

Model

Designation	KLF8.6CND	220-240V/50Hz 1~	Sales code:	106H2900
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	19,2cSt	Displacement	8,6cm ³ / 0,52cu.in
Oil quantity	239cm ³ / 8,1fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	200g / 7,1oz		
Free gas volume comp.	1575cm ³ / 53,3fl.oz		
Weight	9,2kg / 20,3lbs		
Motor protection	external		
Winding resistance main	8,4Ω (at 25°C)		
Winding resistance aux	17,4Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with KLF8.6CND

	Conf. 1	Conf. 2
Motor configuration	CSIR	RSCR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1
Voltage range	198-254V	198-254V
Approvals	VDE	VDE
Starting torque	HST	HST
Note	- / -	

Applications with KLF8.6CND

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

Electrical data - Configurations with KLF8.6CND

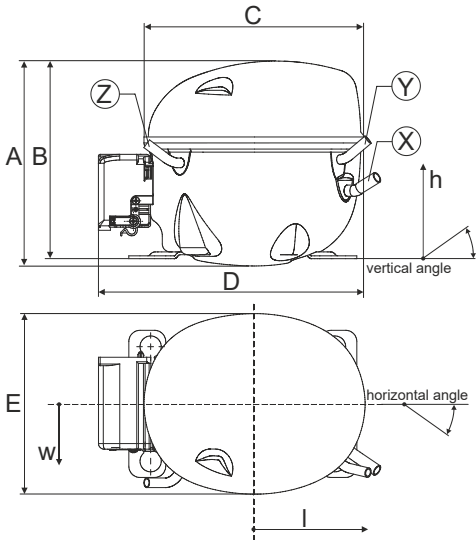
	Conf. 1	Conf. 2
Starting device type	relay	PTC
Run capacitor	-/-	5μF
Start capacitor	80μF	-/-
LRA (locked rotor amps / 4s/ U(N))	14,3A	
RLA (rated load amps / 1s/ U(N))	2,3A	-/-A
Cut in current (U(N))		

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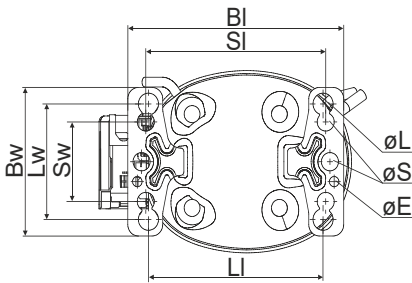
Compressor dimensions

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
	[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]	119/73/59	117/107/66	-88/101/71
	[in]	4,7/2,9/2,3	4,6/4,2/2,6	-3,5/4/2,8
Straight tube l.	[mm]	14	14	14
	[in]	0,5	0,5	0,5

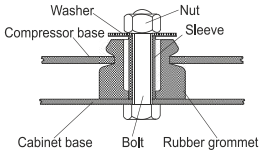


Compressor fixation

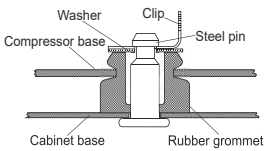


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	132	5.2
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63

Bolt joint



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

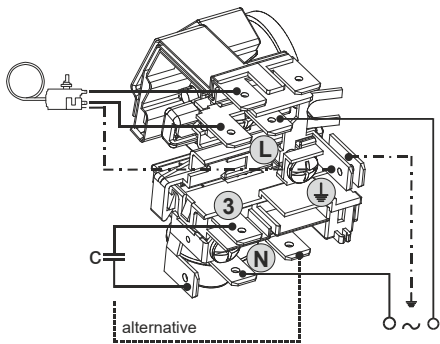
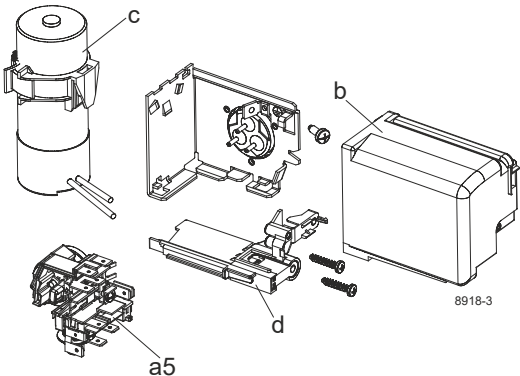
Provision for PE Grounding is located at the PE Stamp on the compressor

