

## Single Pack TF4CLX 115-127V 60Hz CSIR

Single pack code number: **195B4166**

Position	Title	Code	Amount
1	Compressor TF4CLX	102U2102	1
2	Starting relay (overload protector MRP36AEN-6)	117U4148	1
3	Starting capacitor (280 $\mu$ F 125V, 6.3mm)	117U5025	1
4	Cord relief	117U0349	2
5	Cover	117U1021	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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**Model**

Designation	<b>TF4CLX</b>	<b>115-127V/60Hz 1~</b>	Sales code:	<b>102U2102</b>
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**Compressor design**

Oil type	Polyolester	Refrigerant(s)	<b>R404A, R452A, R507</b>
Oil viscosity	32cST	Displacement	3,86cm <sup>3</sup> / 0,24cu.in
Oil quantity	280cm <sup>3</sup> / 9,5fl.oz	Compressors on pallet	125
Refr. charge - tech. limit	600g / 21,2oz		
Free gas volume comp.	1690cm <sup>3</sup> / 57,1fl.oz		
Weight	8,1kg / 17,9lbs		
Motor protection	external		
Winding resistance main	2,6Ω (at 25°C)		
Winding resistance aux	3,8Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



**General - Configurations with TF4CLX**

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	CSIR	CSIR
Power supply (nominal)	115V/60Hz	115V/60Hz
Number of phases	1	1
Voltage range	103-135V	103-135V
Approvals	UL	UL
Starting torque	HST	HST
Note	- / -	

**Applications with TF4CLX**

	<b>Conf. 1</b>	<b>Conf. 2</b>
Refrigerant	R404A	R452A
Application	LBP+MBP	LBP+MBP
System cooling	fan 1,5m/s	fan 1,5m/s
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

**Electrical data - Configurations with TF4CLX**

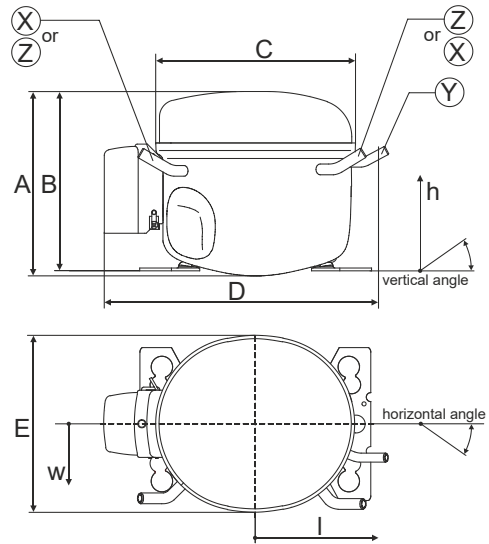
	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	relay
Run capacitor	- / -	- / -
Start capacitor	280μF	280μF
LRA (locked rotor amps / 4s)	20A	20A
RLA (rated load amps / 1s)	3,2A	3,2A
Cut in current	20A	20A
IP class	21	21

**Model**

Designation	<b>TF4CLX</b>	<b>115-127V/60Hz 1~</b>	Sales code:	<b>102U2102</b>
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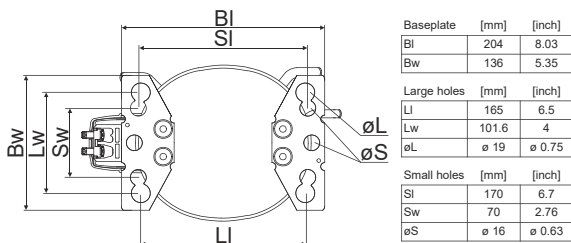
**Compressor dimensions**

<b>Housing</b>	A Height	174mm / 6,85in
	B Height	168mm / 6,61in
	C Length shell	176,5mm / 6,95in
	D Length w. cover	226mm / 8,9in
	E Width	156mm / 6,14in

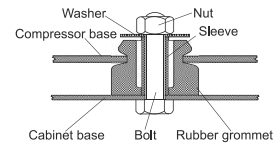


<b>Connectors</b>		<b>Suction</b>	<b>Discharge</b>	<b>Process</b>
		<b>X</b>	<b>Y</b>	<b>Z</b>
Diameter	[mm]	øi 6,41-6,59	øi 5,12-5,22	øi 6,41-6,59
(i:inside, o:outside)	[in]	øi 0,25-0,26	øi 0,2-0,21	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	150°	28°	31,5°
Position l/h/w	[mm]	-102/105/66	117/107/29	96/105/71
	[in]	-4/4,1/2,6	4,6/4,2/1,1	3,8/4,1/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

