Technical Data Sheet

ENGINEERING TOMORROW

Compressor model **GD40MBd**

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

Refrigerant **R134a**

APPLICATION

Application	High-Medium Back Pressure
Refrigerant	R134a
Evaporating Temp.	-25,0 ºC to 10,0 ºC
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 ºC
Compatible refriger.	R1234yf

COMPRESSOR

Displacement	4,06 cm³
Diameter	19,50 mm
Stroke	13,60 mm
Net Weight	6,26 Kg
Oil type	ISO VG 32 ESTER
Oil charge	240 cm³

MOTOR

Nominal Power	1/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	198-264 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	5,60 A
Max. Cont. Current (MCC)	1,90 A
Main W. resist. at 25ºC	21,30 Ω
Start W. resist. at 25ºC	18,33 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	310 kCal/h	301 W
COP	1,80 W/W	1,55 W/W
EER	1,55 kCal/Wh	1,34 kCal/Wh
Input Power	200 W	194 W
Current	1,22 A	1,19 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	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V			
Relay	Option 1			
Reference	2014 098.			
Pick-Up	2,20 A			
Drop-Out	1,85 A			
Protector	Option 1	Option 2	Option 3	
Reference	MRP346HV	T0067	AE18BY	
Current	6,40 A	6,60 A	6,50 A	
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 78,00 ºC	105,00 / 62,00 ºC	105,00 / 62,00 ºC	

Technical Data Sheet

ENGINEERING TOMORROW

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	81	101	0,90	0,93	0,80
40	-20	111	112	0,92	1,15	0,99
40	-15	147	123	0,94	1,39	1,20
40	-10	189	134	0,97	1,64	1,41
40	-5	237	146	1,00	1,89	1,62
40	0	291	159	1,04	2,14	1,84
40	5	352	171	1,09	2,39	2,05
40	7,2	380	177	1,12	2,50	2,15
40	10	418	184	1,15	2,64	2,27
45	-25	74	101	0,90	0,85	0,73
45	-20	101	113	0,92	1,04	0,90
45	-15	135	125	0,95	1,25	1,08
45	-10	174	138	0,98	1,47	1,26
45	-5	220	151	1,02	1,69	1,46
45	0	272	164	1,07	1,92	1,65
45	5	329	178	1,12	2,15	1,85
45	7,2	357	185	1,15	2,25	1,93
45	10	393	193	1,18	2,37	2,04
50	-25	67	101	0,90	0,77	0,66
50	-20	92	114	0,92	0,94	0,80
50	-15	123	128	0,95	1,12	0,96
50	-10	160	141	0,99	1,31	1,13
50	-5	203	156	1,03	1,51	1,30
50	0	252	170	1,09	1,72	1,48
50	5	307	186	1,15	1,92	1,66
50	7,2	333	192	1,18	2,02	1,73
50	10	368	201	1,23	2,13	1,83
55	-25	60	101	0,90	0,69	0,59
55	-20	82	115	0,93	0,83	0,71
55	-15	111	130	0,96	0,99	0,85
55	-10	145	145	1,00	1,16	1,00
55	-5	186	160	1,05	1,34	1,16
55	0	232	176	1,11	1,53	1,32
55	5	285	193	1,18	1,72	1,48
55	7,2	310	200	1,22	1,80	1,55
55	10	344	209	1,27	1,91	1,64
60	-25	53	101	0,90	0,61	0,52
60	-20	73	116	0,93	0,73	0,62
60	-15	98	132	0,96	0,87	0,74
60	-10	130	149	1,01	1,02	0,88
60	-5	168	165	1,07	1,19	1,02
60	0	212	182	1,14	1,36	1,17
60	5	263	200	1,22	1,53	1,31
60	7,2	287	208	1,26	1,61	1,38
60	10	319	218	1,31	1,70	1,46
65	-25	46	101	0,90	0,53	0,46
65	-20	63	118	0,93	0,62	0,54
65	-15	86	135	0,97	0,75	0,64
65	-10	116	152	1,02	0,89	0,76
65	-5	151	170	1,09	1,03	0,89
65	0	193	188	1,16	1,19	1,02
65	5	240	207	1,26	1,35	1,16
65	7,2	263	215	1,30	1,42	1,22
65	10	294	226	1,36	1,51	1,30

