

Single Pack TFS4.5FT 115-127V 60Hz CSIR

Single pack code number: **195B4517**

Position	Title	Code	Amount
1	Compressor TFS4.5FT	102G3432	1
2	Starting relay (overload protector MRP39AIL-6)	117U4126	1
3	Starting capacitor (320 μ F 125V, 6.3mm)	117U5022	1
4	Cord relief	117U0349	1
5	Cover	117U1021	1
6	Bolt joint for one compressor M6 \varnothing 16mm	118-1917	1

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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/ U(N))	20,1A	
RLA (rated load amps / 1s/ U(N))	2,4A	-/-A
Cut in current (U(N))	20,1A	

Model

Designation

TFS4.5FT

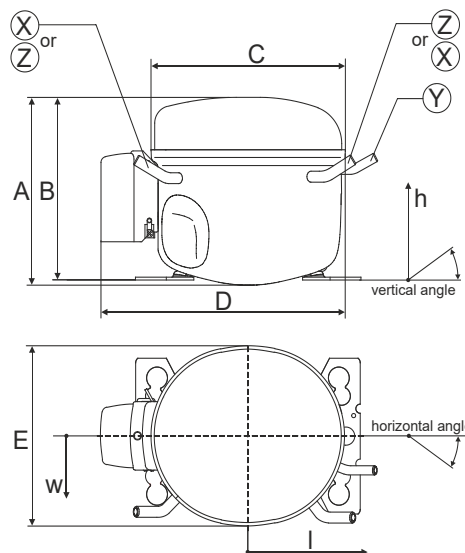
115-127V/60Hz 1~

Sales code:

102G3432

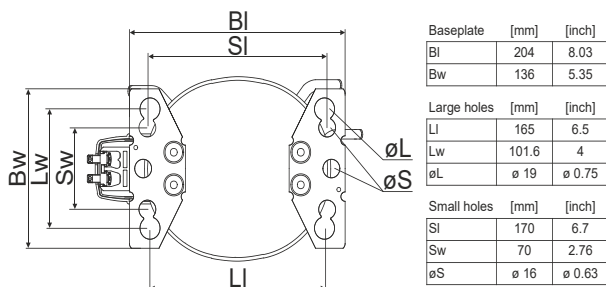
Compressor dimensions

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



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

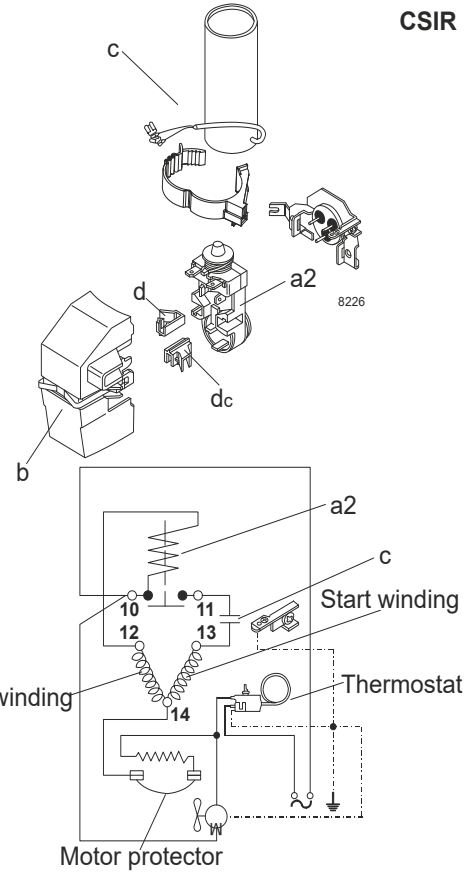
Model

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



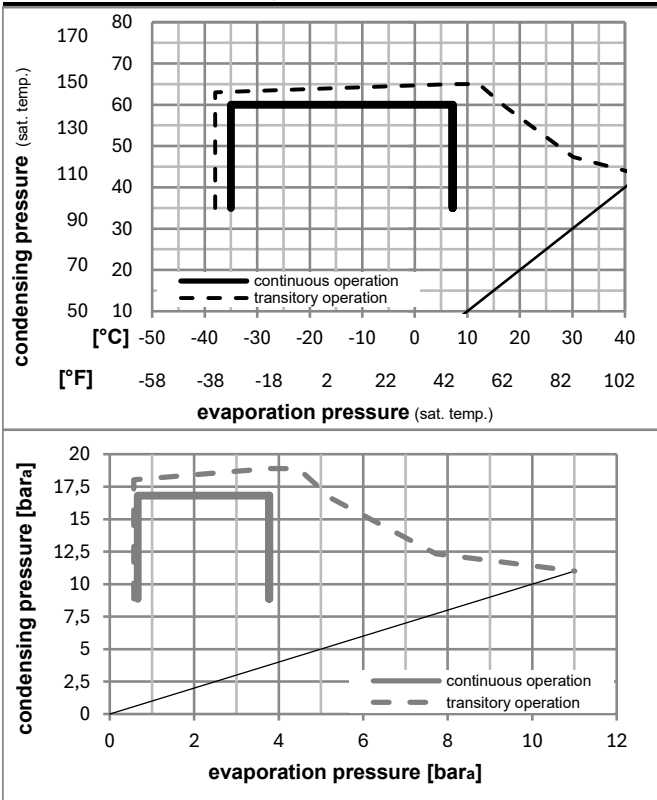
Ambient/ machine room temperatures minimum /maximum

