

Model

Designation	KLF7.7LND	220-240V/50Hz 1~	Sales code:	106H2801
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	9,7cST	Displacement	7,7cm ³ / 0,47cu.in
Oil quantity	170cm ³ / 5,7fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	200g / 7,1oz		
Free gas volume comp.	1575cm ³ / 53,3fl.oz		
Weight	9,4kg / 20,7lbs		
Motor protection	external		
Winding resistance main	10,7Ω (at 25°C)		
Winding resistance aux	17Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with KLF7.7LND

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motorconfiguration	RSIR	RSIR	RSCR	RSCR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1	1	1
Voltage range	198-254V	198-254V	198-254V	198-254V
Approvals	VDE	VDE	VDE	VDE
Starting torque	LST	LST	LST	LST
Note	- / -			

Applications with KLF7.7LND

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R290	R290	R290	R290
Application	LBP	LBP	LBP	LBP
System cooling	fan 3m/s	static	fan 3m/s	static
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	- / -	- / -	- / -	- / -

Electrical data - Configurations with KLF7.7LND

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	PTC	PTC	PTC	PTC
Run capacitor	- / -	- / -	5μF	5μF
Start capacitor	- / -	- / -	- / -	- / -
LRA (locked rotor amps / 4s)	8,8A	8,8A	8,8A	8,8A
RLA (rated load amps / 1s)	1,7A	1,7A	1,7A	1,7A
Cut in current	14,7A	14,7A	14,7A	14,7A

Model

Designation

KLF7.7LND

220-240V/50Hz 1~

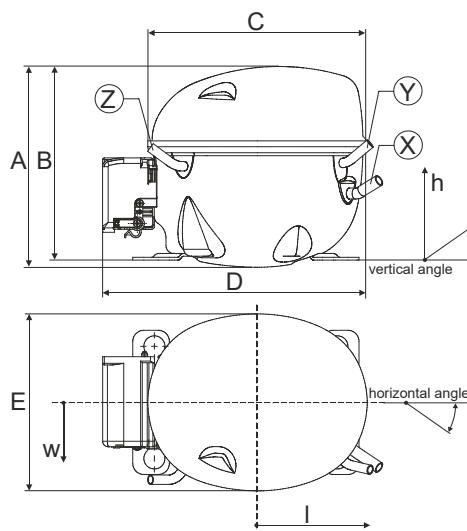
Sales code:

106H2801

Compressor dimensions

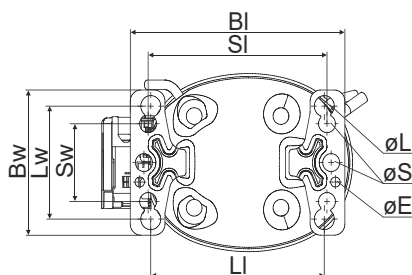
Housing	A Height	182mm / 7,17in
	B Height	175mm / 6,89in
	C Length shell	198mm / 7,8in
	D Length w. cover	238mm / 9,37in
	E Width	160mm / 6,3in

Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	35°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	120/72/62	112/106/62	-97/102/70
[in]	4,7/2,8/2,4	4,4/4,2/2,4	-3,8/4/2,8
Straight tube l. [mm]	14	14	14
[in]	0,5	0,5	0,5

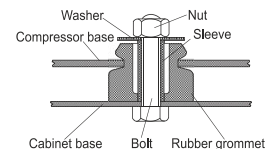


Compressor fixation

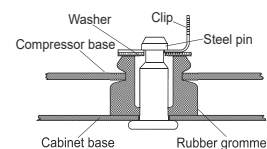
Bolt joint



Baseplate	[mm]	[inch]
BI	204	8.03
BW	132	5.2
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63



