Technical Data Sheet

Compressor model **MPT14LA**

Voltage **220-240V 50Hz ~1**

Refrigerant **R404A**

APPLICATION

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

COMPRESSOR

Displacement	14,32 cm³
Diameter	29,37 mm
Stroke	21,13 mm
Net Weight	12,25 Kg
Oil type	ISO VG 32 ESTER
Oil charge	400 cm³

MOTOR

Nominal Power	1/2 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-264 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	16,00 A
Max. Cont. Current (MCC)	5,00 A
Main W. resist. at 25ºC	5,02 Ω
Start W. resist. at 25ºC	9,67 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	670 kCal/h	534 W
COP	1,38 W/W	0,99 W/W
EER	1,19 kCal/Wh	0,85 kCal/Wh
Input Power	565 W	541 W
Current	2,80 A	2,70 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	LBP (B)	**LBP (A)**
Evaporating temp. (T_e)	-23,3 ºC	-25,0 ºC
Condensing temp. (T_c)	55,0 ºC	55,0 ºC
Liquid temp. ($T_{liq.}$)	32,0 ºC	55,0 ºC
Ambient temp. ($T_{amb.}$)	32,0 ºC	32,0 ºC
Suction temp. ($T_{suction}$)	32,0 ºC	32,0 ºC
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V			
Run capacitor	10 µF 420 V			
Relay	Option 1	Option 2		
Reference	2014 158. + NTC15Ω	QLZ-9.05A + NTC15Ω		
Pick-Up	9,05 A	9,05 A		
Drop-Out	7,70 A	7,70 A		
Protector	Option 1	Option 2		
Reference	MRA38133	T0267		
Current	11,50 A	11,00 A		
Time check	7,5-14 seg	7,5-14 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	-40	325	369	1,92	1,03	0,88
40	-35	424	414	2,13	1,19	1,03
40	-30	545	461	2,35	1,37	1,18
40	-25	687	511	2,57	1,56	1,34
40	-23,3	740	529	2,64	1,63	1,40
40	-20	850	563	2,79	1,75	1,51
40	-15	1.034	618	3,02	1,95	1,67
40	-10	1.240	675	3,26	2,14	1,84
45	-40	310	360	1,88	1,00	0,86
45	-35	407	411	2,12	1,15	0,99
45	-30	525	465	2,36	1,31	1,13
45	-25	664	521	2,61	1,48	1,27
45	-23,3	717	541	2,70	1,54	1,33
45	-20	825	580	2,86	1,66	1,42
45	-15	1.007	640	3,12	1,83	1,57
45	-10	1.210	703	3,37	2,00	1,72
50	-40	295	352	1,84	0,98	0,84
50	-35	389	409	2,11	1,11	0,95
50	-30	505	469	2,38	1,25	1,08
50	-25	642	531	2,65	1,41	1,21
50	-23,3	693	553	2,75	1,46	1,25
50	-20	800	596	2,93	1,56	1,34
50	-15	979	662	3,21	1,72	1,48
50	-10	1.180	732	3,49	1,88	1,61
55	-40	280	343	1,80	0,95	0,82
55	-35	372	407	2,10	1,06	0,91
55	-30	485	473	2,40	1,19	1,03
55	-25	619	541	2,70	1,33	1,14
55	-23,3	670	565	2,80	1,38	1,19
55	-20	775	612	3,00	1,47	1,27
55	-15	952	685	3,30	1,62	1,39
55	-10	1.150	760	3,60	1,76	1,51
60	-40	265	335	1,76	0,92	0,79
60	-35	354	404	2,09	1,02	0,88
60	-30	465	477	2,41	1,13	0,98
60	-25	597	551	2,74	1,26	1,08
60	-23,3	647	577	2,85	1,30	1,12
60	-20	750	628	3,07	1,39	1,19
60	-15	924	707	3,39	1,52	1,31
60	-10	1.120	789	3,71	1,65	1,42

