

Type SF Dual, Round & Oval, Oil-Filled Motor Run Capacitors

Metallized Polypropylene



Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

Specifications

Type SF dual rated oil filled motor run capacitors made with self-healing metallized polypropylene film are commonly used in air conditioning, motors and compressor applications. The dual ratings in a single can provide two capacitors - one may be used as a fan capacitor and the other as a compressor or motor run capacitor. Three terminals allow one terminal to act as a common while the other two are connected to the individual capacitors.

The service life objective for the series is 60,000 hours of operating life with a 94% survival rate when operated at full voltage, 60 Hz, and rated ambient temperature. AC capacitors are frequently used at voltages and ambient temperatures other than rated conditions. Service life may be estimated under specific conditions of temperature and voltage by using the curves below.

Highlights

- Fault current protection up to 10,000 A
- Low energy consumption — <0.1% DF
- Self healing
- UL recognized under E71645
- Meets EIA Standard EIA-456-A
- 60,000 hours life

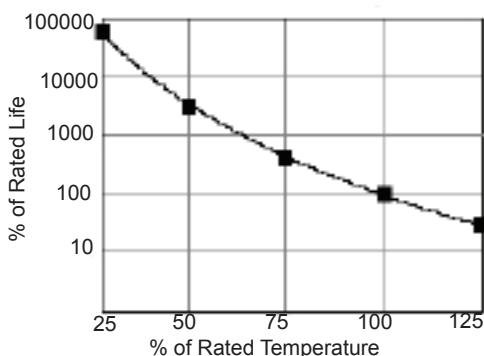
Capacitance Range: 15–5 μF to 80–10 μF

Voltage Range: 370 Vac and 440 Vac

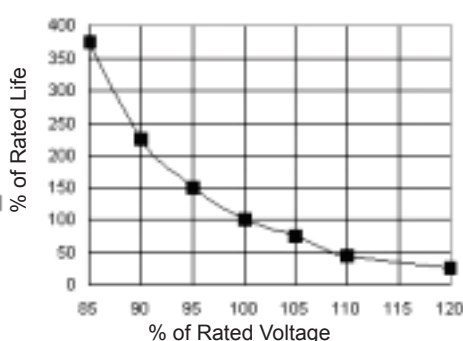
Capacitance Tolerance: $\pm 10\%$ standard ($\pm 6\%$ and $\pm 3\%$ available)