Snap-on



Mounting accessories

	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

Application notes

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

Model

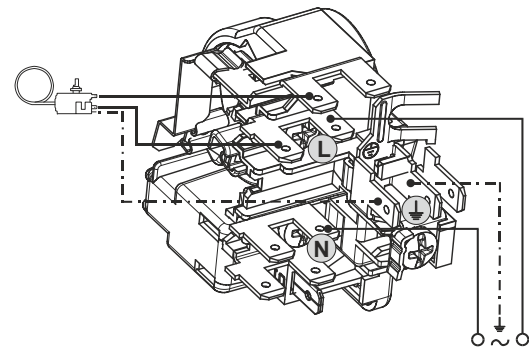
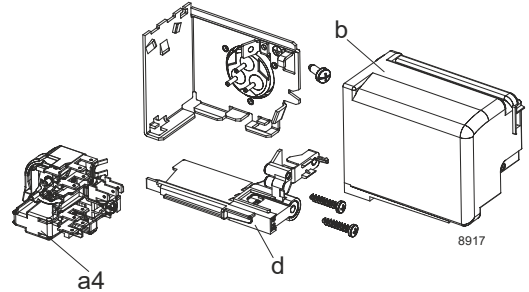
Designation	KLF7.7LND	220-240V/50Hz	Conf. 1	Sales code:	106H2801
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Configuration

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE

Electrical accessories / wiring diagram

RSIR

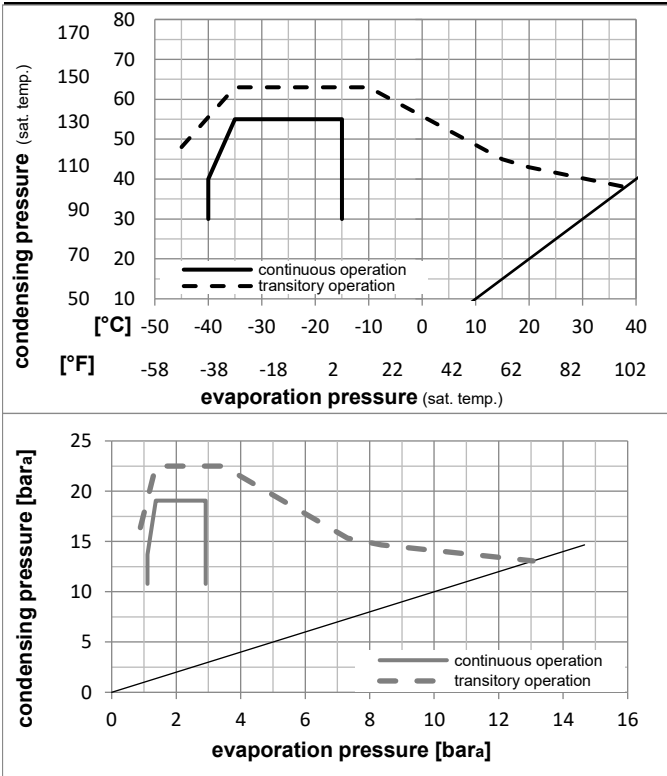


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

Operation Limits

Operation pressure range



Components

a4	DAS2 (PTC,6.3mm, T0089/L6 - S2)	103N0251
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

a4	ZAS2 (PTC,4.8mm, T0089/L6 - S2)	103N0253
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b, d	cover + clamp + screws(5VA-compl.)	103N0600
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Model

Designation **KLF7.7LND** **220-240V/50Hz** Conf. 1 Sales code: **106H2801**

Optimization + standard conditions

R290, 220V/50Hz, RSIR, fan 3m/s, VDE

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow						
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]							[W]	[A]	[kg/h]	ASHRAE LBP					
-23	-10	54	130	32	90	389,5	1330	335,2	1,57	5,37	1,35	247,9	1,45	3,94	ASHRAE LBP					
-25	-13	55	131	32	90	292,0	997	251,3	1,23	4,19	1,06	237,7	1,41	3,64	cecomaf LBP					
-35	-31	40	104	20	68	227,2	776	195,5	1,27	4,34	1,09	178,9	1,17	2,60	EN12900 LBP					
-23	-10	49	120	4,4	40	318,0	1086	273,7	1,31	4,48	1,13	242,6	1,43	4,40	ARI540 LBP					
-23	-10	41	105	32	90	426,3	1456	366,9	1,88	6,41	1,61	227,2	1,37	4,32	AHAM LBP					
-35	-31	45	113	32	90	214,1	731	184,2	1,18	4,03	1,02	181,4	1,18	2,40	opt					

