

## Model

Designation	<b>KLF4.0CND</b>	220-240V/50Hz 1~	Sales code:	<b>106H2401</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R290</b>
Oil viscosity	9,7cST	Displacement	4cm <sup>3</sup> / 0,24cu.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.	1630cm <sup>3</sup> / 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		



## General - Configurations with KLF4.0CND

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	CSIR	RSCR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1
Voltage range	198-254V	198-254V
Approvals	VDE, CCC	VDE, CCC
Starting torque	HST	LST
Note	- / -	

## Applications with KLF4.0CND

	<b>Conf. 1</b>	<b>Conf. 2</b>
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 KLF4.0CND

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	PTC
Run capacitor	-/-	5μF
Start capacitor	80μF	-/-
LRA (locked rotor amps / 4s/ U(N))	10,2A	10,2A
RLA (rated load amps / 1s/ U(N))	1,4A	1,4A
Cut in current (U(N))	10,2A	12,65A

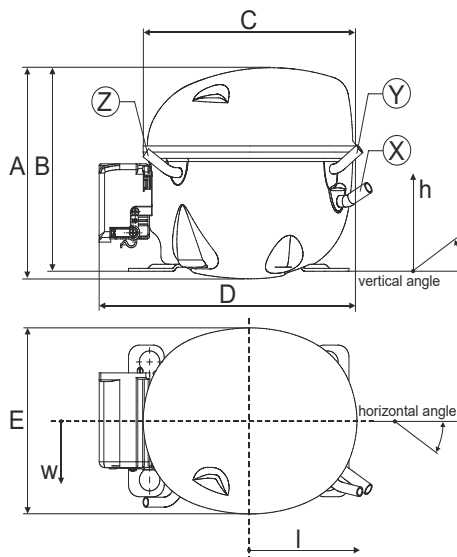
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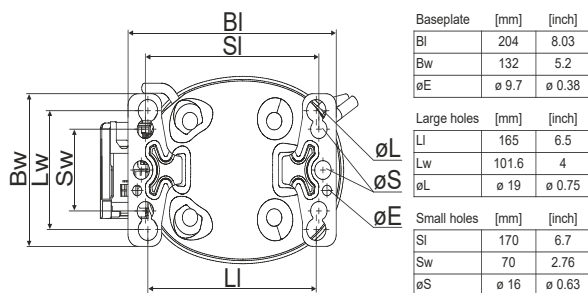
## Compressor dimensions

<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

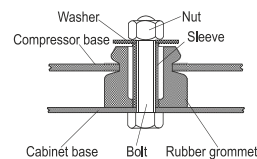
<b>Connectors</b>		<b>Suction</b>	<b>Discharge</b>	<b>Process</b>
		<b>X</b>	<b>Y</b>	<b>Z</b>
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	35°	13°	0°
Vertical angle	±2°	30°	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



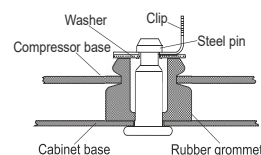
## Compressor fixation



### 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

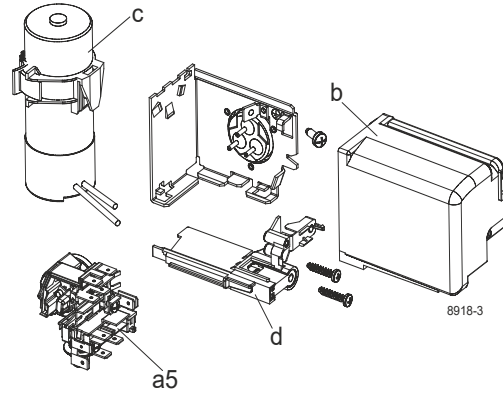
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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE CCC

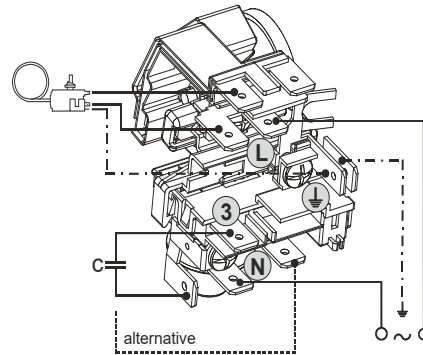
## Electrical accessories / wiring diagram