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

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)				Cooling capacity			COP	EER	P1	Power consumption		ASHRAE LBP	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				I	m		
[°C]	-23	54	32	32	139,8	477	120,3	1,10	3,76	0,95	127,1	2,02	2,71	
[°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, CSIR, fan 1,5m/s, UL

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]		[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
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

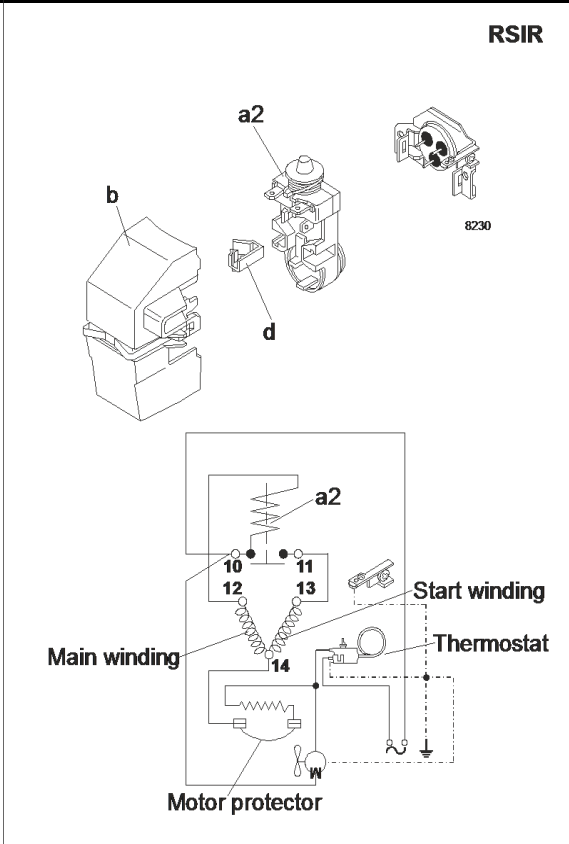
Model

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

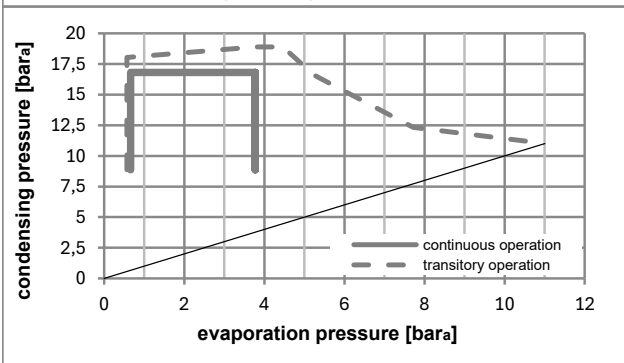
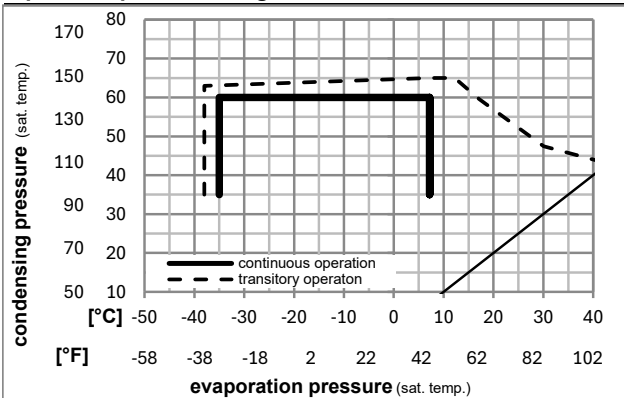
Electrical accessories / wiring diagram