Temperature Range: -40°C to $+70^\circ\text{C}$

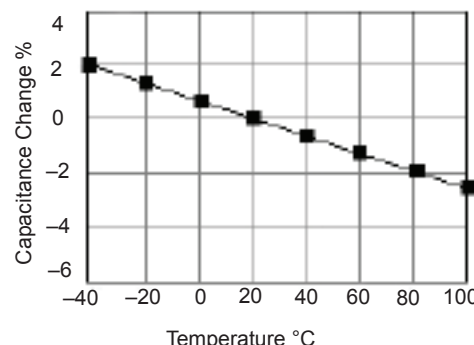
Life vs. Temperature



Life vs. Voltage



Capacitance vs. Temperature



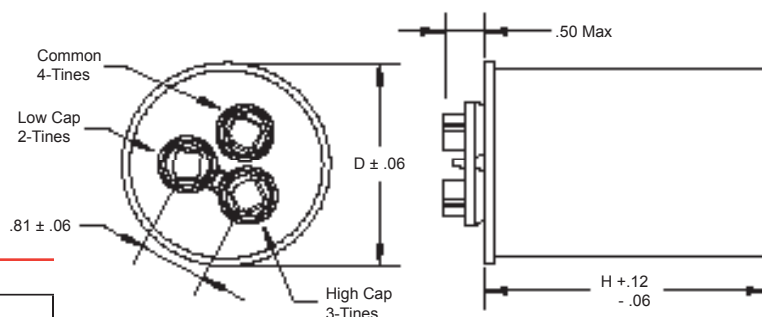
Part Numbering System

SF	C	37	S	15-5	K	291	B	-F
Type	Case	AC Volt	Case Material	Cap	Tol. $\pm\%$	Can Height	VAR	RoHS
SF	C = 1 3/4" Oval D = 2.0" Oval	37 = 370 Vac 44 = 440 Vac X = Other	S = Steel T = Aluminum w/steel cover A = All Aluminum	15-5 = 15-5 μF 30-20 = 30-20 μF 50-7.5 = 50-7.5 μF	L = $\pm 3\%$ H = $\pm 6\%$ K = $\pm 10\%$ Z = $+10 -5\%$ X = Special	300 = 3.00" 388 = 3.88" 400 = 4.00" 475 = 4.75"	E = Dual 2,3,4 70 °C Z = Other	RoHS Compliant -F = Compliant Blank = Not Compliant
	S = 2.0" Round T = 2 1/2" Round							

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Type SF Dual Round

Case Code	D (Inches)	H
S	2.12	See Ratings Table
T	2.62	See Ratings Table



Ratings

Cap (μ F- μ F)	Catalog Part Number	Case Code	H (Inches)
370 Vac Round 70 °C Case Temperature			
15-5	SFS37S15-5K328E-F	S	3.28
15-10	SFS37S15-10K375E-F	S	3.75
20-5	SFS37S20-5K328E-F	S	3.28
20-7.5	SFS37S20-7.5K328E-F	S	3.28
20-10	SFS37S20-10K375E-F	S	3.75
25-5	SFS37S25-5K328E-F	S	3.28
25-7.5	SFS37S25-7.5K328E-F	S	3.28
25-10	SFS37S25-10K400E-F	S	4.00
25-15	SFS37S25-15K400E-F	S	4.00
30-5	SFS37S30-5K400E-F	S	4.00
30-7.5	SFS37S30-7.5K400E-F	S	4.00
30-10	SFS37S30-10K400E-F	S	4.00
30-15	SFS37S30-15K400E-F	S	4.00
30-20	SFS37S30-20K475E-F	S	4.75
35-5	SFS37S35-5K400E-F	S	4.00
35-7.5	SFS37S35-7.5K400E-F	S	4.00
35-10	SFS37S35-10K400E-F	S	4.00
35-15	SFS37S35-15K400E-F	S	4.00
35-20	SFS37S35-20K475E-F	S	4.75
40-5	SFS37S40-5K400E-F	S	4.00
40-7.5	SFS37S40-7.5K400E-F	S	4.00
40-10	SFS37S40-10K400E-F	S	4.00
40-15	SFS37S40-15K475E-F	S	4.75
45-5	SFS37S45-5K475E-F	S	4.75
45-7.5	SFS37S45-7.5K475E-F	S	4.75
45-10	SFS37S45-10K475E-F	S	4.75
45-15	SFS37S45-15K475E-F	S	4.75
50-5	SFT37S50-5K391E-F	T	3.91
50-7.5	SFT37S50-7.5K391E-F	T	3.91
50-10	SFT37S50-10K391E-F	T	3.91
60-5	SFT37S60-5K491E-F	T	4.91
60-7.5	SFT37S60-7.5K491E-F	T	4.91
60-10	SFT37S60-10K491E-F	T	4.91
70-5	SFT37S70-5K491E-F	T	4.91
70-7.5	SFT37S70-7.5K491E-F	T	4.91
70-10	SFT37S70-10K491E-F	T	4.91
80-5	SFT37S80-5K575E-F	T	5.75
80-7.5	SFT37S80-7.5K575E-F	T	5.75
80-10	SFT37S80-10K603E-F	T	6.03

Hardware and Brackets:

