

## Model

Designation	<b>KLF4.0CNT</b>	200-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	<b>106H2402</b>
-------------	------------------	-----------------------------------	-------------	-----------------

## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R290</b>
Oil viscosity	19,2cSt	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	8,9kg / 19,6lbs		
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 KLF4.0CNT

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Motor configuration	CSIR	RSCR	CSIR	RSCR
Power supply (nominal)	200-240V/50Hz	200-240V/50Hz	208-230V/60Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	187-254V	187-254V	195-253V	187-253V
Approvals	UL, VDE	UL, VDE	UL, VDE	UL, VDE
Starting torque	HST	LST	HST	LST
Note	- / -			

## Applications with KLF4.0CNT

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Refrigerant	R290	R290	R290	R290
Application	LBP+MBP	LBP+MBP	LBP+MBP	LBP+MBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

## Electrical data - Configurations with KLF4.0CNT

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Starting device type	relay	PTC	relay	PTC
Run capacitor	-/-	5μF	-/-	5μF
Start capacitor	80μF	-/-	80μF	-/-
LRA (locked rotor amps / 4s/ U(N))	10,2A	10,2A	10,2A	10,2A
RLA (rated load amps / 1s/ U(N))	1,4A	1,4A	1,2A	1,2A
Cut in current (U(N))	10,2A	12,65A	10,2A	12,65A

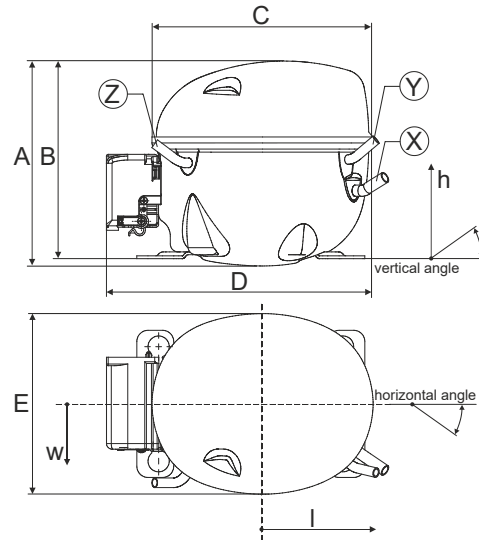
## Model

Designation **KLF4.0CNT** 200-240V/50Hz 1~ 208-230V/60Hz 1~ Sales code: **106H2402**

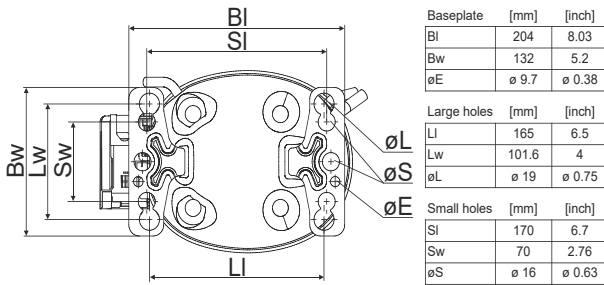
## Compressor dimensions

<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

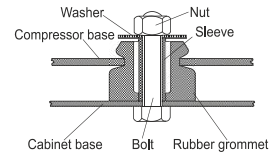
Connectors	Suction	Discharge	Process	
	X	Y	Z	
Diameter [mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29	
(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25	
Material	copper	copper	copper	
Horizontal angle	±2° 35°	13°	0°	
Vertical angle	±2° 30°	40°	145°	
Position l/h/w	[mm]	119/73/59	117/107/66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



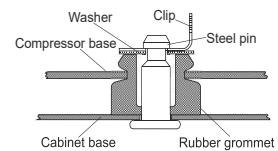
## Compressor fixation



### 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

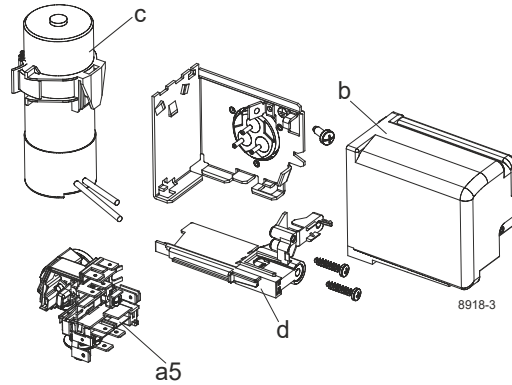
Designation	<b>KLF4.0CNT</b>	<b>200-240V/50Hz</b>	Conf. 1	Sales code:	<b>106H2402</b>
-------------	------------------	----------------------	---------	-------------	-----------------