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

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

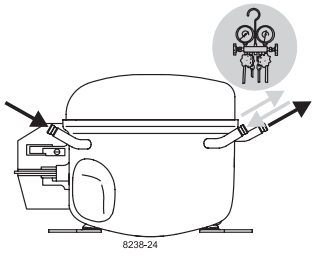
R134a, 115V/60Hz, RSIR, fan 1,5m/s, UL

	pe	pc	RGT	Tliq	Cooling capacity	COP	EER	P1	I	Ref. mass flow	
	[°C]	[°C]	[°C]	[°C]	[W]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	139,8	1,10	3,76	127,1	2,02	2,71	ASHRAE LBP
	[°F]				[Btu/h]		[kcal/h]				
	-10	130	90	90	477	1,10	3,76	127,1	2,02	2,71	
					[kcal/h]		[kcal/Wh]				
					139,8	1,10	3,76	127,1	2,02	2,71	
					477	1,10	3,76	127,1	2,02	2,71	
					120,3	1,10	3,76	127,1	2,02	2,71	
					139,8	0,84	2,88	121,0	1,99	2,44	cecomaf LBP
					477	0,84	2,88	121,0	1,99	2,44	
					120,3	0,84	2,88	121,0	1,99	2,44	
					102,0	0,84	2,88	121,0	1,99	2,44	
					348	0,84	2,88	121,0	1,99	2,44	
					87,8	0,84	2,88	121,0	1,99	2,44	
					102,0	0,88	3,01	93,5	1,87	1,81	EN12900 LBP
					348	0,88	3,01	93,5	1,87	1,81	
					87,8	0,88	3,01	93,5	1,87	1,81	
					102,0	0,88	3,01	93,5	1,87	1,81	
					298,3	1,51	5,17	197,2	2,41	6,51	ASHRAE MBP
					1019	1,51	5,17	197,2	2,41	6,51	
					256,7	1,51	5,17	197,2	2,41	6,51	
					298,3	1,27	4,34	181,9	2,31	5,59	cecomaf MBP
					1019	1,27	4,34	181,9	2,31	5,59	
					256,7	1,27	4,34	181,9	2,31	5,59	
					231,1	1,27	4,34	181,9	2,31	5,59	
					789	1,27	4,34	181,9	2,31	5,59	
					198,9	1,27	4,34	181,9	2,31	5,59	
					231,1	1,47	5,03	176,1	2,28	6,07	EN12900 MBP
					789	1,47	5,03	176,1	2,28	6,07	
					198,9	1,47	5,03	176,1	2,28	6,07	
					259,1	1,47	5,03	176,1	2,28	6,07	
					885	1,47	5,03	176,1	2,28	6,07	
					223,0	1,47	5,03	176,1	2,28	6,07	

Performance tables

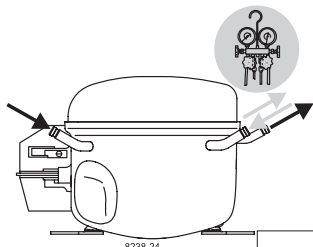
R134a, 115V/60Hz, RSIR, fan 1,5m/s, UL

	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[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
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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
[°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

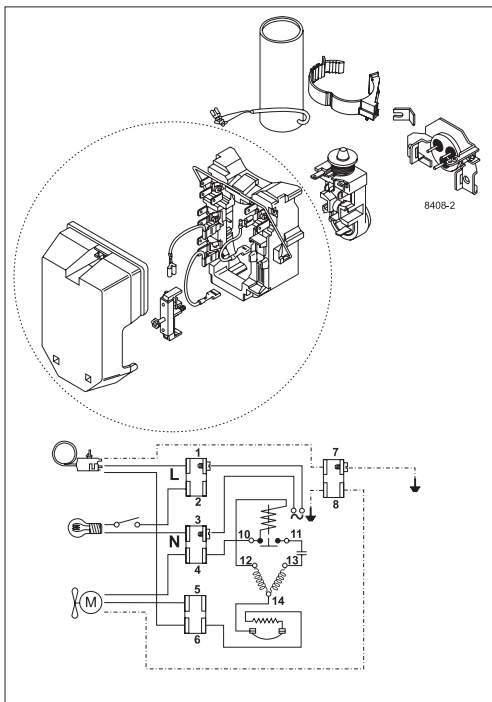
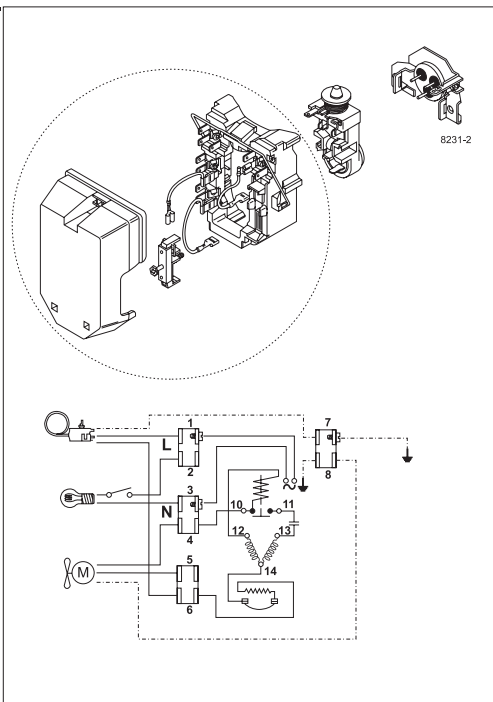


TF Compressors





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