Technical Data Sheet

Compressor model **ML90TG**

Voltage **200-220/230V 50/60Hz ~1**

Refrigerant **R404A**

APPLICATION		COMPRESSOR		MOTOR	
Application	High-Medium Back Pressure	Displacement	8,85 cm³	Nominal Power	3/8 hp
Refrigerant	R404A	Diameter	25,40 mm	Voltage/Frequency	230V 60Hz
Evaporating Temp.	-25,0 ºC to 10,0 ºC	Stroke	17,47 mm	Voltage range	196-253 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 ºC	Oil charge	395 cm³	Locked Rotor Amps (LRA)	21,50 A
				Max. Cont. Current (MCC)	6,00 A
				Main W. resist. at 25ºC	3,94 Ω
				Start W. resist. at 25ºC	20,41 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.334 kCal/h	1.227 W
COP	1,89 W/W	1,54 W/W
EER	1,63 kCal/Wh	1,33 kCal/Wh
Input Power	820 W	795 W
Current	4,40 A	4,29 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	HMBP (D)	**HMBP (C)**
Evaporating temp. (T_e)	7,2 ºC	5,0 ºC
Condensing temp. (T_c)	55,0 ºC	55,0 ºC
Liquid temp. ($T_{liq.}$)	46,0 ºC	55,0 ºC
Ambient temp. ($T_{amb.}$)	35,0 ºC	32,0 ºC
Suction temp. ($T_{suction}$)	35,0 ºC	32,0 ºC
Voltage/Frequency	230 V 60 Hz	230 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	64- 77 µF 330 V			
Relay	Option 1	Option 2		
Reference	2014 158.	QLZ-9.05A		
Pick-Up	9,05 A	9.05 A		
Drop-Out	7,70 A	7.7 A		
Protector	Option 1	Option 2		
Reference	T0348	B154-105		
Current	15,40 A	15,80 A		
Time check	7,5-14 seg	7,5-16 seg		
Disc temp. (Open/Close)	105,00 / 52,00 ºC	105,00 / 52,00 ºC		

Technical Data Sheet

cubigel compressors

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	451	410	2,80	1,28	1,10
40	-20	586	456	2,96	1,49	1,28
40	-15	744	505	3,13	1,71	1,47
40	-10	924	555	3,32	1,94	1,67
40	-5	1.128	608	3,52	2,16	1,86
40	0	1.354	662	3,73	2,38	2,04
40	5	1.603	719	3,97	2,59	2,23
40	7,2	1.720	745	4,08	2,68	2,31
40	10	1.874	778	4,22	2,80	2,41
45	-25	410	410	2,80	1,16	1,00
45	-20	531	460	2,97	1,34	1,15
45	-15	676	512	3,16	1,53	1,32
45	-10	843	567	3,36	1,73	1,49
45	-5	1.032	623	3,58	1,93	1,66
45	0	1.245	682	3,81	2,12	1,83
45	5	1.480	743	4,07	2,32	1,99
45	7,2	1.591	770	4,18	2,40	2,07
45	10	1.738	805	4,34	2,51	2,16
50	-25	369	410	2,80	1,05	0,90
50	-20	477	464	2,99	1,20	1,03
50	-15	607	520	3,19	1,36	1,17
50	-10	761	578	3,41	1,53	1,32
50	-5	937	639	3,64	1,71	1,47
50	0	1.136	701	3,89	1,88	1,62
50	5	1.358	766	4,16	2,06	1,77
50	7,2	1.463	795	4,29	2,14	1,84
50	10	1.602	833	4,46	2,24	1,92
55	-25	328	410	2,80	0,93	0,80
55	-20	422	468	3,00	1,05	0,90
55	-15	539	528	3,22	1,19	1,02
55	-10	679	590	3,45	1,34	1,15
55	-5	842	654	3,70	1,50	1,29
55	0	1.027	721	3,97	1,66	1,43
55	5	1.235	789	4,26	1,82	1,57
55	7,2	1.334	820	4,40	1,89	1,63
55	10	1.466	860	4,58	1,98	1,71
60	-25	287	410	2,80	0,81	0,70
60	-20	368	472	3,01	0,91	0,78
60	-15	471	536	3,25	1,02	0,88
60	-10	597	602	3,49	1,15	0,99
60	-5	746	670	3,76	1,30	1,11
60	0	918	740	4,05	1,44	1,24
60	5	1.113	812	4,37	1,59	1,37
60	7,2	1.206	845	4,51	1,66	1,43
60	10	1.330	887	4,70	1,74	1,50

