

# Technical Data Sheet

Compressor model **MP12TG**  
 Voltage **200-220/220-230V 50/60Hz ~1**  
 Refrigerant **R404A**

APPLICATION		COMPRESSOR		MOTOR	
Application	High-Medium Back Pressure	Displacement	12,05 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R404A	Diameter	29,37 mm	Voltage/Frequency	200-220V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	17,78 mm	Voltage range	170-242 V
Expansion	Capillar/Valve	Net Weight	12,53 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 <sup>3</sup>	Locked Rotor Amps (LRA)	22,00 A
				Max. Cont. Current (MCC)	7,50 A
				Main W. resist. at 25°C	2,88 Ω
				Start W. resist. at 25°C	9,40 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.580 kCal/h	1.454 W
COP	2,25 W/W	1,83 W/W
EER	1,94 kCal/Wh	1,58 kCal/Wh
Input Power	815 W	795 W
Current	4,70 A	4,59 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	200 V 50 Hz	200 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V		
Run capacitor	10 µF 420 V		
Relay	Option 1	Option 2	
Reference	3ARR3 10S3	RVA 3AG..	
Pick-Up	180-195 V	180-195 V	
Drop-Out	40-105 V	40-105 V	
Protector	Option 1	Option 2	
Reference	MRA38134	T0348	
Current	15,80 A	15,40 A	
Time check	7,5-14 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	-25	535	438	3,03	1,42	1,22
40	-20	697	477	3,17	1,70	1,46
40	-15	884	516	3,31	1,99	1,71
40	-10	1.098	555	3,47	2,30	1,98
40	-5	1.337	593	3,63	2,62	2,25
40	0	1.602	632	3,80	2,95	2,54
40	5	1.894	671	3,97	3,28	2,82
40	7,2	2.030	688	4,05	3,43	2,95
40	10	2.211	709	4,16	3,63	3,12

45	-25	480	435	3,02	1,28	1,10
45	-20	627	481	3,18	1,52	1,30
45	-15	800	527	3,36	1,76	1,52
45	-10	999	573	3,54	2,03	1,74
45	-5	1.223	619	3,74	2,30	1,98
45	0	1.474	664	3,94	2,58	2,22
45	5	1.750	710	4,16	2,87	2,46
45	7,2	1.880	730	4,26	3,00	2,58
45	10	2.053	755	4,39	3,16	2,72

50	-25	425	433	3,01	1,14	0,98
50	-20	557	486	3,20	1,33	1,15
50	-15	715	539	3,40	1,54	1,33
50	-10	899	592	3,62	1,77	1,52
50	-5	1.109	644	3,85	2,00	1,72
50	0	1.345	697	4,10	2,24	1,93
50	5	1.607	749	4,36	2,49	2,14
50	7,2	1.730	773	4,47	2,60	2,24
50	10	1.894	802	4,63	2,75	2,36

55	-25	370	430	3,00	1,00	0,86
55	-20	487	490	3,22	1,16	0,99
55	-15	631	550	3,45	1,33	1,15
55	-10	800	610	3,70	1,53	1,31
55	-5	995	670	3,97	1,73	1,49
55	0	1.216	729	4,26	1,94	1,67
55	5	1.463	789	4,56	2,16	1,85
55	7,2	1.580	815	4,70	2,25	1,94
55	10	1.736	848	4,88	2,38	2,05

60	-25	315	428	2,99	0,86	0,74
60	-20	418	495	3,23	0,98	0,84
60	-15	546	562	3,50	1,13	0,97
60	-10	701	628	3,78	1,30	1,12
60	-5	881	695	4,09	1,47	1,27
60	0	1.087	762	4,42	1,66	1,43
60	5	1.320	828	4,77	1,85	1,59
60	7,2	1.430	858	4,93	1,94	1,67
60	10	1.578	895	5,15	2,05	1,76

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	560	440	3,03	1,27	1,10
40	-20	734	479	3,18	1,53	1,32
40	-15	933	519	3,32	1,80	1,55
40	-10	1.157	558	3,48	2,07	1,79
40	-5	1.406	597	3,64	2,35	2,03
40	0	1.681	636	3,82	2,64	2,28
40	5	1.980	676	4,00	2,93	2,53
40	7,2	2.120	693	4,08	3,06	2,64
40	10	2.305	715	4,18	3,23	2,79

45	-25	497	437	3,03	1,14	0,98
45	-20	652	484	3,19	1,35	1,16
45	-15	832	530	3,37	1,57	1,36
45	-10	1.038	577	3,56	1,80	1,56
45	-5	1.268	623	3,76	2,04	1,76
45	0	1.524	669	3,97	2,28	1,97
45	5	1.805	715	4,19	2,52	2,18
45	7,2	1.936	736	4,29	2,63	2,27
45	10	2.111	761	4,42	2,77	2,40

50	-25	434	435	3,02	1,00	0,86
50	-20	570	488	3,21	1,17	1,01
50	-15	732	542	3,42	1,35	1,17
50	-10	918	595	3,64	1,54	1,33
50	-5	1.130	649	3,87	1,74	1,51
50	0	1.367	702	4,12	1,95	1,68
50	5	1.629	755	4,39	2,16	1,86
50	7,2	1.752	778	4,51	2,25	1,95
50	10	1.916	808	4,66	2,37	2,05

55	-25	371	432	3,01	0,86	0,74
55	-20	488	493	3,23	0,99	0,86
55	-15	631	553	3,46	1,14	0,99
55	-10	799	614	3,72	1,30	1,12
55	-5	992	674	3,99	1,47	1,27
55	0	1.210	734	4,28	1,65	1,42
55	5	1.454	795	4,59	1,83	1,58
55	7,2	1.569	821	4,73	1,91	1,65
55	10	1.722	855	4,92	2,01	1,74