## Configuration

Motor configuration	CSIR
Power supply (nominal)	200-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	187-254V
Starting torque	HST
Approvals	UL
	VDE

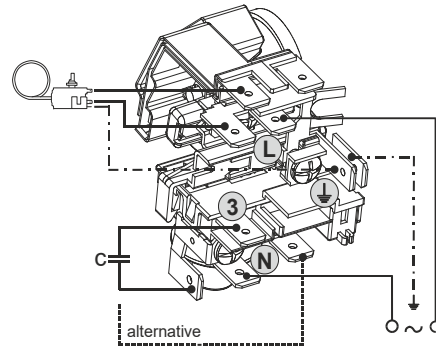
## Electrical accessories / wiring diagram

CSIR

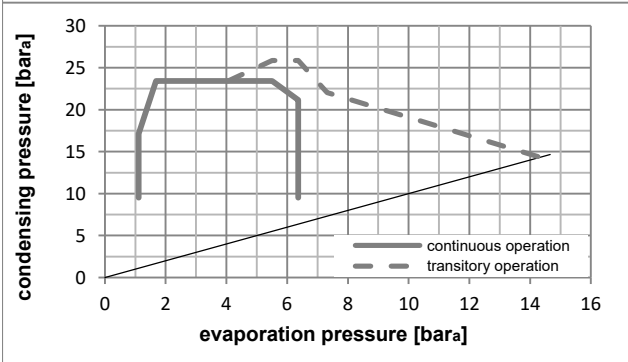
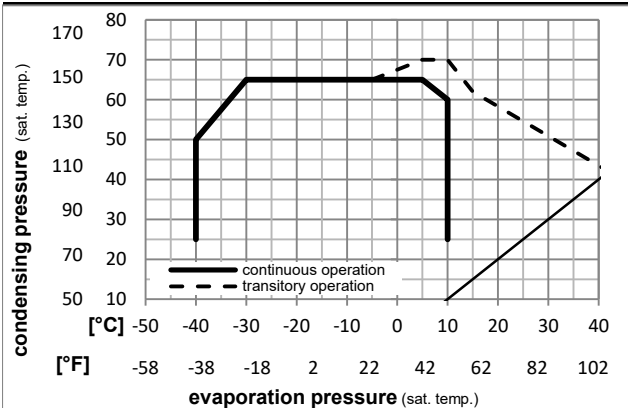


## Ambient/ machine room temperatures minimum /maximum

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 (T1252/L6)	117U7085
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

## Model

Designation **KLF4.0CNT** **200-240V/50Hz** Conf. 1 Sales code: **106H2402**

## Optimization + standard conditions

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

	pe	pc	RGT	Tliq	W	[Btu/h]	[kcal/h]	COP	EER	[kcal/Wh]	P1	I	m	
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
ASHRAE LBP	-23	54	32	32	188,7	645	162,4	1,54	5,26	1,33	122,6	0,95	1,91	
	[-10]	130	90	90										
cecomaf LBP	-25	55	32	55	139,6	477	120,1	1,18	4,03	1,01	118,4	0,95	1,74	
	[-13]	131	90	131										
EN12900 LBP	-35	40	20	40	102,2	349	87,9	1,15	3,92	0,99	88,9	1,01	1,17	
	[-31]	104	68	104										
ASHRAE MBP	-7	54	35	46	356,9	1219	307,1	2,12	7,25	1,83	168,1	1,02	4,07	
	[20]	130	95	115										
cecomaf MBP	-10	55	32	55	281,7	962	242,5	1,76	6,02	1,52	159,9	1,00	3,56	
	[14]	131	90	131										
EN12900 MBP	-10	45	20	45	313,3	1070	269,6	2,14	7,31	1,84	146,3	0,98	3,85	
	[14]	113	68	113										

