Single
Packs

Single Pack KLF8.6CND 220-240V 50Hz CSIR

Single pack code number: **195B4820**

Position	Title	Code	Amount
1	Compressor KLF8.6CND	106H2900	1
2	Starting relay (QLZ-5.5A, overload protector T1247/L6)	117U7084	1
3	Starting capacitor (80µF 260V, 6.3mm)	117U5003	1
4	KL accessories	103N1060	1
5	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model
KLF8.6CND

Sales code:
106H2900

Compressor Data

Refrigerant(s)	**R290**
Refr. charge - tech. limit	**200g / 7.05oz**
Weight	**9.20 kg / 20.28lbs**
Displacement	**8.60 cm3 / 0.52cu.in**
Compressors on pallet	**100**

General – Configurations With KLF8.6CND

–	**Conf. 1**	**Conf. 2**
Motor configuration	CSIR	RSCR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1
Voltage range	198-254 V	198-254 V
Approvals	VDE	VDE
Starting torque	HST	HST
Refrigerant	R290	R290
Application	LBP+MBP	LBP+MBP
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

Model
KLF8.6CND

Sales code:
106H2900

Compressor Design

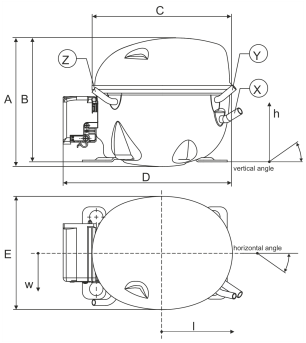
Oil type	**POE**	Winding resistance main	**8.4 Ohm**
Oil viscosity	**19,2cSt**	Winding resistance aux	**17.4 Ohm**
Oil quantity	**239 / 8.08fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,575 cm3 / 53.26fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**external**		

Compressor Dimensions

Housing

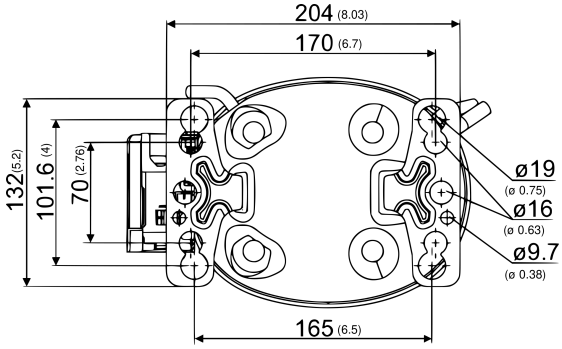
A Height	**182mm / 7.17in**
B Height	**175mm / 6.89in**
C Length shell	**198mm / 7.80in**
D Length w. cover	**238mm / 9.37in**
E Width	**160mm / 6.30in**

Find 3D Model here



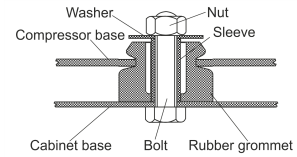
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	35°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	119/73/59 / 4.69/2.87/2.32in	117/107/66 / 4.61/4.21/2.60in	-88/101/71 / -3.46/3.98/2.80in
Straight tube l. [mm]	13.5 / 0.53in	13.5 / 0.53in	13.5 / 0.53in

Mounting Accessories

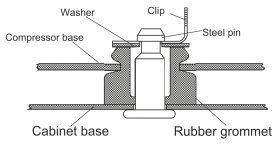


Dimensions in mm [in]

Bolt joint



Snap-on



	one comp.	multi pack
Bolt joint | M6 | ø16mm	118-1917	118-1918
Bolt joint | ø1/4" | ø16mm	118-1946	–
Bolt joint | ø1/4" | ø19mm	118-1949	–
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