CECOMAF

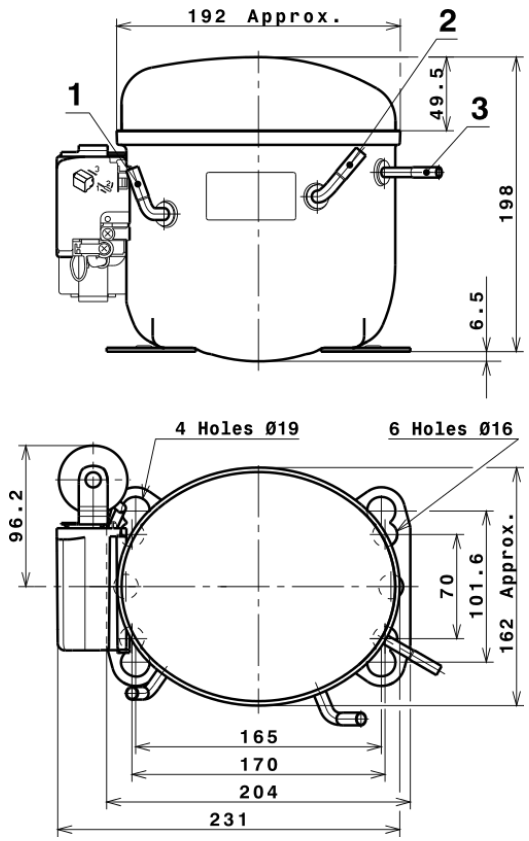
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	473	412	2,81	1,15	0,99
40	-20	618	459	2,97	1,35	1,16
40	-15	785	508	3,14	1,55	1,34
40	-10	975	558	3,33	1,75	1,51
40	-5	1.186	612	3,53	1,94	1,68
40	0	1.420	667	3,75	2,13	1,84
40	5	1.676	725	3,99	2,31	2,00
40	7,2	1.796	751	4,10	2,39	2,07
40	10	1.954	784	4,24	2,49	2,15
45	-25	425	412	2,81	1,03	0,89
45	-20	553	463	2,98	1,19	1,03
45	-15	703	515	3,17	1,36	1,18
45	-10	876	570	3,37	1,54	1,33
45	-5	1.071	627	3,59	1,71	1,47
45	0	1.287	687	3,83	1,87	1,62
45	5	1.526	748	4,09	2,04	1,76
45	7,2	1.639	776	4,21	2,11	1,82
45	10	1.788	812	4,36	2,20	1,90
50	-25	377	412	2,81	0,91	0,79
50	-20	488	467	3,00	1,05	0,90
50	-15	621	523	3,20	1,19	1,03
50	-10	777	582	3,42	1,34	1,15
50	-5	955	643	3,66	1,48	1,28
50	0	1.155	706	3,91	1,64	1,41
50	5	1.377	772	4,19	1,78	1,54
50	7,2	1.481	801	4,32	1,85	1,60
50	10	1.621	839	4,49	1,93	1,67
55	-25	329	412	2,81	0,80	0,69
55	-20	423	471	3,01	0,90	0,78
55	-15	539	531	3,23	1,02	0,88
55	-10	678	594	3,46	1,14	0,99
55	-5	839	659	3,72	1,27	1,10
55	0	1.022	726	3,99	1,41	1,22
55	5	1.227	795	4,29	1,54	1,33
55	7,2	1.324	826	4,43	1,60	1,38
55	10	1.454	867	4,61	1,68	1,45
60	-25	281	412	2,81	0,68	0,59
60	-20	358	474	3,02	0,75	0,65
60	-15	458	539	3,26	0,85	0,73
60	-10	579	605	3,51	0,96	0,83
60	-5	723	674	3,78	1,07	0,93
60	0	889	745	4,08	1,19	1,03
60	5	1.077	819	4,39	1,32	1,14
60	7,2	1.167	851	4,54	1,37	1,18
60	10	1.288	894	4,73	1,44	1,24

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.483,1770693645	525,7111366779	3,1037522741	48,806306214359
2	76,0326552209	5,4899829705	0,0214757860	1,733569941904
3	-27,5214481107	4,0460664387	0,0179789152	-0,23840449346954
4	0,4194078547	0,0539418480	0,0004392325	0,019302042108918
5	-0,7135792634	0,1618426575	0,0007191566	-0,0045863447247813