## Performance tables

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

	pe	Cond. pressure	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	65,6	224	56,5	0,80	2,74	0,69	81,9	1,05	0,73
cond. pressure	-35	-31	94,5	323	81,3	1,04	3,54	0,89	91,0	1,00	1,06
pc= 45/113	-25	-13	167,5	572	144,2	1,49	5,08	1,28	112,7	0,95	1,89
return gas temp.	-15	5	265,8	908	228,7	1,96	6,69	1,69	135,6	0,96	3,02
RGT= 32/90	-5	23	394,9	1349	339,9	2,53	8,65	2,18	156,0	0,99	4,55
liquid temp	0	32	472,9	1615	407,0	2,88	9,85	2,48	164,0	1,01	5,48
Tliq= 45/113	10	50	659,0	2250	567,1	3,80	12,97	3,27	173,5	1,04	7,79
[°C / °F]	-40	-40	46,0	157	39,6	0,54	1,84	0,46	85,2	1,04	0,57
cond. pressure	-35	-31	73,0	249	62,8	0,77	2,64	0,66	94,6	0,99	0,90
pc= 55/131	-25	-13	139,6	477	120,1	1,18	4,03	1,01	118,4	0,95	1,74
return gas temp	-15	5	227,8	778	196,0	1,56	5,33	1,34	145,9	0,98	2,86
RGT= 32/90	-5	23	343,2	1172	295,4	1,98	6,76	1,70	173,3	1,03	4,37
liquid temp	0	32	412,9	1410	355,4	2,22	7,59	1,91	185,7	1,07	5,30
Tliq= 55/131	10	50	579,9	1980	499,0	2,82	9,63	2,43	205,7	1,13	7,60

## Model

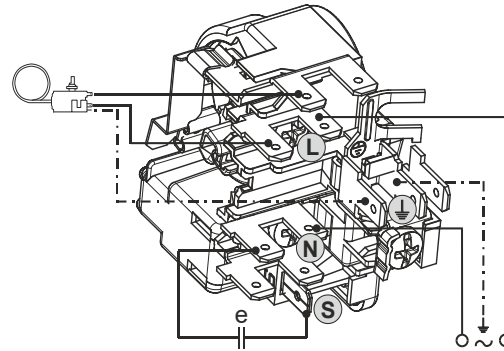
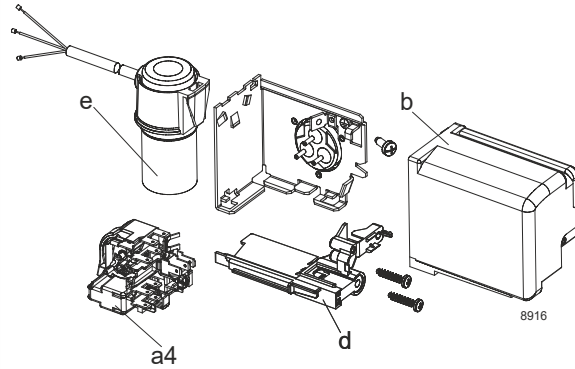
Designation **KLF4.0CNT** **200-240V/50Hz** Conf. 2 Sales code: **106H2402**

## Configuration

Motor configuration RSCR  
 Power supply (nominal) 200-240V/50Hz 1~  
 Refrigerant R290  
 Application LBP+MBP  
 Voltage range 187-254V  
 Starting torque LST  
 Approvals UL  
 VDE

## Electrical accessories / wiring diagram

RSCR



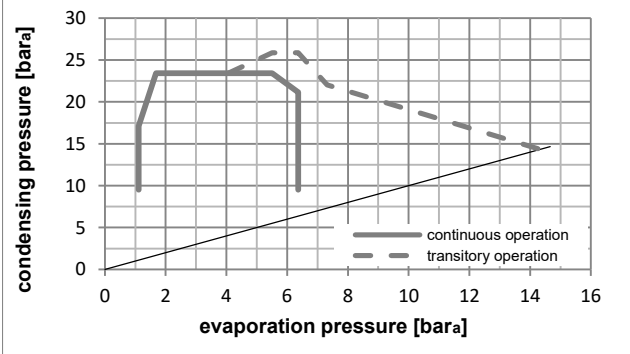
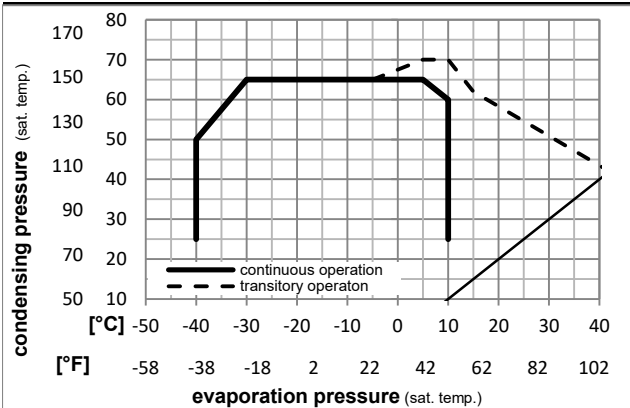
## Ambient/ machine room temperatures minimum /maximum

