

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

## Metallized Polypropylene



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
- ◆ CSA File Number 223507
- ◆ 60,000 hours life

### Specifications

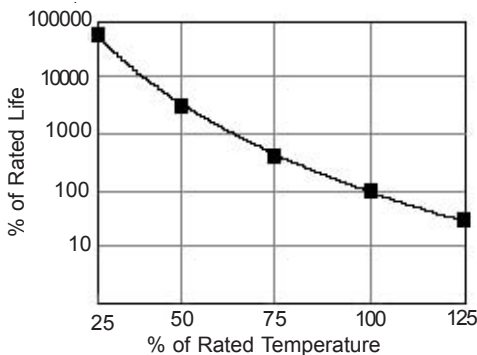
**Capacitance Range:** 15–5  $\mu\text{F}$  to 80–10  $\mu\text{F}$

**Voltage Range:** 370 Vac and 440 Vac

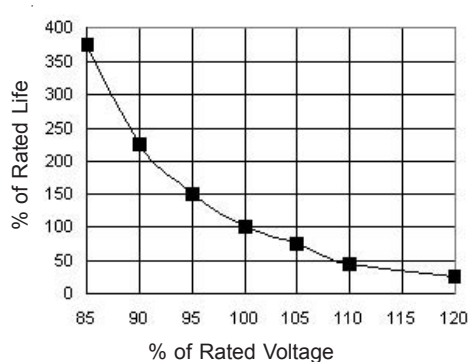
**Capacitance Tolerance:**  $\pm 10\%$  standard ( $\pm 6\%$  and  $\pm 3\%$  available)

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

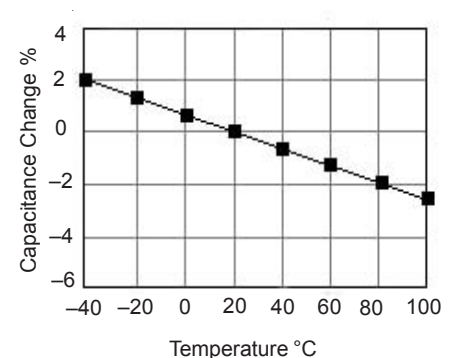
**Life vs. Temperature**



**Life vs. Voltage**



**Capacitance vs. Temperature**



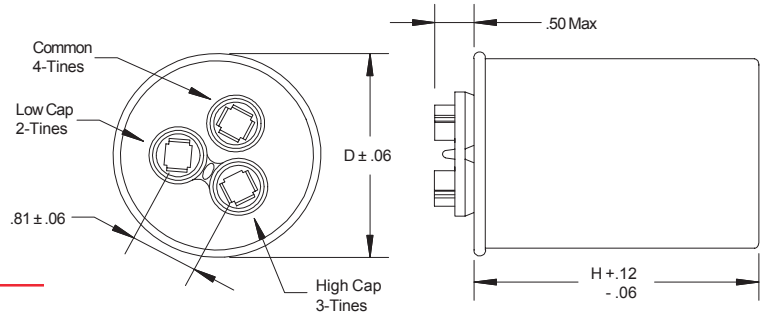
### Part Numbering System

<b>SF</b>	<b>C</b>	<b>37</b>	<b>S</b>	<b>15-5</b>	<b>K</b>	<b>291</b>	<b>B</b>
<b>Series</b>	<b>Case</b>	<b>AC Volt</b>	<b>Case Material</b>	<b>Cap</b>	<b>Tol. <math>\pm\%</math></b>	<b>Can Height</b>	<b>VAR</b>
SF	C = 1 3/4" Oval D = 2.0" Oval S = 2.0" Round T = 2 1/2" Round	37 = 370 Vac 44 = 440 Vac X = Other	S = Steel T = Aluminum with steel cover A = All Aluminum	15-5 = 15-5 $\mu\text{F}$ 30-20 = 33-20 $\mu\text{F}$ 50-7.5 = 50-7.5 $\mu\text{F}$	L = $\pm 3\%$ H = $\pm 6\%$ K = $\pm 10\%$ X = Special Z = $+10\%/-5\%$	300 = 3.00" 400 = 4.00" 388 = 3.88" 475 = 4.75"	E = Dual 2,3,4 70 $^\circ\text{C}$ Z = Other