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$

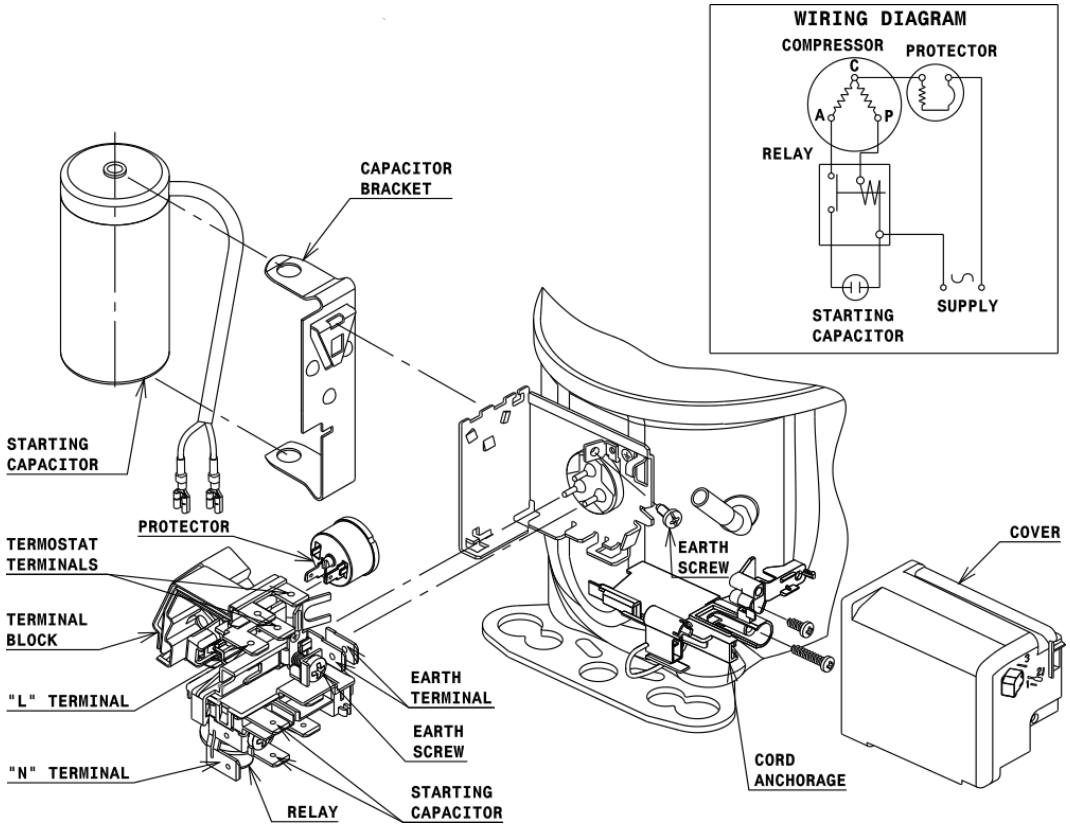
COMPRESSOR DIMENSIONS



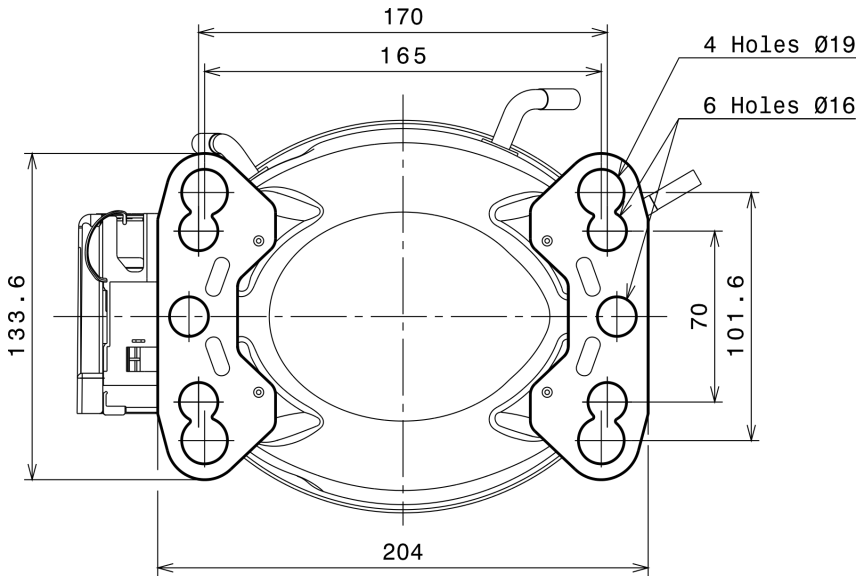
	DESIGNATION	INTERNAL DIAM.
1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



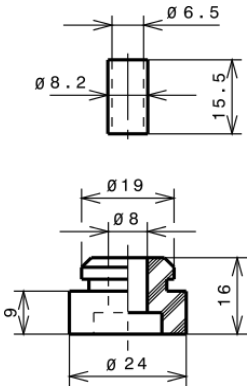
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

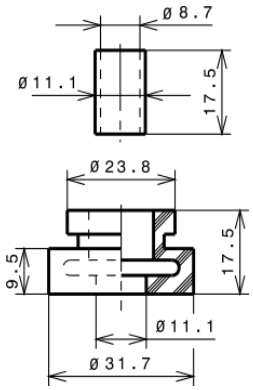
STANDARD

Ø16 holes (170x70 net)



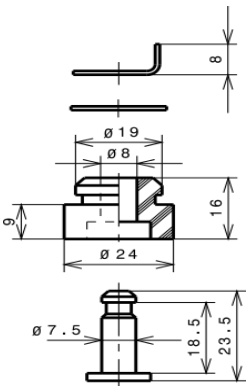
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R404A HMBP