

Model

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

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	10,4cSt	Displacement	4cm³ / 0,24cu.in
Oil quantity	170cm³ / 5,7fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	200g / 7,1oz		
Free gas volume comp.	1630cm³ / 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

	Conf. 1	Conf. 2
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

	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 KLF4.0CND

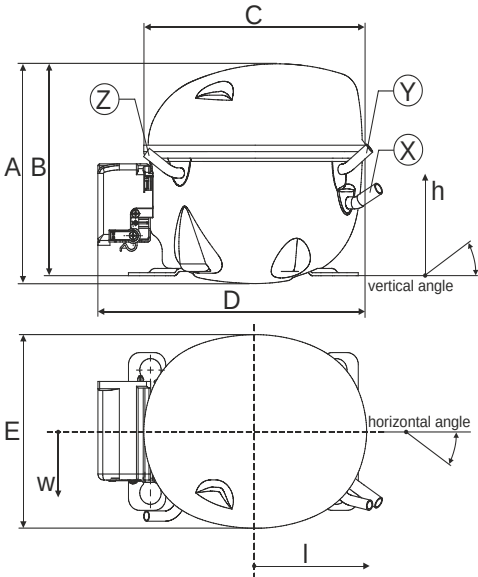
	Conf. 1	Conf. 2
Starting device type	relay	PTC
Run capacitor	-/-	5μF
Start capacitor	80μF	-/-
LRA (locked rotor amps / 4s/ U(N))	10,2A	10,2A
RLA (rated load amps / 1s/ U(N))	1,4A	1,4A
Cut in current (U(N))	10,2A	12,65A

Model			
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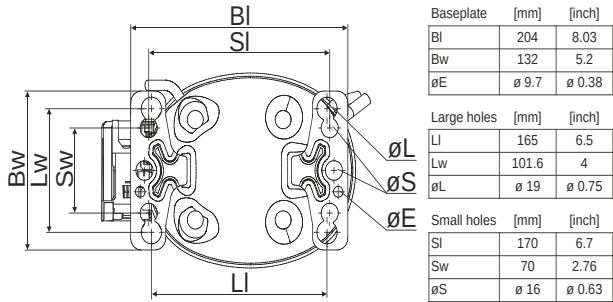
Compressor dimensions

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

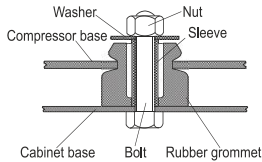
Connectors	Suction	Discharge	Process
	X	Y	Z
Diameter [mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	35°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	119/73/59	117/107/66	-88/101/71
[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



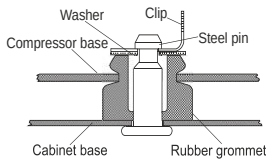
Compressor fixation



Bolt joint



Snap-on



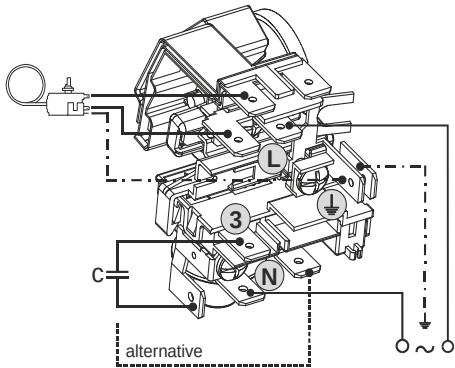
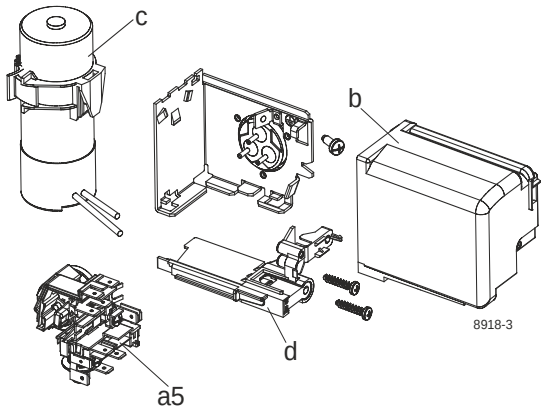
Mounting accessories	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

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

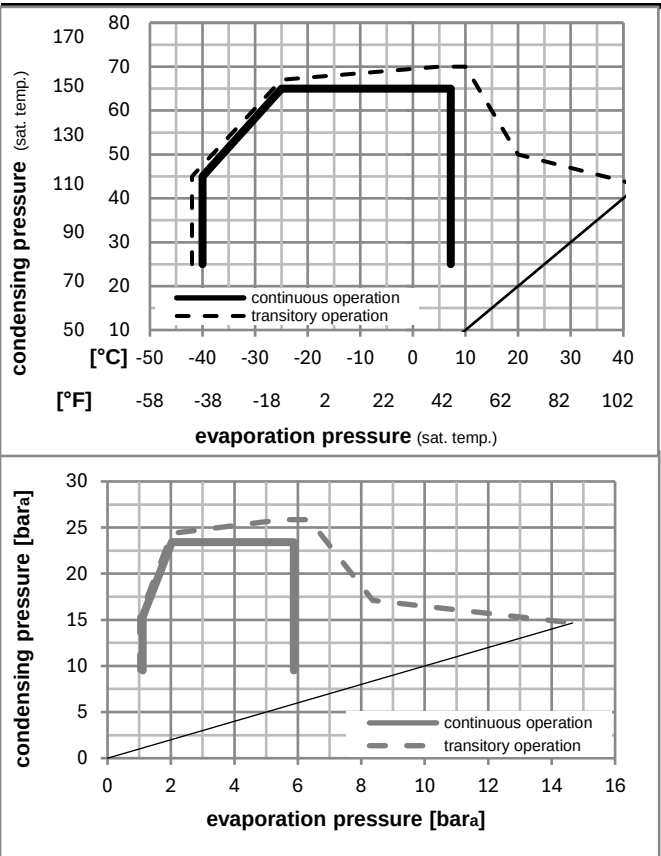
Model				
Designation	KLF4.0CND	220-240V/50Hz	Conf. 1	Sales code: 106H2401