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

## Type SF Dual Round

Case Code	D (Inches)	H
P	1.87	see ratings
S	2.12	see ratings
T	2.62	see ratings



## Ratings

Cap ( $\mu\text{F}$ - $\mu\text{F}$ )	Catalog Part Number	Case Code	H (Inches)
<b>Round 370 Vac 70 °C Case Temperature</b>			
15-5	SFS37S15-5K300E	S	3.00
15-10	SFS37S15-10K300E	S	3.00
20-5	SFS37S20-5K300E	S	3.00
20-7.5	SFS37S20-7.5K300E	S	3.00
20-10	SFS37S20-10K300E	S	3.00
25-5	SFS37S25-5K300E	S	3.00
25-7.5	SFS37S25-7.5K300E	S	3.00
25-10	SFS37S25-10K400E	S	4.00
25-15	SFS37S25-15K400E	S	4.00
30-5	SFS37S30-5K400E	S	4.00
30-7.5	SFS37S30-7.5K400E	S	4.00
30-10	SFS37S30-10K400E	S	4.00
30-15	SFS37S30-15K400E	S	4.00
30-20	SFS37S30-20K400E	S	4.00
35-5	SFS37S35-5K400E	S	4.00
35-7.5	SFS37S35-7.5K400E	S	4.00
35-10	SFS37S35-10K400E	S	4.00
35-15	SFS37S35-15K400E	S	4.00
35-20	SFS37S35-20K400E	S	4.00
40-5	SFS37S40-5K400E	S	4.00
40-7.5	SFS37S40-7.5K400E	S	4.00
40-10	SFS37S40-10K400E	S	4.00
40-15	SFS37S40-15K400E	S	4.00
45-5	SFS37S45-5K475E	S	4.75
45-7.5	SFS37S45-7.5K475E	S	4.75
45-10	SFS37S45-10K475E	S	4.75
45-15	SFS37S45-15K475E	S	4.75
50-5	SFT37S50-5K388E	T	3.88
50-7.5	SFT37S50-7.5K388E	T	3.88
50-10	SFT37S50-10K388E	T	3.88
60-5	SFT37S60-5K488E	T	4.88
60-7.5	SFT37S60-7.5K488E	T	4.88
60-10	SFT37S60-10K488E	T	4.88
70-5	SFT37S70-5K488E	T	4.88
70-7.5	SFT37S70-7.5K488E	T	4.88
70-10	SFT37S70-10K488E	T	4.88
80-5	SFT37S80-5K488E	T	4.88
80-7.5	SFT37S80-7.5K488E	T	4.88
80-10	SFT37S80-10K488E	T	4.88

## Hardware and Brackets:

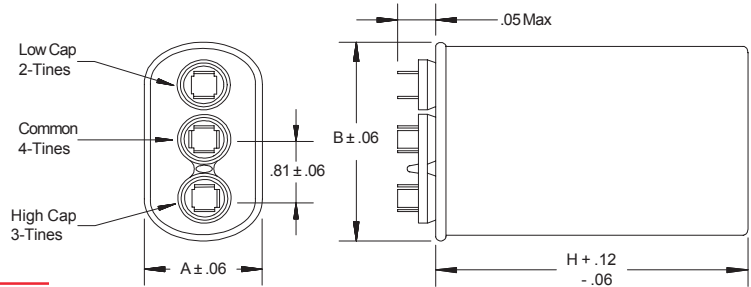
For Capacitor Hardware, refer to the SF Motor Run data sheet.

Cap ( $\mu\text{F}$ - $\mu\text{F}$ )	Catalog Part Number	Case Code	H (Inches)
<b>Round 440 Vac 70 °C Case Temperature</b>			
15-5	SFS44S15-5K300E	S	3.00
15-10	SFS44S15-10K300E	S	3.00
20-5	SFS44S20-5K300E	S	3.00
20-7.5	SFS44S20-7.5K300E	S	3.00
20-10	SFS44S20-10K300E	S	3.00
25-5	SFS44S25-5K300E	S	3.00
25-7.5	SFS44S25-7.5K400E	S	4.00
25-10	SFS44S25-10K400E	S	4.00
25-15	SFS44S25-15K400E	S	4.00
30-5	SFS44S30-5K400E	S	4.00
30-7.5	SFS44S30-7.5K488E	S	4.88
30-10	SFS44S30-10K488E	S	4.88
30-15	SFS44S30-15K488E	S	4.88
30-20	SFS44S30-20K488E	S	4.88
35-5	SFS44S35-5K488E	S	4.88
35-7.5	SFT44S35-7.5K388E	T	3.88
35-10	SFT44S35-10K388E	T	3.88
35-15	SFT44S35-15K388E	T	3.88
35-20	SFT44S35-20K388E	T	3.88
40-5	SFT44S40-5K388E	T	3.88
40-7.5	SFT44S40-7.5K388E	T	3.88
40-10	SFT44S40-10K388E	T	3.88
40-15	SFT44S40-15K488E	T	4.88
45-5	SFT44S45-5K488E	T	4.88
45-7.5	SFT44S45-7.5K488E	T	4.88
45-10	SFT44S45-10K488E	T	4.88
45-15	SFT44S45-15K488E	T	4.88
50-5	SFT44S50-5K488E	T	4.88
50-7.5	SFT44S50-7.5K488E	T	4.88
50-10	SFT44S50-10K488E	T	4.88
60-5	SFT44S60-5K488E	T	4.88
60-7.5	SFT44S60-7.5K488E	T	4.88
60-10	SFT44S60-10K488E	T	4.88