Performance tables

R290, 220V/50Hz, RSIR, fan 3m/s, VDE

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	163,2	557	140,4	1,01	3,46	0,87	161,0	1,10	1,82
cond. pressure	-35	-31	214,1	731	184,2	1,18	4,03	1,02	181,4	1,18	2,40
pc= 45/113	-30	-22	274,9	939	236,6	1,35	4,60	1,16	203,9	1,27	3,09
return gas temp.	-25	-13	346,4	1183	298,1	1,52	5,19	1,31	227,8	1,37	3,91
RGT= 32/90	-20	-4	429,3	1466	369,4	1,70	5,81	1,46	252,4	1,47	4,86
liquid temp	-15	5	524,1	1790	451,0	1,89	6,46	1,63	277,1	1,56	5,96
Tliq= 45/113	-10	14	631,6	2157	543,6	2,10	7,16	1,81	301,1	1,66	7,23
[°C / °F]	-40	-40	129,3	442	111,3	0,85	2,91	0,73	151,8	1,06	1,59
cond. pressure	-35	-31	174,7	597	150,4	0,98	3,34	0,84	178,6	1,17	2,16
pc= 55/131	-30	-22	228,7	781	196,8	1,10	3,76	0,95	207,5	1,29	2,84
return gas temp	-25	-13	292,0	997	251,3	1,23	4,19	1,06	237,7	1,41	3,64
RGT= 32/90	-20	-4	365,3	1248	314,4	1,36	4,64	1,17	268,7	1,53	4,57
liquid temp	-15	5	449,3	1534	386,7	1,50	5,12	1,29	299,7	1,66	5,65
Tliq= 55/131	-10	14	544,6	1860	468,7	1,65	5,64	1,42	330,0	1,78	6,89

Model

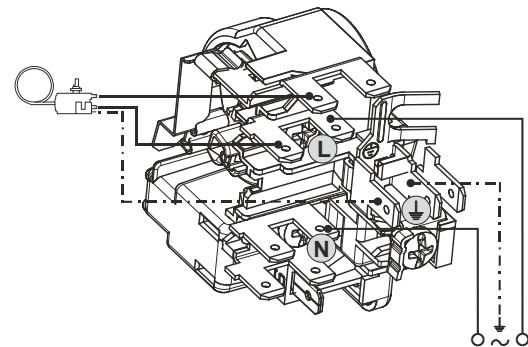
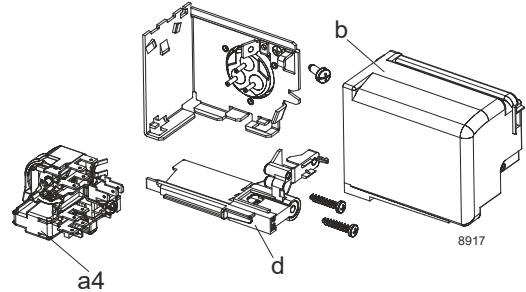
Designation	KLF7.7LND	220-240V/50Hz	Conf. 2	Sales code:	106H2801
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Configuration

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE

Electrical accessories / wiring diagram

RSIR

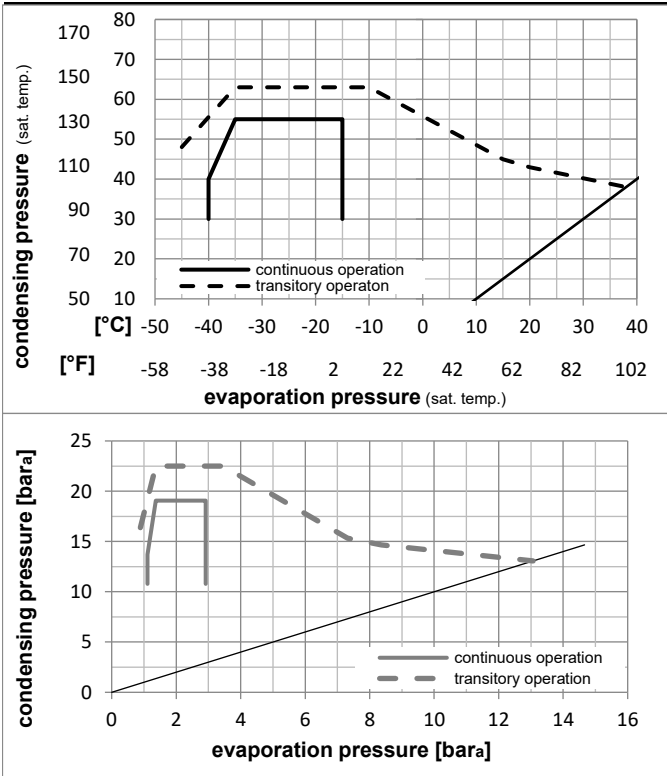


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 38°C / 50 - 101°F
Machine room temperature range:	10 - 43°C / 50 - 110°F
Compressor cooling:	static

