

Technical Data Sheet

Compressor model **HD40MBa**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R600a**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	4,06 cm ³	Nominal Power	1/14 hp
Refrigerant	R600a	Diameter	19,50 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	13,60 mm	Voltage range	187-264 V
Expansion	Capillar	Net Weight	5,92 Kg	Type	RSIR
Comp. Cooling	Static	Oil type	ISO VG 10 MINER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	200 cm ³	Locked Rotor Amps (LRA)	7,40 A
				Max. Cont. Current (MCC)	0,90 A
				Main W. resist. at 25°C	30,84 Ω
				Start W. resist. at 25°C	25,04 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	182 kCal/h	178 W
COP	1,91 W/W	1,64 W/W
EER	1,64 kCal/Wh	1,42 kCal/Wh
Input Power	111 W	109 W
Current	0,72 A	0,71 A



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Relay	Option 1			
Reference	PTC K100			
Voltage	200-240 V			
Resistance	14.00 Ω			
Protector	Option 1	Option 2		
Reference	4TM205NFBYY	T0321		
Current	6,00 A	5,20 A		
Time check	5-15 seg	7,5-14 seg		
Disc temp. (Open/Close)	120,00 / 61,00 °C	120,00 / 62,00 °C		

This product is approved for R290 and R600a regarding explosion safety according to standard EN 60335-1 and EN 60335-2-34

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	48	68	0,60	0,82	0,71
40	-20	66	74	0,61	1,05	0,90
40	-15	88	79	0,63	1,29	1,11
40	-10	113	85	0,64	1,54	1,33
40	-5	141	91	0,66	1,81	1,55
40	0	173	97	0,67	2,08	1,79
40	5	208	102	0,69	2,36	2,03
40	7,2	224	105	0,70	2,48	2,13
40	10	246	108	0,71	2,64	2,27

45	-25	45	68	0,60	0,76	0,66
45	-20	61	74	0,61	0,96	0,83
45	-15	81	80	0,63	1,18	1,02
45	-10	105	86	0,64	1,41	1,21
45	-5	131	92	0,66	1,66	1,42
45	0	161	98	0,68	1,91	1,64
45	5	194	104	0,70	2,17	1,86
45	7,2	210	107	0,71	2,28	1,96
45	10	231	110	0,72	2,43	2,09

50	-25	41	68	0,60	0,71	0,61
50	-20	56	74	0,61	0,88	0,76
50	-15	75	81	0,63	1,08	0,93
50	-10	96	87	0,65	1,29	1,11
50	-5	121	93	0,67	1,51	1,30
50	0	149	100	0,68	1,74	1,50
50	5	181	106	0,70	1,98	1,71
50	7,2	196	109	0,71	2,09	1,80
50	10	216	113	0,73	2,23	1,92

55	-25	38	68	0,60	0,65	0,56
55	-20	51	75	0,62	0,80	0,69
55	-15	68	81	0,63	0,97	0,84
55	-10	88	88	0,65	1,16	1,00
55	-5	111	95	0,67	1,37	1,18
55	0	138	101	0,69	1,58	1,36
55	5	168	108	0,71	1,81	1,55
55	7,2	182	111	0,72	1,91	1,64
55	10	201	115	0,73	2,04	1,75

60	-25	35	68	0,60	0,59	0,51
60	-20	46	75	0,62	0,72	0,62
60	-15	61	82	0,63	0,87	0,75
60	-10	80	89	0,65	1,04	0,90
60	-5	101	96	0,67	1,23	1,06
60	0	126	103	0,69	1,43	1,23
60	5	155	110	0,72	1,64	1,41
60	7,2	168	113	0,73	1,73	1,49
60	10	186	117	0,74	1,85	1,59

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	52	68	0,60	0,76	0,66
40	-20	72	74	0,61	0,97	0,84
40	-15	95	80	0,63	1,19	1,03
40	-10	122	86	0,64	1,43	1,23
40	-5	153	91	0,66	1,67	1,44
40	0	187	97	0,68	1,92	1,66
40	5	224	103	0,69	2,18	1,88
40	7,2	242	106	0,70	2,29	1,98
40	10	265	109	0,71	2,44	2,10

45	-25	48	68	0,60	0,70	0,61
45	-20	66	74	0,61	0,89	0,77
45	-15	88	81	0,63	1,09	0,94
45	-10	113	87	0,65	1,30	1,12
45	-5	141	93	0,66	1,52	1,32
45	0	173	99	0,68	1,75	1,52
45	5	209	105	0,70	1,99	1,72
45	7,2	226	108	0,71	2,10	1,81
45	10	248	111	0,72	2,23	1,93