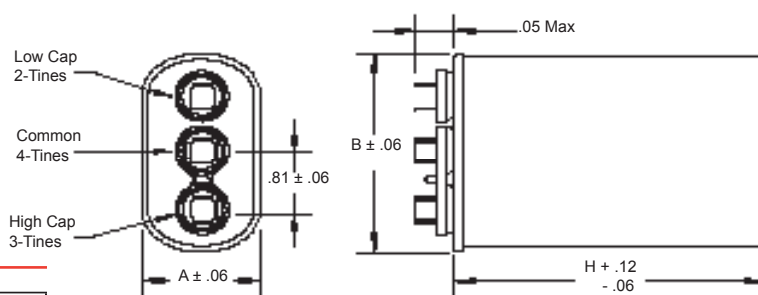
For Capacitor Hardware, refer to page 5.000

Cap (μ F- μ F)	Catalog Part Number	Case Code	H (Inches)
440 Vac Round 70 °C Case Temperature			
15-5	SFS44S15-5K328E-F	S	3.28
15-10	SFS44S15-10K388E-F	S	3.88
20-5	SFS44S20-5K328E-F	S	3.28
20-7.5	SFS44S20-7.5K375E-F	S	3.75
20-10	SFS44S20-10K388E-F	S	3.88
25-5	SFS44S25-5K375E-F	S	3.75
25-7.5	SFS44S25-7.5K400E-F	S	4.00
25-10	SFS44S25-10K400E-F	S	4.00
25-15	SFS44S25-15K475E-F	S	4.75
30-5	SFS44S30-5K400E-F	S	4.00
30-7.5	SFS44S30-7.5K400E-F	S	4.00
30-10	SFS44S30-10K475E-F	S	4.75
30-15	SFS44S30-15K475E-F	S	4.75
30-20	SFS44S30-20K475E-F	S	4.75
35-5	SFS44S35-5K475E-F	S	4.75
35-7.5	SFT44S35-7.5K391E-F	T	3.91
35-10	SFT44S35-10K391E-F	T	3.91
35-15	SFT44S35-15K491E-F	T	4.91
35-20	SFT44S35-20K491E-F	T	4.91
40-5	SFT44S40-5K391E-F	T	3.91
40-7.5	SFT44S40-7.5K391E-F	T	3.91
40-10	SFT44S40-10K391E-F	T	3.91
40-15	SFT44S40-15K491E-F	T	4.91
45-5	SFT44S45-5K491E-F	T	4.91
45-7.5	SFT44S45-7.5K491E-F	T	4.91
45-10	SFT44S45-10K491E-F	T	4.91
45-15	SFT44S45-15K491E-F	T	4.91
50-5	SFT44S50-5K491E-F	T	4.91
50-7.5	SFT44S50-7.5K491E-F	T	4.91
50-10	SFT44S50-10K491E-F	T	4.91
60-5	SFT44S60-5K491E-F	T	4.91
60-7.5	SFT44S60-7.5K491E-F	T	4.91
60-10	SFT44S60-10K491E-F	T	4.91

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Type SF Dual Oval

Case Code	Dimensions (Inches)		
	A	B	H
C	1.91	2.91	See Ratings Table
D	1.97	3.66	See Ratings Table