CECOMAF

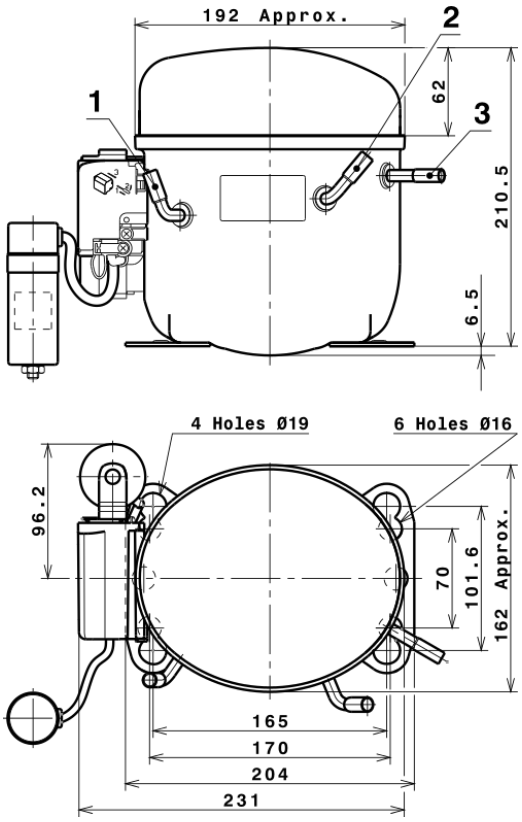
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	345	369	1,92	0,94	0,81
40	-35	463	414	2,13	1,12	0,97
40	-30	598	461	2,35	1,30	1,12
40	-25	751	511	2,57	1,47	1,27
40	-23,3	807	529	2,64	1,53	1,32
40	-20	922	563	2,79	1,64	1,41
40	-15	1.111	618	3,02	1,80	1,55
40	-10	1.317	675	3,26	1,95	1,69
45	-40	310	360	1,88	0,86	0,75
45	-35	416	411	2,12	1,01	0,87
45	-30	538	465	2,36	1,16	1,00
45	-25	679	521	2,61	1,30	1,13
45	-23,3	731	541	2,70	1,35	1,17
45	-20	837	580	2,86	1,44	1,25
45	-15	1.013	640	3,12	1,58	1,37
45	-10	1.206	703	3,37	1,72	1,48
50	-40	276	352	1,84	0,79	0,68
50	-35	369	409	2,11	0,90	0,78
50	-30	479	469	2,38	1,02	0,88
50	-25	606	531	2,65	1,14	0,99
50	-23,3	654	553	2,75	1,18	1,02
50	-20	751	596	2,93	1,26	1,09
50	-15	914	662	3,21	1,38	1,19
50	-10	1.095	732	3,49	1,50	1,29
55	-40	242	343	1,80	0,71	0,61
55	-35	322	407	2,10	0,79	0,68
55	-30	419	473	2,40	0,89	0,77
55	-25	534	541	2,70	0,99	0,85
55	-23,3	577	565	2,80	1,02	0,88
55	-20	666	612	3,00	1,09	0,94
55	-15	816	685	3,30	1,19	1,03
55	-10	984	760	3,60	1,29	1,12
60	-40	208	335	1,76	0,62	0,54
60	-35	275	404	2,09	0,68	0,59
60	-30	359	477	2,41	0,75	0,65
60	-25	461	551	2,74	0,84	0,72
60	-23,3	500	577	2,85	0,87	0,75
60	-20	581	628	3,07	0,92	0,80
60	-15	718	707	3,39	1,02	0,88
60	-10	873	789	3,71	1,11	0,96

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.849,4199929438	482,8688267664	2,4642474178	58,571922886331
2	69,3918790640	2,9451549016	0,0052232406	1,6929128423833
3	-28,1263748692	8,3832327986	0,0333978339	-0,21140224026431
4	0,3344903033	0,0506887063	0,0000177546	0,013483173484944
5	-0,5308783213	0,2530218138	0,0010385580	-0,0031637940291788