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	DAS12 (PTC,4.8mm, T1252/L6 - S12)	103N0259
e	run capacitor (5μF, 6,3mm)	117-7155
e1	retaining clamp	103N0535
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 **KLF4.0CNT** **200-240V/50Hz** Conf. 2 Sales code: **106H2402**

## Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			COP	EER			Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]		[W/W]	[Btu/Wh]	[kcal/Wh]	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	189,1	646	162,7	1,60	5,45	1,37	118,4	0,73	1,91	ASHRAE LBP	
	[°F]														
	-10	130	90	90											
	-25	55	32	55	139,8	477	120,3	1,22	4,17	1,05	114,6	0,72	1,74	cecomaf LBP	
	[°F]														
	-13	131	90	131											
	-35	40	20	40	102,2	349	88,0	1,17	4,01	1,01	87,0	0,62	1,17	EN12900 LBP	
	[°F]														
	-31	104	68	104											
	-7	54	35	46	357,9	1222	308,0	2,23	7,60	1,92	160,7	0,89	4,08	ASHRAE MBP	
	[°F]														
	20	130	95	115											
	-10	55	32	55	282,5	965	243,1	1,85	6,30	1,59	153,1	0,86	3,57	cecomaf MBP	
	[°F]														
	14	131	90	131											
	-10	45	20	45	314,0	1072	270,3	2,23	7,63	1,92	140,5	0,81	3,86	EN12900 MBP	
	[°F]														
	14	113	68	113											

## Performance tables

R290, 220V/50Hz, RSCR, fan 3m/s, UL, 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]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	65,7	224	56,5	0,82	2,79	0,70	80,4	0,60	0,73									
cond. pressure	-35	-31	94,6	323	81,4	1,06	3,63	0,91	89,0	0,63	1,06									
pc= 45/113	-25	-13	167,8	573	144,4	1,54	5,25	1,32	109,2	0,70	1,89									
return gas temp.	-15	5	266,4	910	229,2	2,04	6,97	1,76	130,5	0,78	3,03									
RGT= 32/90	-5	23	395,9	1352	340,7	2,65	9,05	2,28	149,5	0,84	4,56									
liquid temp	0	32	474,1	1619	408,0	3,02	10,32	2,60	156,9	0,87	5,50									
Tliq= 45/113	10	50	660,8	2257	568,7	3,99	13,62	3,43	165,7	0,90	7,81									
[°C / °F]	-40	-40	46,1	158	39,7	0,55	1,89	0,48	83,6	0,62	0,57									
cond. pressure	-35	-31	73,1	250	62,9	0,79	2,70	0,68	92,3	0,64	0,90									
pc= 55/131	-25	-13	139,8	477	120,3	1,22	4,17	1,05	114,6	0,72	1,74									
return gas temp	-15	5	228,3	780	196,5	1,63	5,56	1,40	140,1	0,81	2,87									
RGT= 32/90	-5	23	344,2	1176	296,2	2,08	7,10	1,79	165,5	0,90	4,39									
liquid temp	0	32	414,2	1415	356,5	2,34	7,99	2,01	177,1	0,95	5,32									
Tliq= 55/131	10	50	581,9	1987	500,8	2,97	10,16	2,56	195,7	1,02	7,63									

