

Model
KLF7.7CND

Sales code:
106H2800

Compressor Data

Refrigerant(s)	R290
Refr. charge - tech. limit	200g / 7.05oz
Weight	9.60 kg / 21.16lbs
Displacement	7.70 cm3 / 0.47cu.in
Compressors on pallet	100



General – Configurations With KLF7.7CND

-	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, CCC	VDE, CCC
Starting torque	HST	LST
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

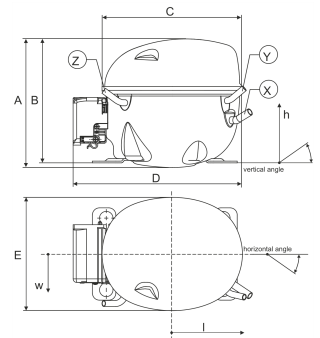
Oil type	POE	Winding resistance main	8.400 Ohm
Oil viscosity	9,7cSt	Winding resistance aux	11.90 Ohm
Oil quantity	165 / 5.58fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,575 cm ³ / 53.26fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	external		

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

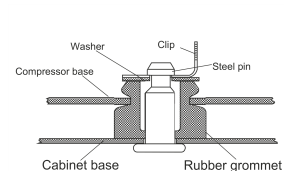
Mounting Accessories



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, CCC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	13.2 A
RLA (rated load amps / 1s/ U(N))	2.1 A
Cut in current (U(N))	12.3 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 (T0377/L6-S1) 117U7071

c start capacitor (80µF, 6.3mm) 117U5001

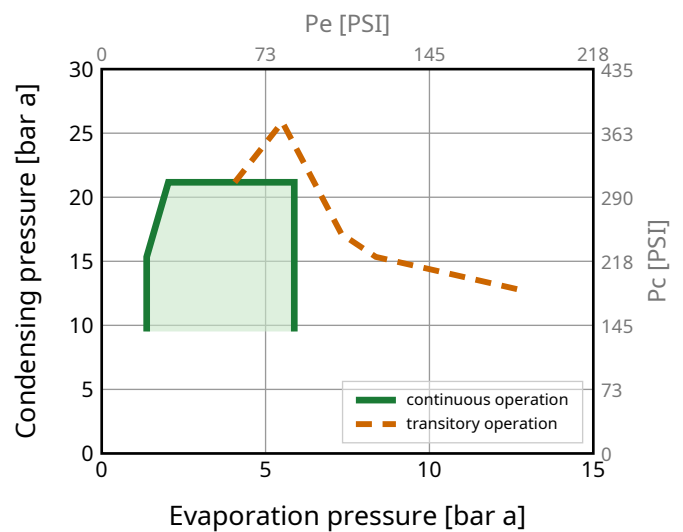
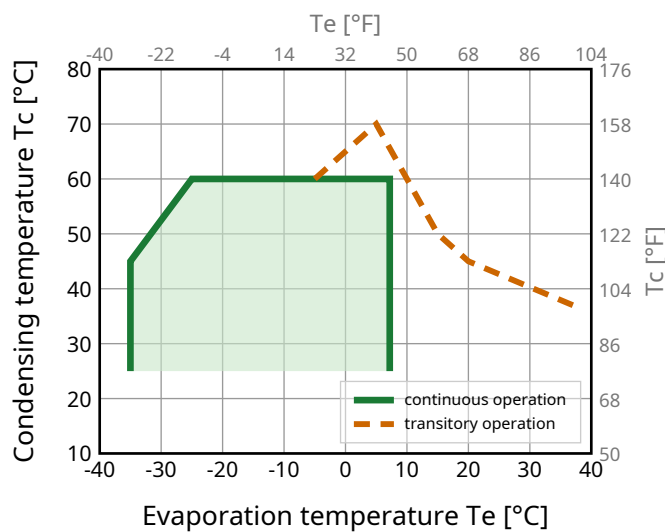
b, d cover + clamp + screws (5VA-compl.) 103N0600

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	387	1319	332	1.52	5.20	254	1.68	3.93	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	288	981	247	1.18	4.01	245	1.65	3.61	CECOMAF LBP
-35 -31	40 104	20 68	40 104	223	760	192	1.21	4.11	185	1.49	2.56	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	688	2346	591	2.00	6.84	343	1.99	7.87	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	547	1867	471	1.67	5.70	328	1.93	6.96	CECOMAF MBP
-10 14	45 113	20 68	45 113	610	2080	524	2.03	6.93	300	1.83	7.50	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]
-35	-31	210	717	181	1.11	3.79	189	1.50	2.37
-30	-22	270	922	232	1.28	4.35	212	1.55	3.05
-20	-4	426	1454	366	1.66	5.67	256	1.69	4.85
-10	14	634	2162	545	2.11	7.21	300	1.83	7.28
0	32	899	3066	773	2.63	8.97	342	1.99	10.45
7.2	45	1128	3848	970	3.04	10.36	371	2.10	13.27

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

-35	-31	171	582	147	0.92	3.13	186	1.49	2.13
-30	-22	224	764	193	1.04	3.55	216	1.57	2.80
-20	-4	362	1236	311	1.33	4.53	273	1.74	4.56
-10	14	547	1867	471	1.67	5.70	328	1.93	6.96
0	32	785	2677	675	2.07	7.06	379	2.13	10.12
7.2	45	991	3381	852	2.39	8.16	414	2.27	12.95

Model

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Configuration 2

Sales code:

106H2800

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	LST
Approvals	VDE, CCC
Starting device type	PTC
Run capacitor	5 μF
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	13.2 A
RLA (rated load amps / 1s/ U(N))	2.1 A
Cut in current (U(N))	12.3 A

Ambient/ machine room temperatures minimum /maximum

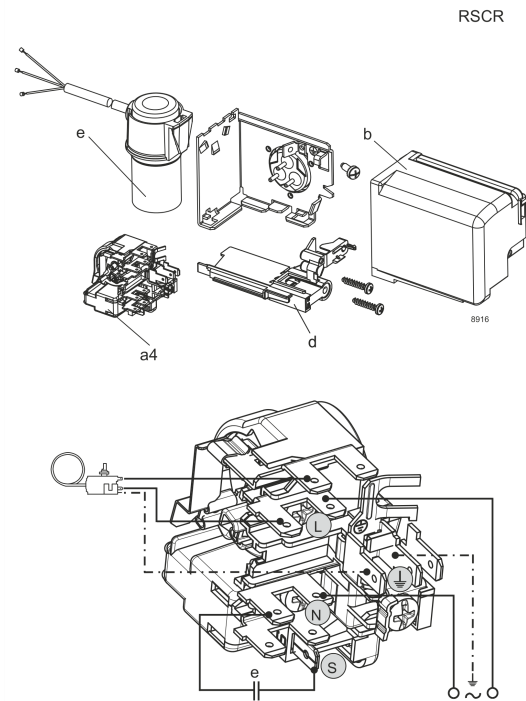
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

a4 DAS1 (PTC,6.3mm, T0377/L6 - S1) 103N0250

e run capacitor (5 μ F, 6.3mm) 117-7191

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

Alternative components

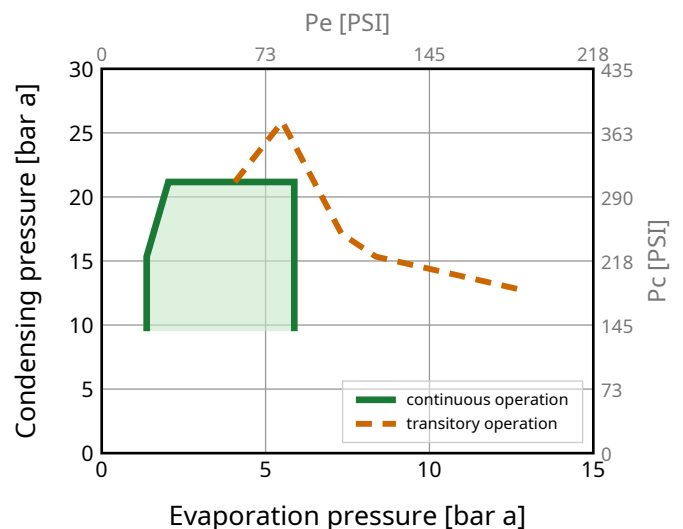
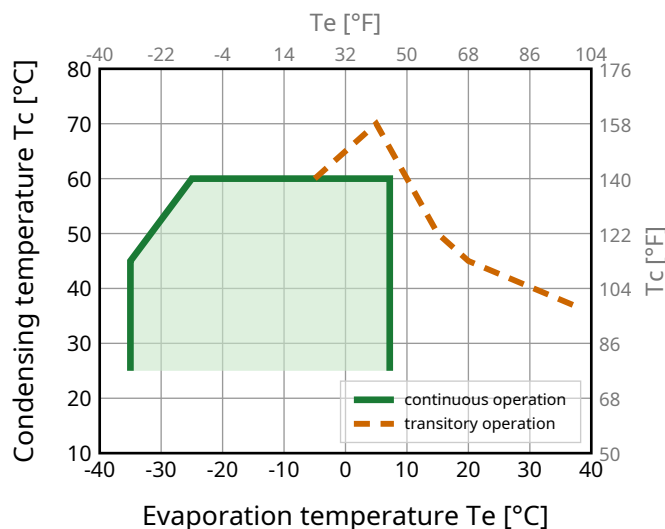
a4 ZAS1 (PTC,4.8mm, T0377/L6 - S1) 103N0252

e run capacitor (5 μ F, 4.8mm) 117-7190

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	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	390	1329	335	1.61	5.49	242	1.36	3.96	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	290	989	249	1.24	4.23	234	1.33	3.63	CECOMAF LBP
-35 -31	40 104	20 68	40 104	224	765	193	1.27	4.32	177	1.13	2.57	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	694	2367	597	2.13	7.25	326	1.69	7.94	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	552	1883	475	1.77	6.04	312	1.63	7.02	CECOMAF MBP
-10 14	45 113	20 68	45 113	614	2097	528	2.15	7.33	286	1.52	7.56	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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	212	722	182	1.17	3.98	181	1.14	2.38
-30	-22	272	929	234	1.34	4.58	203	1.21	3.08
-20	-4	429	1465	369	1.75	5.98	245	1.36	4.88
-10	14	639	2180	549	2.23	7.62	286	1.52	7.34
0	32	907	3093	780	2.79	9.51	325	1.69	10.54
7.2	45	1139	3885	979	3.23	11.01	353	1.80	13.39

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

-35	-31	172	587	148	0.96	3.29	178	1.14	2.14
-30	-22	226	770	194	1.09	3.73	206	1.23	2.82
-20	-4	365	1246	314	1.40	4.78	260	1.43	4.59
-10	14	552	1883	475	1.77	6.04	312	1.63	7.02
0	32	792	2703	681	2.20	7.51	360	1.83	10.22
7.2	45	1001	3416	861	2.55	8.70	393	1.97	13.08