Operation Limits

Operation pressure range



Components

a4	DAS2 (PTC,6.3mm, T0089/L6 - S2)	103N0251
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

a4	ZAS2 (PTC,4.8mm, T0089/L6 - S2)	103N0253
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b, d	cover + clamp + screws(5VA-compl.)	103N0600
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Model

Designation **KLF7.7LND** **220-240V/50Hz** Conf. 2 Sales code: **106H2801**

Optimization + standard conditions

R290, 220V/50Hz, RSIR, static, VDE

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER		P1	I	Ref. mass flow		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	380,8	1301	327,7	1,53	5,22	1,31	249,4	1,45	3,86	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	285,5	975	245,7	1,19	4,08	1,03	239,2	1,41	3,56	cecomaf LBP	
[°F]	-13	131	90	131											
[°C]	-35	40	20	40	222,1	759	191,2	1,24	4,22	1,06	179,8	1,18	2,54	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-23	49	4,4	49	310,9	1062	267,6	1,27	4,35	1,10	244,1	1,43	4,31	ARI540 LBP	
[°F]	-10	120	40	120											
[°C]	-23	41	32	32	416,8	1423	358,7	1,82	6,23	1,57	228,6	1,37	4,22	AHAM LBP	
[°F]	-10	105	90	90											
[°C]	-35	45	32	45	209,3	715	180,2	1,15	3,92	0,99	182,4	1,19	2,35	opt	
[°F]	-31	113	90	113											

Performance tables

R290, 220V/50Hz, RSIR, static, VDE

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	159,6	545	137,3	0,99	3,37	0,85	161,6	1,10	1,78
cond. pressure	-35	-31	209,3	715	180,2	1,15	3,92	0,99	182,4	1,19	2,35
pc= 45/113	-30	-22	268,8	918	231,4	1,31	4,47	1,13	205,2	1,28	3,02
return gas temp.	-25	-13	338,7	1157	291,5	1,48	5,05	1,27	229,3	1,37	3,82
RGT= 32/90	-20	-4	419,7	1433	361,2	1,65	5,64	1,42	254,0	1,47	4,75
liquid temp	-15	5	512,4	1750	441,0	1,84	6,28	1,58	278,7	1,57	5,83
Tliq= 45/113	-10	14	617,6	2109	531,5	2,04	6,97	1,76	302,8	1,67	7,06
[°C / °F]	-40	-40	126,4	432	108,8	0,83	2,84	0,71	152,2	1,07	1,56
cond. pressure	-35	-31	170,8	583	147,0	0,95	3,25	0,82	179,5	1,17	2,11
pc= 55/131	-30	-22	223,6	764	192,5	1,07	3,66	0,92	208,7	1,29	2,77
return gas temp	-25	-13	285,5	975	245,7	1,19	4,08	1,03	239,2	1,41	3,56
RGT= 32/90	-20	-4	357,2	1220	307,4	1,32	4,51	1,14	270,3	1,54	4,47
liquid temp	-15	5	439,3	1500	378,1	1,46	4,98	1,25	301,4	1,66	5,52
Tliq= 55/131	-10	14	532,5	1818	458,2	1,60	5,48	1,38	331,9	1,78	6,74

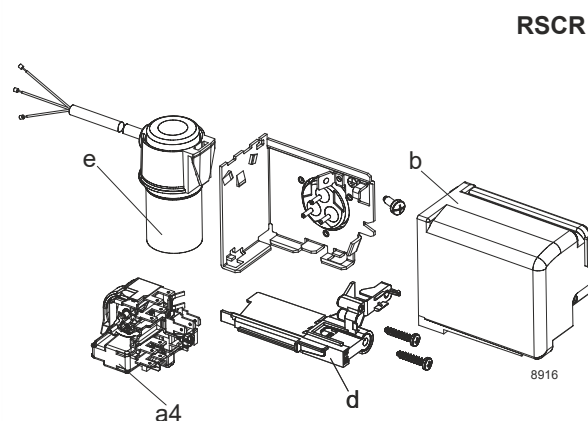
Model

Designation	KLF7.7LND	220-240V/50Hz	Conf. 3	Sales code:	106H2801
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Configuration

