

# Technical Data Sheet

ENGINEERING  
TOMORROW



Compressor model **GU80TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

Application High Back Pressure  
Refrigerant R134a  
Evaporating Temp. -15,0 °C to 10,0 °C  
Expansion Capillar/Valve  
Comp. Cooling Fan cooled  
Max. ambient temp. 43,0 °C  
Compatible refriger. R1234yf

## COMPRESSOR

Displacement 8,10 cm<sup>3</sup>  
Diameter 24,30 mm  
Stroke 17,50 mm  
Net Weight 9,23 Kg  
Oil type POE  
Oil charge 220 cm<sup>3</sup>

## MOTOR

Nominal Power 1/4 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 187-264 V  
Type CSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 13,00 A  
Max. Cont. Current (MCC) 3,10 A  
Main W. resist. at 25°C 9,69 Ω  
Start W. resist. at 25°C 35,59 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	714 kCal/h	686 W
COP	2,31 W/W	1,98 W/W
EER	1,98 kCal/Wh	1,71 kCal/Wh
Input Power	360 W	346 W
Current	2,20 A	2,14 A

## APPROVALS



## 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	60-61 µF 330 V			
Relay	Option 1			
Reference	QLZ-5.8A			
Pick-Up	5.80 A			
Drop-Out	4.95 A			
Protector	Option 1			
Reference	B85-105			
Current	8,50 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 61,00 °C			



## ASHRAE

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-15	326	214	1,75	1,77	1,52
40	-10	397	228	1,78	2,03	1,75
40	-5	492	246	1,81	2,33	2,00
40	0	609	268	1,87	2,65	2,28
40	5	750	294	1,95	2,97	2,55
40	7,2	819	307	1,99	3,10	2,67
40	10	913	325	2,05	3,27	2,81

45	-15	307	221	1,76	1,62	1,39
45	-10	375	237	1,80	1,84	1,58
45	-5	466	257	1,84	2,11	1,81
45	0	580	282	1,91	2,39	2,06
45	5	716	311	2,00	2,68	2,31
45	7,2	784	325	2,05	2,81	2,41
45	10	876	344	2,13	2,97	2,55

50	-15	288	227	1,78	1,47	1,27
50	-10	352	246	1,82	1,67	1,43
50	-5	440	269	1,87	1,90	1,64
50	0	550	296	1,95	2,16	1,86
50	5	683	327	2,06	2,43	2,09
50	7,2	749	342	2,12	2,54	2,19
50	10	839	363	2,21	2,69	2,31

55	-15	269	234	1,79	1,34	1,15
55	-10	330	255	1,84	1,50	1,29
55	-5	413	280	1,90	1,71	1,47
55	0	520	310	2,00	1,95	1,68
55	5	650	344	2,13	2,20	1,89
55	7,2	714	360	2,20	2,31	1,98
55	10	802	382	2,30	2,44	2,10

60	-15	250	241	1,80	1,21	1,04
60	-10	307	264	1,86	1,35	1,16
60	-5	387	292	1,94	1,54	1,33
60	0	490	324	2,05	1,76	1,51
60	5	616	360	2,20	1,99	1,71
60	7,2	679	378	2,28	2,09	1,80
60	10	765	401	2,40	2,22	1,91

65	-15	231	247	1,82	1,09	0,93
65	-10	284	273	1,88	1,21	1,04
65	-5	361	304	1,98	1,38	1,19
65	0	460	338	2,11	1,58	1,36
65	5	583	377	2,28	1,80	1,55
65	7,2	644	395	2,37	1,89	1,63
65	10	728	420	2,50	2,02	1,73

## CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-15	351	215	1,76	1,63	1,41
40	-10	429	229	1,78	1,87	1,62
40	-5	531	247	1,82	2,15	1,86
40	0	657	269	1,87	2,44	2,11
40	5	808	296	1,95	2,73	2,36
40	7,2	881	309	2,00	2,85	2,46
40	10	982	327	2,06	3,01	2,60

45	-15	329	222	1,77	1,48	1,28
45	-10	402	238	1,80	1,69	1,46
45	-5	500	259	1,85	1,93	1,67
45	0	621	283	1,91	2,19	1,89
45	5	767	313	2,01	2,45	2,12
45	7,2	839	327	2,06	2,57	2,22
45	10	937	346	2,14	2,71	2,34

