

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **MPT16LD**
Voltage **115V 60Hz ~1**
Refrigerant **R404A**

APPLICATION

COMPRESSOR

MOTOR

Application	Low Back Pressure	Displacement	16,10 cm ³	Nominal Power	1/2 hp
Refrigerant	R404A	Diameter	31,19 mm	Voltage/Frequency	115V 60Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	21,13 mm	Voltage range	103-127 V
Expansion	Capillar/Valve	Net Weight	12,65 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm ³	Locked Rotor Amps (LRA)	53,00 A
				Max. Cont. Current (MCC)	10,60 A
				Main W. resist. at 25°C	0,67 Ω
				Start W. resist. at 25°C	5,51 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	842 kCal/h	666 W
COP	1,33 W/W	0,95 W/W
EER	1,14 kCal/Wh	0,82 kCal/Wh
Input Power	736 W	702 W
Current	7,64 A	7,35 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	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	170 µF 160 V			
Run capacitor	20 µF 250 V			
Relay	Option 1			
Reference	2014 191. + NTC3Ω			
Pick-Up	24,40 A			
Drop-Out	20,30 A			
Protector	Option 1			
Reference	T1103			
Current	44,00 A			
Time check	6,0-16 seg			
Disc temp. (Open/Close)	135,00 / 61,00 °C			

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	371	465	5,55	0,93	0,80
40	-35	502	522	5,95	1,12	0,96
40	-30	664	585	6,42	1,32	1,13
40	-25	855	655	6,96	1,52	1,31
40	-23,3	926	679	7,16	1,59	1,36
40	-20	1.075	730	7,59	1,71	1,47
40	-15	1.325	811	8,31	1,90	1,63
40	-10	1.606	898	9,13	2,08	1,79

45	-40	351	453	5,47	0,90	0,77
45	-35	480	520	5,93	1,07	0,92
45	-30	639	592	6,47	1,26	1,08
45	-25	827	670	7,09	1,44	1,23
45	-23,3	898	698	7,32	1,50	1,29
45	-20	1.045	755	7,80	1,61	1,39
45	-15	1.293	845	8,62	1,78	1,53
45	-10	1.571	941	9,55	1,94	1,67

50	-40	331	442	5,40	0,87	0,75
50	-35	458	517	5,92	1,03	0,89
50	-30	614	599	6,52	1,19	1,03
50	-25	800	686	7,22	1,36	1,17
50	-23,3	870	717	7,48	1,41	1,21
50	-20	1.016	779	8,02	1,52	1,30
50	-15	1.261	879	8,94	1,67	1,44
50	-10	1.537	984	9,99	1,82	1,56

55	-40	311	430	5,32	0,84	0,72
55	-35	435	515	5,90	0,98	0,85
55	-30	589	605	6,57	1,13	0,97
55	-25	773	702	7,35	1,28	1,10
55	-23,3	842	736	7,64	1,33	1,14
55	-20	986	804	8,25	1,43	1,23
55	-15	1.229	913	9,27	1,57	1,35
55	-10	1.502	1.027	10,44	1,70	1,46

60	-40	291	419	5,25	0,81	0,70
60	-35	413	512	5,88	0,94	0,81
60	-30	564	612	6,62	1,07	0,92
60	-25	746	718	7,48	1,21	1,04
60	-23,3	814	755	7,80	1,25	1,08
60	-20	956	829	8,47	1,34	1,15
60	-15	1.197	947	9,61	1,47	1,26
60	-10	1.468	1.070	10,90	1,60	1,37

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	393	465	5,55	0,85	0,73
40	-35	550	522	5,95	1,05	0,91
40	-30	732	585	6,42	1,25	1,08
40	-25	938	655	6,96	1,43	1,24
40	-23,3	1.014	679	7,16	1,49	1,29
40	-20	1.169	730	7,59	1,60	1,38
40	-15	1.425	811	8,31	1,76	1,52
40	-10	1.706	898	9,13	1,90	1,64

45	-40	351	453	5,47	0,78	0,67
45	-35	492	520	5,93	0,95	0,82
45	-30	657	592	6,47	1,11	0,96
45	-25	847	670	7,09	1,26	1,09
45	-23,3	917	698	7,32	1,31	1,14
45	-20	1.062	755	7,80	1,41	1,22
45	-15	1.301	845	8,62	1,54	1,33
45	-10	1.566	941	9,55	1,66	1,44