CSIR

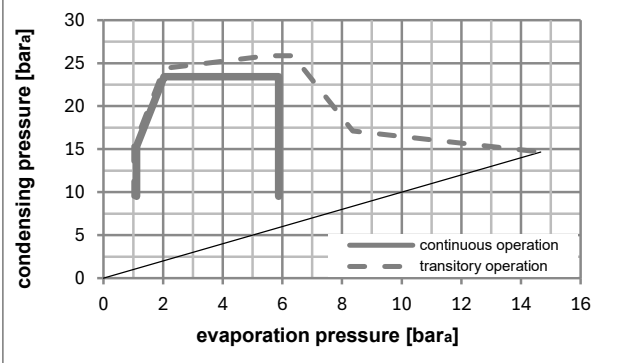
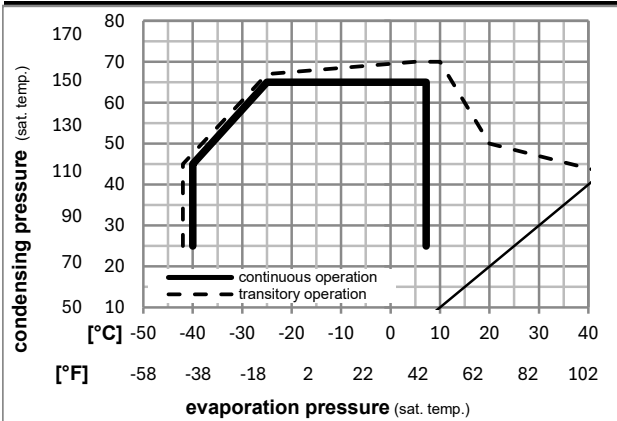


## Ambient/ machine room temperatures minimum /maximum

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

## Noise emission

Operation pressures:	pe: -10°C / 14°F
	pc: 45°C / 113°F
Motor speed appr.:	2900rpm
Lw(A):	46dB(A)

### Model

Designation **KLF4.0CND** **220-240V/50Hz** Conf. 1 Sales code: **106H2401**

### Optimization + standard conditions

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

Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Power consumption				Current consumption		Ref. mass flow ṁ	
pe	pc	RGT	Tliq	Cooling capacity	COP	EER	P1	I						
[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
[°C]	-23	54	32	32	182,9	625	157,4	1,48	5,04	1,27	123,9	0,99	1,85	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	135,8	464	116,9	1,13	3,85	0,97	120,6	0,99	1,69	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	100,2	342	86,2	1,14	3,88	0,98	88,1	0,91	1,14	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	335,7	1146	288,9	2,08	7,10	1,79	161,5	1,10	3,83	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	265,2	906	228,2	1,71	5,85	1,47	154,7	1,08	3,35	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	299,1	1021	257,4	2,14	7,31	1,84	139,7	1,03	3,67	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]	-40	-40	67,2	229	57,8	0,80	2,72	0,69	84,2	0,91	0,75
cond. pressure	-35	-31	95,4	326	82,1	1,03	3,52	0,89	92,4	0,92	1,07
pc= 45/113	-25	-13	163,7	559	140,9	1,48	5,04	1,27	111,0	0,96	1,85
return gas temp.	-15	5	254,8	870	219,3	1,95	6,67	1,68	130,4	1,01	2,90
RGT= 32/90	-5	23	376,5	1286	324,0	2,54	8,67	2,18	148,4	1,06	4,33
liquid temp	0	32	451,3	1541	388,4	2,89	9,88	2,49	156,0	1,08	5,24
Tliq= 45/113	7,2	45	578,1	1974	497,5	3,51	11,99	3,02	164,7	1,11	6,79
[°C / °F]	-40	-40	48,1	164	41,4	0,52	1,78	0,45	92,3	0,92	0,59
cond. pressure	-35	-31	74,4	254	64,0	0,74	2,52	0,64	100,6	0,94	0,92
pc= 55/131	-25	-13	135,8	464	116,9	1,13	3,85	0,97	120,6	0,99	1,69
return gas temp.	-15	5	215,8	737	185,7	1,51	5,15	1,30	143,2	1,05	2,71
RGT= 32/90	-5	23	322,2	1100	277,3	1,94	6,63	1,67	166,0	1,11	4,10
liquid temp	0	32	387,8	1324	333,8	2,19	7,49	1,89	176,8	1,15	4,98
Tliq= 55/131	7,2	45	499,5	1706	429,9	2,62	8,95	2,25	190,7	1,20	6,51

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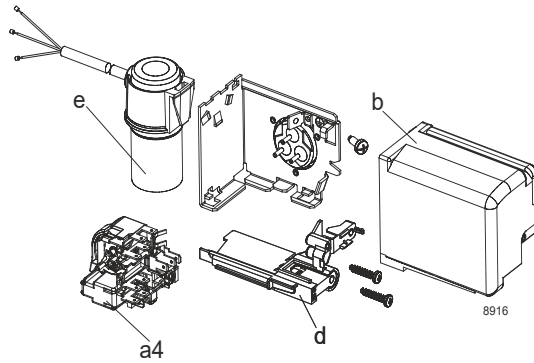
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## Configuration

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

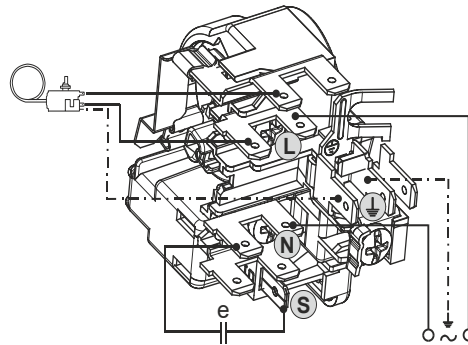
## Electrical accessories / wiring diagram