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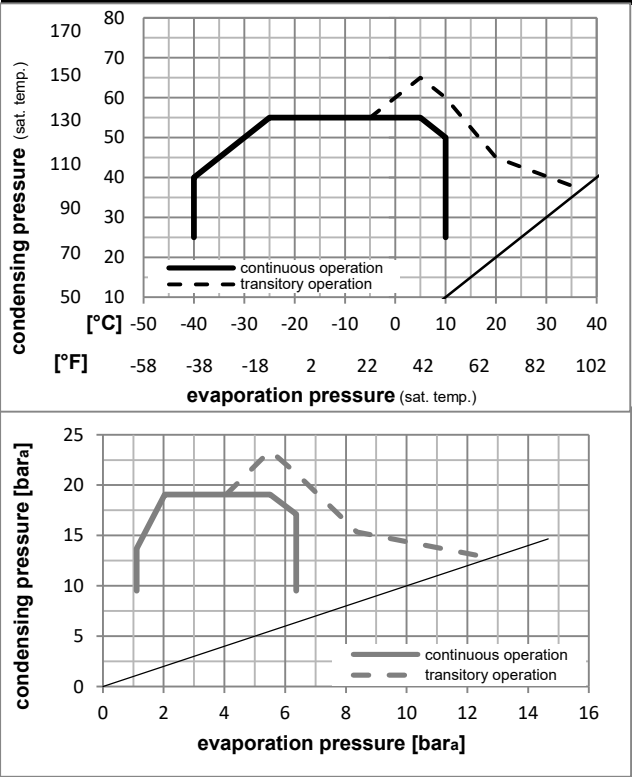
Configuration		Electrical accessories / wiring diagram			
Motor configuration	CSIR	CSIR			
Power supply (nominal)	220-240V/50Hz 1~				
Refrigerant	R290				
Application	LBP+MBP				
Voltage range	198-254V				
Starting torque	HST				
Approvals	VDE				

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 pressure range



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

Model

Designation **KLF8.6CND** **220-240V/50Hz** Conf. 1 Sales code: **106H2900**

Optimization + standard conditions

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

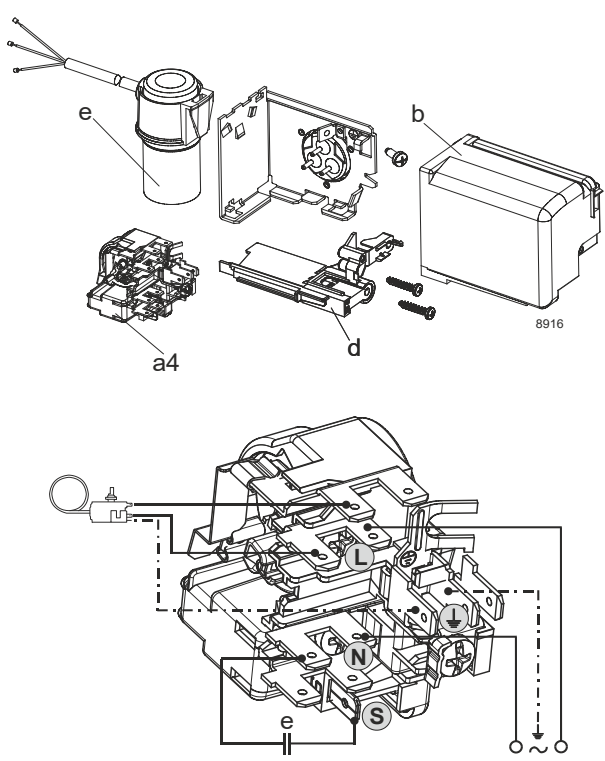
Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			
Return gas temp.					Current consumption									
Liquid temp.					Ref. mass flow									
Cooling capacity					COP		EER		P1	I	ṁ			
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
[°C]	-23	54	32	32	455,6	1556	392,1	1,61	5,48	1,38	283,7	1,77	4,61	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	342,5	1170	294,7	1,25	4,27	1,08	273,8	1,74	4,26	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	253,2	865	217,9	1,27	4,35	1,10	198,6	1,51	2,89	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	791,6	2703	681,2	2,00	6,83	1,72	396,0	2,19	9,03	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	631,8	2158	543,8	1,69	5,76	1,45	374,9	2,11	7,99	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	701,4	2395	603,6	2,05	7,01	1,77	341,9	1,98	8,61	EN12900 MBP
[°F]	14	113	68	113										