50	-15	307	229	1,78	1,34	1,16
50	-10	375	247	1,82	1,52	1,31
50	-5	468	270	1,88	1,73	1,50
50	0	585	298	1,96	1,97	1,70
50	5	727	329	2,07	2,21	1,91
50	7,2	797	345	2,13	2,31	2,00
50	10	892	365	2,22	2,44	2,11

55	-15	285	235	1,79	1,21	1,04
55	-10	349	257	1,84	1,36	1,17
55	-5	437	282	1,91	1,55	1,34
55	0	550	312	2,01	1,76	1,52
55	5	686	346	2,14	1,98	1,71
55	7,2	754	362	2,21	2,08	1,80
55	10	847	384	2,32	2,20	1,90

60	-15	262	242	1,81	1,08	0,94
60	-10	322	266	1,86	1,21	1,05
60	-5	406	294	1,95	1,38	1,19
60	0	514	326	2,06	1,58	1,36
60	5	646	363	2,21	1,78	1,54
60	7,2	712	380	2,29	1,87	1,62
60	10	802	404	2,41	1,99	1,72

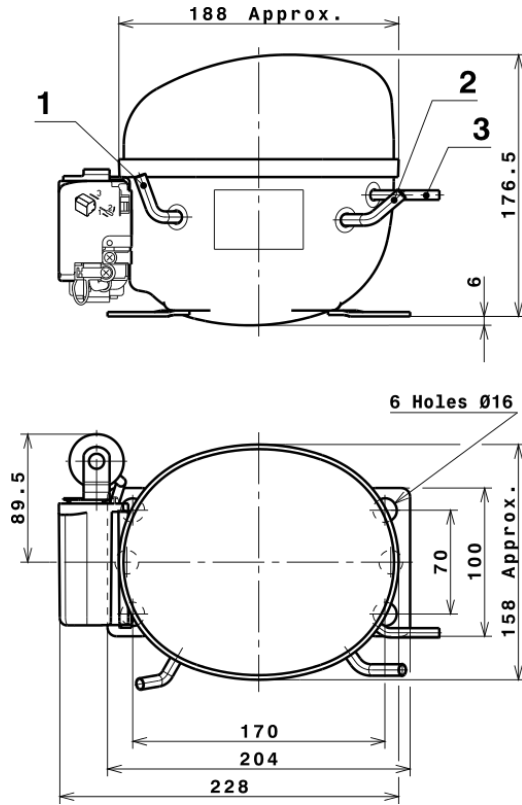
65	-15	240	249	1,82	0,97	0,83
65	-10	295	275	1,89	1,07	0,93
65	-5	374	305	1,98	1,23	1,06
65	0	478	340	2,12	1,40	1,21
65	5	605	379	2,29	1,60	1,38
65	7,2	669	398	2,38	1,68	1,45
65	10	757	423	2,52	1,79	1,55

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	948,6408284527	159,6424702828	1,4180212247	15,139990410484
2	35,2317332624	0,9817185154	-0,0055871488	0,61795753425367
3	-7,5024792783	2,9151231604	0,0112355793	-0,019040270459349
4	0,4757599016	0,0906721546	0,0006901736	0,013760314053808
5	-0,1970732496	0,1028793436	0,0005708599	0,00093507081752188