50	-25	44	68	0,60	0,65	0,56
50	-20	60	75	0,62	0,81	0,70
50	-15	80	81	0,63	0,99	0,85
50	-10	103	88	0,65	1,18	1,02
50	-5	130	94	0,67	1,38	1,19
50	0	160	100	0,69	1,59	1,38
50	5	194	107	0,71	1,81	1,57
50	7,2	210	110	0,72	1,91	1,65
50	10	231	113	0,73	2,04	1,76

55	-25	40	68	0,60	0,59	0,51
55	-20	55	75	0,62	0,73	0,63
55	-15	72	82	0,63	0,89	0,76
55	-10	94	88	0,65	1,06	0,91
55	-5	118	95	0,67	1,24	1,07
55	0	147	102	0,69	1,44	1,24
55	5	178	109	0,71	1,64	1,42
55	7,2	194	112	0,72	1,73	1,50
55	10	214	115	0,74	1,85	1,60

60	-25	37	68	0,60	0,54	0,46
60	-20	49	75	0,62	0,65	0,56
60	-15	65	82	0,63	0,79	0,68
60	-10	84	89	0,65	0,94	0,81
60	-5	107	96	0,67	1,11	0,96
60	0	133	103	0,70	1,29	1,11
60	5	163	111	0,72	1,48	1,28
60	7,2	177	114	0,73	1,56	1,35
60	10	197	118	0,74	1,67	1,44

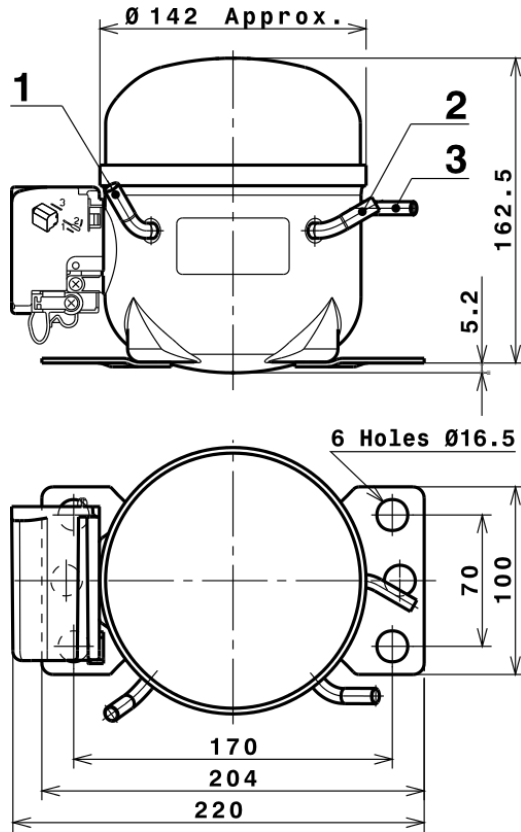
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	291,5862995423	86,7460245041	0,6395836489	2,7961511397547
2	10,1215946528	0,6884790292	0,0020559416	0,10570645764167
3	-2,7201981829	0,3200759370	0,0010696945	-0,013930044673342
4	0,0683954639	0,0004685281	0,0000255400	0,0010319540810205
5	-0,0781169182	0,0128030375	0,0000427878	-0,00037631301288238

