

Model

Designation	TFS4.5FT	115-127V/60Hz 1~	Sales code:	102G3432
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A, 0
Oil viscosity	15cST	Displacement	4,63cm ³ / 0,28cu.in
Oil quantity	285cm ³ / 9,7fl.oz	Compressors on pallet	125
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.	130°C / 266°F		



General - Configurations with TFS4.5FT

	Conf. 1	Conf. 2
Motorconfiguration	CSIR	RSIR
Power supply (nominal)	115-127V/60Hz	115-127V/60Hz
Number of phases	1	1
Voltage range	95-135V	95-135V
Approvals	UL	UL
Starting torque	HST	LST
Note	- / -	

Applications with TFS4.5FT

	Conf. 1	Conf. 2
Refrigerant	R134a	R134a
Application	LBP+MBP	LBP+MBP
System cooling	fan 1,5m/s	fan 1,5m/s
Hot gas defrost	-/-	-/-
Long interval pull down	OK	OK

Electrical data - Configurations with TFS4.5FT

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

Model

Designation

TFS4.5FT

115-127V/60Hz 1~

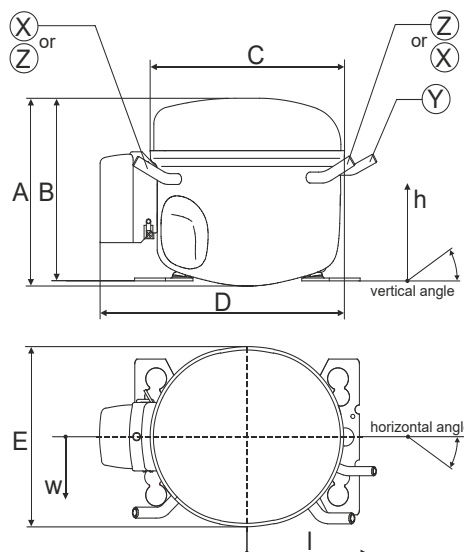
Sales code:

102G3432

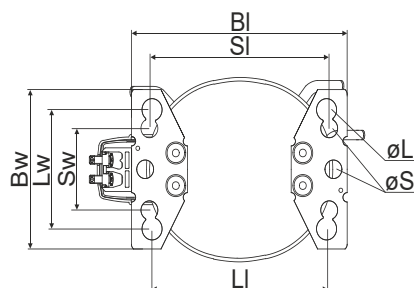
Compressor dimensions

Housing	A Height	173mm / 6,81in
	B Height	169mm / 6,65in
	C Length shell	176mm / 6,93in
	D Length w. cover	222mm / 8,74in
	E Width	157mm / 6,18in

Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 6,41-6,59	øi 4,86-5,02	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,25-0,26	øi 0,19-0,2	øi 0,25-0,26
Material		steel/CU	steel/CU	steel/CU
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

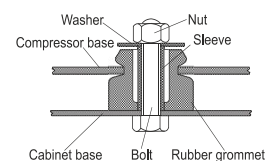


Compressor fixation

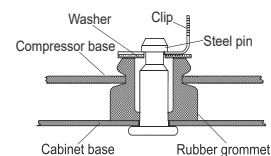


Baseplate	[mm]	[inch]
BI	204	8.03
BW	136	5.35
Large holes		
LI	165	6.5
LW	101.6	4
øL	ø 19	ø 0.75
Small holes		
SI	170	6.7
SW	70	2.76
øS	ø 16	ø 0.63

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

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

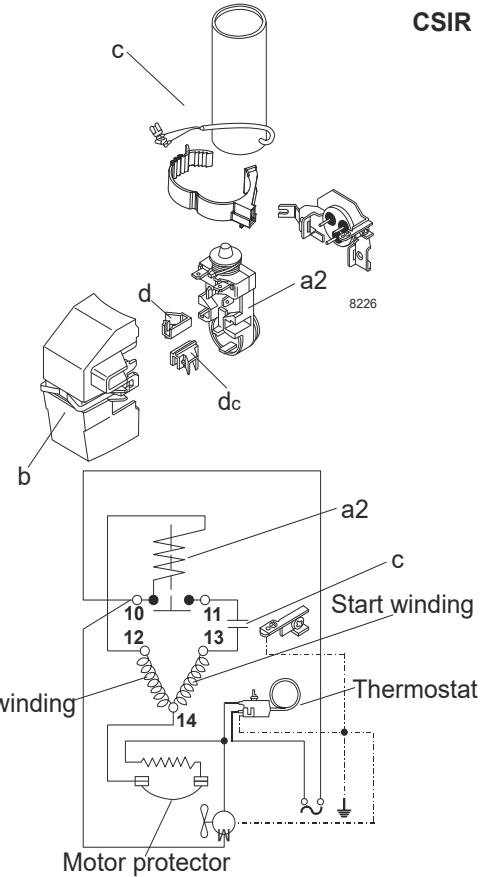
Model

Designation	TFS4.5FT	115-127V/60Hz	Conf. 1	Sales code:	102G3432
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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