## Model

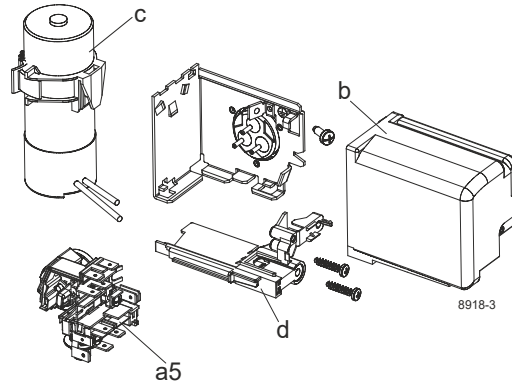
Designation **KLF4.0CNT** **208-230V/60Hz** Conf. 3 Sales code: **106H2402**

## Configuration

Motor configuration CSIR  
 Power supply (nominal) 208-230V/60Hz 1~  
 Refrigerant R290  
 Application LBP+MBP  
 Voltage range 195-253V  
 Starting torque HST  
 Approvals UL  
 VDE

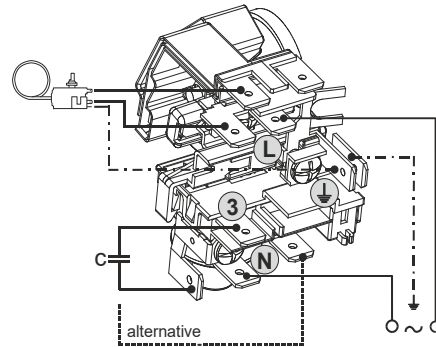
## Electrical accessories / wiring diagram

CSIR

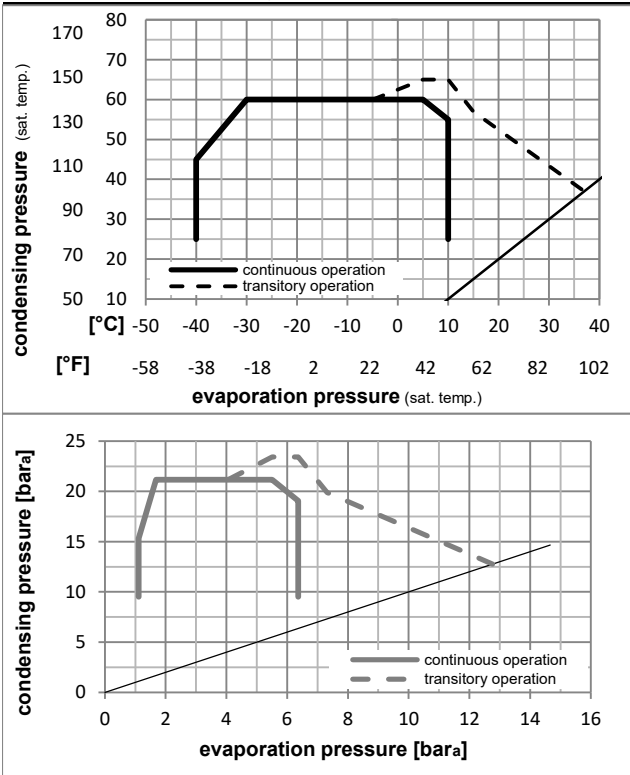


## Ambient/ machine room temperatures minimum /maximum

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 (T1252/L6) 117U7085  
 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

## Model

Designation **KLF4.0CNT** **208-230V/60Hz** Conf. 3 Sales code: **106H2402**

## Optimization + standard conditions

R290, 230V/60Hz, CSIR, fan 3m/s, UL, VDE

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			COP	EER	Power consumption			ASHRAE LBP	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]			P1	I	m		
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	235,5	804	202,7	1,63	5,56	1,40	144,7	0,98	2,38	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	175,7	600	151,2	1,25	4,28	1,08	140,3	0,97	2,19	cecomaf LBP
	-13	131	90	131										
	-35	40	20	40	129,9	444	111,8	1,27	4,34	1,09	102,2	0,93	1,48	EN12900 LBP
	-31	104	68	104										
	-7	54	35	46	425,3	1453	366,0	2,18	7,43	1,87	195,5	1,12	4,85	ASHRAE MBP
	20	130	95	115										
	-10	55	32	55	338,1	1155	291,0	1,81	6,19	1,56	186,5	1,09	4,28	cecomaf MBP
	14	131	90	131										
	-10	45	20	45	372,1	1271	320,2	2,22	7,57	1,91	167,8	1,03	4,57	EN12900 MBP
	14	113	68	113										

