

Model

Designation	KLF4.0CNDS	220-240V/50Hz 1~	Sales code:	106H2403
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	9,7cST	Displacement	4cm ³ / 0,24cu.in
Oil quantity	170cm ³ / 5,7fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	200g / 7,1oz		
Free gas volume comp.	1630cm ³ / 55,1fl.oz		
Weight	8,95kg / 19,7lbs		
Motor protection	external		
Winding resistance main	13,1Ω (at 25°C)		
Winding resistance aux	25,3Ω (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 KLF4.0CNDS

	Conf. 1
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 KLF4.0CNDS

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

Electrical data - Configurations with KLF4.0CNDS

	Conf. 1
Starting device type	relay
Run capacitor	-/-
Start capacitor	80μF
LRA (locked rotor amps / 4s/ U(N))	10,2A
RLA (rated load amps / 1s/ U(N))	1,4A
Cut in current (U(N))	10,2A

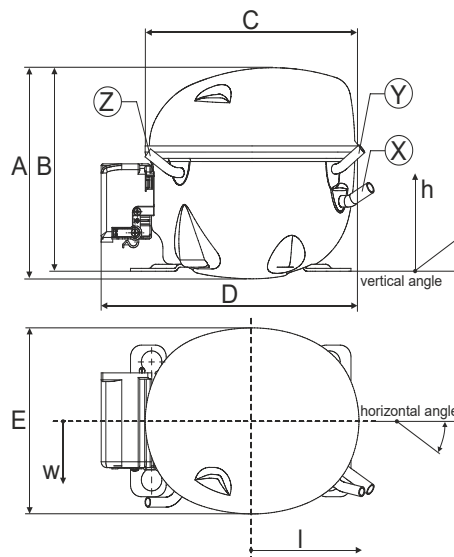
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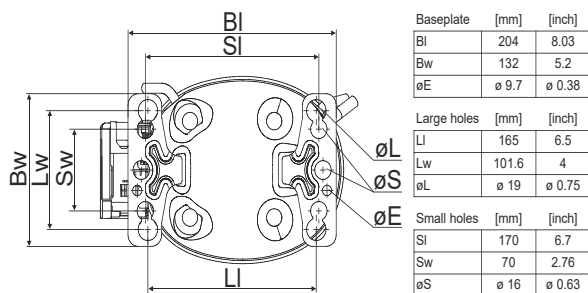
Compressor dimensions

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

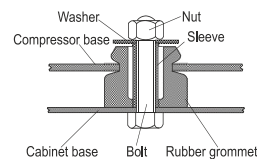
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	35°	13°	0°
Vertical angle	±2°	30°	40°	145°
Position l/h/w	[mm]	120/72/57	112/106/81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



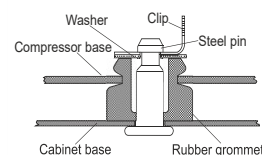
Compressor fixation



Bolt joint



Snap-on



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

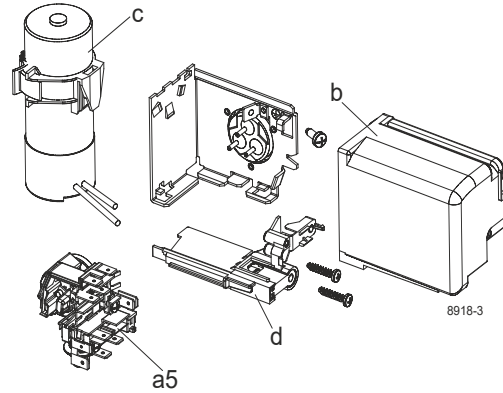
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Configuration

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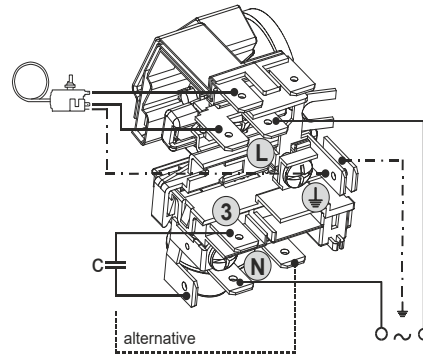
Electrical accessories / wiring diagram

