



**THE DATASHEET OF
SFS37T50-5H475E-F**



Type SF Dual, Round & Oval, 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.

Highlights

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

Specifications [Click here to view hardware](#)

| | |
|---|---|
| Capacitance Range | 15-5 μ F to 80-10 μ F |
| Capacitance Tolerance | \pm 10% standard (\pm 6% and \pm 3% available) |
| Rated Voltage | 370 Vac and 440 Vac |
| Operating Temperature Range with Ripple | -40 $^{\circ}$ C to 70 $^{\circ}$ C |
| Regulatory Information | |

Service Life Objective

The service life objective for this 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 as shown below and to the right.

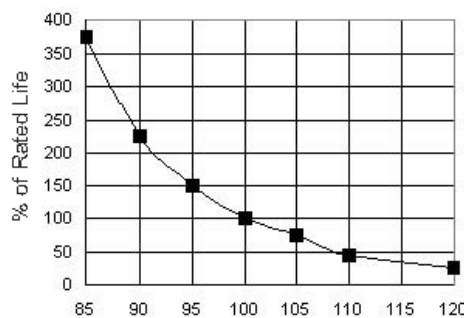
Capacitance vs. Temperature

The Capacitance vs. Temperature curve may be used to determine the capacitance change as a function of temperature. Capacitance varies by no more than \pm 3% over the operating temperature range.

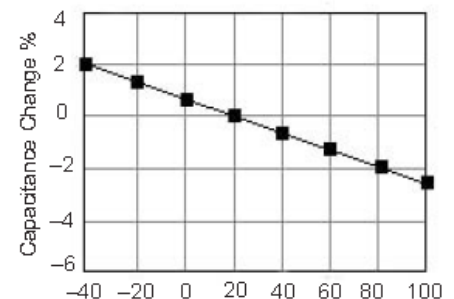
Life vs. Temperature



Life vs. Voltage



Capacitance vs. Temperature



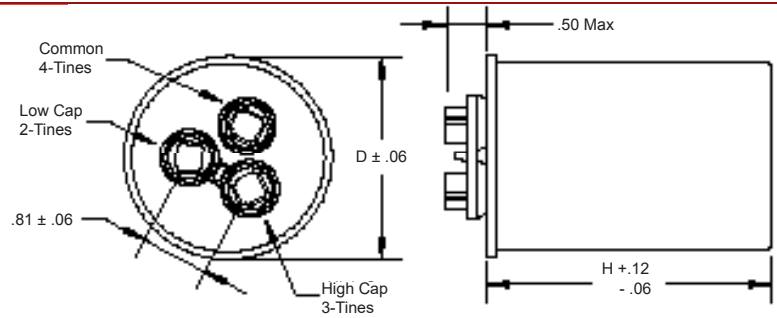
Part Numbering System

| | | | | | | | | |
|------|--|---|-------------------------------|---|---|--|---|-----------------------------|
| SF | C | 37 | T | 15-5 | K | 291 | E | -F |
| Type | Case | AC Volt | Case Material | Cap | Tol. \pm % | Can Height | VAR | RoHS |
| 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 | T = Aluminum w/steel cover | 15-5 = 15-5 μ F 30-20 = 30-20 μ F 50-7.5 = 50-7.5 μ F | 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 $^{\circ}$ C Z = Other | Compliant -F = Compliant |