## Performance tables

R290, 230V/60Hz, CSIR, fan 3m/s, UL, 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	88,6	303	76,3	0,92	3,15	0,79	96,0	0,95	0,99
cond. pressure	-35	-31	122,2	417	105,2	1,15	3,93	0,99	106,3	0,94	1,37
pc= 45/113	-25	-13	206,2	704	177,4	1,58	5,40	1,36	130,5	0,95	2,33
return gas temp.	-15	5	318,4	1088	274,0	2,04	6,97	1,76	155,9	1,00	3,62
RGT= 32/90	-5	23	466,0	1592	401,1	2,61	8,92	2,25	178,4	1,06	5,37
liquid temp	0	32	555,3	1896	477,9	2,97	10,13	2,55	187,1	1,09	6,44
Tliq= 45/113	10	50	769,1	2627	661,9	3,90	13,33	3,36	197,0	1,13	9,09
[°C / °F]	-40	-40	66,5	227	57,2	0,64	2,19	0,55	103,6	0,95	0,82
cond. pressure	-35	-31	98,5	336	84,7	0,86	2,95	0,74	113,9	0,94	1,22
pc= 55/131	-25	-13	175,7	600	151,2	1,25	4,28	1,08	140,3	0,97	2,19
return gas temp	-15	5	276,6	945	238,0	1,62	5,52	1,39	171,0	1,04	3,48
RGT= 32/90	-5	23	408,2	1394	351,3	2,03	6,92	1,74	201,5	1,14	5,20
liquid temp	0	32	487,7	1665	419,7	2,26	7,73	1,95	215,4	1,19	6,26
Tliq= 55/131	10	50	678,5	2317	583,9	2,85	9,74	2,46	237,8	1,27	8,90

## Model

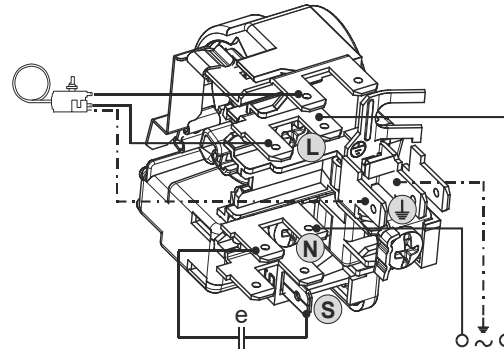
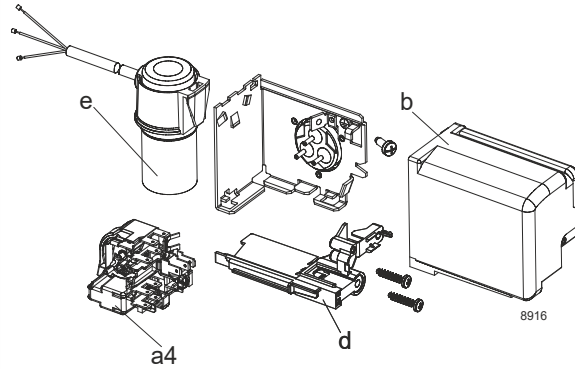
Designation **KLF4.0CNT** **208-230V/60Hz** Conf. 4 Sales code: **106H2402**

## Configuration

Motor configuration RSCR  
 Power supply (nominal) 208-230V/60Hz 1~  
 Refrigerant R290  
 Application LBP+MBP  
 Voltage range 187-253V  
 Starting torque LST  
 Approvals UL  
 VDE