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

COMPRESSOR DIMENSIONS

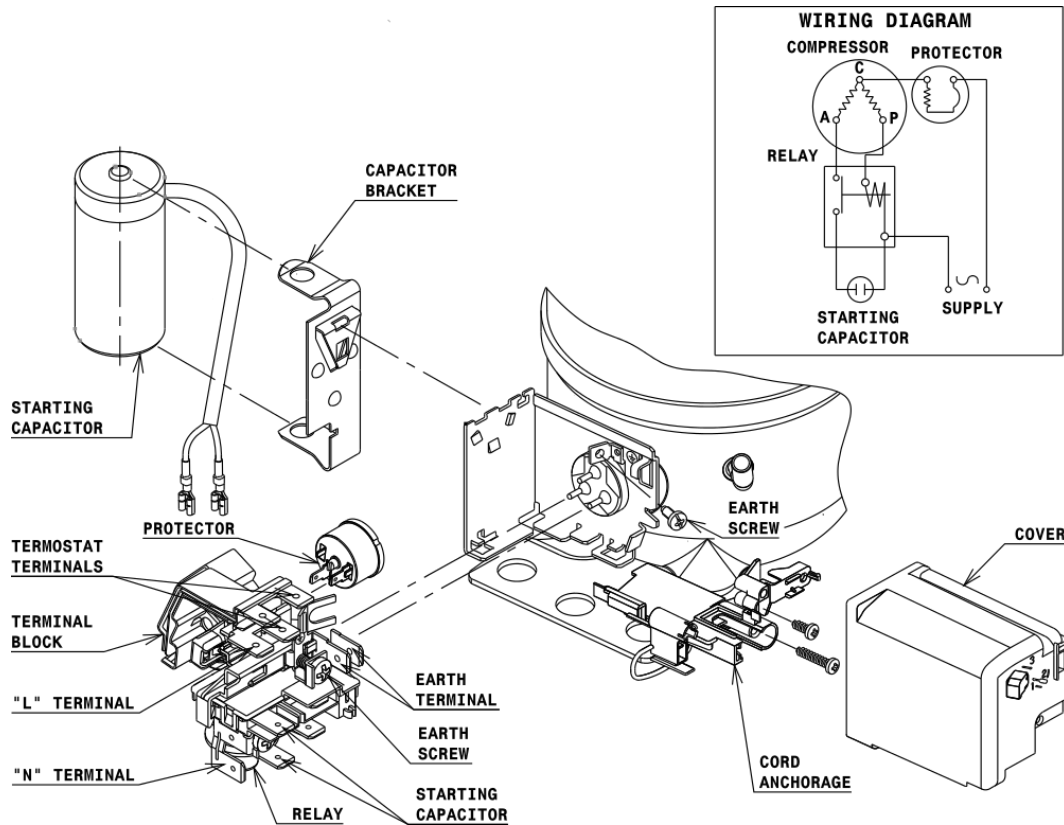


DESIGNATION INTERNAL DIAM.

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

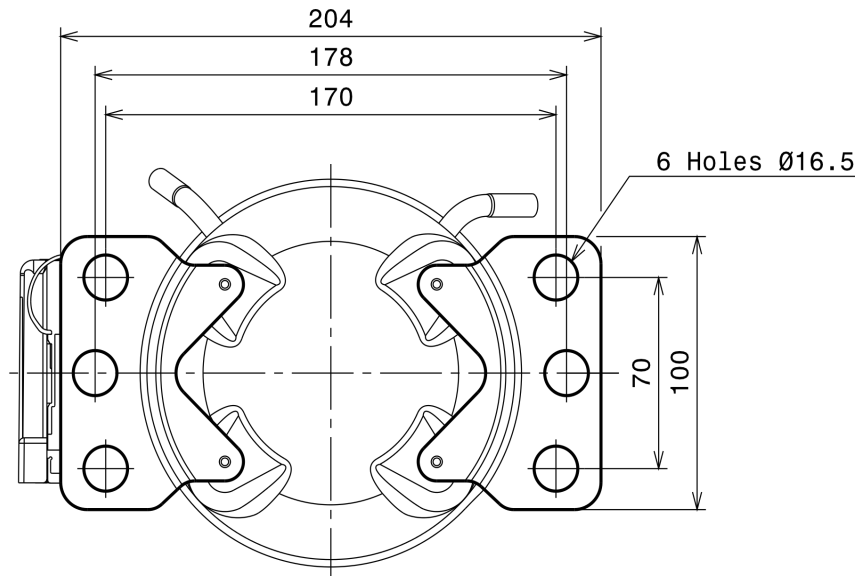
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (D range)



Technical Data Sheet

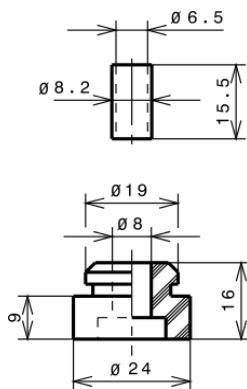
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

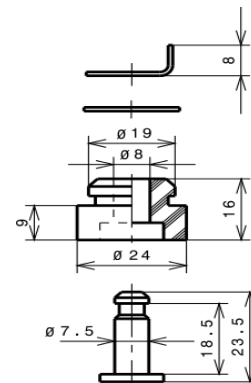
STANDARD

$\varnothing 16.5$ holes (170x70 net)



SNAP-ON

$\varnothing 16.5$ holes (170x70 net)



SOA

SOA R600a HMBP