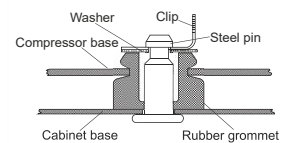
**Compressor fixation**



**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**

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

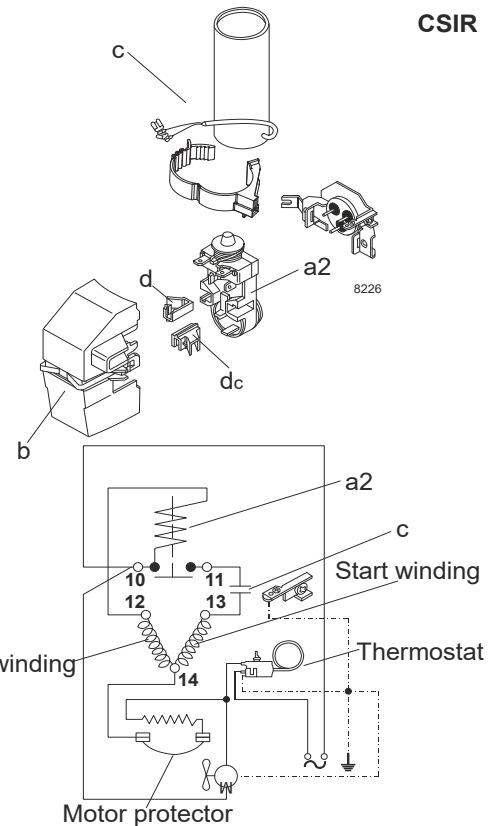
**Model**

Designation	<b>TF4CLX</b>	<b>115V/60Hz</b>	<b>Conf. 1</b>	Sales code:	<b>102U2102</b>
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**Configuration**

Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R404A
Application	LBP+MBP
Voltage range	103-135V
Starting torque	HST
Approvals	UL

**Electrical accessories / wiring diagram**

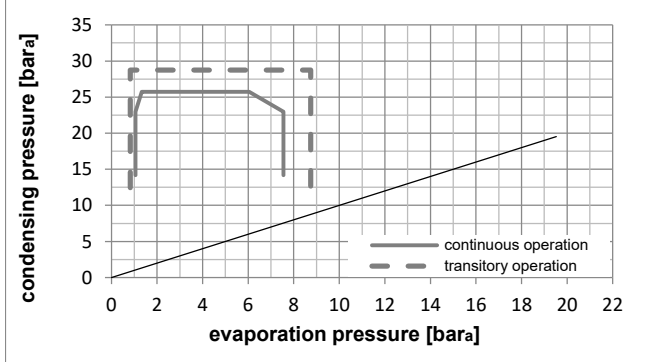
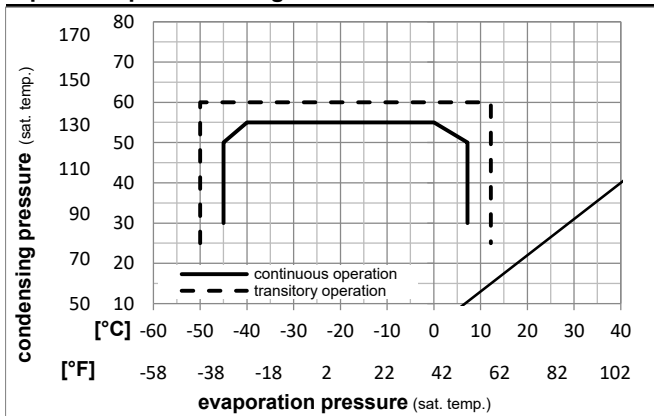


**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 1,5m/s	fan 1,5m/s	n/a
38°C / 100°F	fan 1,5m/s	fan 1,5m/s	n/a
43°C / 110°F	fan 1,5m/s	fan 1,5m/s	n/a

**Operation pressure range**



**Components**

a2	assy. relay + ext. protector (MRP36EN-6)	117U4148
c	start capacitor (280µF)	117U5025
b	plastic cover	117U1021
d/dc	cord relief	117U0349
d/dc	cord relief	117U0349