Model
KLF8.6CND Configuration 1

Sales code:
106H2900

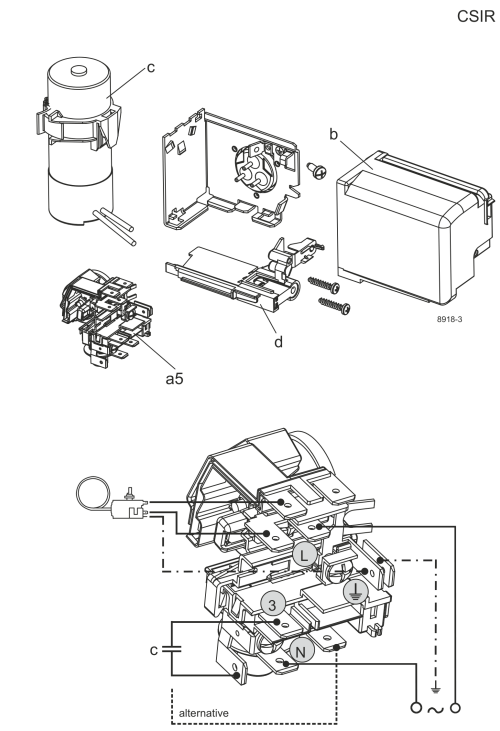
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**VDE**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**14.3 A**
RLA (rated load amps / 1s/ U(N))	**2.3 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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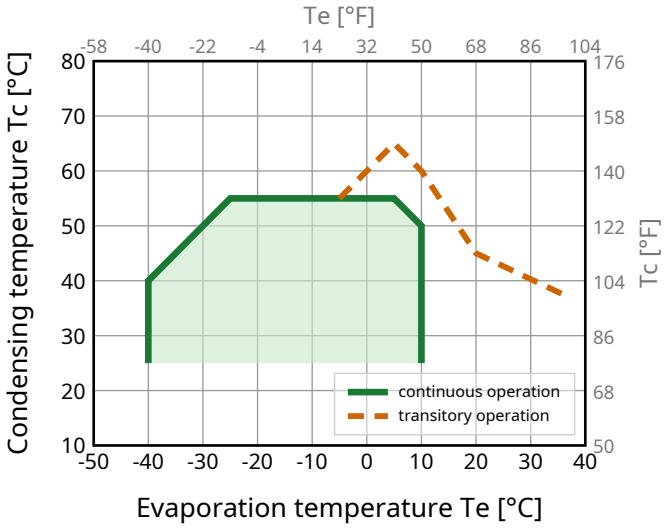
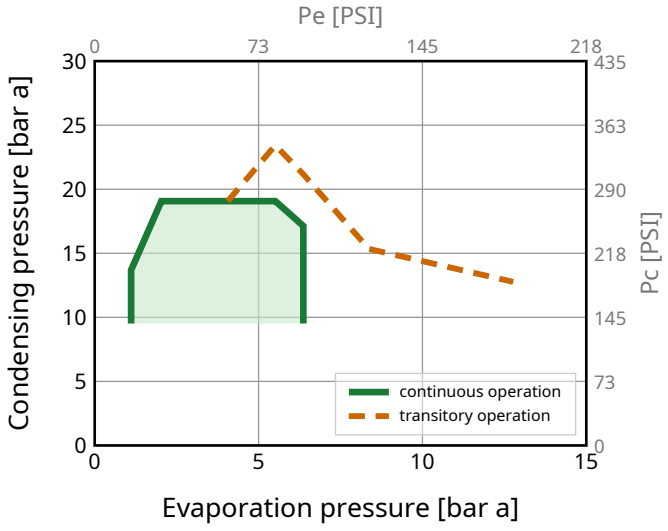
Components
a5 current relay (T1247/L6) 117U7084
c start capacitor (80µF, 6.3mm) 117U5003
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components
b, d 100x cover + clamp + screws (5VA) 103N2060
b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range





Model

KLF8.6CND Configuration 1

Sales code:

106H2900

Standard Conditions

R290, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**458**	1562	394	**1.61**	5.50	284	1.77	4.65	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**342**	1169	295	**1.25**	4.27	274	1.74	4.29	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**253**	864	218	**1.28**	4.35	199	1.51	2.91	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**792**	2701	681	**2.00**	6.83	396	2.19	9.06	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**632**	2156	543	**1.69**	5.75	375	2.11	8.04	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**702**	2397	604	**2.05**	7.01	342	1.98	8.64	**EN12900 MBP**

Performance Tables

R290, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-40	-40	**183**	624	157	**1.03**	3.51	177	1.46	2.06
-30	-22	**315**	1074	271	**1.36**	4.66	231	1.60	3.56
-20	-4	**493**	1682	424	**1.72**	5.87	287	1.78	5.61
-10	14	**730**	2491	628	**2.14**	7.29	342	1.98	8.38
0	32	**1040**	3548	894	**2.64**	9.02	393	2.18	12.09
10	50	**1435**	4895	1234	**3.28**	11.20	437	2.36	16.97

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-40	-40	**150**	512	129	**0.81**	2.76	186	1.48	1.87
-30	-22	**270**	921	232	**1.11**	3.80	242	1.63	3.37
-20	-4	**426**	1454	366	**1.39**	4.74	307	1.85	5.36
-10	14	**632**	2156	543	**1.69**	5.75	375	2.11	8.04
0	32	**900**	3073	774	**2.03**	6.92	444	2.39	11.61
10	50	**1245**	4248	1071	**2.44**	8.33	510	2.67	16.36

Model

KLF8.6CND Configuration 2

Sales code:

106H2900

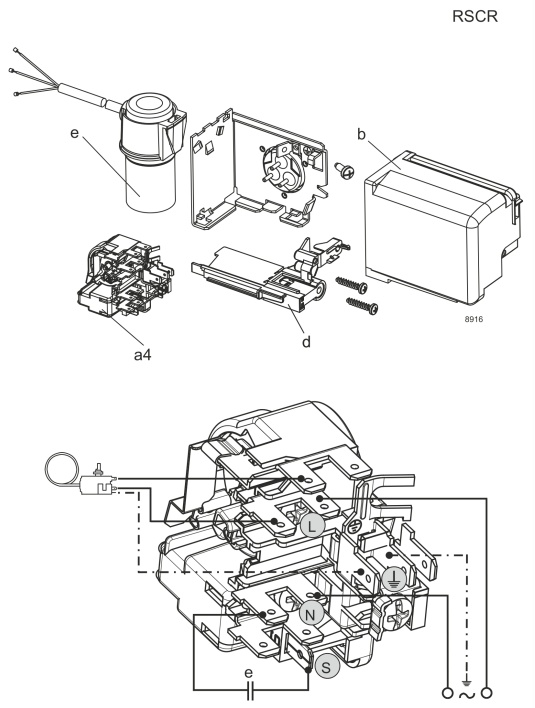
Configuration

Motor configuration	**RSCR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**VDE**
Starting device type	**PTC**
Run capacitor	**5 µF**
Start capacitor	**-/-**
RLA (rated load amps / 1s/ U(N))	**-/-A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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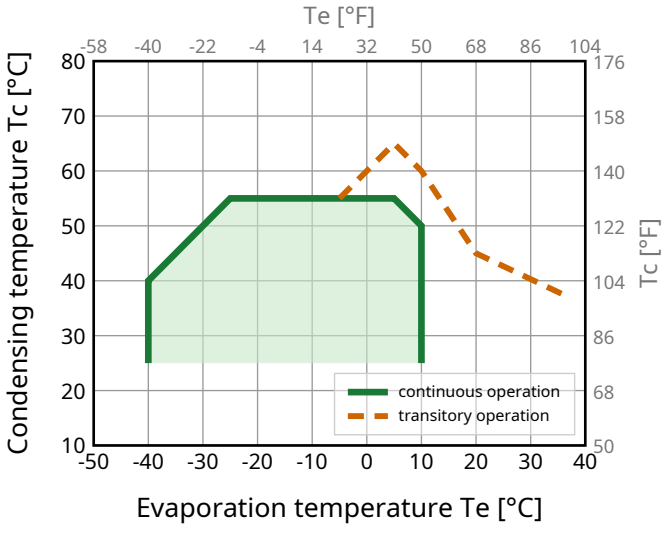
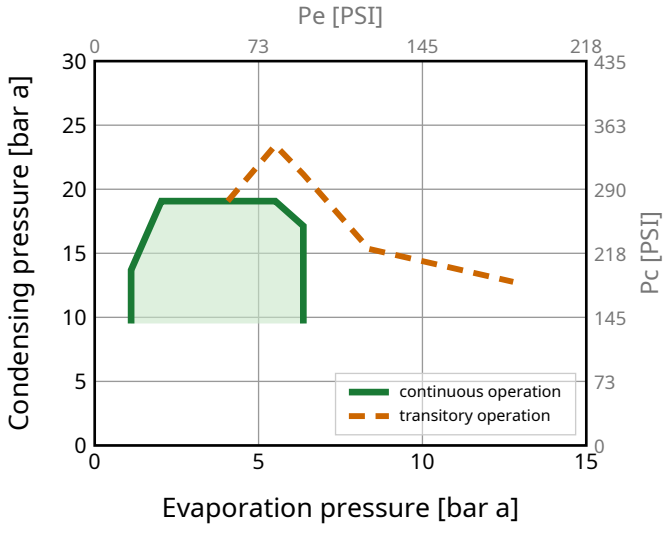
Components
a4 DAS7 (PTC, 6.3mm, T1218/L6 - S7) 103N0256
e run capacitor (5µF, 6.3mm) 117-7191
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components
b, d 100x cover + clamp + screws (5VA) 103N2060
b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range





Model
KLF8.6CND Configuration 2

Sales code:
106H2900

Standard Conditions

R290, 220 V/50 Hz, RSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**459**	1567	395	**1.71**	5.83	269	1.43	4.67	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**343**	1172	295	**1.32**	4.51	260	1.39	4.30	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**254**	866	218	**1.34**	4.59	189	1.13	2.91	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**796**	2714	684	**2.14**	7.31	372	1.86	9.11	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**635**	2166	546	**1.80**	6.14	353	1.78	8.07	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**705**	2406	606	**2.19**	7.46	322	1.65	8.68	**EN12900 MBP**

Performance Tables

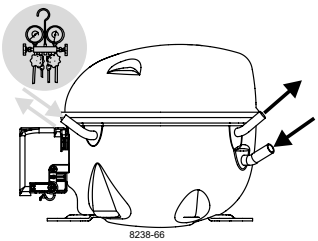
R290, 220 V/50 Hz, RSCR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-40	-40	**183**	624	157	**1.09**	3.71	168	1.06	2.06
-30	-22	**316**	1076	271	**1.44**	4.92	219	1.24	3.56
-20	-4	**494**	1687	425	**1.82**	6.22	271	1.44	5.62
-10	14	**733**	2501	630	**2.27**	7.76	322	1.65	8.42
0	32	**1045**	3565	899	**2.83**	9.65	369	1.85	12.15
10	50	**1443**	4924	1241	**3.53**	12.04	409	2.02	17.07

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-40	-40	**151**	514	130	**0.85**	2.91	176	1.09	1.87
-30	-22	**270**	923	233	**1.18**	4.01	230	1.28	3.38
-20	-4	**427**	1458	367	**1.47**	5.03	290	1.51	5.38
-10	14	**635**	2166	546	**1.80**	6.14	353	1.78	8.07
0	32	**906**	3091	779	**2.18**	7.44	415	2.05	11.68
10	50	**1254**	4280	1079	**2.64**	9.02	475	2.31	16.48