50	-40	310	442	5,40	0,70	0,61
50	-35	434	517	5,92	0,84	0,73
50	-30	583	599	6,52	0,97	0,84
50	-25	756	686	7,22	1,10	0,95
50	-23,3	821	717	7,48	1,14	0,99
50	-20	955	779	8,02	1,22	1,06
50	-15	1.178	879	8,94	1,34	1,16
50	-10	1.426	984	9,99	1,45	1,25

55	-40	269	430	5,32	0,63	0,54
55	-35	376	515	5,90	0,73	0,63
55	-30	509	605	6,57	0,84	0,73
55	-25	666	702	7,35	0,95	0,82
55	-23,3	725	736	7,64	0,98	0,85
55	-20	847	804	8,25	1,05	0,91
55	-15	1.054	913	9,27	1,15	1,00
55	-10	1.285	1.027	10,44	1,25	1,08

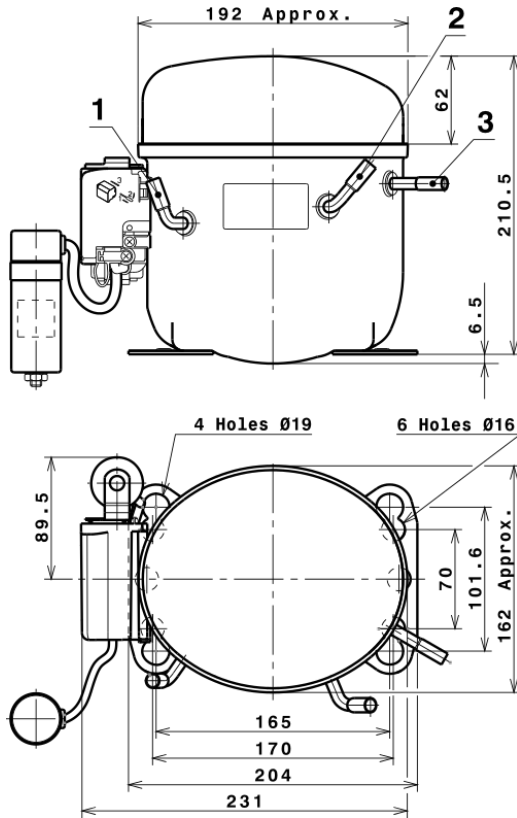
60	-40	228	419	5,25	0,54	0,47
60	-35	319	512	5,88	0,62	0,54
60	-30	434	612	6,62	0,71	0,61
60	-25	575	718	7,48	0,80	0,69
60	-23,3	628	755	7,80	0,83	0,72
60	-20	740	829	8,47	0,89	0,77
60	-15	930	947	9,61	0,98	0,85
60	-10	1.145	1.070	10,90	1,07	0,92

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.696,3017039091	619,6521622704	6,4533497541	75,455782193776
2	93,3707029177	6,3471058321	0,1075308991	2,2669264215864
3	-35,7703609796	12,5581270903	0,1289049435	-0,23943444010004
4	0,4689254528	0,1269084723	0,0025589532	0,018778752260481
5	-0,6868095362	0,3727262866	0,0036153067	-0,0031660035907596

