

## Model

Designation	<b>TFS4.5FT</b>	115-127V/60Hz 1~	Sales code:	<b>102G3424</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a, R513A, 0</b>
Oil viscosity	15cST	Displacement	4,63cm <sup>3</sup> / 0,28cu.in
Oil quantity	285cm <sup>3</sup> / 9,7fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	1790cm <sup>3</sup> / 60,5fl.oz		
Weight	6,7kg / 14,8lbs		
Motor protection	external		
Winding resistance main	3,33Ω (at 25°C)		
Winding resistance aux	8,76Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	120°C / 248°F		



## General - Configurations with TFS4.5FT

	<b>Conf. 1</b>
Motorconfiguration	CSIR
Power supply (nominal)	115-127V/60Hz
Number of phases	1
Voltage range	95-135V
Approvals	UL
Starting torque	HST
Note	Electrical equipment is included and pre-assembled to compressor.

## Applications with TFS4.5FT

	<b>Conf. 1</b>
Refrigerant	R134a
Application	LBP+MBP
System cooling	fan 1,5m/s
Hot gas defrost	-/-
Long interval pull down	OK

## Electrical data - Configurations with TFS4.5FT

	<b>Conf. 1</b>
Starting device type	relay
Run capacitor	-/-
Start capacitor	320μF
LRA (locked rotor amps / 4s)	20,1A
RLA (rated load amps / 1s)	2,4A
Cut in current	20,1A

## Model

Designation

**TFS4.5FT**

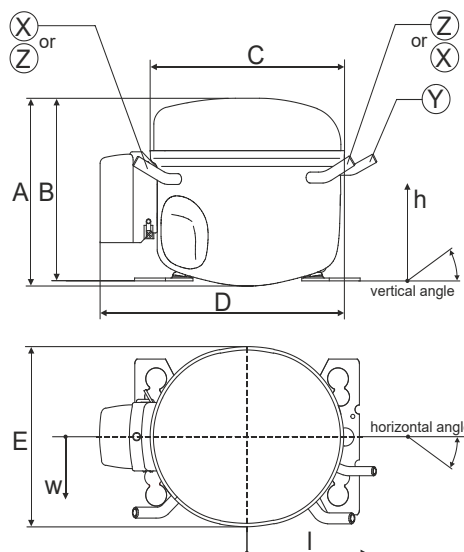
115-127V/60Hz 1~

Sales code:

**102G3424**

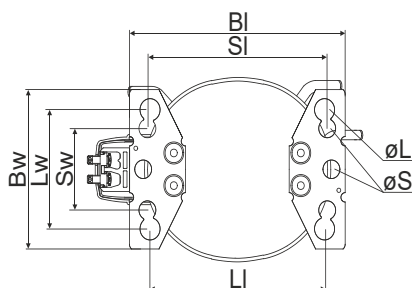
## Compressor dimensions

<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



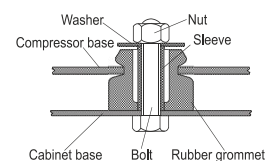
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 6,41-6,59	øi 5,12-5,22	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,25-0,26	øi 0,2-0,21	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	150°	28°	31,5°
Position l/h/w	[mm]	-102/105/66	117/107/29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

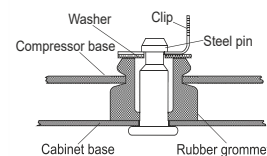


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	136	5.35
Large holes		
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes		
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63

### 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

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

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

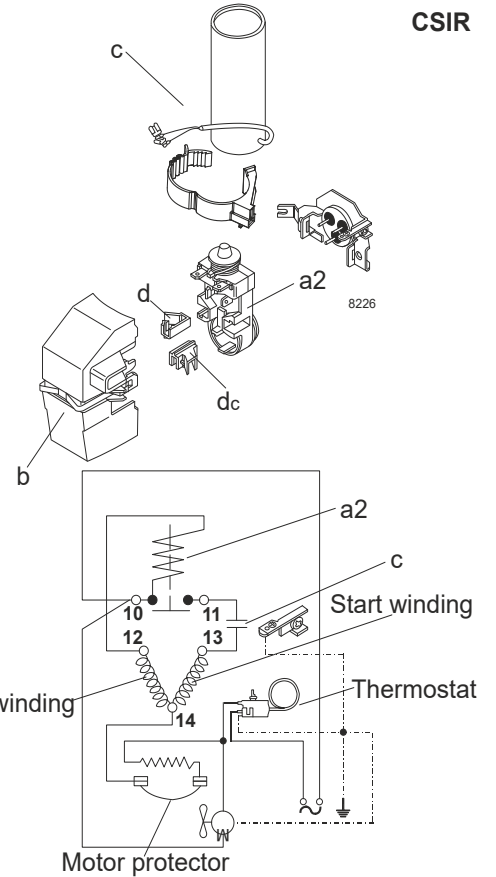
## Model

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## Configuration

Motorconfiguration	CSIR	
Power supply (nominal)	115-127V/60Hz 1~	
Refrigerant	R134a	
Application	LBP+MBP	
Voltage range	95-135V	
Starting torque	HST	
Approvals	UL	SA3693