Performance tables

R290, 220V/50Hz, CSIR, 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	182,8	624	157,3	1,03	3,52	0,89	177,4	1,46	2,04
cond. pressure	-35	-31	243,8	833	209,8	1,20	4,09	1,03	203,4	1,52	2,73
pc= 45/113	-25	-13	397,2	1357	341,9	1,54	5,25	1,32	258,4	1,69	4,48
return gas temp.	-15	5	603,3	2060	519,2	1,92	6,55	1,65	314,5	1,88	6,86
RGT= 32/90	-5	23	875,1	2989	753,1	2,38	8,12	2,04	368,3	2,08	10,08
liquid temp	0	32	1039,8	3551	894,8	2,64	9,03	2,28	393,2	2,18	12,06
Tliq= 45/113	10	50	1434,7	4900	1234,7	3,28	11,21	2,83	437,0	2,36	16,95
[°C / °F]	-40	-40	150,2	513	129,3	0,81	2,76	0,70	185,7	1,48	1,85
cond. pressure	-35	-31	206,3	704	177,5	0,97	3,31	0,83	212,9	1,55	2,55
pc= 55/131	-25	-13	342,5	1170	294,7	1,25	4,27	1,08	273,8	1,74	4,26
return gas temp	-15	5	521,9	1782	449,1	1,53	5,23	1,32	340,5	1,98	6,56
RGT= 32/90	-5	23	757,5	2587	651,9	1,85	6,32	1,59	409,5	2,25	9,65
liquid temp	0	32	900,5	3075	775,0	2,03	6,93	1,75	443,8	2,39	11,57
Tliq= 55/131	10	50	1245,0	4252	1071,4	2,44	8,34	2,10	509,8	2,67	16,32

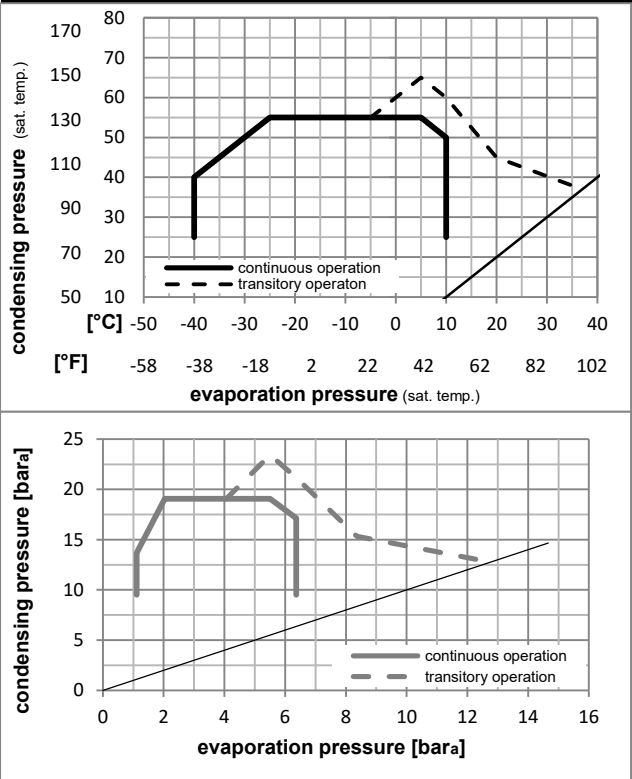
Model					
Designation	KLF8.6CND	220-240V/50Hz	Conf. 2	Sales code:	106H2900

