

# TFS4.5FT Tropical Compressor R134a 115-127V 60Hz

Data Sheet (Replaces CD.42.R7.22)

## General

Compressor		TFS4.5FT
Connector-material	Sealing	Code number
Copper-plated steel	Aluminium caps	102G3452
Copper-plated steel	Rubber plugs	102G3432
Copper	Rubber plugs	102G3438

## Application

Application		LBP/MBP
Evaporating temperature range	°F (°C)	-31 to 45 (-35 to 7.2)
Voltage range	V/Hz	95 - 135 /60
Motor type		RSIR/CSIR*
Max. ambient temperature	°F (°C)	110 (43)
Comp. cooling at max. ambient temperature	110°F (43°C)	F <sub>1</sub>

\*In capillary tube systems where non-equalized pressures may occur at compressor start, or in areas with short power supply drop-outs, a starting capacitor can be used for ensuring a successful start (CSIR).

## Design

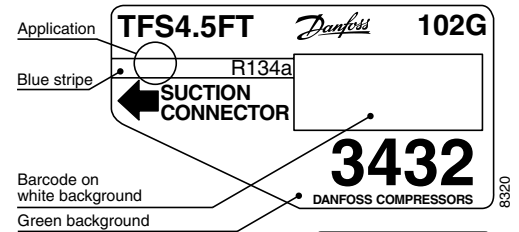
Displacement	cu.in. (cm <sup>3</sup> )	0.29 (4.63)
Oil quantity	fl.oz. (cm <sup>3</sup> )	9.5 (280)
Maximum refrigerant charge	oz. (g)	14.0 (400)
Free gas vol. in compressor housing	fl.oz. (cm <sup>3</sup> )	57.3 (1690)
Weight without electrical equipment	lbs. (kg)	14.9 (6.8)

## Motor

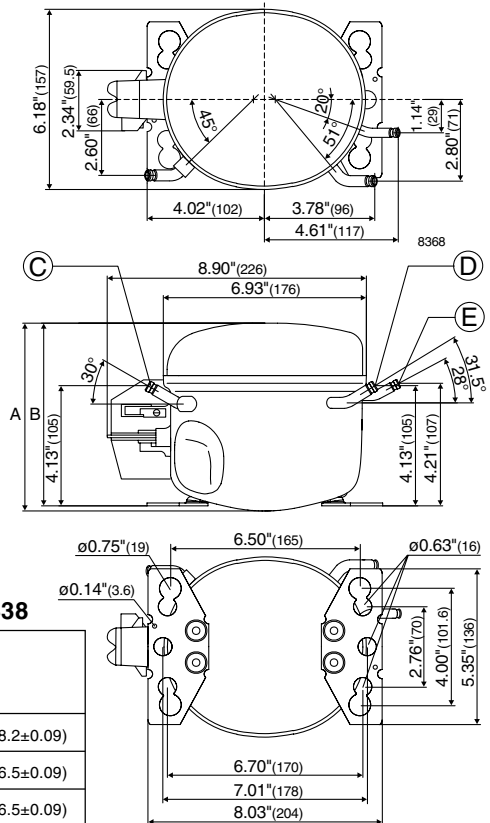
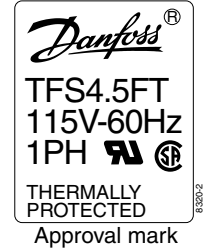
Motor size	watt	160
LRA (rated after 4 sec.UL984) LST	A	20.1
Cut-in current LST	A	20.1
Resistance, main and start winding (77°F)	Ω	3.3/8.8
Approvals		UL984/CSA-C22.2

## Dimensions

		102G3452/32	102G3438
Height	in. (mm)	A 6.81 (173)	B 6.65 (169)
Suction connector	location/I.D. in. (mm)	C 0.252-0.259 (6.5±0.09)	0.320-0.327 (8.2±0.09)
Process connector	location/I.D. in. (mm)	D 0.252-0.259 (6.5±0.09)	0.252-0.259 (6.5±0.09)
Discharge connector	location/I.D. in. (mm)	E 0.202-0.205 (5.0+0.12/0.20)	0.252-0.259 (6.5±0.09)
Compressors on a pallet	pcs.	125	



- S = Static cooling normally sufficient
- O = Oil cooling
- F<sub>1</sub> = Fan cooling 1.5 m/s (compressor compartment temp. equal to ambient temperature)
- F<sub>2</sub> = Fan cooling 3.0 m/s necessary



### Capacity (ASHRAE)

	Btu/h										
Comp.\°F	-30	-20	-13	-10	0	10	14	20	30	40	45
Comp.\°C	-34.4	-28.9	-25	-23.3	-17.8	-12.2	-10	-6.7	-1.1	4.4	7.2
TFS4.5FT	245	340	431	477	654	875	974	1135	1445	1793	1987

### Capacity (EN 12900/CECOMAF)

	watt										
Comp.\°C	-34.4	-28.9	-25	-23.3	-17.8	-12.2	-10	-6.7	-1.1	4.4	7.2
Comp.\°F	-30	-20	-13	-10	0	10	14	20	30	40	45
TFS4.5FT	58	80	102	113	155	208	231	269	343	425	471