CSIR

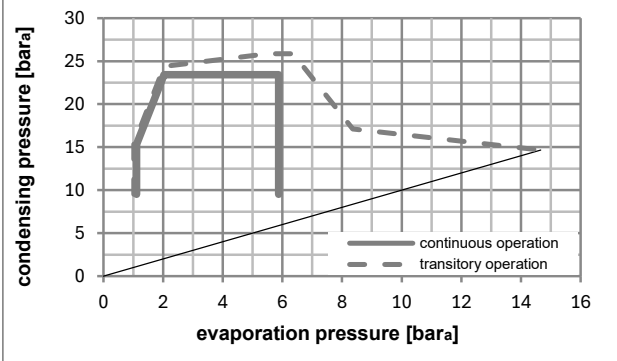
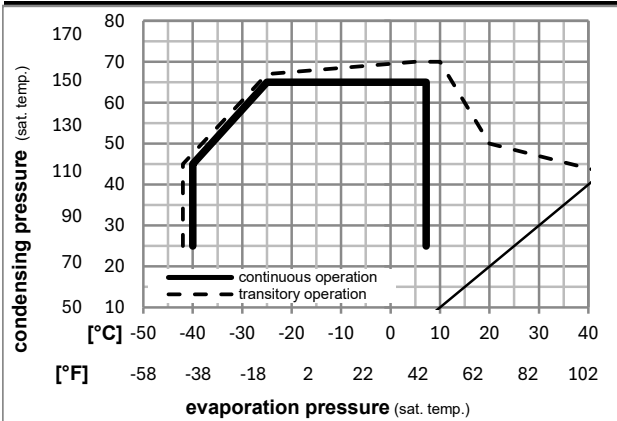


Ambient/ machine room temperatures minimum /maximum

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 (T1189/L6-S3)	117U7073
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)			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	Current consumption		Ref. mass flow				
[°C]	[°F]	[°C]	[°F]	[°C]	[°C]							[W]	[A]	[A]	[kg/h]					
-23	-10	54	130	32	90	176,4	602	151,8	1,44	4,92	1,24	122,5	0,98	1,79	ASHRAE LBP					
-25	-13	55	131	32	90	131,0	447	112,8	1,10	3,75	0,95	119,3	0,98	1,63	cecomaf LBP					
-35	-31	40	104	20	68	96,7	330	83,2	1,11	3,79	0,95	87,1	0,90	1,10	EN12900 LBP					
-7	20	54	130	35	95	323,8	1106	278,7	2,03	6,92	1,74	159,7	1,09	3,69	ASHRAE MBP					
-10	14	55	131	32	90	255,8	874	220,1	1,67	5,71	1,44	153,0	1,07	3,24	cecomaf MBP					
-10	14	45	113	20	68	288,5	985	248,3	2,09	7,13	1,80	138,2	1,02	3,54	EN12900 MBP					

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]	-40	-40	64,8	221	55,8	0,78	2,66	0,67	83,3	0,90	0,72
cond. pressure	-35	-31	92,0	314	79,2	1,01	3,44	0,87	91,4	0,91	1,03
pc= 45/113	-25	-13	158,0	539	135,9	1,44	4,92	1,24	109,7	0,95	1,78
return gas temp.	-15	5	245,8	840	211,6	1,91	6,51	1,64	129,0	1,00	2,80
RGT= 32/90	-5	23	363,2	1240	312,6	2,48	8,46	2,13	146,7	1,05	4,18
liquid temp	0	32	435,4	1487	374,7	2,82	9,64	2,43	154,2	1,07	5,05
Tliq= 45/113	7,2	45	557,7	1905	479,9	3,42	11,70	2,95	162,8	1,10	6,55
[°C / °F]	-40	-40	46,4	159	39,9	0,51	1,74	0,44	91,3	0,91	0,57
cond. pressure	-35	-31	71,8	245	61,8	0,72	2,46	0,62	99,5	0,93	0,89
pc= 55/131	-25	-13	131,0	447	112,8	1,10	3,75	0,95	119,3	0,98	1,63
return gas temp.	-15	5	208,1	711	179,1	1,47	5,02	1,27	141,6	1,03	2,62
RGT= 32/90	-5	23	310,8	1061	267,5	1,89	6,47	1,63	164,2	1,10	3,96
liquid temp	0	32	374,1	1278	322,0	2,14	7,31	1,84	174,8	1,14	4,81
Tliq= 55/131	7,2	45	481,9	1646	414,7	2,56	8,73	2,20	188,5	1,18	6,28