

Technical Data Sheet

Compressor model **ML90FG**
 Voltage **200-220/230V 50/60Hz ~1**
 Refrigerant **R404A**

APPLICATION		COMPRESSOR		MOTOR	
Application	Low Back Pressure	Displacement	8,85 cm ³	Nominal Power	1/3 hp
Refrigerant	R404A	Diameter	25,40 mm	Voltage/Frequency	200-220V 50Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	17,47 mm	Voltage range	170-242 V
Expansion	Capillar/Valve	Net Weight	10,78 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	300 cm ³	Locked Rotor Amps (LRA)	18,00 A
				Max. Cont. Current (MCC)	4,50 A
				Main W. resist. at 25°C	4,23 Ω
				Start W. resist. at 25°C	34,16 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	350 kCal/h	275 W
COP	1,13 W/W	0,80 W/W
EER	0,97 kCal/Wh	0,69 kCal/Wh
Input Power	360 W	344 W
Current	2,60 A	2,54 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °C	32,0 °C
Voltage/Frequency	200 V 50 Hz	200 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V			
Relay	Option 1			
Reference	2014 158.			
Pick-Up	9,05 A			
Drop-Out	7,70 A			
Protector	Option 1	Option 2		
Reference	MRA38145	T0266		
Current	14,90 A	11,00 A		
Time check	2,8-5,2 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C	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	-40	180	230	2,19	0,91	0,78
40	-35	246	262	2,28	1,09	0,94
40	-30	325	298	2,39	1,27	1,09
40	-25	417	336	2,51	1,44	1,24
40	-23,3	452	350	2,56	1,50	1,29
40	-20	523	378	2,67	1,61	1,38
40	-15	642	422	2,85	1,77	1,52
40	-10	775	470	3,06	1,92	1,65

45	-40	160	225	2,18	0,83	0,71
45	-35	222	260	2,27	0,99	0,85
45	-30	296	298	2,39	1,16	1,00
45	-25	385	339	2,52	1,32	1,14
45	-23,3	418	353	2,58	1,38	1,18
45	-20	486	383	2,69	1,48	1,27
45	-15	602	430	2,88	1,63	1,40
45	-10	730	480	3,10	1,77	1,52

50	-40	140	220	2,16	0,74	0,64
50	-35	197	257	2,26	0,89	0,77
50	-30	268	298	2,39	1,05	0,90
50	-25	352	341	2,53	1,20	1,03
50	-23,3	384	357	2,59	1,25	1,08
50	-20	450	388	2,71	1,35	1,16
50	-15	561	437	2,91	1,49	1,28
50	-10	685	490	3,15	1,63	1,40

55	-40	120	215	2,15	0,65	0,56
55	-35	173	255	2,26	0,79	0,68
55	-30	240	298	2,39	0,94	0,81
55	-25	320	344	2,54	1,08	0,93
55	-23,3	350	360	2,60	1,13	0,97
55	-20	413	393	2,73	1,22	1,05
55	-15	520	445	2,94	1,36	1,17
55	-10	640	500	3,20	1,49	1,28

60	-40	100	210	2,14	0,55	0,48
60	-35	149	252	2,25	0,69	0,59
60	-30	211	298	2,39	0,83	0,71
60	-25	287	346	2,55	0,97	0,83
60	-23,3	316	363	2,61	1,01	0,87
60	-20	376	398	2,75	1,10	0,95
60	-15	479	452	2,98	1,23	1,06
60	-10	595	510	3,25	1,36	1,17

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	188	230	2,19	0,82	0,71
40	-35	265	262	2,28	1,01	0,87
40	-30	353	298	2,39	1,19	1,03
40	-25	453	336	2,51	1,35	1,16
40	-23,3	489	350	2,56	1,40	1,21
40	-20	563	378	2,67	1,49	1,29
40	-15	685	422	2,85	1,62	1,40
40	-10	818	470	3,06	1,74	1,50

45	-40	160	225	2,18	0,71	0,62
45	-35	227	260	2,27	0,87	0,75
45	-30	305	298	2,39	1,02	0,88
45	-25	394	339	2,52	1,16	1,00
45	-23,3	426	353	2,58	1,21	1,04
45	-20	494	383	2,69	1,29	1,11
45	-15	605	430	2,88	1,41	1,22
45	-10	728	480	3,10	1,52	1,31

50	-40	132	220	2,16	0,60	0,52
50	-35	188	257	2,26	0,73	0,63
50	-30	256	298	2,39	0,86	0,74
50	-25	335	341	2,53	0,98	0,85
50	-23,3	364	357	2,59	1,02	0,88
50	-20	424	388	2,71	1,09	0,95
50	-15	525	437	2,91	1,20	1,04
50	-10	638	490	3,15	1,30	1,12

55	-40	104	215	2,15	0,48	0,42
55	-35	150	255	2,26	0,59	0,51
55	-30	207	298	2,39	0,70	0,60
55	-25	275	344	2,54	0,80	0,69
55	-23,3	301	360	2,60	0,84	0,72
55	-20	355	393	2,73	0,90	0,78
55	-15	446	445	2,94	1,00	0,87
55	-10	548	500	3,20	1,10	0,95

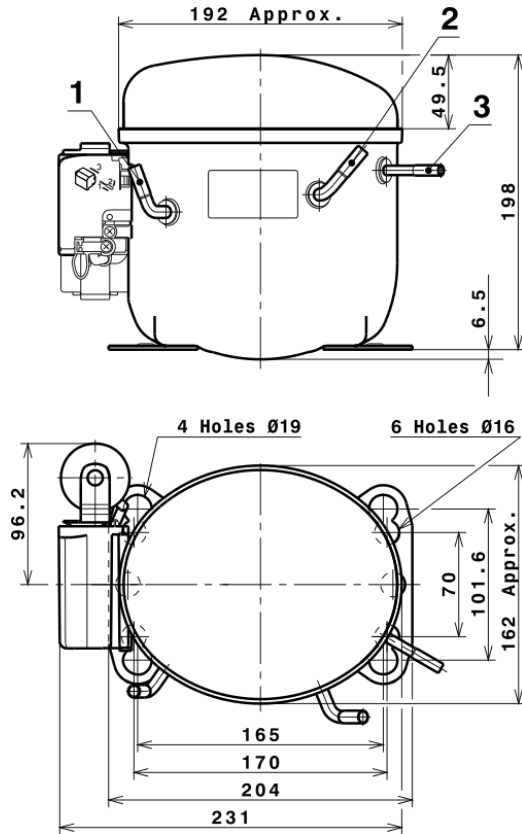
60	-40	75	210	2,14	0,36	0,31
60	-35	111	252	2,25	0,44	0,38
60	-30	158	298	2,39	0,53	0,46
60	-25	216	346	2,55	0,62	0,54
60	-23,3	239	363	2,61	0,66	0,57
60	-20	286	398	2,75	0,72	0,62
60	-15	366	452	2,98	0,81	0,70
60	-10	458	510	3,25	0,90	0,78

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.972,6561929721	468,2050421425	3,1084964286	44,086004173685
2	47,6578283869	7,4295243760	0,0459987618	1,202207512984
3	-22,3241067124	3,0789661501	0,0142776419	-0,31385164306823
4	0,2115813099	0,0655962573	0,0006491974	0,0084219903960873
5	-0,4188572744	0,1025276796	0,0004229673	-0,0050524542736692

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 LBP