**Model**

Designation **TF4CLX 115V/60Hz** Conf. 1 Sales code: **102U2102**

**Optimization + standard conditions**

115V/60Hz, CSIR, fan 3m/s, UL

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)				Power consumption						ASHRAE LBP			
		Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	P1		Current consumption		Ref. mass flow
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	I		m		
[°C]	[°C]	[°C]	[°C]								[A]		[kg/h]		
-23,3	54,4	32,2	32,2	205,8	703	177,1	1,12	3,83	0,96	183,6	2,46	4,80			
[°F]															
-10	130	90	90												
-25	55	32	55	139,2	475	119,8	0,79	2,69	0,68	177,0	2,41	4,35			
[°F]															
-13	131	89,6	131												
-35	40	20	40	109,3	373	94,1	0,80	2,74	0,69	136,1	2,16	2,97			
[°F]															
-31	104	68	104												
-23,3	48,9	4,44	48,9	153,3	523	131,9	0,86	2,94	0,74	178,3	2,43	5,43			
[°F]															
-10	120	40	120												
-23,3	40,6	32,2	32,2	232,9	795	200,4	1,34	4,57	1,15	173,9	2,41	5,43			
[°F]															
-10	105	90	90												
-35	45	32	45	100,5	343	86,5	0,74	2,53	0,64	135,8	2,14	2,69			
[°F]															
-31	113	89,6	113												

**Performance tables**

115V/60Hz, CSIR, fan 3m/s, UL

	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]	-45	-49	46,8	160	40,3	0,45	1,52	0,38	104,9	2,04	1,24
cond. pressure	-34,4	-30	104,2	356	89,6	0,76	2,59	0,65	137,5	2,15	2,79
pc= 45/113	-23,3	-10	193,6	661	166,6	1,10	3,76	0,95	175,8	2,41	5,23
return gas temp.	-15	5	284,9	973	245,2	1,34	4,58	1,15	212,5	2,70	7,78
RGT= 32/90	-3,9	25	445,3	1521	383,2	1,59	5,45	1,37	279,2	3,20	12,41
liquid temp	0	32	513,1	1752	441,6	1,66	5,67	1,43	308,9	3,41	14,43
Tliq= 45/113	7,2	45	657,0	2244	565,4	1,75	5,99	1,51	374,7	3,84	18,84
[°C / °F]	-45	-49	26,3	90	22,6	0,27	0,93	0,23	96,9	2,01	0,81
cond. pressure	-34,4	-30	76,6	262	65,9	0,55	1,88	0,47	138,9	2,17	2,37
pc= 55/131	-23,3	-10	152,3	520	131,1	0,83	2,82	0,71	184,3	2,47	4,77
return gas temp	-15	5	229,1	782	197,2	1,02	3,49	0,88	224,4	2,78	7,27
RGT= 32/90	-3,9	25	364,5	1245	313,7	1,24	4,25	1,07	293,2	3,32	11,83
liquid temp	0	32	422,1	1442	363,3	1,31	4,46	1,12	322,9	3,55	13,84
Tliq= 55/131	7,2	45	544,8	1861	468,9	1,40	4,80	1,21	387,8	4,01	18,29

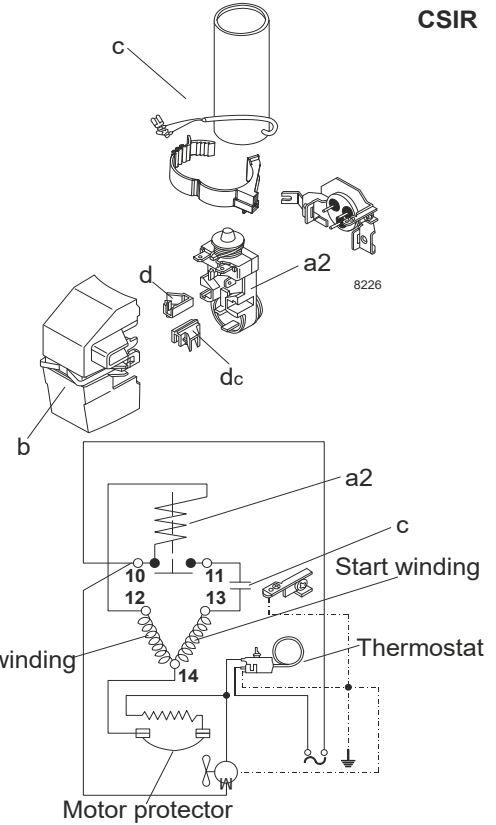
**Model**

Designation	<b>TF4CLX</b>	<b>115V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>102U2102</b>
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**Configuration**

Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R452A
Application	LBP+MBP
Voltage range	103-135V
Starting torque	HST
Approvals	UL

**Electrical accessories / wiring diagram**

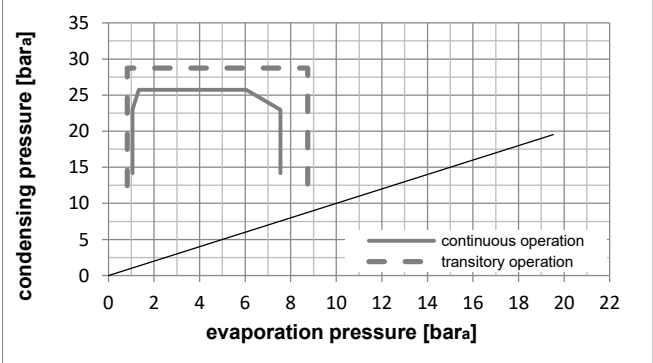
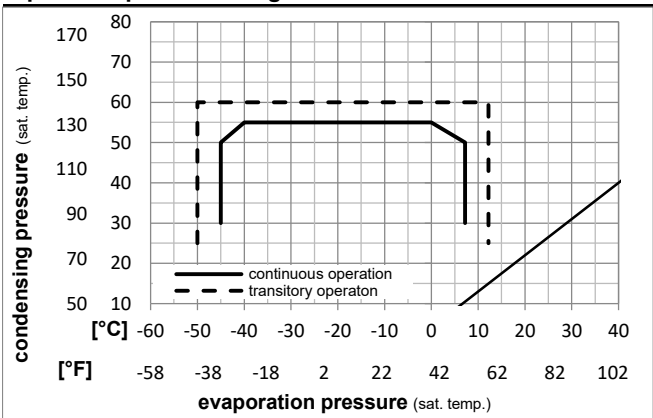


**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 1,5m/s	fan 1,5m/s	n/a
38°C / 100°F	fan 1,5m/s	fan 1,5m/s	n/a
43°C / 110°F	fan 1,5m/s	fan 1,5m/s	n/a

**Operation pressure range**



**Components**

a2	assy. relay + ext. protector (MRP36EN-6)	117U4148
c	start capacitor (280µF)	117U5025
b	plastic cover	117U1021
d/dc	cord relief	117U0349
d/dc	cord relief	117U0349

**Model**

Designation **TF4CLX 115V/60Hz** Conf. **2** Sales code: **102U2102**

**Optimization + standard conditions**

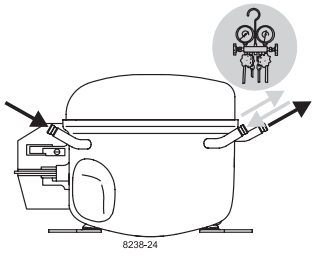
115V/60Hz, CSIR, fan 3m/s, UL

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)														
Return gas temp.														
Liquid temp.														
Cooling capacity														
COP														
EER														
Power consumption														
Current consumption														
Ref. mass flow														
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°F]	-23,3	54,4	32,2	32,2	187,7	641	161,5	1,09	3,71	0,93	172,8	2,43	4,51	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	128,0	437	110,1	0,77	2,63	0,66	166,3	2,39	4,07	cecomaf LBP
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	98,3	336	84,6	0,77	2,63	0,66	127,8	2,12	2,75	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-23,3	48,9	4,44	48,9	142,0	485	122,2	0,84	2,89	0,73	168,1	2,40	5,11	ARI540 LBP
[°F]	-10	120	40	120										
[°C]	-23,3	40,6	32,2	32,2	213,8	730	184,0	1,30	4,45	1,12	164,2	2,37	5,14	AHAM LBP
[°F]	-10	105	90	90										
[°C]	-35	45	32	45	90,2	308	77,6	0,71	2,42	0,61	127,4	2,12	2,47	opt
[°F]	-31	113	89,6	113										

