Technical Data Sheet

ENGINEERING TOMORROW

Compressor model **GL90TE**

Voltage **115V 60Hz ~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	8,85 cm³
Diameter	25,40 mm
Stroke	17,47 mm
Net Weight	9,75 Kg
Oil type	ISO VG 32 ESTER
Oil charge	295 cm³

MOTOR

Nominal Power	1/4 hp
Voltage/Frequency	115V 60Hz
Voltage range	98-132 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	27,00 A
Max. Cont. Current (MCC)	7,00 A
Main W. resist. at 25ºC	1,70 Ω
Start W. resist. at 25ºC	6,80 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	796 kCal/h	773 W
COP	2,06 W/W	1,78 W/W
EER	1,77 kCal/Wh	1,54 kCal/Wh
Input Power	450 W	434 W
Current	4,90 A	4,77 A

APPROVALS

c UL us

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	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	170 µF 160 V			
Relay	Option 1	Option 2		
Reference	2014 170.	QLZ-12.1A		
Pick-Up	12,10 A	12.10 A		
Drop-Out	10,30 A	10.30 A		
Protector	Option 1	Option 2		
Reference	MRT16ALK	T0103		
Current	16,20 A	15,80 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 61,00 ºC	120,00 / 62,00 ºC		

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	205	205	3,30	1,16	1,00
40	-20	272	230	3,43	1,38	1,18
40	-15	354	256	3,57	1,61	1,38
40	-10	452	284	3,74	1,85	1,59
40	-5	565	314	3,92	2,10	1,80
40	0	695	345	4,13	2,34	2,01
40	5	840	379	4,36	2,58	2,22
40	7,2	909	394	4,47	2,68	2,31
40	10	1.001	414	4,62	2,81	2,42
45	-25	189	205	3,30	1,07	0,92
45	-20	252	232	3,44	1,26	1,09
45	-15	331	262	3,61	1,47	1,27
45	-10	426	293	3,79	1,69	1,46
45	-5	536	325	4,00	1,92	1,65
45	0	662	360	4,23	2,14	1,84
45	5	804	396	4,49	2,36	2,03
45	7,2	871	413	4,61	2,46	2,11
45	10	961	434	4,78	2,58	2,21
50	-25	174	205	3,30	0,99	0,85
50	-20	233	235	3,46	1,15	0,99
50	-15	309	267	3,64	1,34	1,15
50	-10	400	301	3,85	1,54	1,33
50	-5	507	337	4,07	1,75	1,50
50	0	629	374	4,33	1,96	1,68
50	5	768	414	4,62	2,16	1,86
50	7,2	834	431	4,75	2,25	1,93
50	10	922	454	4,94	2,36	2,03
55	-25	158	205	3,30	0,90	0,77
55	-20	214	238	3,48	1,05	0,90
55	-15	286	273	3,68	1,22	1,05
55	-10	374	310	3,90	1,40	1,21
55	-5	477	349	4,15	1,59	1,37
55	0	597	389	4,44	1,78	1,53
55	5	732	431	4,75	1,97	1,70
55	7,2	796	450	4,90	2,06	1,77
55	10	882	475	5,10	2,16	1,86
60	-25	142	205	3,30	0,81	0,69
60	-20	195	241	3,49	0,94	0,81
60	-15	264	279	3,71	1,10	0,95
60	-10	348	319	3,96	1,27	1,09
60	-5	448	360	4,23	1,45	1,24
60	0	564	403	4,54	1,63	1,40
60	5	695	448	4,89	1,80	1,55
60	7,2	758	469	5,05	1,88	1,62
60	10	843	495	5,27	1,98	1,70
65	-25	127	205	3,30	0,72	0,62
65	-20	176	244	3,51	0,84	0,72
65	-15	241	285	3,74	0,99	0,85
65	-10	322	327	4,01	1,14	0,98
65	-5	419	372	4,31	1,31	1,13
65	0	531	418	4,65	1,48	1,27
65	5	659	466	5,03	1,65	1,42
65	7,2	721	487	5,21	1,72	1,48
65	10	803	515	5,45	1,81	1,56