RSCR

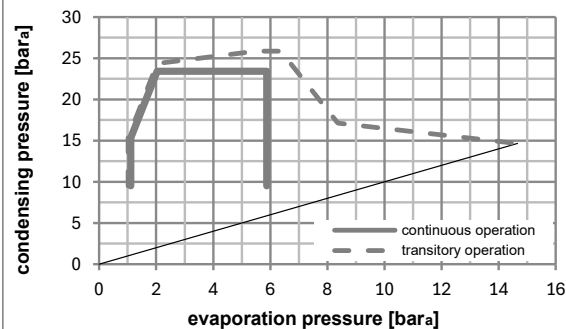
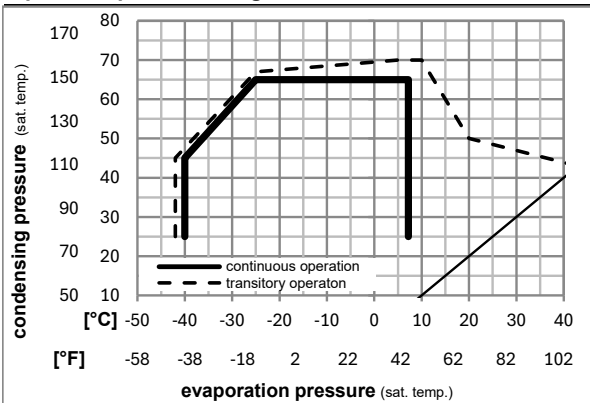


## Ambient/ machine room temperatures minimum /maximum

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	DAS3 (PTC,6.3mm, T1189/L6 - S3)	103N0254
e	run capacitor (5μF, 6.3mm)	117-7191
b, d	cover + clamp + screws(5VA) in bag	103N1060

## Alternative components

a4	ZAS3 (PTC,4.8mm, T1189/L6 - S3)	103N0255
e	run capacitor (5μF, 4.8mm)	117-7190

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

## Noise emission

Operation pressures:	pe: -10°C / 14°F
	pc: 45°C / 113°F
Motor speed appr.:	2900rpm
Lw(A):	46dB(A)

## Model

Designation	<b>KLF4.0CND</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>106H2401</b>
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## Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)			Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			Ref. mass flow
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m							[kg/h]	
[°C]	[°F]	[°C]	[°F]	[°C]	[°C]							[W]	[A]	[kg/h]								
-23	-10	54	130	32	32	183,2	626	157,7	1,50	5,13	1,29	122,1	0,68	1,86							ASHRAE LBP	
54	130	32	90	32	90																	
-25	-13	55	131	32	55	136,1	465	117,1	1,14	3,90	0,98	119,0	0,67	1,69							cecomaf LBP	
55	131	32	90	55	131																	
-35	-31	40	104	20	40	100,4	343	86,4	1,13	3,85	0,97	89,0	0,57	1,15							EN12900 LBP	
40	104	20	68	40	104																	
-7	20	54	130	35	46	336,6	1149	289,7	2,14	7,31	1,84	157,1	0,82	3,84							ASHRAE MBP	
54	130	35	95	46	115																	
-10	14	55	131	32	55	265,8	908	228,8	1,76	6,02	1,52	150,8	0,79	3,36							cecomaf MBP	
55	131	32	90	55	131																	
-10	14	45	113	20	45	299,7	1024	258,0	2,19	7,48	1,89	136,8	0,74	3,68							EN12900 MBP	
45	113	20	68	45	113																	

## Performance tables

R290, 220V/50Hz, RSCR, 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	67,3	230	57,9	0,79	2,68	0,68	85,5	0,56	0,75	
cond. pressure	-35	-31	95,5	326	82,2	1,03	3,51	0,88	93,0	0,58	1,07	
pc= 45/113	-25	-13	164,1	560	141,2	1,49	5,09	1,28	110,1	0,64	1,85	
return gas temp.	-15	5	255,4	872	219,8	1,99	6,80	1,71	128,2	0,71	2,91	
RGT= 32/90	-5	23	377,4	1289	324,8	2,61	8,90	2,24	144,9	0,77	4,35	
liquid temp	0	32	452,5	1545	389,4	2,98	10,17	2,56	152,0	0,80	5,25	
Tliq= 45/113	7,2	45	579,6	1979	498,8	3,62	12,37	3,12	160,0	0,83	6,81	
[°C / °F]	-40	-40	48,2	165	41,5	0,52	1,77	0,45	92,9	0,58	0,59	
cond. pressure	-35	-31	74,5	254	64,1	0,74	2,53	0,64	100,5	0,61	0,92	
pc= 55/131	-25	-13	136,1	465	117,1	1,14	3,90	0,98	119,0	0,67	1,69	
return gas temp	-15	5	216,3	739	186,1	1,54	5,27	1,33	140,1	0,75	2,72	
RGT= 32/90	-5	23	323,1	1103	278,0	2,00	6,84	1,72	161,3	0,84	4,12	
liquid temp	0	32	388,9	1328	334,7	2,27	7,75	1,95	171,3	0,88	5,00	
Tliq= 55/131	7,2	45	501,0	1711	431,2	2,72	9,29	2,34	184,1	0,93	6,53	