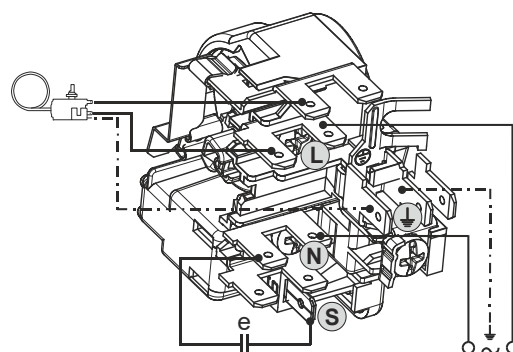
Motorconfiguration	RSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE

Electrical accessories / wiring diagram



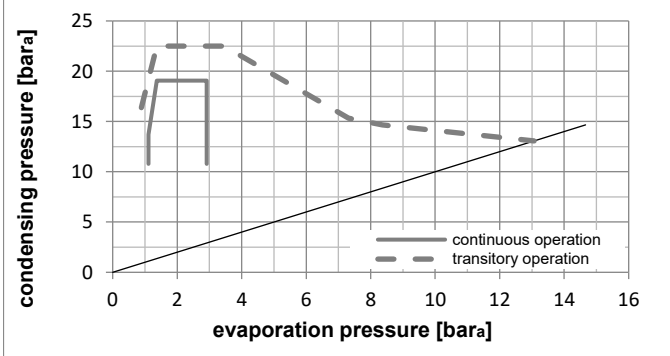
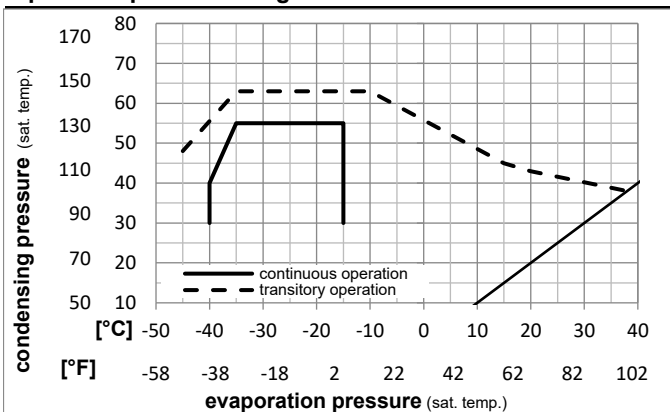
Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s



Operation Limits

Operation pressure range



Components

a4	DAS2 (PTC,6.3mm, T0089/L6 - S2)	103N0251
e	run capacitor (5µF, 6.3mm)	117-7191
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

a4	ZAS2 (PTC,4.8mm, T0089/L6 - S2)	103N0253
e	run capacitor (5µF, 4.8mm)	117-7190

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

Designation **KLF7.7LND** **220-240V/50Hz** Conf. 3 Sales code: **106H2801**

Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	Cooling capacity	COP	EER	P1	I	Ref. mass flow				
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	390,6	1334	336,2	1,65	5,65	1,42	236,3	1,19	3,96	ASHRAE LBP
	[°F]	-10	130	90										
	-25	55	32	55	292,8	1000	252,0	1,29	4,41	1,11	226,9	1,15	3,65	cecomaf LBP
	[°F]	-13	131	90										
	-35	40	20	40	227,6	777	195,9	1,33	4,53	1,14	171,4	0,92	2,60	EN12900 LBP
	[°F]	-31	104	68										
	-23	49	4,4	49	318,9	1089	274,5	1,38	4,71	1,19	231,4	1,17	4,42	ARI540 LBP
	[°F]	-10	120	40										
	-23	41	32	32	427,4	1460	367,8	1,97	6,72	1,69	217,1	1,11	4,33	AHAM LBP
	[°F]	-10	105	90										
	-35	45	32	45	214,5	732	184,6	1,23	4,21	1,06	173,9	0,93	2,40	opt
	[°F]	-31	113	90										

