

## Model

Designation	<b>KLF7.7CNDS</b>	220-240V/50Hz 1~	Sales code:	<b>106h2803</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R290</b>
Oil viscosity	9,7cST	Displacement	7,7cm <sup>3</sup> / 0,47cu.in
Oil quantity	170cm <sup>3</sup> / 5,7fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	200g / 7,1oz		
Free gas volume comp.	1575cm <sup>3</sup> / 53,3fl.oz		
Weight	9,6kg / 21,2lbs		
Motor protection	external		
Winding resistance main	8,4Ω (at 25°C)		
Winding resistance aux	11,9Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		
Additional note	Very good robustness against liquid intake. Ice-cube maker optimization - indirect suction intake.		



## General - Configurations with KLF7.7CNDS

	<b>Conf. 1</b>
Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	198-254V
Approvals	VDE, CCC
Starting torque	HST
Note	- / -

## Applications with KLF7.7CNDS

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

## Electrical data - Configurations with KLF7.7CNDS

	<b>Conf. 1</b>
Starting device type	relay
Run capacitor	-/-
Start capacitor	80μF
LRA (locked rotor amps / 4s/ U(N))	13,2A
RLA (rated load amps / 1s/ U(N))	2,1A
Cut in current (U(N))	12,3A

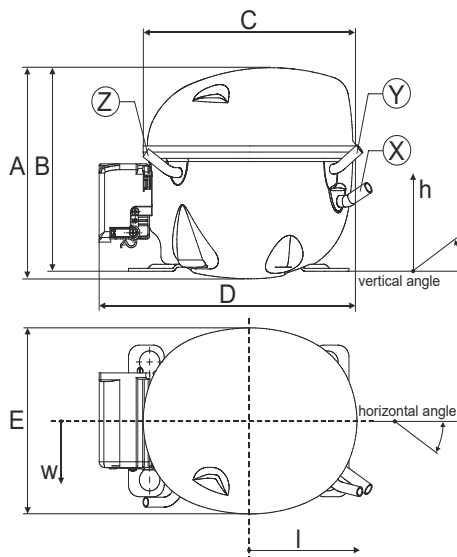
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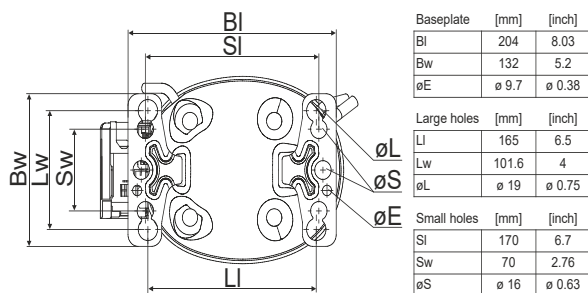
## Compressor dimensions

<b>Housing</b>	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

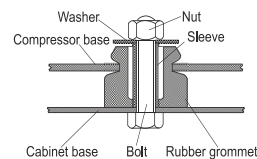
<b>Connectors</b>		<b>Suction</b>	<b>Discharge</b>	<b>Process</b>
		<b>X</b>	<b>Y</b>	<b>Z</b>
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	35°	13°	0°
Vertical angle	±2°	30°	40°	145°
Position l/h/w	[mm]	120/72/57	112/106/81	-97/94/72
	[in]	4,7/2,8/2,2	4,4/4,2/3,2	-3,8/3,7/2,8
Straight tube l.	[mm]	14	14	14
	[in]	0,5	0,5	0,5



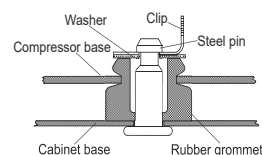
## Compressor fixation



### Bolt joint



### Snap-on



<b>Mounting accessories</b>	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

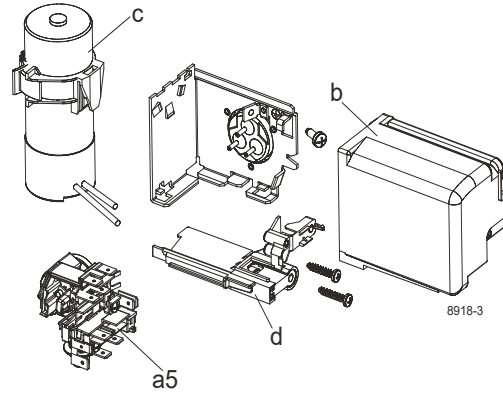
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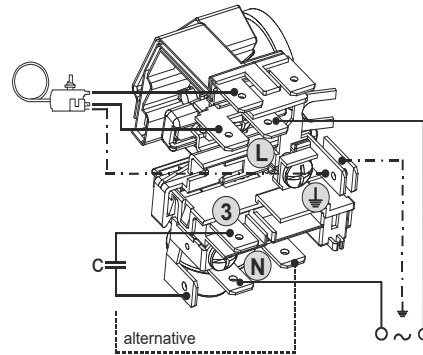
### Electrical accessories / wiring diagram