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	87	102	0,90	0,86	0,74
40	-20	120	112	0,92	1,07	0,92
40	-15	159	123	0,94	1,29	1,11
40	-10	204	135	0,97	1,51	1,31
40	-5	256	147	1,01	1,74	1,50
40	0	314	159	1,05	1,97	1,70
40	5	379	172	1,10	2,20	1,90
40	7,2	409	178	1,12	2,30	1,98
40	10	449	186	1,15	2,42	2,09
45	-25	79	102	0,90	0,78	0,68
45	-20	109	113	0,92	0,96	0,83
45	-15	145	126	0,95	1,15	0,99
45	-10	187	139	0,98	1,35	1,17
45	-5	236	152	1,02	1,55	1,34
45	0	291	165	1,07	1,76	1,52
45	5	353	180	1,13	1,96	1,70
45	7,2	382	186	1,15	2,05	1,77
45	10	421	194	1,19	2,17	1,87
50	-25	71	102	0,90	0,70	0,61
50	-20	98	115	0,92	0,85	0,74
50	-15	131	128	0,95	1,02	0,88
50	-10	170	142	0,99	1,20	1,03
50	-5	216	157	1,04	1,38	1,19
50	0	268	171	1,09	1,56	1,35
50	5	327	187	1,16	1,75	1,51
50	7,2	355	194	1,19	1,83	1,58
50	10	392	202	1,23	1,94	1,67
55	-25	63	102	0,90	0,63	0,54
55	-20	87	116	0,93	0,75	0,65
55	-15	117	131	0,96	0,90	0,77
55	-10	153	146	1,00	1,05	0,91
55	-5	196	161	1,05	1,21	1,05
55	0	245	177	1,12	1,38	1,19
55	5	301	194	1,19	1,55	1,34
55	7,2	327	201	1,23	1,63	1,41
55	10	363	211	1,28	1,72	1,49
60	-25	56	102	0,90	0,55	0,47
60	-20	76	117	0,93	0,65	0,56
60	-15	103	133	0,97	0,77	0,67
60	-10	136	149	1,01	0,91	0,79
60	-5	176	166	1,07	1,06	0,92
60	0	222	183	1,14	1,21	1,05
60	5	275	201	1,23	1,37	1,18
60	7,2	300	209	1,27	1,44	1,24
60	10	334	219	1,32	1,52	1,32
65	-25	48	102	0,90	0,47	0,41
65	-20	65	118	0,93	0,55	0,48
65	-15	89	135	0,97	0,66	0,57
65	-10	120	153	1,03	0,78	0,68
65	-5	156	171	1,09	0,91	0,79
65	0	200	189	1,17	1,05	0,91
65	5	249	208	1,26	1,20	1,03
65	7,2	273	217	1,31	1,26	1,09
65	10	305	228	1,37	1,34	1,16

Technical Data Sheet

ENGINEERING TOMORROW

Danfoss

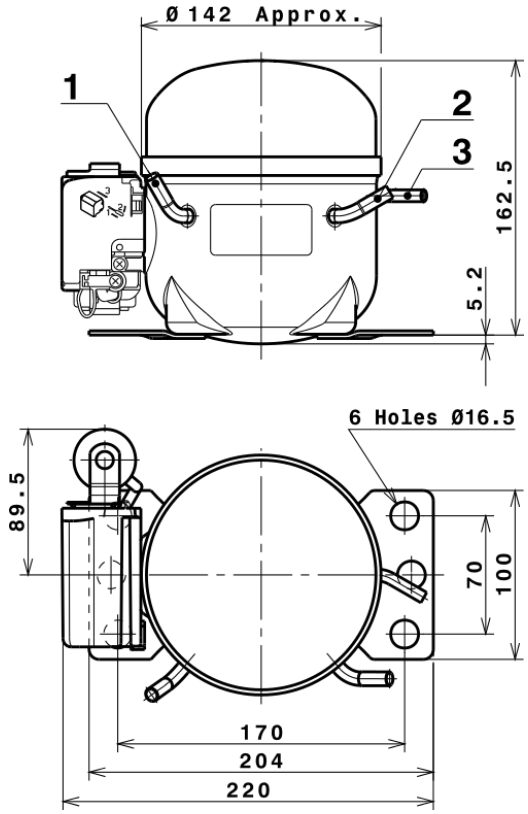
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	498,1981068057	114,3679007441	0,8146033859	8,4714989434912
2	17,0947813220	0,6671005886	0,0016755384	0,3221609148127
3	-4,7067121559	1,2317568848	0,0058956733	-0,039239600642926
4	0,1260630303	0,0097699449	0,0002106089	0,0036440039871703
5	-0,1244101622	0,0492702754	0,0002358269	-0,00075966093495437