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



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-compl.)	103N0600

Alternative components

b, d	100x cover + clamp + screws(5VA)	103N2060
b, d	cover + clamp + screws(5VA) in bag	103N1060

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				
															pe	pc	RGT	Tliq	[W]
[°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															

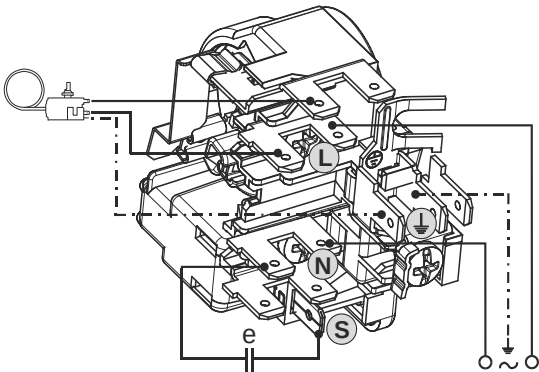
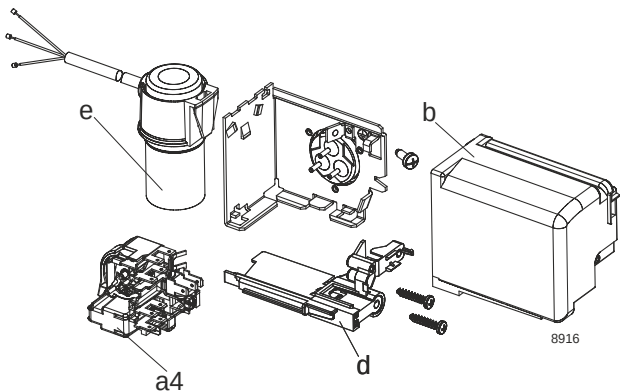
Performance tables

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]	-35	-31	95,4	326	82,1	1,03	3,52	0,89	92,4	0,92	1,07		
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]	-35	-31	74,4	254	64,0	0,74	2,52	0,64	100,6	0,94	0,92		
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		

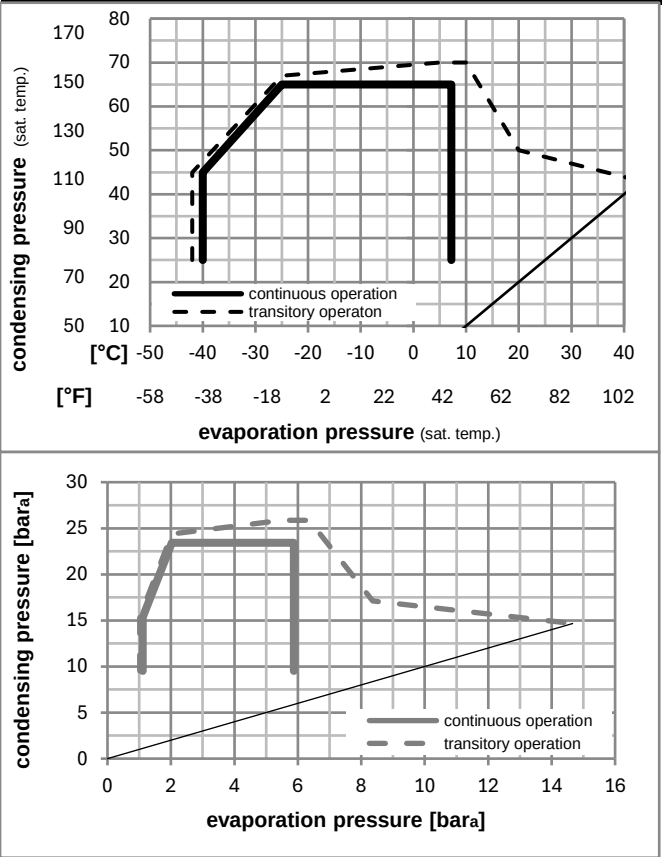
Model				
Designation	KLF4.0CND	220-240V/50Hz	Conf. 2	Sales code: 106H2401

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



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-compl.)	103N0600

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) in bag	103N1060

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. 2	Sales code:	106H2401
Optimization + standard conditions			R290, 220V/50Hz, RSCR, fan 3m/s, VDE, CCC		

	Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)					Power consumption				
	pe	pc	Return gas temp.			Cooling capacity	COP	EER	P1	Current consumption		Ref. mass flow			
			RGT	Tliq	I					ṁ					
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]					
	</														

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