CSIR

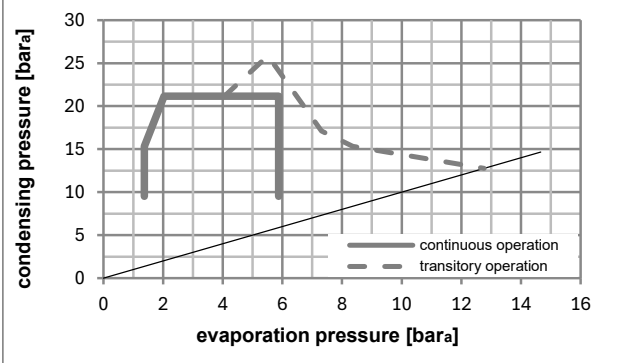
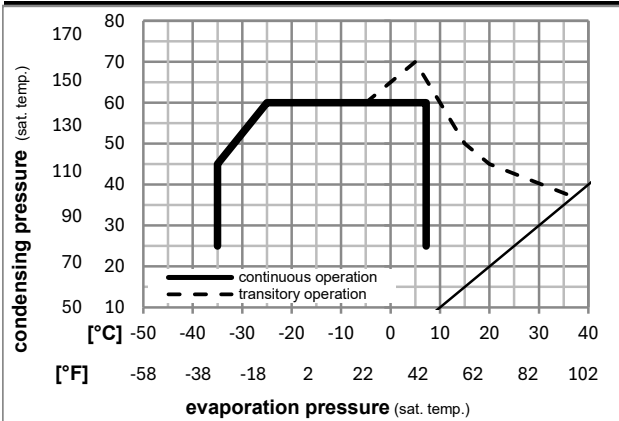


### Ambient/ machine room temperatures minimum /maximum

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 (T0377/L6-S1)	117U7071
c	start capacitor (80µF, 6.3mm)	117U5001
b, d	cover + clamp + screws(5VA) in bag	103N1060

### Alternative components

b, d	100x cover + clamp + screws(5VA)	103N2060
b, d	cover + clamp + screws(5VA-compl.)	103N0600

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### Optimization + standard conditions

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

Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Power consumption				ASHRAE LBP			
Return gas temp.				Liquid temp.			Current consumption					Ref. mass flow		
pe	pc	RGT	Tliq	Cooling capacity	COP	EER	P1	I	m					
[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
-23	54	32	32	371,0	1267	319,3	1,48	5,05	1,27	251,0	1,66	3,76	ASHRAE LBP	
-10	130	90	90											
[°C]	-25	55	32	55	277,5	948	238,8	1,15	3,92	0,99	242,0	1,64	3,46	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	214,8	734	184,8	1,17	4,01	1,01	182,8	1,47	2,45	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	663,5	2266	571,0	1,95	6,67	1,68	339,6	1,97	7,57	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	528,0	1803	454,4	1,63	5,57	1,40	324,0	1,91	6,68	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	587,2	2005	505,4	1,98	6,76	1,70	296,7	1,81	7,21	EN12900 MBP
[°F]	14	113	68	113										

### Performance tables

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

	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]	-35	-31	202,7	692	174,4	1,08	3,70	0,93	187,1	1,48	2,27
cond. pressure	-25	-13	330,0	1127	284,0	1,42	4,86	1,22	231,9	1,60	3,72
pc= 45/113	-15	5	504,6	1723	434,2	1,83	6,26	1,58	275,4	1,74	5,74
return gas temp.	-10	14	611,3	2088	526,1	2,06	7,04	1,77	296,7	1,81	6,99
RGT= 32/90	-5	23	731,9	2499	629,8	2,30	7,87	1,98	317,7	1,89	8,43
liquid temp	0	32	866,9	2961	746,1	2,56	8,75	2,20	338,4	1,97	10,06
Tliq= 45/113	7,2	45	1088,2	3716	936,5	2,96	10,11	2,55	367,4	2,08	12,78
[°C / °F]	-35	-31	164,7	563	141,8	0,89	3,06	0,77	184,1	1,48	2,04
cond. pressure	-25	-13	277,5	948	238,8	1,15	3,92	0,99	242,0	1,64	3,46
pc= 55/131	-15	5	432,8	1478	372,4	1,46	4,97	1,25	297,4	1,82	5,44
return gas temp.	-10	14	528,0	1803	454,4	1,63	5,57	1,40	324,0	1,91	6,68
RGT= 32/90	-5	23	635,9	2172	547,2	1,82	6,21	1,56	349,9	2,01	8,10
liquid temp	0	32	757,0	2585	651,5	2,02	6,89	1,74	375,1	2,11	9,72
Tliq= 55/131	7,2	45	956,1	3265	822,9	2,33	7,96	2,01	410,1	2,25	12,46