60	-25	307	430	3,00	0,72	0,62
60	-20	406	497	3,24	0,82	0,71
60	-15	530	565	3,51	0,94	0,81
60	-10	680	632	3,80	1,07	0,93
60	-5	854	700	4,11	1,22	1,05
60	0	1.053	767	4,45	1,37	1,19
60	5	1.278	834	4,81	1,53	1,32
60	7,2	1.385	864	4,97	1,60	1,38
60	10	1.528	902	5,19	1,69	1,46

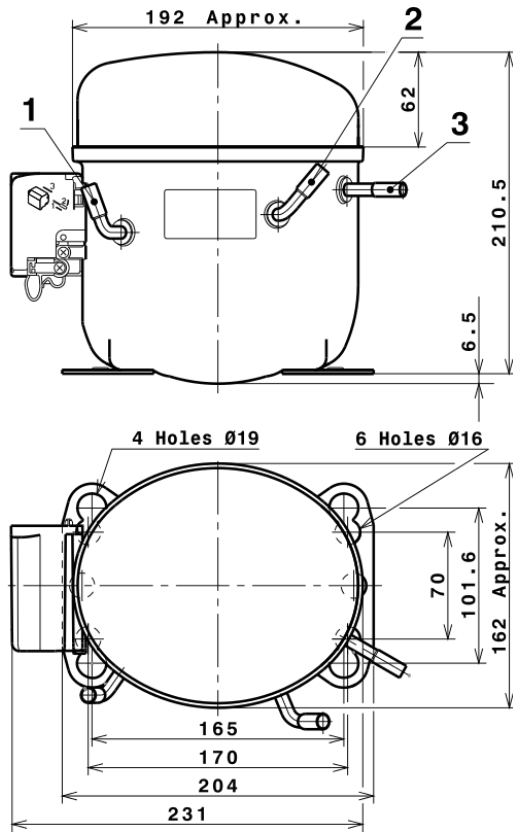
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2,937,0175228059	385,2669838303	2,3939189385	57,749699174817
2	87,4324710066	-3,2562816108	-0,0189476259	1,9605998134782
3	-32,5254918013	6,7631916928	0,0364238887	-0,28149123791797
4	0,4758234052	0,0070587789	0,0004413106	0,022158636460065
5	-0,7943549695	0,2911215808	0,0015291427	-0,003633655454375

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

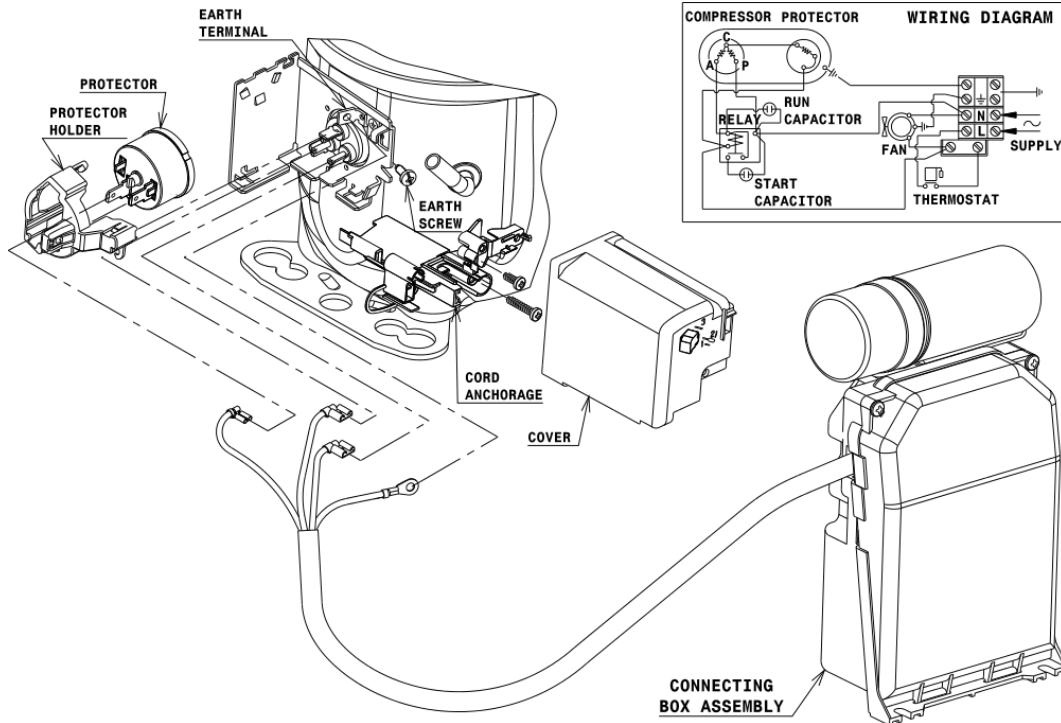


## DESIGNATION INTERNAL DIAM.

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

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (EXTERNAL CONNECTING BOX) (P range)



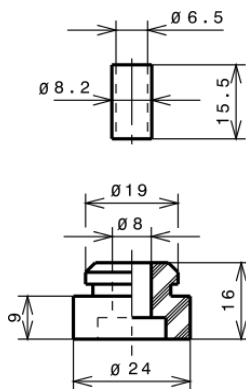
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

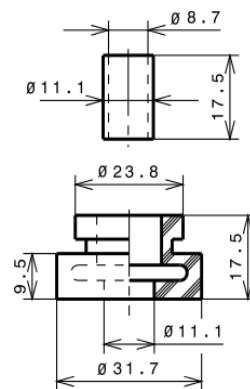
### STANDARD

$\varnothing 16$  holes (170x70 net)



### AMERICAN FEET

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



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R404A HMBP