Configuration		Electrical accessories / wiring diagram			
Motor configuration	RSCR				
Power supply (nominal)	220-240V/50Hz 1~				
Refrigerant	R290				
Application	LBP+MBP				
Voltage range	198-254V				
Starting torque	HST				
Approvals	VDE				

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 pressure range



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

Model

Designation **KLF8.6CND** **220-240V/50Hz** Conf. 2 Sales code: **106H2900**

Optimization + standard conditions

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption																																																																								
Return gas temp.					Current consumption						Ref. mass flow																																																																								
Liquid temp.					Cooling capacity						COP				EER				P1				I				ṁ																																																								
pe					pc					RGT					Tliq					[W]					[Btu/h]					[kcal/h]					[W/W]					[Btu/Wh]					[kcal/Wh]					[W]					[A]					[kg/h]																							
[°C]					-23	54	32	32	456,8					1560					393,2					1,70					5,81					1,46					268,7					1,43					4,63					ASHRAE LBP																													
[°F]					-10	130	90	90																																																																											
[°C]					-25	55	32	55	343,4					1173					295,5					1,32					4,52					1,14					259,6					1,39					4,28					cecomaf LBP																													
[°F]					-13	131	90	131																																																																											
[°C]					-35	40	20	40	253,7					866					218,3					1,34					4,59					1,16					188,7					1,13					2,90					EN12900 LBP																													
[°F]					-31	104	68	104																																																																											
[°C]					-7	54	35	46	795,6					2717					684,7					2,14					7,31					1,84					371,8					1,86					9,08					ASHRAE MBP																													
[°F]					20	130	95	115																																																																											
[°C]					-10	55	32	55	634,7					2168					546,3					1,80					6,15					1,55					352,7					1,78					8,03					cecomaf MBP																													
[°F]					14	131	90	131																																																																											
[°C]					-10	45	20	45	704,2					2405					606,0					2,18					7,46					1,88					322,5					1,65					8,65					EN12900 MBP																													
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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	183,0	625	157,5	1,09	3,71	0,94	168,4	1,06	2,05		
cond. pressure	-35	-31	244,3	834	210,2	1,26	4,32	1,09	193,3	1,15	2,74		
pc= 45/113	-25	-13	398,3	1360	342,8	1,62	5,55	1,40	245,2	1,34	4,49		
return gas temp.	-15	5	605,4	2068	521,0	2,04	6,96	1,75	297,3	1,54	6,89		
RGT= 32/90	-5	23	879,0	3002	756,5	2,54	8,66	2,18	346,6	1,75	10,12		
liquid temp	0	32	1044,8	3568	899,2	2,83	9,66	2,43	369,4	1,85	12,12		
Tliq= 45/113	10	50	1443,1	4928	1241,9	3,53	12,05	3,04	409,1	2,02	17,05		
[°C / °F]	-40	-40	150,6	514	129,6	0,85	2,92	0,74	176,3	1,09	1,86		
cond. pressure	-35	-31	206,7	706	177,9	1,02	3,49	0,88	202,3	1,18	2,56		
pc= 55/131	-25	-13	343,4	1173	295,5	1,32	4,52	1,14	259,6	1,39	4,28		
return gas temp	-15	5	523,9	1789	450,9	1,63	5,57	1,40	321,2	1,64	6,59		
RGT= 32/90	-5	23	761,6	2601	655,4	1,98	6,77	1,71	384,1	1,91	9,70		
liquid temp	0	32	906,0	3094	779,7	2,18	7,45	1,88	415,2	2,05	11,64		
Tliq= 55/131	10	50	1254,5	4284	1079,6	2,64	9,03	2,27	474,7	2,31	16,45		