Performance tables

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

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	163,4	558	140,6	1,06	3,63	0,91	153,9	0,85	1,83
cond. pressure	-35	-31	214,5	732	184,6	1,23	4,21	1,06	173,9	0,93	2,40
pc= 45/113	-30	-22	275,5	941	237,1	1,41	4,82	1,21	195,3	1,02	3,10
return gas temp.	-25	-13	347,4	1186	298,9	1,60	5,45	1,37	217,7	1,11	3,92
RGT= 32/90	-20	-4	430,6	1471	370,6	1,79	6,11	1,54	240,5	1,21	4,88
liquid temp	-15	5	526,0	1796	452,7	2,00	6,83	1,72	263,1	1,31	5,98
Tliq= 45/113	-10	14	634,2	2166	545,8	2,23	7,60	1,92	285,0	1,40	7,26
[°C / °F]	-40	-40	129,6	443	111,5	0,89	3,05	0,77	145,2	0,82	1,60
cond. pressure	-35	-31	175,0	598	150,6	1,02	3,49	0,88	171,2	0,92	2,16
pc= 55/131	-30	-22	229,2	783	197,3	1,15	3,94	0,99	198,6	1,03	2,84
return gas temp	-25	-13	292,8	1000	252,0	1,29	4,41	1,11	226,9	1,15	3,65
RGT= 32/90	-20	-4	366,5	1252	315,5	1,43	4,90	1,23	255,5	1,27	4,58
liquid temp	-15	5	451,1	1541	388,2	1,59	5,43	1,37	283,8	1,40	5,67
Tliq= 55/131	-10	14	547,3	1869	471,0	1,76	6,00	1,51	311,4	1,52	6,92

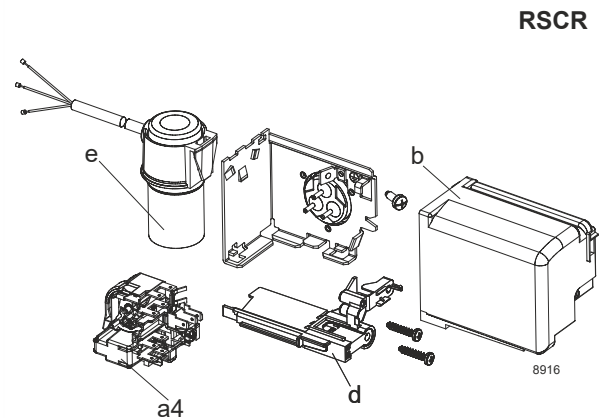
Model

Designation	KLF7.7LND	220-240V/50Hz	Conf. 4	Sales code:	106H2801
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Configuration

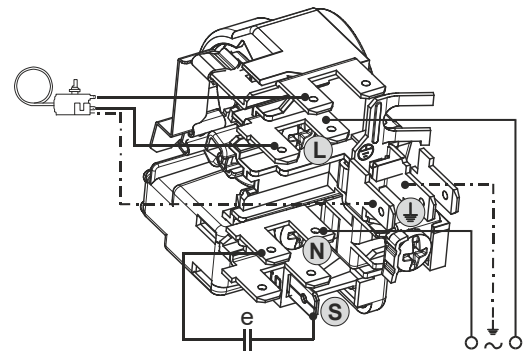
Motorconfiguration	RSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE

