

# Technical Data Sheet

ENGINEERING  
TOMORROW



Compressor model **B35GL**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High Back Pressure	Displacement	3,50 cm <sup>3</sup>	Nominal Power	hp
Refrigerant	R134a	Diameter	17,20 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	15,00 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	6,00 Kg	Type	CSIR
Comp. Cooling	Static/Fan cooled	Oil type	POE 32	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	120 cm <sup>3</sup>	Locked Rotor Amps (LRA)	5,50 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	1,40 A
				Main W. resist. at 25°C	11,36 Ω
				Start W. resist. at 25°C	20,49 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	272 kCal/h	262 W
COP	2,34 W/W	2,00 W/W
EER	2,01 kCal/Wh	1,73 kCal/Wh
Input Power	135 W	131 W
Current	0,90 A	0,89 A

## TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (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	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	50 µF 330 V			
Relay	Option 1			
Reference	QL2-2.8			
Pick-Up	2,8 A			
Drop-Out	2,4 A			
Protector	Option 1			
Reference	DRB186S61A1			
Current				
Time check				
Disc temp. (Open/Close)				

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## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	123	83	0,76	1,72	1,48
40	-10	158	89	0,78	2,06	1,77
40	-5	200	95	0,79	2,44	2,10
40	0	249	102	0,81	2,86	2,46
40	5	306	108	0,83	3,29	2,83
40	7,2	333	111	0,84	3,49	3,00
40	10	370	115	0,85	3,74	3,22

45	-15	114	85	0,77	1,55	1,33
45	-10	146	93	0,79	1,83	1,58
45	-5	186	100	0,81	2,16	1,86
45	0	233	108	0,83	2,51	2,16
45	5	287	115	0,85	2,89	2,48
45	7,2	313	119	0,86	3,06	2,63
45	10	348	124	0,87	3,28	2,82

50	-15	104	88	0,77	1,38	1,19
50	-10	134	96	0,80	1,62	1,40
50	-5	171	105	0,82	1,90	1,63
50	0	216	114	0,84	2,20	1,90
50	5	267	123	0,87	2,53	2,17
50	7,2	292	127	0,88	2,68	2,30
50	10	326	132	0,89	2,87	2,47

55	-15	95	90	0,78	1,23	1,06
55	-10	122	100	0,81	1,43	1,23
55	-5	157	110	0,83	1,66	1,43
55	0	199	120	0,86	1,93	1,66
55	5	248	130	0,89	2,21	1,90
55	7,2	272	135	0,90	2,34	2,01
55	10	304	141	0,92	2,51	2,16

60	-15	86	92	0,79	1,08	0,93
60	-10	111	103	0,82	1,24	1,07
60	-5	143	115	0,85	1,45	1,25
60	0	182	126	0,88	1,68	1,44
60	5	229	138	0,91	1,93	1,66
60	7,2	252	143	0,92	2,05	1,76
60	10	283	150	0,94	2,20	1,89

65	-15	76	95	0,79	0,94	0,81
65	-10	99	107	0,83	1,07	0,92
65	-5	129	120	0,86	1,25	1,07
65	0	165	132	0,89	1,45	1,25
65	5	210	145	0,93	1,68	1,44
65	7,2	231	151	0,94	1,78	1,53
65	10	261	158	0,96	1,92	1,65

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	132	83	0,76	1,59	1,37
40	-10	170	89	0,78	1,90	1,64
40	-5	216	96	0,80	2,25	1,95
40	0	269	102	0,81	2,63	2,27
40	5	329	109	0,83	3,03	2,62
40	7,2	358	112	0,84	3,21	2,77
40	10	397	116	0,85	3,44	2,97

45	-15	122	86	0,77	1,42	1,23
45	-10	157	93	0,79	1,68	1,45
45	-5	199	101	0,81	1,98	1,71
45	0	249	108	0,83	2,30	1,99
45	5	307	116	0,85	2,64	2,28
45	7,2	335	120	0,86	2,79	2,41
45	10	372	124	0,87	2,99	2,59