Electrical accessories / wiring diagram

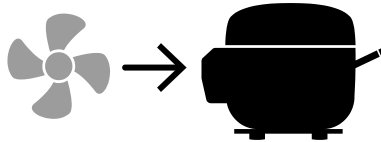


Ambient/ machine room temperatures minimum /maximum

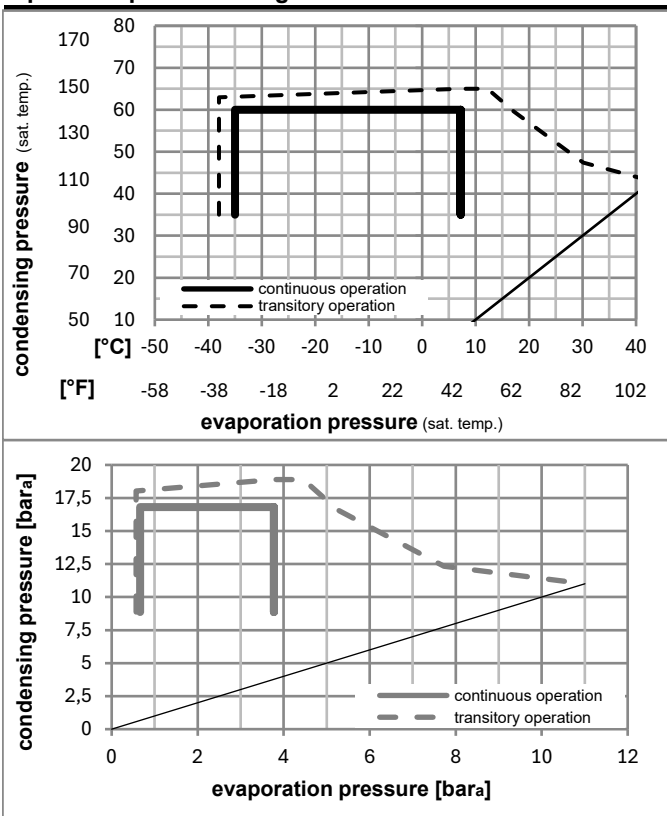
Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F

Compressor cooling: fan 1,5m/s

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



Operation pressure range



Components

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

Alternative components

b	plastic cover	117U1027
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Model

Designation **TFS4.5FT** **115-127V/60Hz** Conf. 1 Sales code: **102G3432**

Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow									
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]							[W]	[A]	[kg/h]									
-23	-10	54	130	32	90	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	55	131	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	40	104	82,3	281	70,8	0,88	3,01	0,76	93,5	1,87	1,81					EN12900 LBP		
-7	20	54	130	35	95	46	115	298,3	1019	256,7	1,51	5,17	1,30	197,2	2,41	6,51					ASHRAE MBP		
-10	14	55	131	32	90	55	131	231,1	789	198,9	1,27	4,34	1,09	181,9	2,31	5,59					cecomaf MBP		
-10	14	45	113	20	68	45	113	259,1	885	223,0	1,47	5,03	1,27	176,1	2,28	6,07					EN12900 MBP		