## Electrical accessories / wiring diagram

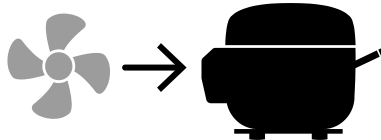


## Ambient/ machine room temperatures minimum /maximum

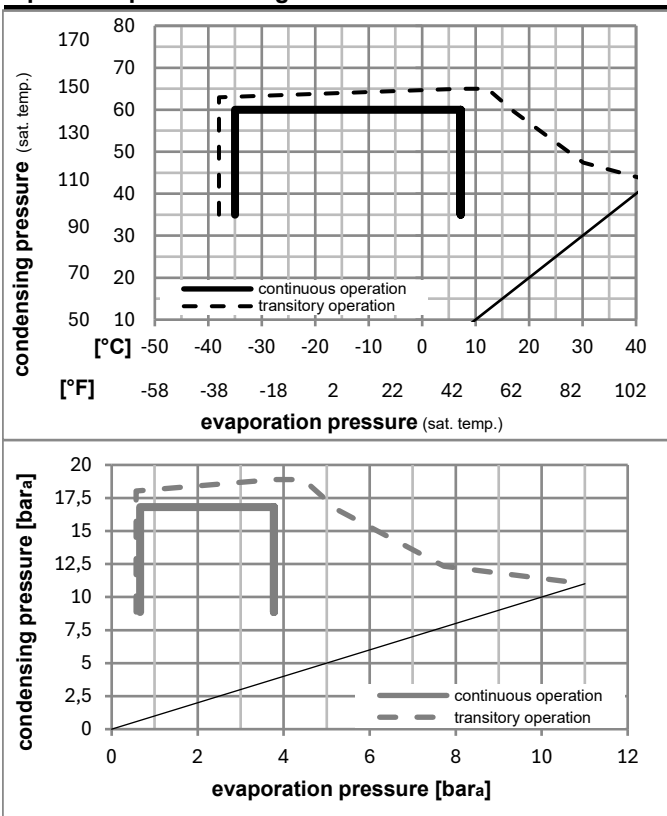
Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F

**Compressor cooling:** fan 1,5m/s

Compressor with external protector. For max. operation envelope cooling on protector.



## Operation pressure range



## Components (already pre-assembled)

a2	assy. relay + ext. protector (MRP39AIL-6)	117U4126
c	start capacitor (320µF)	117U5022
b	plastic cover	117U1021
d/dc	cord relief	117U0349
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### Model

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### Optimization + standard conditions

R134a, 115V/60Hz, CSIR, fan 1,5m/s, UL

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER		P1	I	Ref. mass flow		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]										
-23	-10	54	130	32	90	139,8	477	120,3	1,10	3,76	0,95	127,1	2,02	2,71	ASHRAE LBP
-25	-13	55	131	32	90	102,0	348	87,8	0,84	2,88	0,73	121,0	1,99	2,44	cecomaf LBP
-35	-31	40	104	20	68	82,3	281	70,8	0,88	3,01	0,76	93,5	1,87	1,81	EN12900 LBP
-23	-10	49	120	4,4	40	118,4	404	101,9	0,93	3,19	0,80	126,9	2,01	3,13	ARI540 LBP
-23	-10	41	105	32	90	165,1	564	142,1	1,32	4,50	1,13	125,3	1,99	3,20	AHAM LBP
-35	-31	45	113	32	90	75,0	256	64,5	0,81	2,78	0,70	92,1	1,87	1,62	opt

### Performance tables

R134a, 115V/60Hz, CSIR, fan 1,5m/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]	-35	-31	75,0	256	64,5	0,81	2,78	0,70	92,1	1,87	1,62
cond. pressure	-23	-10	141,0	481	121,3	1,12	3,81	0,96	126,3	2,00	3,06
pc= 45/113	-15	5	214,2	732	184,4	1,37	4,69	1,18	156,0	2,16	4,67
return gas temp.	-9	15	275,4	941	237,0	1,54	5,27	1,33	178,4	2,29	6,03
RGT= 32/90	-4	25	346,7	1184	298,4	1,71	5,83	1,47	202,9	2,47	7,63
liquid temp	0	32	402,6	1375	346,5	1,82	6,21	1,56	221,4	2,61	8,90
Tliq= 45/113	7,2	45	519,9	1776	447,5	2,01	6,86	1,73	258,7	2,93	11,61
[°C / °F]	-35	-31	56,0	191	48,2	0,64	2,17	0,55	88,0	1,87	1,33
cond. pressure	-23	-10	112,8	385	97,0	0,89	3,03	0,76	127,1	2,02	2,70
pc= 55/131	-15	5	179,9	614	154,8	1,12	3,84	0,97	160,1	2,18	4,33
return gas temp	-9	15	237,3	810	204,2	1,29	4,39	1,11	184,5	2,32	5,74
RGT= 32/90	-4	25	304,8	1041	262,3	1,45	4,94	1,24	210,9	2,50	7,42
liquid temp	0	32	358,3	1224	308,3	1,55	5,30	1,34	230,7	2,64	8,76
Tliq= 55/131	7,2	45	471,2	1609	405,5	1,74	5,96	1,50	270,2	2,96	11,65