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	221	206	3,31	1,07	0,93
40	-20	293	231	3,44	1,27	1,10
40	-15	383	257	3,58	1,49	1,28
40	-10	488	285	3,75	1,71	1,48
40	-5	610	316	3,94	1,93	1,67
40	0	749	347	4,15	2,16	1,86
40	5	905	381	4,38	2,37	2,05
40	7,2	978	397	4,49	2,47	2,13
40	10	1.077	417	4,64	2,58	2,23
45	-25	203	206	3,31	0,98	0,85
45	-20	271	234	3,45	1,16	1,00
45	-15	356	263	3,62	1,35	1,17
45	-10	457	294	3,80	1,55	1,34
45	-5	575	327	4,01	1,76	1,52
45	0	710	362	4,25	1,96	1,69
45	5	861	399	4,51	2,16	1,87
45	7,2	932	415	4,63	2,24	1,94
45	10	1.028	437	4,80	2,35	2,03
50	-25	185	206	3,31	0,90	0,78
50	-20	249	237	3,47	1,05	0,91
50	-15	329	269	3,65	1,23	1,06
50	-10	426	303	3,86	1,41	1,22
50	-5	540	339	4,09	1,59	1,38
50	0	670	377	4,35	1,78	1,54
50	5	817	416	4,64	1,96	1,70
50	7,2	887	434	4,78	2,04	1,76
50	10	980	457	4,96	2,14	1,85
55	-25	167	206	3,31	0,81	0,70
55	-20	227	239	3,48	0,95	0,82
55	-15	303	275	3,68	1,10	0,95
55	-10	396	312	3,91	1,27	1,10
55	-5	505	351	4,17	1,44	1,24
55	0	631	391	4,45	1,61	1,39
55	5	773	434	4,77	1,78	1,54
55	7,2	841	453	4,92	1,86	1,60
55	10	932	478	5,13	1,95	1,68
60	-25	149	206	3,31	0,72	0,63
60	-20	205	242	3,50	0,84	0,73
60	-15	276	281	3,72	0,98	0,85
60	-10	365	321	3,97	1,14	0,98
60	-5	469	362	4,25	1,30	1,12
60	0	591	406	4,56	1,46	1,26
60	5	729	451	4,91	1,62	1,40
60	7,2	795	472	5,08	1,69	1,46
60	10	883	498	5,30	1,77	1,53
65	-25	131	206	3,31	0,64	0,55
65	-20	182	245	3,52	0,74	0,64
65	-15	250	286	3,75	0,87	0,75
65	-10	334	329	4,02	1,01	0,88
65	-5	434	374	4,33	1,16	1,00
65	0	551	420	4,67	1,31	1,13
65	5	685	469	5,05	1,46	1,26
65	7,2	749	490	5,23	1,53	1,32
65	10	835	519	5,47	1,61	1,39

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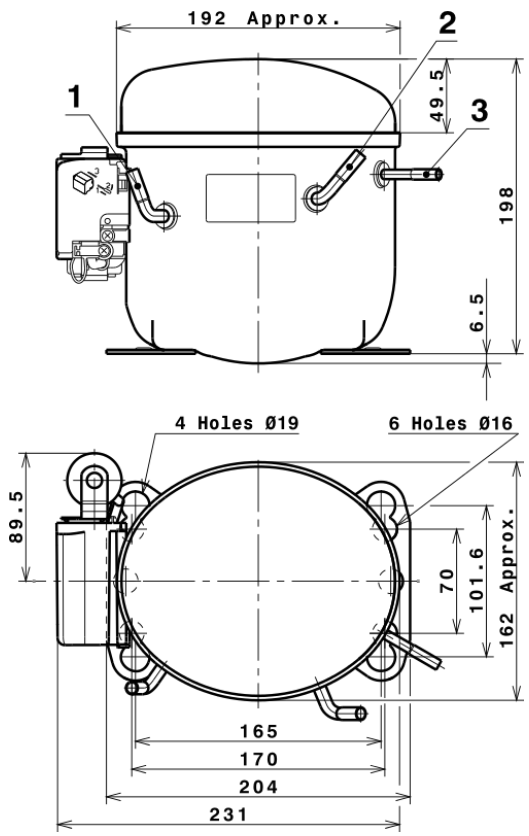
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.072,0697823689	236,5428606564	3,2471810842	17,030587532806
2	36,5466972221	2,0222235974	0,0122711297	0,66063018194074
3	-8,3078782160	2,9990602412	0,0234025740	-0,014614617262902
4	0,3253920037	0,0395023997	0,0006219930	0,0093979048813084
5	-0,1875887861	0,1199624096	0,0009361030	0,0010331194340905