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

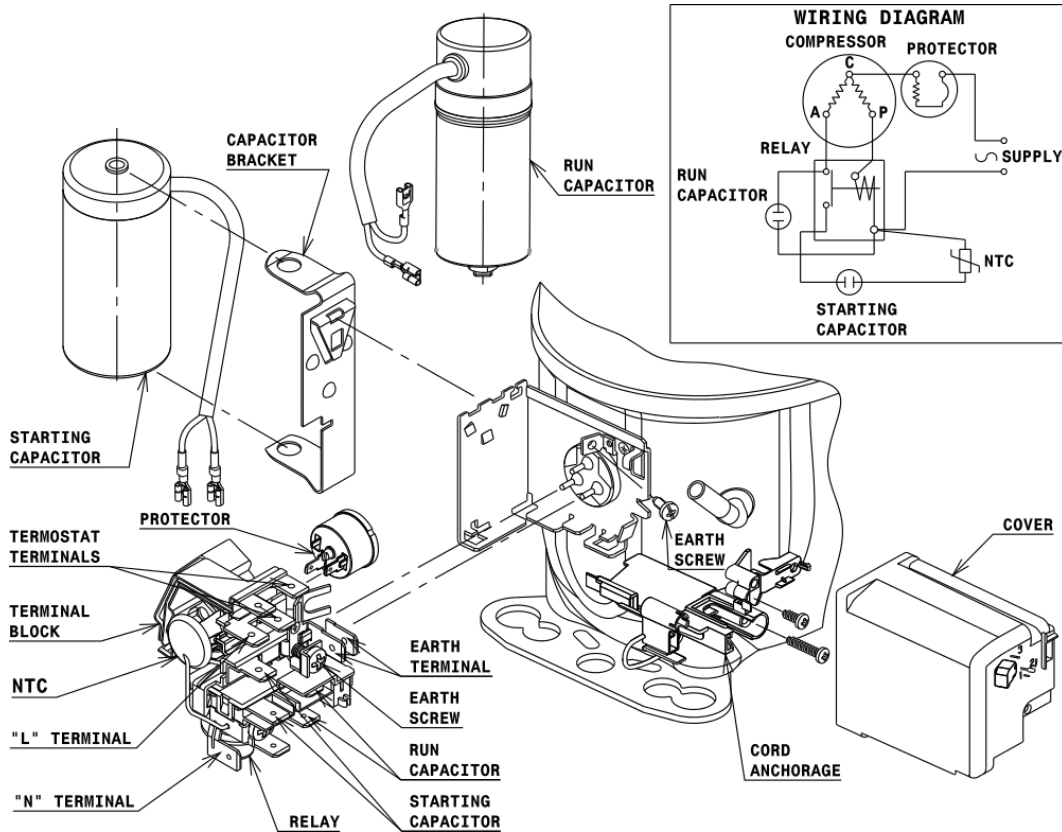


DESIGNATION INTERNAL DIAM.

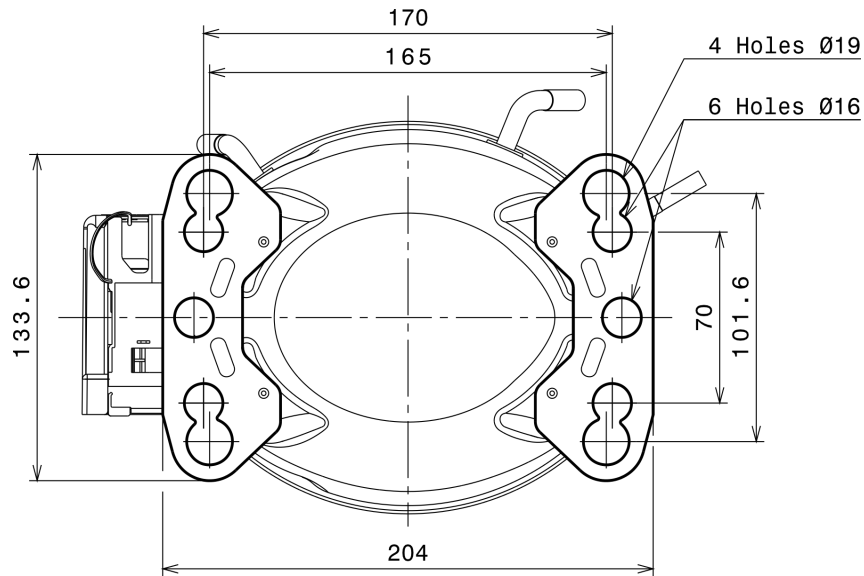
DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



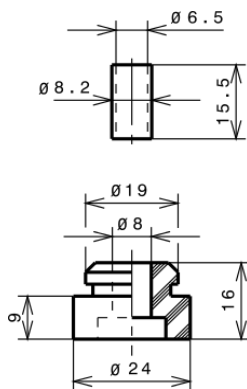
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

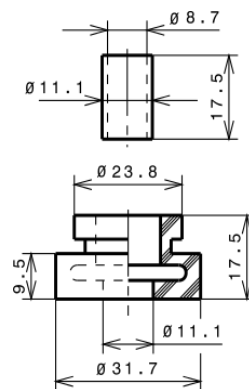
STANDARD

$\varnothing 16$ holes (170x70 net)



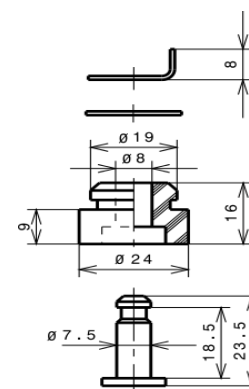
AMERICAN FEET

$\varnothing 19$ holes (165x101.6 net)



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R404A LBP