50	-15	111	88	0,78	1,26	1,09
50	-10	143	97	0,80	1,48	1,28
50	-5	183	106	0,82	1,73	1,50
50	0	230	115	0,85	2,01	1,73
50	5	284	124	0,87	2,30	1,99
50	7,2	311	128	0,88	2,43	2,10
50	10	347	133	0,89	2,61	2,25

55	-15	100	90	0,78	1,11	0,96
55	-10	130	100	0,81	1,29	1,11
55	-5	166	110	0,83	1,50	1,30
55	0	210	121	0,86	1,74	1,51
55	5	262	131	0,89	2,00	1,73
55	7,2	287	136	0,90	2,11	1,83
55	10	321	142	0,92	2,27	1,96

60	-15	90	93	0,79	0,97	0,84
60	-10	116	104	0,82	1,11	0,96
60	-5	150	115	0,85	1,30	1,12
60	0	191	127	0,88	1,50	1,30
60	5	240	139	0,91	1,73	1,49
60	7,2	264	144	0,92	1,83	1,58
60	10	296	151	0,94	1,97	1,70

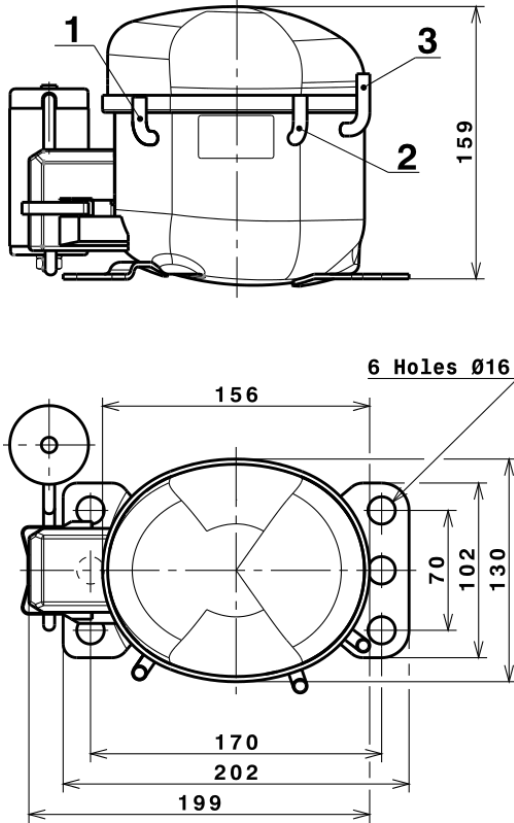
65	-15	79	95	0,79	0,83	0,72
65	-10	102	108	0,83	0,95	0,82
65	-5	133	120	0,86	1,11	0,96
65	0	171	133	0,90	1,29	1,11
65	5	217	146	0,93	1,49	1,28
65	7,2	240	152	0,95	1,58	1,36
65	10	271	159	0,97	1,70	1,47

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	425,2543302856	53,7744234559	0,6833984625	7,2536387314366
2	16,1417916117	-0,7513644268	-0,0020036385	0,29363198154744
3	-4,0023553352	1,2743013502	0,0033981369	-0,033826217092249
4	0,1494745489	0,0051150121	0,0000136400	0,0044183999501767
5	-0,1227297638	0,0529416532	0,0001411777	-0,00065642076734979