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

## Type SF Dual Oval

Case Code	Dimensions (Inches)		
	A	B	H
A	1.31	2.16	see ratings
C	1.91	2.91	see ratings
D	1.97	3.66	see ratings



## Ratings

Cap ( $\mu\text{F}$ - $\mu\text{F}$ )	Catalog Part Number	Case Code	H (Inches)
<b>Oval 370 Vac 70 °C Case Temperature</b>			
15-5	SFC37S15-5K300E	C	3.00
15-10	SFC37S15-10K300E	C	3.00
20-5	SFC37S20-5K300E	C	3.00
20-7.5	SFC37S20-7.5K300E	C	3.00
20-10	SFC37S20-10K300E	C	3.00
25-5	SFC37S25-5K300E	C	3.00
25-7.5	SFC37S25-7.5K300E	C	3.00
25-10	SFC37S25-10K300E	C	3.00
25-15	SFC37S25-15K388E	C	3.88
30-5	SFC37S30-5K388E	C	3.88
30-7.5	SFC37S30-7.5K388E	C	3.88
30-10	SFC37S30-10K388E	C	3.88
30-15	SFC37S30-15K388E	C	3.88
30-20	SFC37S30-20K388E	C	3.88
35-5	SFC37S35-5K388E	C	3.88
35-7.5	SFC37S35-7.5K388E	C	3.88
35-10	SFC37S35-10K388E	C	3.88
35-15	SFC37S35-15K388E	C	3.88
35-20	SFC37S35-20K388E	C	3.88
40-5	SFC37S40-5K388E	C	3.88
40-7.5	SFC37S40-7.5K388E	C	3.88
40-10	SFC37S40-10K388E	C	3.88
40-15	SFD37S40-15K388E	D	3.88
45-5	SFD37S45-5K388E	D	3.88
45-7.5	SFD37S45-7.5K388E	D	3.88
45-10	SFD37S45-10K388E	D	3.88
45-15	SFD37S45-15K388E	D	3.88
50-5	SFD37S50-5K388E	D	3.88
50-7.5	SFD37S50-7.5K388E	D	3.88
50-10	SFD37S50-10K388E	D	3.88
60-5	SFD37S60-5K488E	D	4.88
60-7.5	SFD37S60-7.5K488E	D	4.88
60-10	SFD37S60-10K488E	D	4.88
70-5	SFD37S70-5K488E	D	4.88
70-7.5	SFD37S70-7.5K488E	D	4.88
70-10	SFD37S70-10K488E	D	4.88
80-5	SFD37S80-5K488E	D	4.88
80-7.5	SFD37S80-7.5K488E	D	4.88
80-10	SFD37S80-10K488E	D	4.88

## Hardware and Brackets:

For Capacitor Hardware, refer to the SF Motor Run data sheet.

Cap ( $\mu\text{F}$ - $\mu\text{F}$ )	Catalog Part Number	Case Code	H (Inches)
<b>Oval 440 Vac 70 °C Case Temperature</b>			
15-5	SFC44S15-5K300E	C	3.00
15-10	SFC44S15-10K300E	C	3.00
20-5	SFC44S20-5K300E	C	3.00
20-7.5	SFC44S20-7.5K300E	C	3.00
20-10	SFC44S20-10K300E	C	3.00
25-5	SFC44S25-5K300E	C	3.00
25-7.5	SFC44S25-7.5K388E	C	3.88
25-10	SFC44S25-10K388E	C	3.88
25-15	SF44S25-15K388E	C	3.88
30-5	SFC44S30-5K388E	C	3.88
30-7.5	SFC44S30-7.5K488E	C	3.88
30-10	SFC44S30-10K488E	C	3.88
30-15	SFC44S30-15K488E	C	3.88
30-20	SFC44S30-20K488E	C	3.88
35-5	SFC44S35-5K488E	C	3.88
35-7.5	SFC44S35-7.5K388E	C	3.88
35-10	SFC44S35-10K388E	C	3.88
35-15	SFC44S35-15K388E	C	3.88
35-20	SFC44S35-20K388E	C	3.88
40-5	SFD44S40-5K388E	D	3.88
40-7.5	SFD44S40-7.5K388E	D	3.88
40-10	SFD44S40-10K388E	D	3.88
40-15	SFD44S40-15K488E	D	3.88
45-5	SFD44S45-5K488E	D	4.88
45-7.5	SFD44S45-7.5K488E	D	4.88
45-10	SFD44S45-10K488E	D	4.88
45-15	SFD44S45-15K488E	D	4.88
50-5	SFD44S50-5K488E	D	4.88
50-7.5	SFD44S50-7.5K488E	D	4.88
50-10	SFD44S50-10K488E	D	4.88
60-5	SFD44S60-5K488E	D	4.88
60-7.5	SFD44S60-7.5K488E	D	4.88
60-10	SFD44S60-10K488E	D	4.88