Electrical accessories / wiring diagram



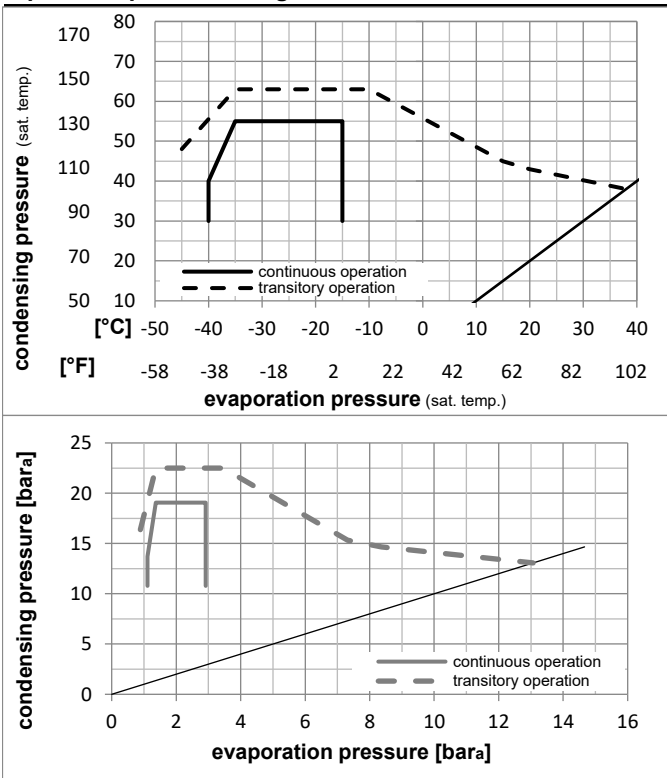
Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 38°C / 50 - 101°F
Machine room temperature range:	10 - 43°C / 50 - 110°F
Compressor cooling:	static



Operation Limits

Operation pressure range



Components

a4	DAS2 (PTC,6.3mm, T0089/L6 - S2)	103N0251
e	run capacitor (5µF, 6.3mm)	117-7191
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

a4	ZAS2 (PTC,4.8mm, T0089/L6 - S2)	103N0253
e	run capacitor (5µF, 4.8mm)	117-7190

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

Designation **KLF7.7LND** **220-240V/50Hz** Conf. 4 Sales code: **106H2801**

Optimization + standard conditions

R290, 220V/50Hz, RSCR, static, VDE

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER		P1	I	Ref. mass flow		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]										
-23	54	32	32	381,9	1304	328,7	1,61	5,49	1,38	237,6	1,20	3,87	ASHRAE LBP		
-10	130	90	90												
-25	55	32	55	286,3	978	246,4	1,25	4,29	1,08	228,2	1,16	3,57	cecomaf LBP		
-13	131	90	131												
-35	40	20	40	222,6	760	191,5	1,29	4,41	1,11	172,2	0,92	2,54	EN12900 LBP		
-31	104	68	104												
-23	49	4,4	49	311,9	1065	268,4	1,34	4,57	1,15	232,8	1,18	4,32	ARI540 LBP		
-10	120	40	120												
-23	41	32	32	417,9	1427	359,7	1,91	6,54	1,65	218,4	1,12	4,23	AHAM LBP		
-10	105	90	90												
-35	45	32	45	209,7	716	180,5	1,20	4,10	1,03	174,7	0,94	2,35	opt		
-31	113	90	113												

Performance tables

R290, 220V/50Hz, RSCR, static, VDE

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	159,8	546	137,5	1,04	3,54	0,89	154,4	0,85	1,79
cond. pressure	-35	-31	209,7	716	180,5	1,20	4,10	1,03	174,7	0,94	2,35
pc= 45/113	-30	-22	269,4	920	231,9	1,37	4,68	1,18	196,5	1,02	3,03
return gas temp.	-25	-13	339,7	1160	292,3	1,55	5,30	1,33	219,0	1,12	3,83
RGT= 32/90	-20	-4	421,0	1438	362,4	1,74	5,94	1,50	241,9	1,22	4,77
liquid temp	-15	5	514,3	1756	442,6	1,94	6,64	1,67	264,6	1,31	5,85
Tliq= 45/113	-10	14	620,1	2118	533,7	2,16	7,39	1,86	286,5	1,41	7,09
[°C / °F]	-40	-40	126,7	433	109,1	0,87	2,97	0,75	145,6	0,82	1,56
cond. pressure	-35	-31	171,2	585	147,3	1,00	3,40	0,86	172,0	0,93	2,12
pc= 55/131	-30	-22	224,1	765	192,9	1,12	3,83	0,97	199,7	1,04	2,78
return gas temp	-25	-13	286,3	978	246,4	1,25	4,29	1,08	228,2	1,16	3,57
RGT= 32/90	-20	-4	358,4	1224	308,4	1,39	4,76	1,20	256,9	1,28	4,48
liquid temp	-15	5	441,1	1506	379,6	1,55	5,28	1,33	285,4	1,40	5,55
Tliq= 55/131	-10	14	535,1	1827	460,5	1,71	5,84	1,47	313,1	1,53	6,77