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

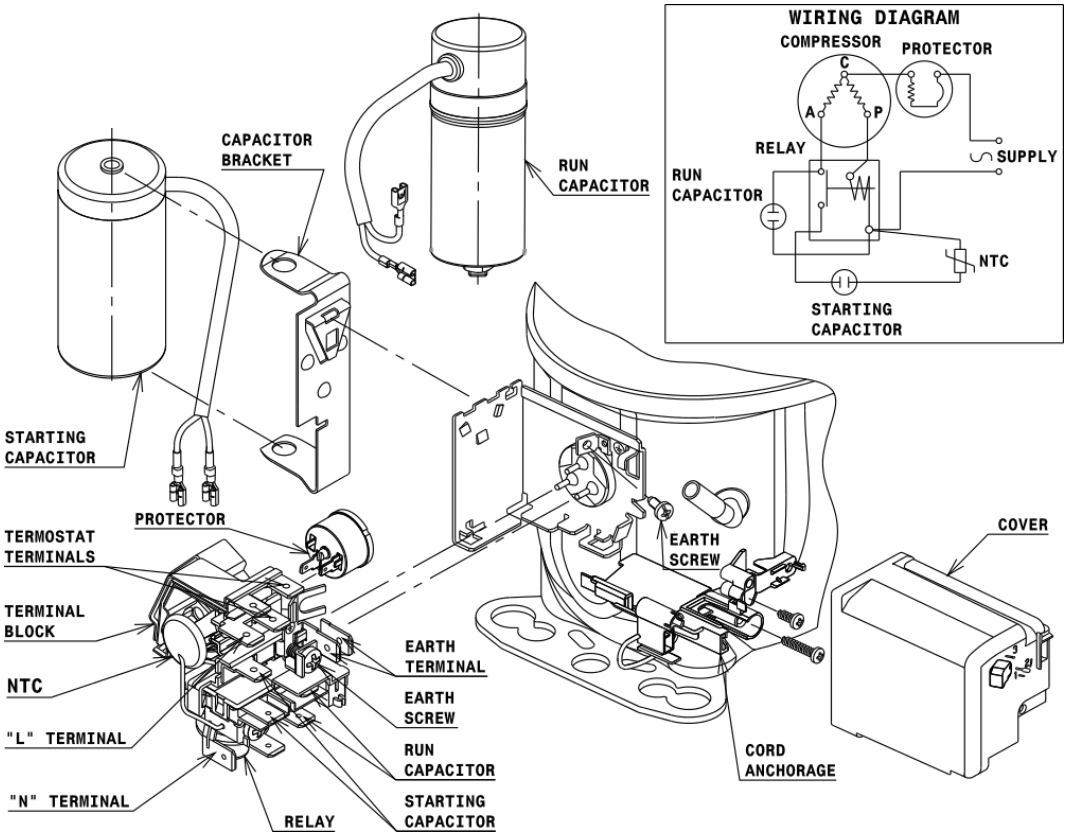
COMPRESSOR DIMENSIONS



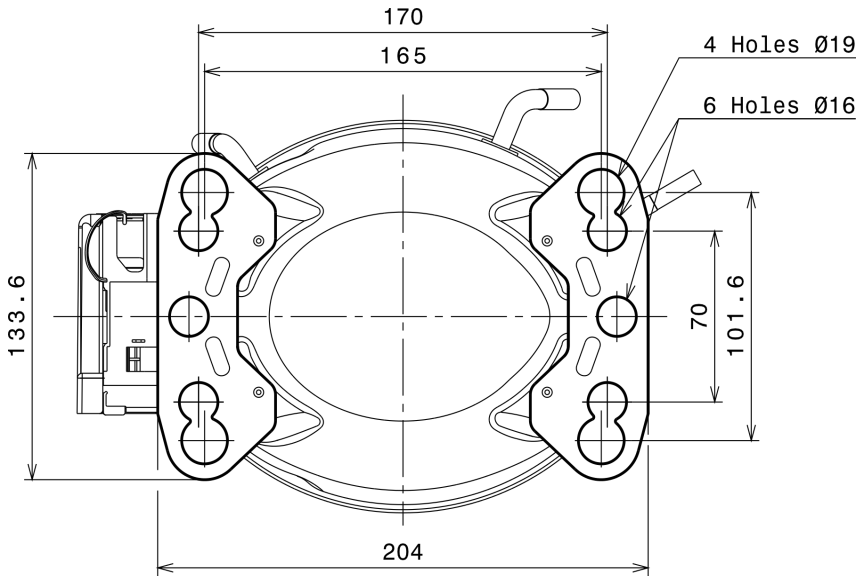
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (CURRENT RELAY + NTC) (L, P ranges)



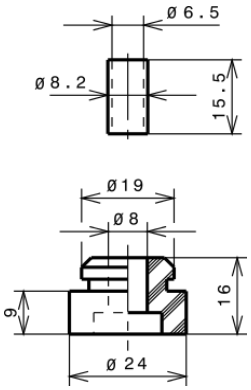
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

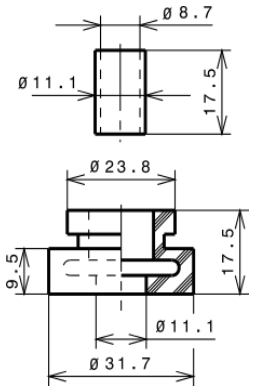
STANDARD

Ø16 holes (170x70 net)



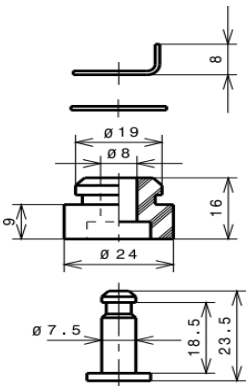
AMERICAN FEET

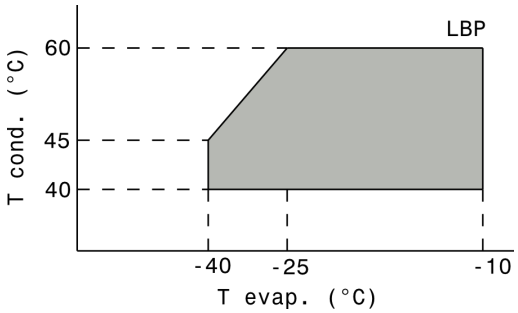
Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R404A LBP