**Performance tables**

115V/60Hz, CSIR, fan 3m/s, UL

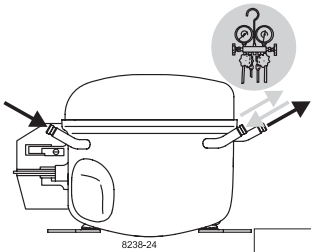
	pe	Cooling capacity			COP	EER	P1	I	m			
		[°C]	[°F]	[W]						[Btu/h]	[kcal/h]	[W/W]
[°C / °F]	-45	-49		39,8	136	34,3	0,40	1,37	0,35	99,1	1,92	1,09
cond. pressure	-34,4	-30		93,6	320	80,5	0,73	2,48	0,62	129,0	2,13	2,57
pc= 45/113	-23,3	-10		178,5	610	153,6	1,08	3,67	0,93	165,9	2,38	4,95
return gas temp.	-15	5		266,2	909	229,1	1,32	4,50	1,13	202,2	2,63	7,45
RGT= 32/90	-3,9	25		421,8	1440	363,0	1,57	5,36	1,35	268,7	3,09	12,01
liquid temp	0	32		488,1	1667	420,1	1,64	5,59	1,41	298,2	3,30	14,01
Tliq= 45/113	7,2	45		629,4	2149	541,6	1,73	5,91	1,49	363,5	3,75	18,39
[°C / °F]	-45	-49		21,2	72	18,2	0,23	0,80	0,20	90,8	1,86	0,66
cond. pressure	-34,4	-30		68,4	234	58,8	0,53	1,80	0,45	129,6	2,13	2,16
pc= 55/131	-23,3	-10		140,6	480	121,0	0,81	2,77	0,70	173,4	2,43	4,48
return gas temp	-15	5		214,8	734	184,9	1,01	3,44	0,87	213,2	2,71	6,92
RGT= 32/90	-3,9	25		347,3	1186	298,9	1,23	4,20	1,06	282,2	3,19	11,43
liquid temp	0	32		404,1	1380	347,7	1,29	4,42	1,11	312,1	3,39	13,42
Tliq= 55/131	7,2	45		525,7	1795	452,4	1,39	4,76	1,20	377,2	3,84	17,82



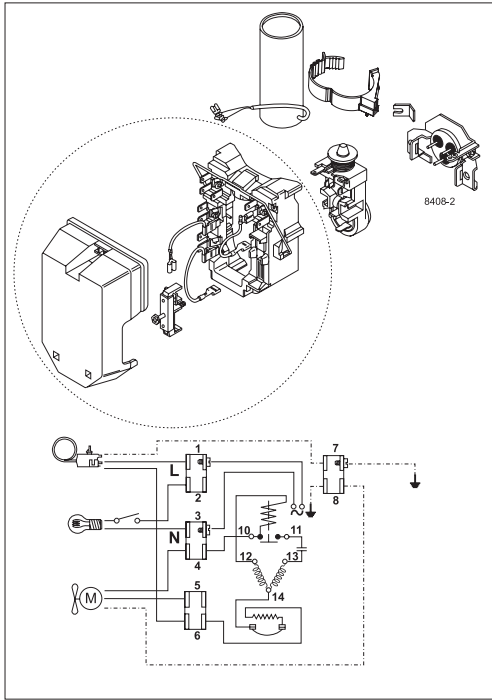
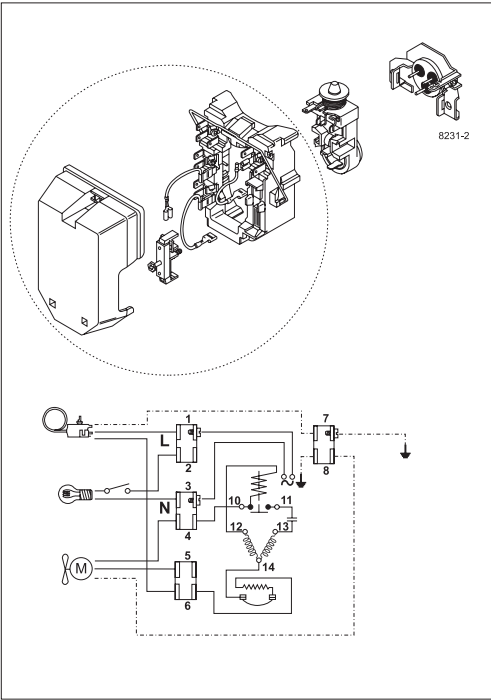
# TF Compressors







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