

Model

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

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	15cST	Displacement	4,63cm ³ / 0,28cu.in
Oil quantity	285cm ³ / 9,7fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	1790cm ³ / 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

	Conf. 1
Motorconfiguration	CSIR
Power supply (nominal)	115-127V/60Hz
Number of phases	1
Voltage range	95-135V
Approvals	UL
Starting torque	HST
Note	- / -

Applications with TFS4.5FT

	Conf. 1
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

	Conf. 1
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
IP class	21

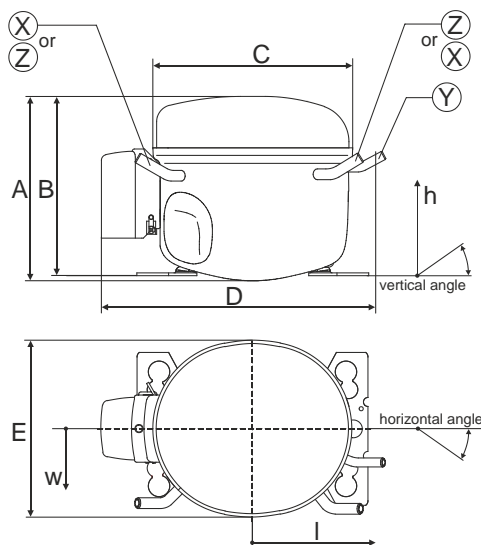
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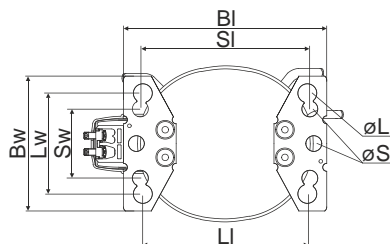
Compressor dimensions

Housing	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

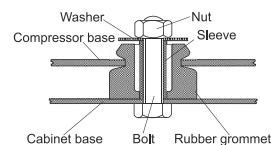


Compressor fixation

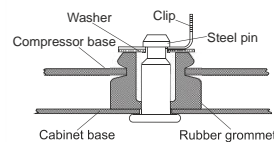


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	136	5.35
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63

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.

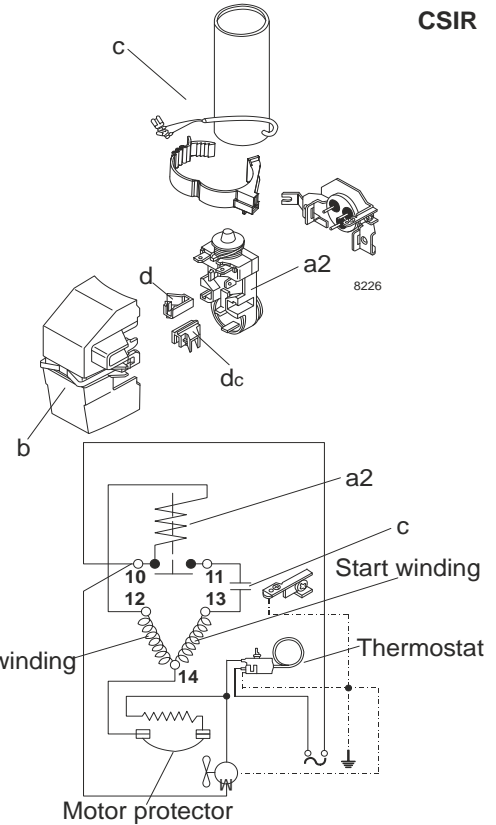
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Configuration

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Refrigerant	R134a
Application	LBP+MBP
Voltage range	95-135V
Starting torque	HST
Approvals	UL SA3693

Electrical accessories / wiring diagram

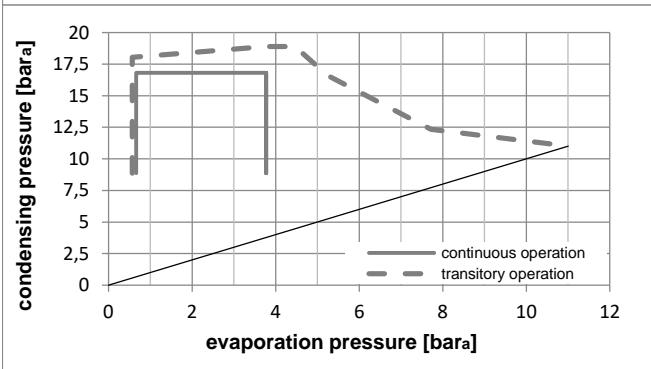
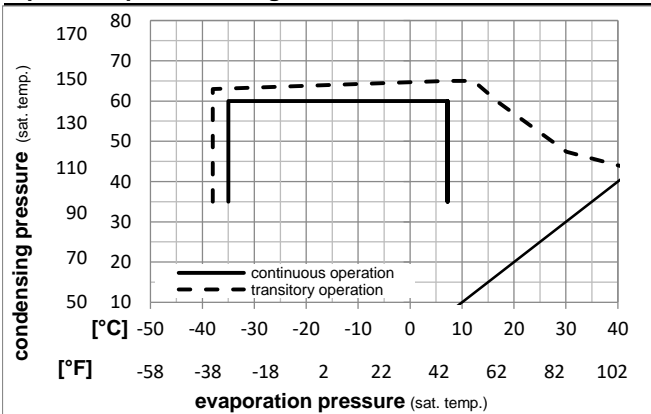


Ambient temperatures / system cooling

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 (MRP39AIL-6)	117U4126
c	start capacitor (320µF)	117U5022
b	plastic cover	117U1021
d/dc	cord relief	117U0349
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Model

Designation **TFS4.5FT 115-127V/60Hz** Conf. 1 Sales code: **102G3424**

Optimization + standard conditions

115V/60Hz, CSIR, static, UL

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption				ASHRAE LBP
					Return gas temp.						Current consumption				
					Liquid temp.						Ref. mass flow				
					Cooling capacity						COP EER				
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1 [W]	I [A]	m [kg/h]		
[°C]	-23,3	54,4	32,2	32,2	139,8	477	120,3	1,10	3,76	0,95	127,1	2,02	2,71	ASHRAE	
[°F]	-10	130	90	90										LBP	
[°C]	-25	55	32	55	102,0	348	87,8	0,84	2,88	0,73	121,0	1,99	2,44	cecomaf	
[°F]	-13	131	89,6	131										LBP	
[°C]	-35	40	20	40	82,3	281	70,8	0,88	3,01	0,76	93,5	1,87	1,81	EN12900	
[°F]	-31	104	68	104										LBP	
[°C]	-23,3	48,9	4,44	48,9	118,4	404	101,9	0,93	3,19	0,80	126,9	2,01	3,13	ARI540	
[°F]	-10	120	40	120										LBP	
[°C]	-23,3	40,6	32,2	32,2	165,1	564	142,1	1,32	4,50	1,13	125,3	1,99	3,20	AHAM	
[°F]	-10	105	90	90										LBP	
[°C]	-35	45	32	45	75,0	256	64,5	0,81	2,78	0,70	92,1	1,87	1,62	opt	
[°F]	-31	113	89,6	113											

Performance tables

115V/60Hz, CSIR, static, 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	-23,3	-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.	-9,4	15	275,4	941	237,0	1,54	5,27	1,33	178,4	2,29	6,03
RGT= 32/90	-3,9	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	-23,3	-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	-9,4	15	237,3	810	204,2	1,29	4,39	1,11	184,5	2,32	5,74
RGT= 32/90	-3,9	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