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

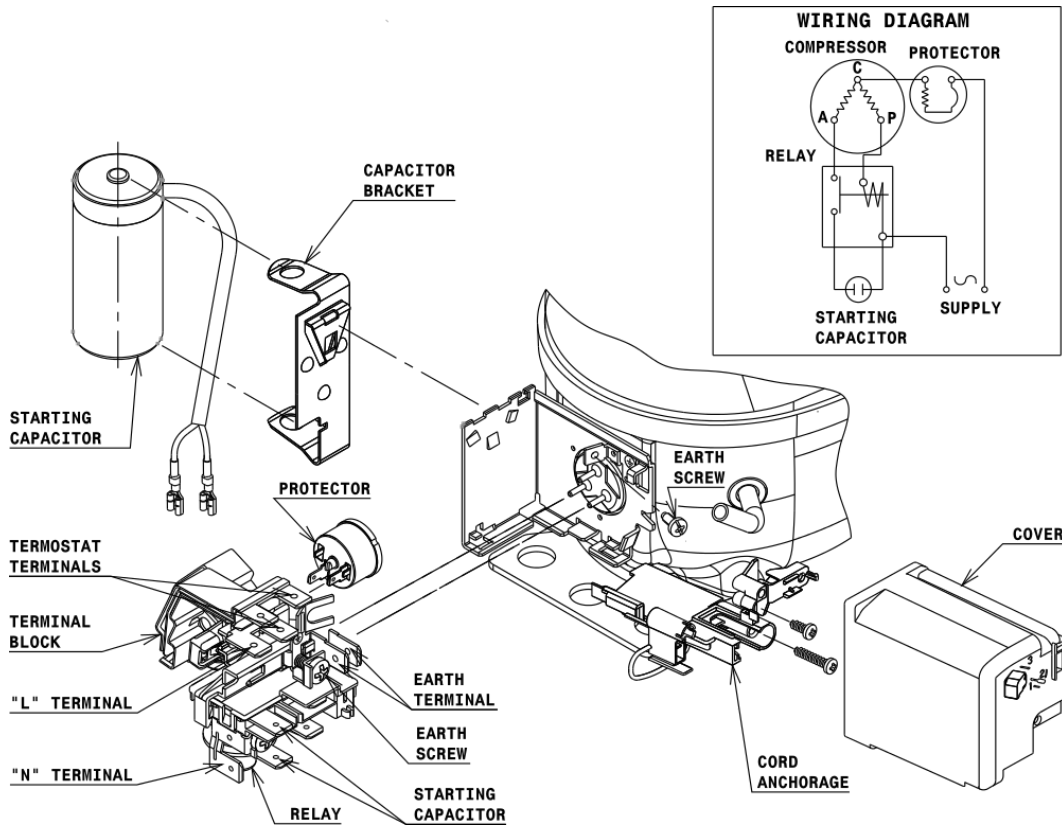


## DESIGNATION INTERNAL DIAM.

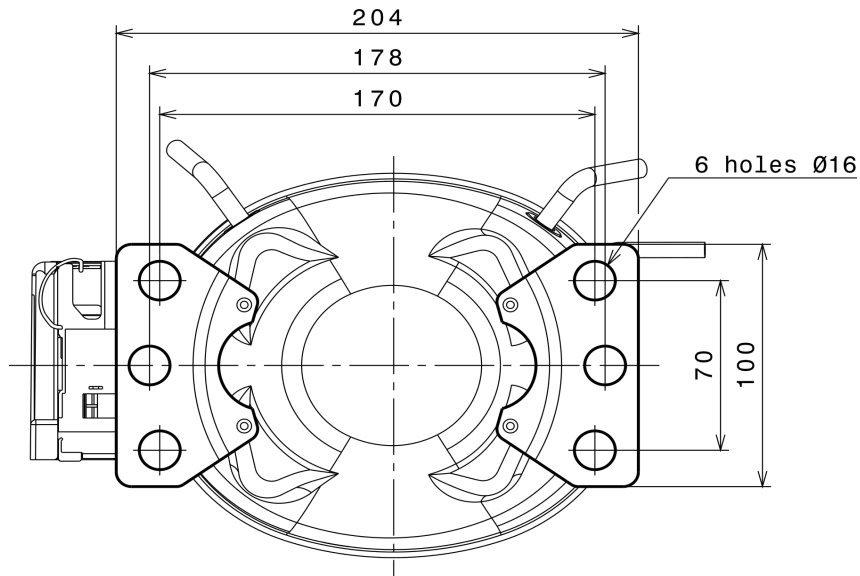
DESIGNATION	INTERNAL DIAM.
1 Service	6,2 mm
2 Suction	6,2 mm
3 Discharge	4,9 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (U range)



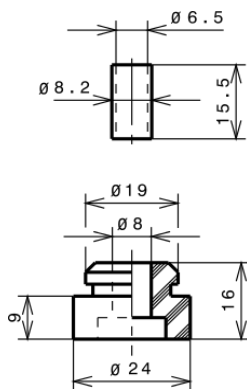
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

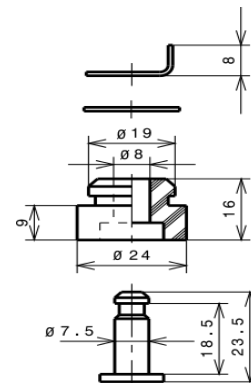
### STANDARD

Ø16 holes (170x70 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HBP