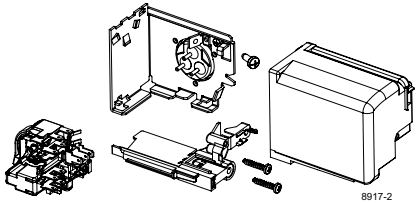
KL Compressors

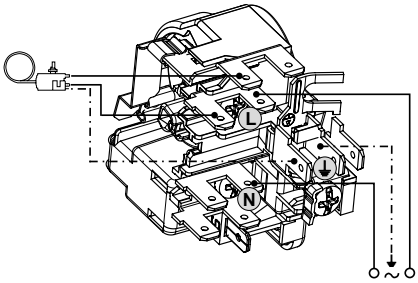
SECOP

Keep electrical equipment clear from oil, chemicals, and water

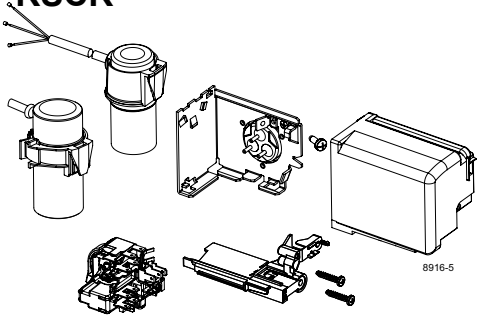
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

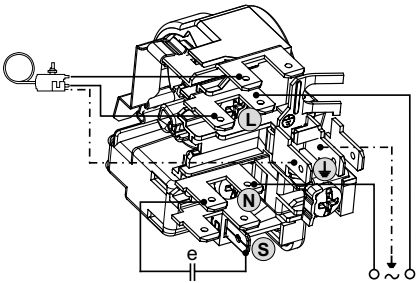
RSIR



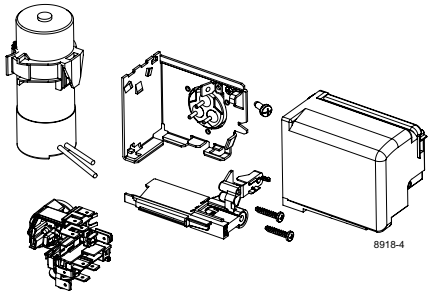


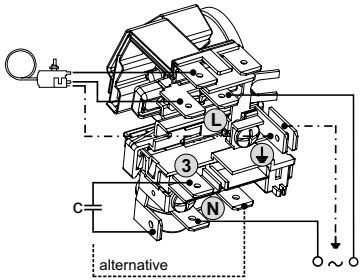
RSCR

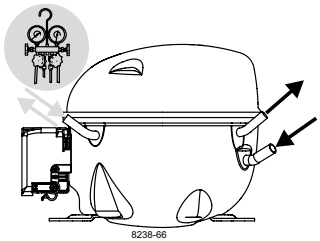




CSIR







KL Compressors

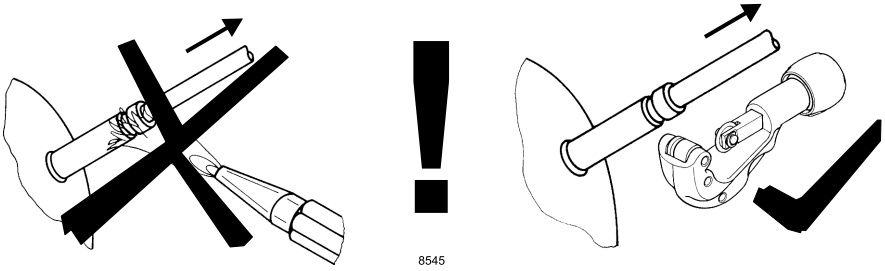
SECOP

Keep electrical equipment clear from oil, chemicals, and water

When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**