sheet

Compressor model **MLY90RAa**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R404A**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	9,09 cm ³	Nominal Power	3/8 hp
Refrigerant	R404A	Diameter	24,29 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	11,28 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	395 cm ³	Locked Rotor Amps (LRA)	17,90 A
				Max. Cont. Current (MCC)	5,30 A
				Main W. resist. at 25°C	4,93 Ω
				Start W. resist. at 25°C	11,70 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	1.220 kCal/h	1.125 W
COP	2,13 W/W	1,73 W/W
EER	1,83 kCal/Wh	1,49 kCal/Wh
Input Power	665 W	651 W
Current	3,80 A	3,74 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	64- 77 μF 330 V			
Relay	Option 1	Option 2		
Reference	2014 149.	QLZ-7.8A		
Pick-Up	7,80 A	7,80 A		
Drop-Out	6,65 A	6,65 A		
Protector	Option 1			
Reference	T0252			
Current	11,50 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 52,00 °C			

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	420	355	2,78	1,38	1,18
40	-20	548	391	2,86	1,63	1,40
40	-15	695	425	2,94	1,90	1,63
40	-10	862	458	3,03	2,19	1,88
40	-5	1.049	490	3,13	2,49	2,14
40	0	1.256	520	3,22	2,81	2,42
40	5	1.482	548	3,32	3,14	2,70
40	7,2	1.588	560	3,37	3,30	2,83
40	10	1.728	575	3,42	3,50	3,01

45	-25	385	358	2,79	1,25	1,08
45	-20	499	399	2,88	1,45	1,25
45	-15	633	439	2,98	1,68	1,44
45	-10	787	477	3,08	1,92	1,65
45	-5	960	513	3,20	2,18	1,87
45	0	1.153	548	3,32	2,45	2,10
45	5	1.365	581	3,44	2,73	2,35
45	7,2	1.465	595	3,50	2,86	2,46
45	10	1.597	612	3,57	3,03	2,61

50	-25	350	362	2,79	1,13	0,97
50	-20	451	408	2,90	1,29	1,11
50	-15	571	452	3,01	1,47	1,26
50	-10	711	495	3,14	1,67	1,44
50	-5	870	536	3,28	1,89	1,62
50	0	1.050	576	3,42	2,12	1,82
50	5	1.249	614	3,58	2,37	2,03
50	7,2	1.343	630	3,64	2,48	2,13
50	10	1.467	650	3,73	2,62	2,26

55	-25	315	365	2,80	1,00	0,86
55	-20	402	416	2,92	1,12	0,97
55	-15	509	465	3,05	1,27	1,09
55	-10	635	513	3,20	1,44	1,24
55	-5	781	559	3,36	1,62	1,40
55	0	947	604	3,53	1,82	1,57
55	5	1.132	647	3,72	2,04	1,75
55	7,2	1.220	665	3,80	2,13	1,83
55	10	1.337	688	3,91	2,26	1,94

60	-25	280	369	2,81	0,88	0,76
60	-20	353	424	2,94	0,97	0,83
60	-15	446	479	3,09	1,09	0,93
60	-10	559	531	3,26	1,22	1,05
60	-5	692	582	3,45	1,38	1,19
60	0	844	632	3,65	1,55	1,34
60	5	1.016	679	3,87	1,74	1,49
60	7,2	1.098	700	3,97	1,82	1,57
60	10	1.207	726	4,09	1,93	1,66

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	440	356	2,78	1,23	1,07
40	-20	577	393	2,86	1,47	1,27
40	-15	733	428	2,95	1,71	1,48
40	-10	909	461	3,04	1,97	1,70
40	-5	1.103	493	3,14	2,24	1,93
40	0	1.317	523	3,23	2,52	2,17
40	5	1.549	552	3,34	2,81	2,42
40	7,2	1.658	564	3,38	2,94	2,54
40	10	1.801	579	3,44	3,11	2,69

45	-25	399	360	2,79	1,11	0,96
45	-20	519	401	2,88	1,29	1,12
45	-15	659	441	2,98	1,49	1,29
45	-10	817	480	3,09	1,70	1,47
45	-5	995	516	3,21	1,93	1,66
45	0	1.192	552	3,33	2,16	1,87
45	5	1.408	585	3,46	2,41	2,08
45	7,2	1.509	600	3,52	2,52	2,17
45	10	1.643	617	3,59	2,66	2,30

50	-25	357	364	2,80	0,98	0,85
50	-20	461	410	2,90	1,12	0,97
50	-15	584	455	3,02	1,28	1,11
50	-10	726	498	3,15	1,46	1,26
50	-5	887	540	3,29	1,64	1,42
50	0	1.067	580	3,44	1,84	1,59
50	5	1.266	618	3,60	2,05	1,77
50	7,2	1.360	635	3,67	2,14	1,85
50	10	1.485	655	3,76	2,27	1,96

55	-25	316	367	2,80	0,86	0,74
55	-20	403	418	2,92	0,96	0,83
55	-15	509	468	3,06	1,09	0,94
55	-10	634	516	3,21	1,23	1,06
55	-5	779	563	3,38	1,38	1,20
55	0	942	608	3,55	1,55	1,34
55	5	1.125	651	3,74	1,73	1,49
55	7,2	1.211	670	3,82	1,81	1,56
55	10	1.327	693	3,93	1,91	1,65

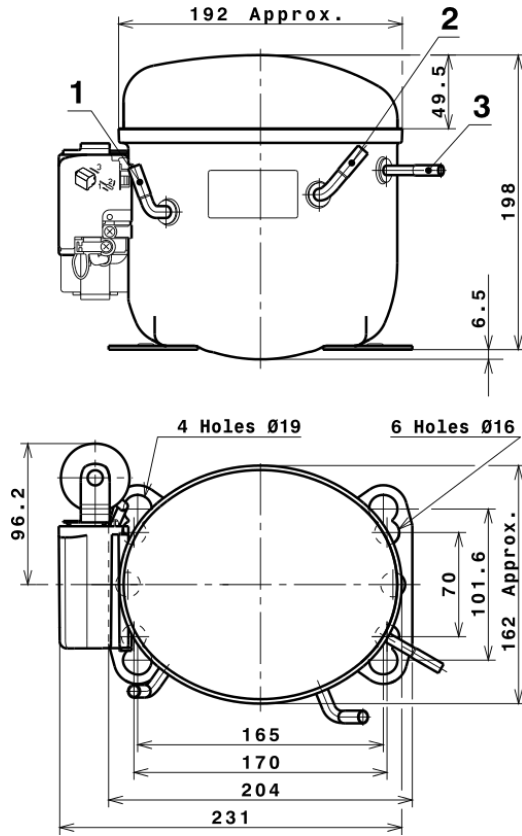
60	-25	274	371	2,81	0,74	0,64
60	-20	344	427	2,94	0,81	0,70
60	-15	434	481	3,10	0,90	0,78
60	-10	543	535	3,27	1,02	0,88
60	-5	670	586	3,46	1,14	0,99
60	0	817	636	3,67	1,28	1,11
60	5	983	685	3,89	1,44	1,24
60	7,2	1.062	705	3,99	1,51	1,30
60	10	1.168	731	4,12	1,60	1,38

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.315,1615638082	306,3003216575	2,2034523873	45,985645265114
2	71,1259960333	-1,8272599700	-0,0134772032	1,6432425070482
3	-25,8431099200	5,8256627685	0,0258848445	-0,23793502874888
4	0,3616382044	-0,0252579047	0,0003160996	0,016843718227746
5	-0,6966929355	0,2041950325	0,0009734435	-0,0057849179768582

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 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 R404A HMBP