Ratings

Cap (μ F- μ F)	Catalog Part Number	Case Code	H (Inches)
370 Vac Oval 70 °C Case Temperature			
15-5	SFC37S15-5K303E-F	C	3.03
15-10	SFC37S15-10K303E-F	C	3.03
20-5	SFC37S20-5K303E-F	C	3.03
20-7.5	SFC37S20-7.5K303E-F	C	3.03
20-10	SFC37S20-10K303E-F	C	3.03
25-5	SFC37S25-5K303E-F	C	3.03
25-7.5	SFC37S25-7.5K303E-F	C	3.03
25-10	SFC37S25-10K303E-F	C	3.03
25-15	SFC37S25-15K391E-F	C	3.91
30-5	SFC37S30-5K391E-F	C	3.91
30-7.5	SFC37S30-7.5K391E-F	C	3.91
30-10	SFC37S30-10K391E-F	C	3.91
30-15	SFC37S30-15K391E-F	C	3.91
30-20	SFC37S30-20K391E-F	C	3.91
35-5	SFC37S35-5K391E-F	C	3.91
35-7.5	SFC37S35-7.5K391E-F	C	3.91
35-10	SFC37S35-10K391E-F	C	3.91
35-15	SFC37S35-15K391E-F	C	3.91
35-20	SFC37S35-20K391E-F	C	3.91
40-5	SFC37S40-5K391E-F	C	3.91
40-7.5	SFC37S40-7.5K391E-F	C	3.91
40-10	SFC37S40-10K391E-F	C	3.91
40-15	SFD37S40-15K391E-F	D	3.91
45-5	SFD37S45-5K391E-F	D	3.91
45-7.5	SFD37S45-7.5K391E-F	D	3.91
45-10	SFD37S45-10K391E-F	D	3.91
45-15	SFD37S45-15K391E-F	D	3.91
50-5	SFD37S50-5K391E-F	D	3.91
50-7.5	SFD37S50-7.5K391E-F	D	3.91
50-10	SFD37S50-10K391E-F	D	3.91
60-5	SFD37S60-5K491E-F	D	4.91
60-7.5	SFD37S60-7.5K491E-F	D	4.91
60-10	SFD37S60-10K491E-F	D	4.91
70-5	SFD37S70-5K491E-F	D	4.91
70-7.5	SFD37S70-7.5K491E-F	D	4.91
70-10	SFD37S70-10K491E-F	D	4.91
80-5	SFD37S80-5K491E-F	D	4.91
80-7.5	SFD37S80-7.5K491E-F	D	4.91
80-10	SFD37S80-10K491E-F	D	4.91

Hardware and Brackets:

For Capacitor Hardware, refer to page 5.000

Ratings

Cap (μ F- μ F)	Catalog Part Number	Case Code	H (Inches)
440 Vac Oval 70 °C Case Temperature			
15-5	SFC44S15-5K303E-F	C	3.03
15-10	SFC44S15-10K303E-F	C	3.03
20-5	SFC44S20-5K303E-F	C	3.03
20-7.5	SFC44S20-7.5K303E-F	C	3.03
20-10	SFC44S20-10K303E-F	C	3.03
25-5	SFC44S25-5K391E-F	C	3.91
25-7.5	SFC44S25-7.5K391E-F	C	3.91
25-10	SFC44S25-10K391E-F	C	3.91
25-15	SFC44S25-15K391E-F	C	3.91
30-5	SFC44S30-5K391E-F	C	3.91
30-7.5	SFC44S30-7.5K391E-F	C	3.91
30-10	SFC44S30-10K391E-F	C	3.91
30-15	SFC44S30-15K391E-F	C	3.91
30-20	SFC44S30-20K391E-F	C	3.91
35-5	SFC44S35-5K491E-F	C	4.91
35-7.5	SFC44S35-7.5K491E-F	C	4.91
35-10	SFC44S35-10K491E-F	C	4.91
35-15	SFC44S35-15K491E-F	C	4.91
35-20	SFC44S35-20K491E-F	C	4.91
40-5	SFD44S40-5K491E-F	D	4.91
40-7.5	SFD44S40-7.5K491E-F	D	4.91
40-10	SFD44S40-10K491E-F	D	4.91
40-15	SFD44S40-15K491E-F	D	4.91
45-5	SFD44S45-5K491E-F	D	4.91
45-7.5	SFD44S45-7.5K491E-F	D	4.91
45-10	SFD44S45-10K491E-F	D	4.91
45-15	SFD44S45-15K491E-F	D	4.91
50-5	SFD44S50-5K491E-F	D	4.91
50-7.5	SFD44S50-7.5K491E-F	D	4.91
50-10	SFD44S50-10K491E-F	D	4.91
60-5	SFD44S60-5K616E-F	D	6.16
60-7.5	SFD44S60-7.5K616E-F	D	6.16
60-10	SFD44S60-10K616E-F	D	6.16