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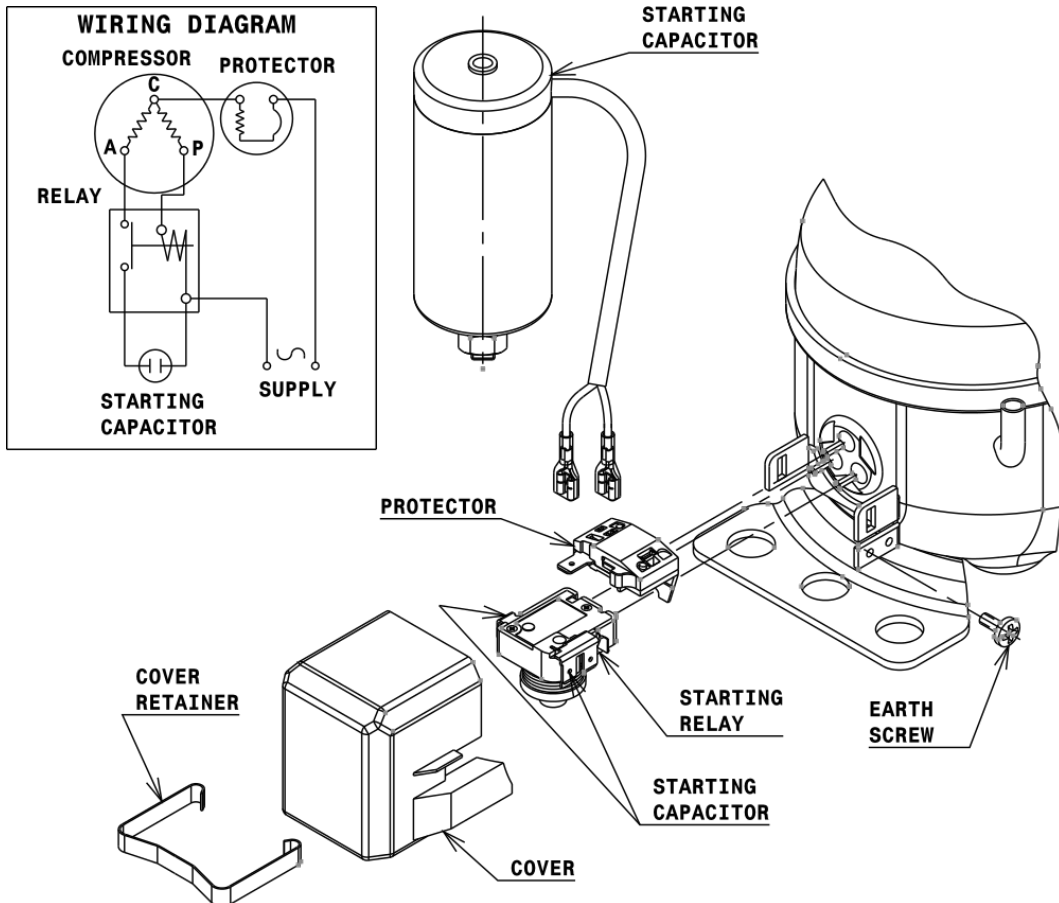
## COMPRESSOR DIMENSIONS



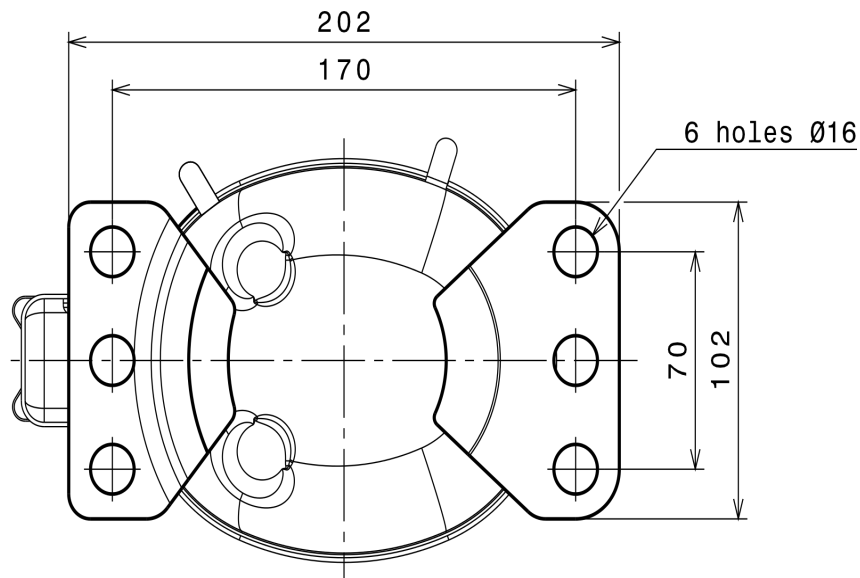
DESIGNATION	INTERNAL DIAM.
1 Suction	6,1 mm
2 Service	6,1 mm
3 Discharge	5,1 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (B, Small L ranges)



## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø16 holes (170x70 net)



### SOA

SOA R134a HBP