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

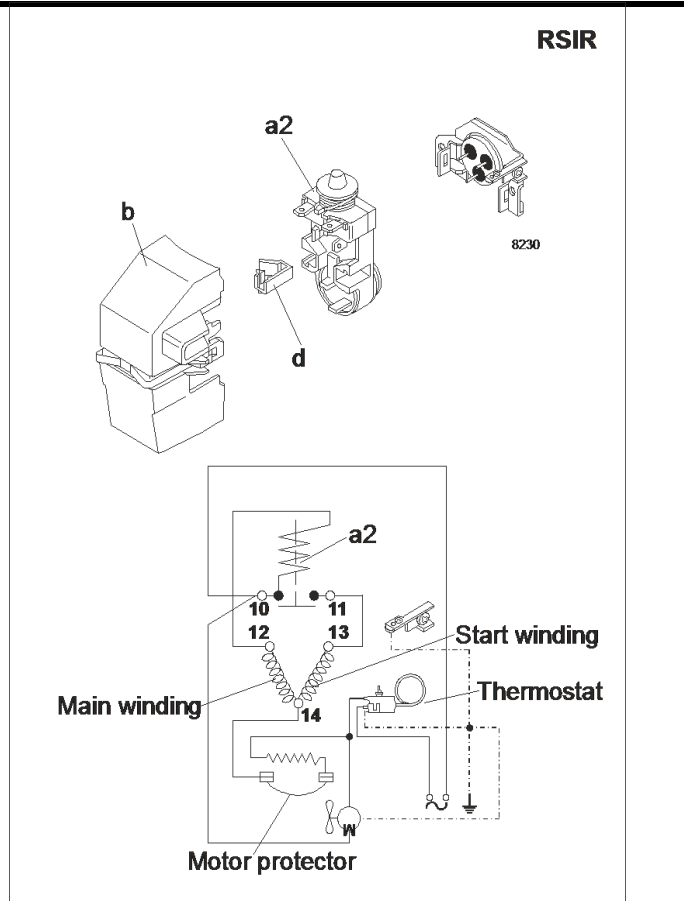
Model

Designation	TFS4.5FT	115-127V/60Hz	Conf. 2	Sales code:	102G3432
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Configuration

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

Electrical accessories / wiring diagram

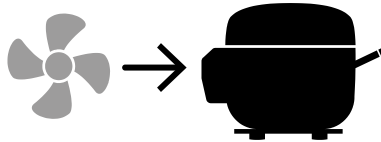


Ambient/ machine room temperatures minimum /maximum

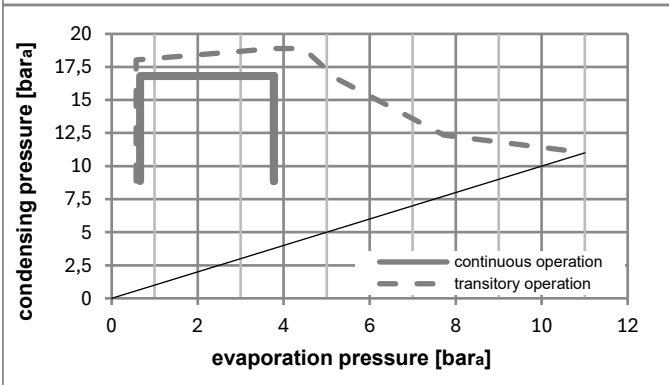
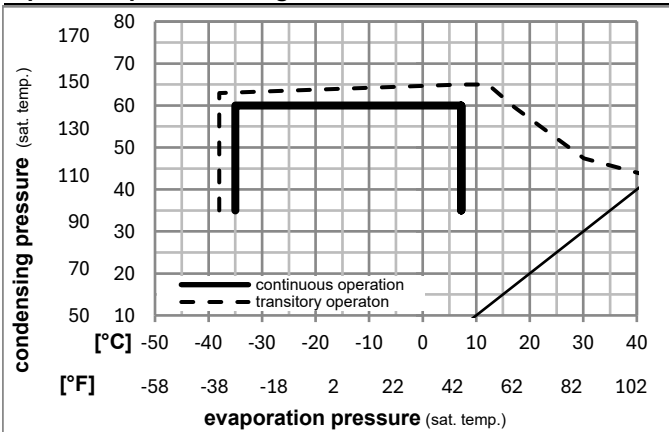
Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F

Compressor cooling: fan 1,5m/s

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



Operation pressure range



Components

a2	assy. relay + ext. protector (MRP39AIL-6)	117U4113
b	plastic cover	117U1021
d/dc	cord relief	117U0349

Model

Designation **TFS4.5FT** **115-127V/60Hz** Conf. 2 Sales code: **102G3432**

Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER		Current consumption		Ref. mass flow		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°F]	[°C]	[°C]	[°C]	[°C]							[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	139,8	477	120,3	1,10	3,76	0,95	127,1	2,02	2,71	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	102,0	348	87,8	0,84	2,88	0,73	121,0	1,99	2,44	cecomaf LBP	
[°F]	-13	131	90	131											
[°C]	-35	40	20	40	82,3	281	70,8	0,88	3,01	0,76	93,5	1,87	1,81	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-7	54	35	46	298,3	1019	256,7	1,51	5,17	1,30	197,2	2,41	6,51	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	231,1	789	198,9	1,27	4,34	1,09	181,9	2,31	5,59	cecomaf MBP	
[°F]	14	131	90	131											
[°C]	-10	45	20	45	259,1	885	223,0	1,47	5,03	1,27	176,1	2,28	6,07	EN12900 MBP	
[°F]	14	113	68	113											

Performance tables

R134a, 115V/60Hz, RSIR, 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]
[°C / °F]	-35	-31	75,0	256	64,5	0,81	2,78	0,70	92,1	1,87	1,62
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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
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Tliq= 55/131	7,2	45	471,2	1609	405,5	1,74	5,96	1,50	270,2	2,96	11,65