### Power consumption

	watt										
Comp.\°F	-30	-20	-13	-10	0	10	14	20	30	40	45
Comp.\°C	-34.4	-28.9	-25	-23.3	-17.8	-12.2	-10	-6.7	-1.1	4.4	7.2
TFS4.5FT	90	108	121	127	148	172	182	197	225	254	270

### Current consumption

	A										
Comp.\°F	-30	-20	-13	-10	0	10	14	20	30	40	45
Comp.\°C	-34.4	-28.9	-25	-23.3	-17.8	-12.2	-10	-6.7	-1.1	4.4	7.2
TFS4.5FT	1.88	1.94	1.99	2.02	2.12	2.25	2.31	2.41	2.60	2.83	2.96

### EER (ASHRAE)

	Btu/Wh										
Comp.\°F	-30	-20	-13	-10	0	10	14	20	30	40	45
Comp.\°C	-34.4	-28.9	-25	-23.3	-17.8	-12.2	-10	-6.7	-1.1	4.4	7.2
TFS4.5FT	2.72	3.16	3.56	3.75	4.40	5.09	5.36	5.76	6.43	7.06	7.37

### COP (EN 12900/CECOMAF)

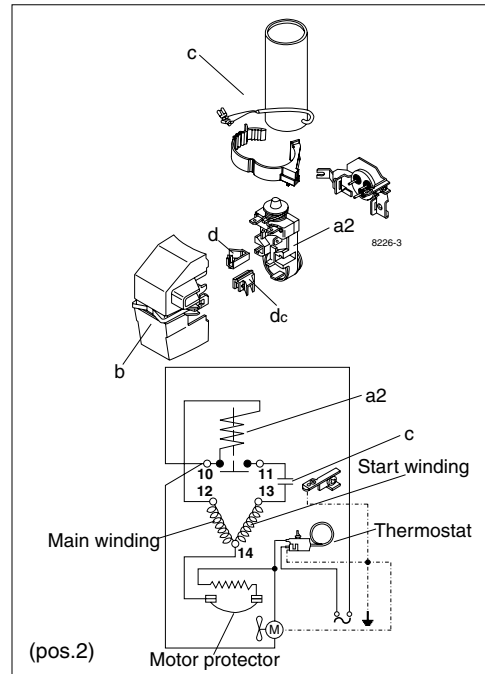
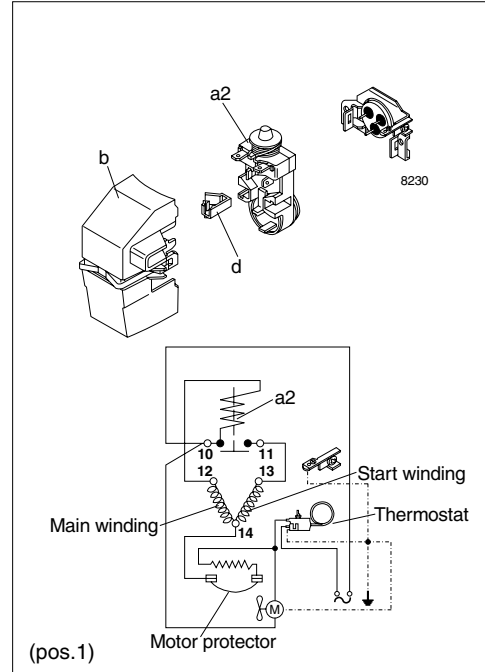
	W/W										
Comp.\°C	-34.4	-28.9	-25	-23.3	-17.8	-12.2	-10	-6.7	-1.1	4.4	7.2
Comp.\°F	-30	-20	-13	-10	0	10	14	20	30	40	45
TFS4.5FT	0.64	0.75	0.84	0.89	1.04	1.21	1.27	1.37	1.52	1.67	1.74

Test conditions	ASHRAE	EN 12900/CECOMAF
Condensing temperature	130°F (54,4°C)	55°C (131°F)
Ambient and suction gas temp.	90°F (32°C)	32°C (90°F)
Liquid temperature	90°F (32°C)	55°C (131°F)
Static cooling, 115V 60Hz		

**NOTE:**  
Starting capacitor can not be mounted on compressor **102G3452** (different fence).

### Accessories

Devices	Fig.	TFS4.5FT
Starting relay (protector incl.)	a2	117U4113
Protector 3/4" Texas Instruments	(pos.1)	MRP39AIL-6
Starting relay (protector incl.)	a2	117U4126*
Starting capacitor 320 µF	c	117U5022*
Protector 3/4" Texas Instruments	(pos.2)	MRP39AIL-6
Cover	b	117U1021
Cord relief	d	117U0349
Cord relief capacitor	dc	117U0349
Mounting accessories ( <b>102G3432/38</b> )	Ø in. (mm)	
Bolt joint in for one compressor	5/8 (16)	118-1946
Bolt joint in for one compressor	3/4 (19)	118-1949
Snap-on in for one compressor	5/8 (16)	118-1947
Mounting accessories ( <b>102G3452</b> )	Ø in. (mm)	
Bolt joint for one compressor	5/8 (16)	118-1917
Bolt joint in quantities	5/8 (16)	118-1918
Snap-on in quantities	5/8 (16)	118-1919



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