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

Technical Data Sheet

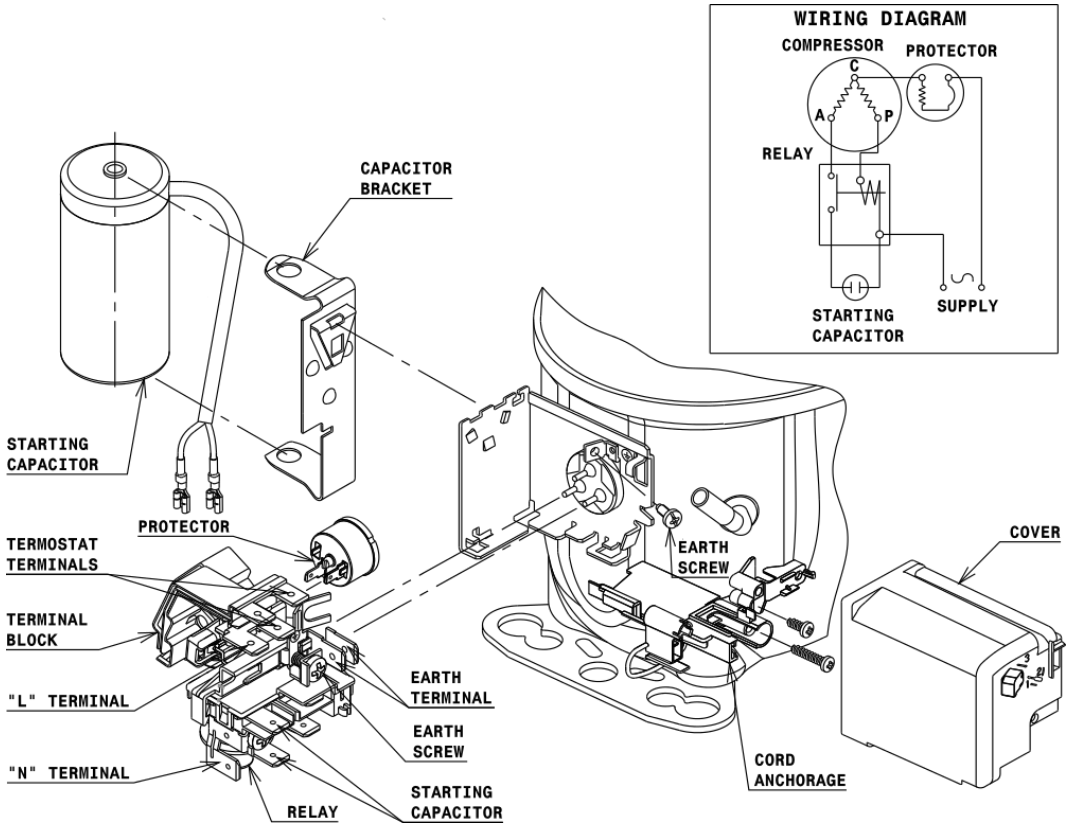
COMPRESSOR DIMENSIONS



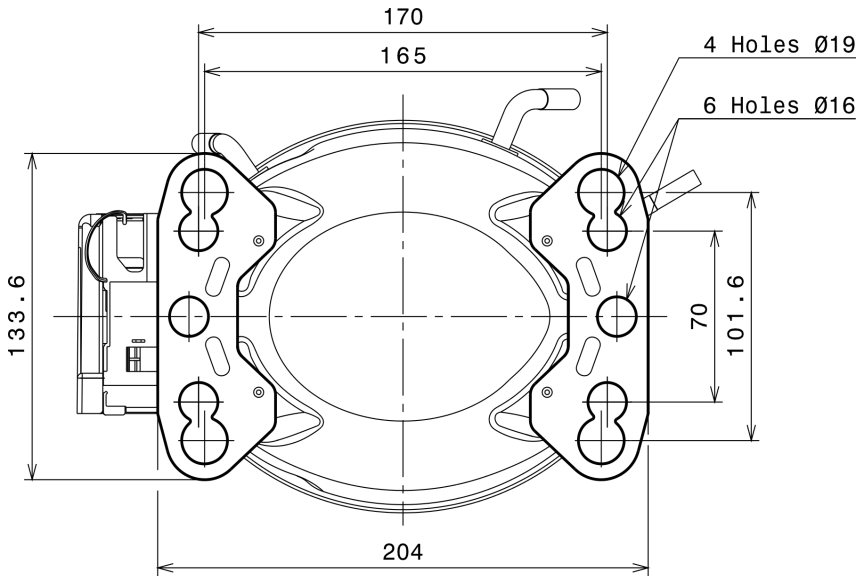
	DESIGNATION	INTERNAL DIAM.
1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



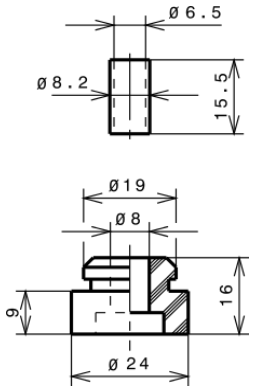
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

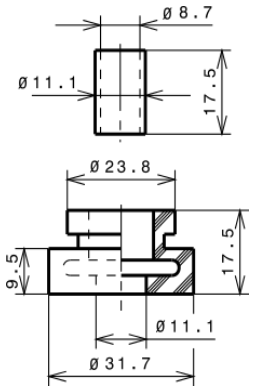
STANDARD

Ø16 holes (170x70 net)



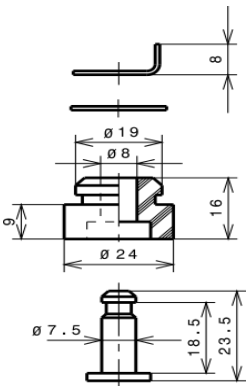
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HMBP

