

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

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Compressor Design

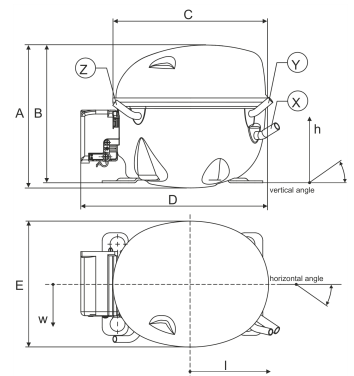
Oil type	POE	Motor protection	external
Oil viscosity	19,2cSt	Max. winding temp.	125 °C
Oil quantity	239 / 8.08fl.oz	Max. discharge temp.	130°C / 266°F
Free gas volume comp.	1,575 cm ³ / 53.26fl.oz		

Compressor Dimensions

Housing

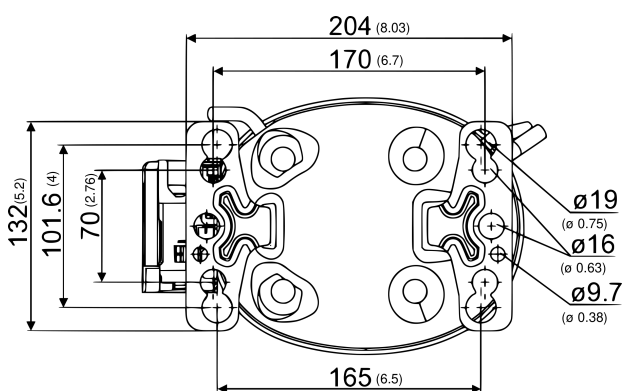
A Height	182mm / 7.17in
B Height	175mm / 6.89in
C Length shell	198mm / 7.80in
D Length w. cover	238mm / 9.37in
E Width	160mm / 6.30in

[Find 3D Model here](#)

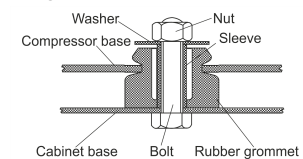


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	35°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	119/73/59 / 4.69/2.87/2.32in	117/107/66 / 4.61/4.21/2.60in	-88/101/71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

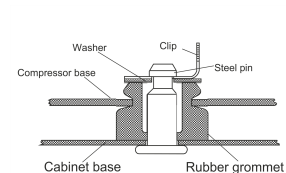
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	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

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Configuration 1

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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

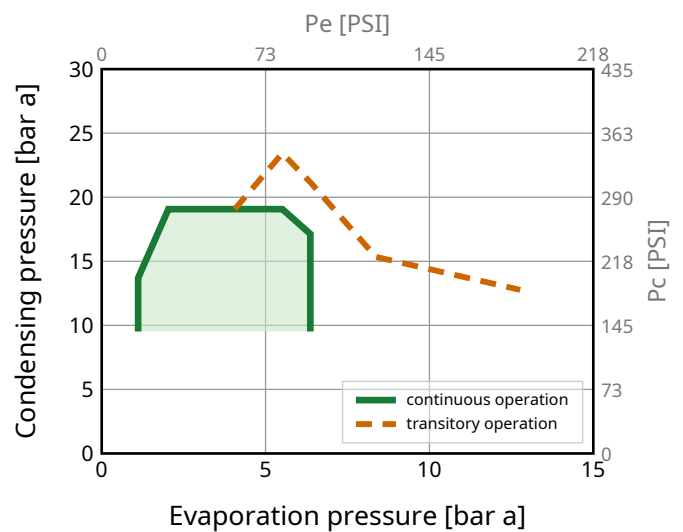
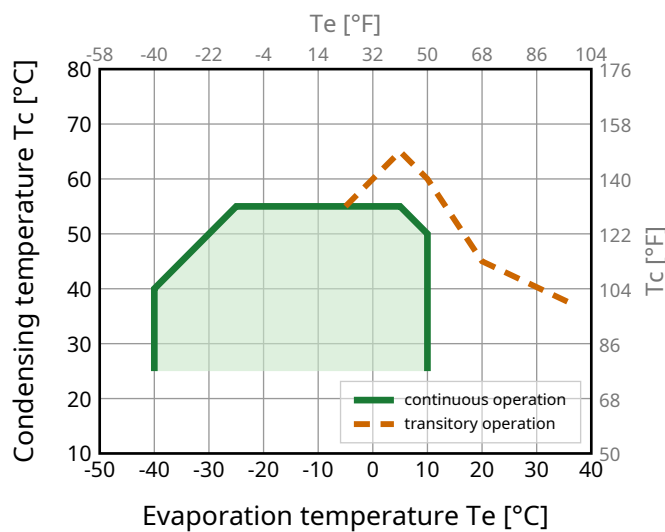
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components

b, d 100x cover + clamp + screws (5VA) 103N2060

b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range



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Configuration 1

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Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°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	m
[°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