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

Technical Data Sheet

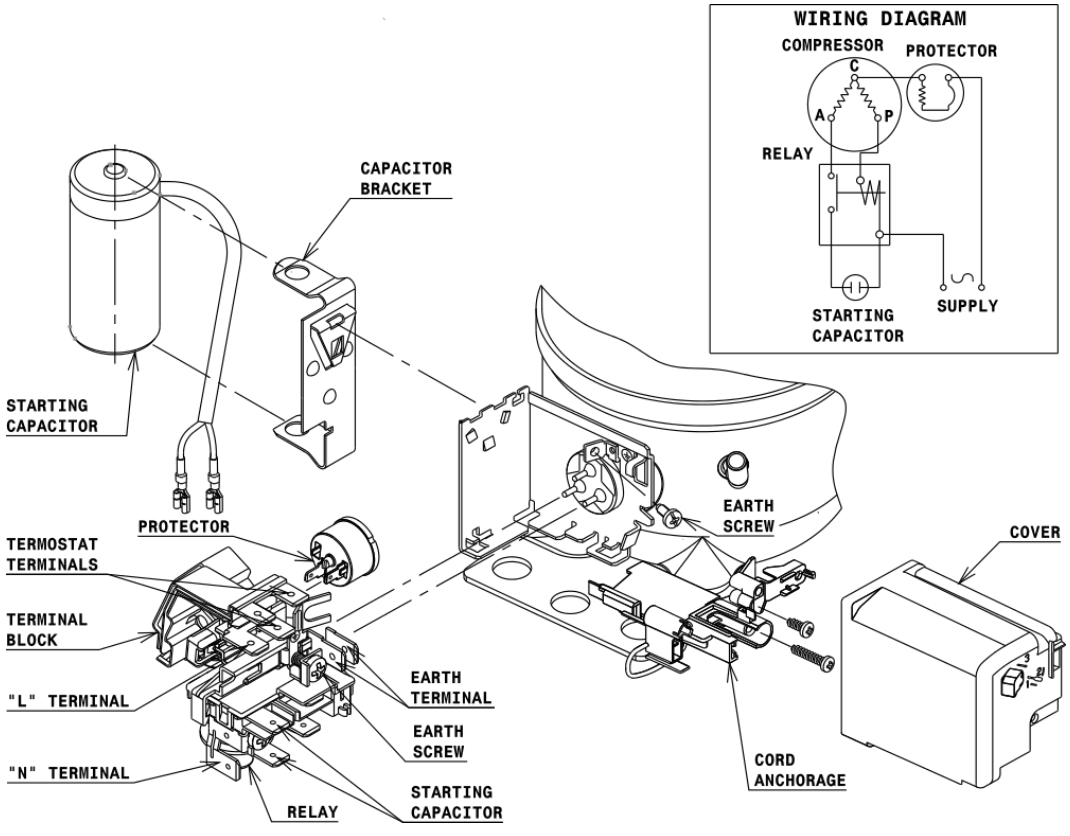
COMPRESSOR DIMENSIONS



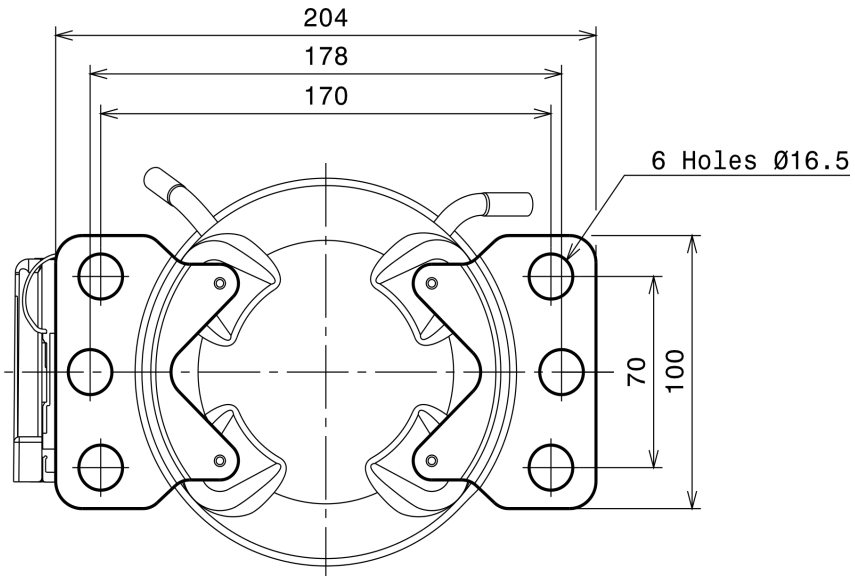
	DESIGNATION	INTERNAL DIAM.
1	Suction/Service	6,5 mm
2	Service/Suction	6,5 mm
3	Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (D range)



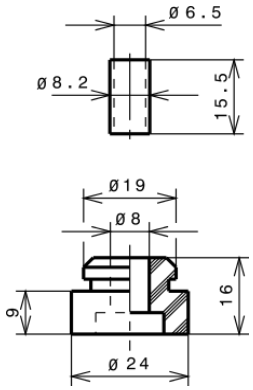
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

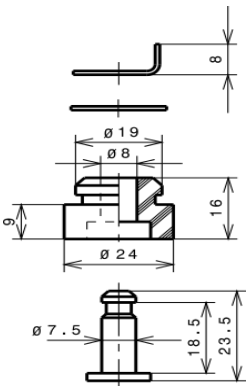
STANDARD

Ø16.5 holes (170x70 net)



SNAP-ON

Ø16.5 holes (170x70 net)



SOA

SOA R134a HMBP