## Electrical accessories / wiring diagram

RSCR



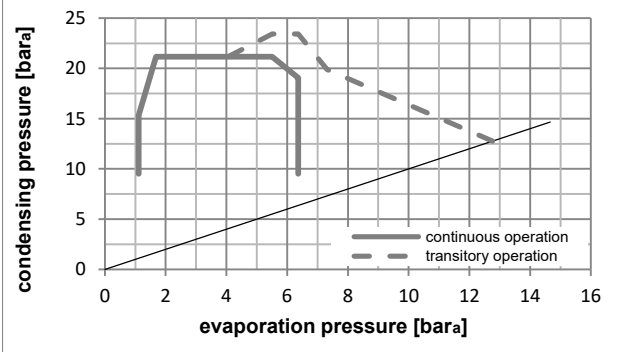
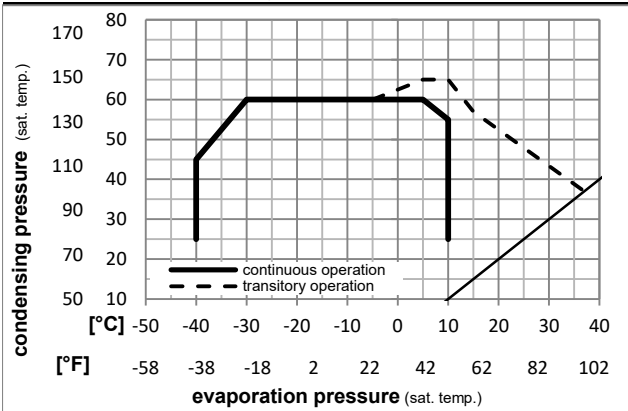
## Ambient/ machine room temperatures minimum /maximum

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	DAS12 (PTC,4.8mm, T1252/L6 - S12)	103N0259
e	run capacitor (5μF, 6,3mm)	117-7155
e1	retaining clamp	103N0535
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 **KLF4.0CNT** **208-230V/60Hz** Conf. 4 Sales code: **106H2402**

## Optimization + standard conditions

R290, 230V/60Hz, RSCR, fan 3m/s, UL, VDE

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			COP	EER	Power consumption			ASHRAE LBP		
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]			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	235,9	806	203,0	1,67	5,72	1,44	140,9	0,83	2,39	ASHRAE LBP	
	[°F]														
	-10	130	90	90											
	[°C]	-25	55	32	55	176,0	601	151,5	1,29	4,39	1,11	137,0	0,82	2,19	cecomaf LBP
	[°F]	-13	131	90	131										
	[°C]	-35	40	20	40	130,0	444	111,9	1,27	4,34	1,09	102,3	0,69	1,49	EN12900 LBP
	[°F]	-31	104	68	104										
	[°C]	-7	54	35	46	426,6	1457	367,1	2,28	7,80	1,96	186,9	1,01	4,87	ASHRAE MBP
	[°F]	20	130	95	115										
	[°C]	-10	55	32	55	339,0	1158	291,8	1,90	6,48	1,63	178,8	0,98	4,29	cecomaf MBP
	[°F]	14	131	90	131										
	[°C]	-10	45	20	45	373,0	1274	321,0	2,31	7,87	1,98	161,8	0,91	4,58	EN12900 MBP
	[°F]	14	113	68	113										

## Performance tables

R290, 230V/60Hz, RSCR, fan 3m/s, UL, VDE

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]						
[°C / °F]	-40	-40	88,7	303	76,3	0,92	3,13	0,79	96,7	0,67	0,99
cond. pressure	-35	-31	122,3	418	105,3	1,15	3,94	0,99	106,0	0,70	1,37
pc= 45/113	-25	-13	206,5	705	177,7	1,61	5,51	1,39	128,0	0,78	2,33
return gas temp.	-15	5	319,1	1090	274,7	2,11	7,22	1,82	151,1	0,87	3,63
RGT= 32/90	-5	23	467,2	1596	402,1	2,73	9,31	2,35	171,4	0,95	5,38
liquid temp	0	32	556,8	1902	479,2	3,11	10,61	2,67	179,3	0,98	6,46
Tliq= 45/113	10	50	771,4	2634	663,8	4,10	14,00	3,53	188,2	1,02	9,11
[°C / °F]	-40	-40	66,7	228	57,4	0,64	2,20	0,55	103,6	0,70	0,82
cond. pressure	-35	-31	98,6	337	84,9	0,87	2,98	0,75	113,0	0,73	1,22
pc= 55/131	-25	-13	176,0	601	151,5	1,29	4,39	1,11	137,0	0,82	2,19
return gas temp	-15	5	277,3	947	238,6	1,68	5,75	1,45	164,7	0,92	3,49
RGT= 32/90	-5	23	409,4	1398	352,3	2,13	7,27	1,83	192,3	1,03	5,22
liquid temp	0	32	489,3	1671	421,1	2,39	8,16	2,06	204,8	1,08	6,28
Tliq= 55/131	10	50	681,0	2326	586,1	3,03	10,34	2,61	224,9	1,17	8,93