

# Technical Data Sheet

Compressor model **ML60FB**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R404A**

## APPLICATION

Application Low Back Pressure  
 Refrigerant R404A  
 Evaporating Temp. -40,0 °C to -10,0 °C  
 Expansion Capillar/Valve  
 Comp. Cooling Fan cooled  
 Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 5,98 cm<sup>3</sup>  
 Diameter 20,88 mm  
 Stroke 17,47 mm  
 Net Weight 8,88 Kg  
 Oil type ISO VG 32 ESTER  
 Oil charge 300 cm<sup>3</sup>

## MOTOR

Nominal Power 1/5 hp  
 Voltage/Frequency 220-240V 50Hz  
 Voltage range 198-255 V  
 Type CSIR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 9,00 A  
 Max. Cont. Current (MCC) 1,90 A  
 Main W. resist. at 25°C 12,30 Ω  
 Start W. resist. at 25°C 37,80 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	236 kCal/h	186 W
COP	1,20 W/W	0,85 W/W
EER	1,04 kCal/Wh	0,74 kCal/Wh
Input Power	228 W	217 W
Current	1,35 A	1,31 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

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 118.		
Pick-Up	3.75 A		
Drop-Out	3.20 A		
Protector	Option 1	Option 2	
Reference	T0069	AE26FHY	
Current	7,10 A	7,10 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 62,00 °C	105,00 / 62,00 °C	

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	115	149	1,10	0,89	0,77
40	-35	157	166	1,14	1,10	0,95
40	-30	208	186	1,21	1,30	1,12
40	-25	269	210	1,29	1,49	1,28
40	-23,3	291	219	1,32	1,54	1,33
40	-20	339	239	1,39	1,65	1,42
40	-15	418	271	1,51	1,80	1,54
40	-10	506	307	1,65	1,92	1,65

45	-40	103	146	1,09	0,82	0,71
45	-35	143	164	1,14	1,01	0,87
45	-30	192	187	1,21	1,20	1,03
45	-25	251	213	1,30	1,37	1,18
45	-23,3	273	222	1,33	1,43	1,23
45	-20	319	243	1,40	1,53	1,31
45	-15	396	276	1,53	1,67	1,43
45	-10	482	314	1,69	1,79	1,54

50	-40	91	143	1,08	0,74	0,64
50	-35	129	163	1,14	0,92	0,79
50	-30	177	187	1,21	1,10	0,94
50	-25	233	215	1,30	1,26	1,09
50	-23,3	254	225	1,34	1,31	1,13
50	-20	299	247	1,42	1,41	1,21
50	-15	374	282	1,55	1,54	1,33
50	-10	458	322	1,72	1,66	1,42

55	-40	80	140	1,07	0,66	0,57
55	-35	116	162	1,13	0,83	0,72
55	-30	161	188	1,21	1,00	0,86
55	-25	215	217	1,31	1,15	0,99
55	-23,3	236	228	1,35	1,20	1,04
55	-20	279	251	1,43	1,30	1,11
55	-15	352	288	1,58	1,42	1,22
55	-10	434	329	1,75	1,53	1,32

60	-40	68	137	1,06	0,58	0,50
60	-35	102	161	1,13	0,74	0,64
60	-30	145	188	1,21	0,90	0,77
60	-25	198	219	1,32	1,05	0,90
60	-23,3	218	231	1,36	1,10	0,94
60	-20	259	255	1,45	1,18	1,02
60	-15	330	294	1,60	1,31	1,12
60	-10	410	337	1,78	1,42	1,22

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	120	149	1,10	0,81	0,70
40	-35	170	166	1,14	1,03	0,89
40	-30	228	186	1,21	1,22	1,06
40	-25	293	210	1,29	1,39	1,20
40	-23,3	317	219	1,32	1,44	1,25
40	-20	366	239	1,39	1,53	1,33
40	-15	446	271	1,51	1,65	1,43
40	-10	535	307	1,65	1,75	1,51

45	-40	103	146	1,09	0,71	0,61
45	-35	147	164	1,14	0,89	0,77
45	-30	198	187	1,21	1,06	0,92
45	-25	257	213	1,30	1,21	1,04
45	-23,3	279	222	1,33	1,25	1,08
45	-20	324	243	1,40	1,34	1,15
45	-15	398	276	1,53	1,44	1,25
45	-10	480	314	1,69	1,53	1,32

50	-40	86	143	1,08	0,60	0,52
50	-35	123	163	1,14	0,76	0,65
50	-30	169	187	1,21	0,90	0,78
50	-25	221	215	1,30	1,03	0,89
50	-23,3	241	225	1,34	1,07	0,92
50	-20	282	247	1,42	1,14	0,99
50	-15	350	282	1,55	1,24	1,07
50	-10	426	322	1,72	1,32	1,14

55	-40	69	140	1,07	0,49	0,43
55	-35	100	162	1,13	0,62	0,54
55	-30	139	188	1,21	0,74	0,64
55	-25	186	217	1,31	0,85	0,74
55	-23,3	203	228	1,35	0,89	0,77
55	-20	240	251	1,43	0,96	0,83
55	-15	302	288	1,58	1,05	0,91
55	-10	371	329	1,75	1,13	0,98

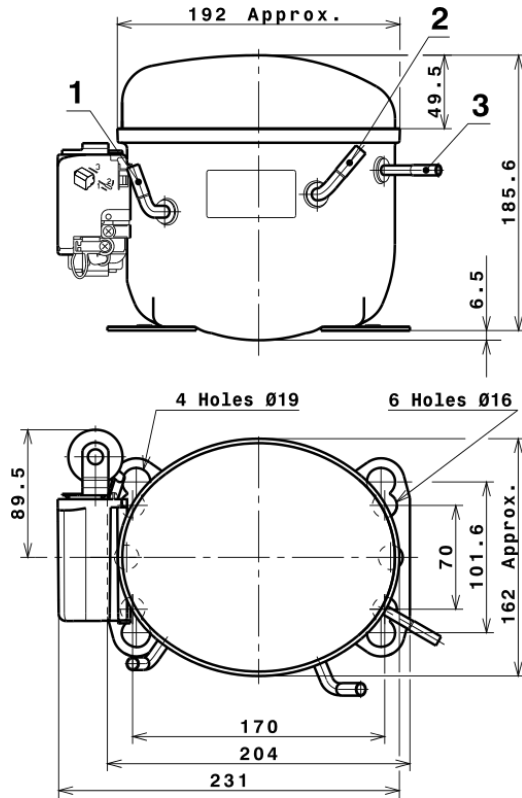
60	-40	52	137	1,06	0,38	0,33
60	-35	77	161	1,13	0,48	0,41
60	-30	110	188	1,21	0,58	0,50
60	-25	150	219	1,32	0,68	0,59
60	-23,3	165	231	1,36	0,72	0,62
60	-20	198	255	1,45	0,78	0,67
60	-15	253	294	1,60	0,86	0,75
60	-10	317	337	1,78	0,94	0,81

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.255,0258951368	310,9883368460	1,6863366050	16,316463337461
2	30,9605220612	6,5981670366	0,0315974335	0,46051858716102
3	-13,6088220198	2,2581175609	0,0095937527	-0,099170151933248
4	0,1461692715	0,0811054645	0,0004707188	0,0034571314676312
5	-0,2562264648	0,0717850545	0,0002838487	-0,0015217309717972

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



# 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