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Configuration 2

Sales code:
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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

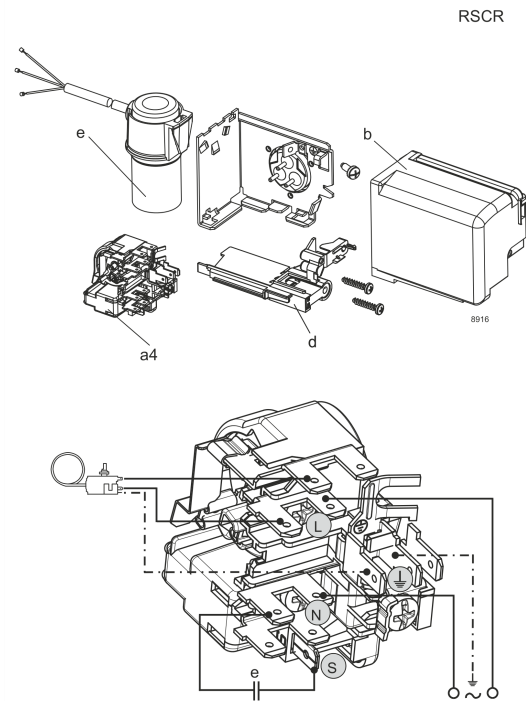
Ambient temperature range: 10 - 43°C / 50 - 109°F

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 (5 μ F, 6.3mm) 117-7191

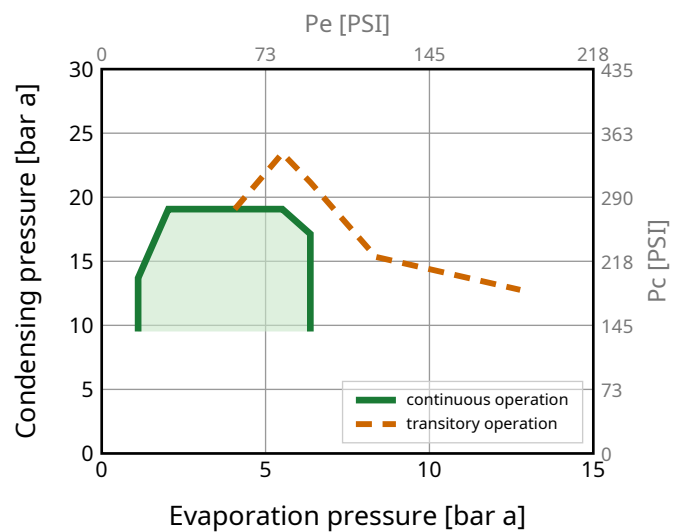
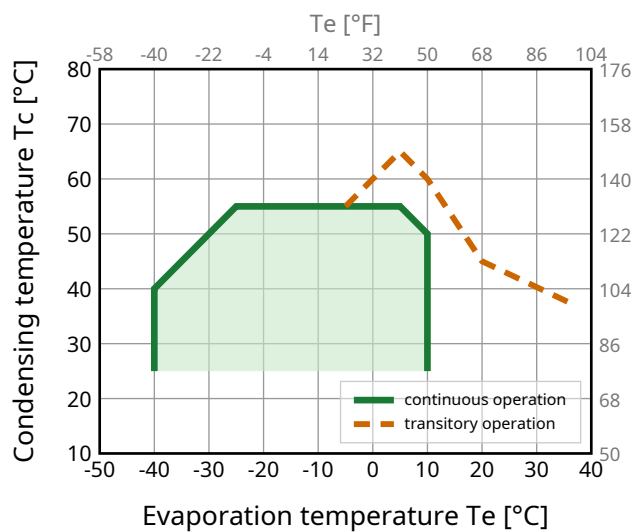
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components

b, d 100x cover + clamp + screws (5VA) 103N2060

b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range



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Configuration 2

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Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	$\dot{m}$	
[°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	$\dot{m}$
[°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