Type SF Dual, Round & Oval, Motor Run Capacitors

Type SF Dual Round

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



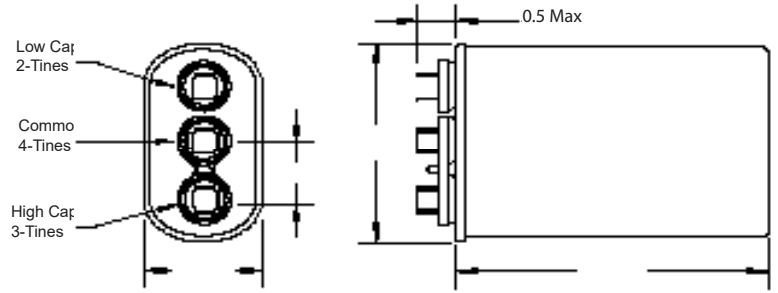
Ratings

| Cap (μF-μF) | Case Code | Aluminum Catalog Part Number | H (in) | Cap (μF-μF) | Case Code | Aluminum Catalog Part Number | H (in) |
|-------------|-----------|------------------------------|--------|-------------|-----------|------------------------------|--------|
| 370V | | | | 440V | | | |
| 15-5 | S | SFS37T15-5K291E-F | 2.91 | 15-5 | S | SFS44T15-5K291E-F | 2.91 |
| 15-10 | S | SFS37T15-10K291E-F | 2.91 | 15-10 | S | SFS44T15-10K291E-F | 2.91 |
| 20-5 | S | SFS37T20-5K291E-F | 2.91 | 20-5 | S | SFS44T20-5K291E-F | 2.91 |
| 20-7.5 | S | SFS37T20-7.5K291E-F | 2.91 | 20-7.5 | S | SFS44T20-7.5K291E-F | 2.91 |
| 20-10 | S | SFS37T20-10K291E-F | 2.91 | 20-10 | S | SFS44T20-10K291E-F | 2.91 |
| 25-5 | S | SFS37T25-5K291E-F | 2.91 | 25-5 | S | SFS44T25-5K291E-F | 2.91 |
| 25-7.5 | S | SFS37T25-7.5K291E-F | 2.91 | 25-7.5 | S | SFS44T25-7.5K384E-F | 3.84 |
| 25-10 | S | SFS37T25-10K291E-F | 2.91 | 25-10 | S | SFS44T25-10K384E-F | 3.84 |
| 25-15 | S | SFS37T25-15K384E-F | 3.84 | 25-15 | S | SFS44T25-15K384E-F | 3.84 |
| 30-5 | S | SFS37T30-5K291E-F | 2.91 | 30-5 | S | SFS44T30-5K384E-F | 3.84 |
| 30-7.5 | S | SFS37T30-7.5K384E-F | 3.84 | 30-7.5 | S | SFS44T30-7.5K384E-F | 3.84 |
| 30-10 | S | SFS37T30-10K384E-F | 3.84 | 30-10 | S | SFS44T30-10K384E-F | 3.84 |
| 30-15 | S | SFS37T30-15K384E-F | 3.84 | 30-15 | S | SFS44T30-15K475E-F | 4.75 |
| 30-20 | S | SFS37T30-20K384E-F | 3.84 | 30-20 | S | SFS44T30-20K475E-F | 4.75 |
| 35-5 | S | SFS37T35-5K384E-F | 3.84 | 35-5 | S | SFS44T35-5K384E-F | 3.84 |
| 35-7.5 | S | SFS37T35-7.5K384E-F | 3.84 | 35-7.5 | T | SFT44T35-7.5K291E-F | 2.91 |
| 35-10 | S | SFS37T35-10K384E-F | 3.84 | 35-10 | T | SFT44T35-10K291E-F | 2.91 |
| 35-15 | S | SFS37T35-15K384E-F | 3.84 | 35-15 | T | SFT44T35-15K291E-F | 2.91 |
| 35-20 | S | SFS37T35-20K475E-F | 4.75 | 35-20 | T | SFT44T35-20K391E-F | 3.91 |
| 40-5 | S | SFS37T40-5K384E-F | 3.84 | 40-5 | T | SFT44T40-5K291E-F | 2.91 |
| 40-7.5 | S | SFS37T40-7.5K384E-F | 3.84 | 40-7.5 | T | SFT44T40-7.5K291E-F | 2.91 |
| 40-10 | S | SFS37T40-10K384E-F | 3.84 | 40-10 | T | SFT44T40-10K291E-F | 2.91 |
| 40-15 | S | SFS37T40-15K475E-F | 4.75 | 40-15 | T | SFT44T40-15K391E-F | 3.91 |
| 45-5 | S | SFS37T45-5K384E-F | 3.84 | 45-5 | T | SFT44T45-5K291E-F | 2.91 |
| 45-7.5 | S | SFS37T45-7.5K384E-F | 3.84 | 45-7.5 | T | SFT44T45-7.5K291E-F | 2.91 |
| 45-10 | S | SFS37T45-10K475E-F | 4.75 | 45-10 | T | SFT44T45-10K391E-F | 3.91 |
| 45-15 | S | SFS37T45-15K475E-F | 4.75 | 45-15 | T | SFT44T45-15K391E-F | 3.91 |
| 50-5 | T | SFT37T50-5K291E-F | 2.91 | 50-5 | T | SFT44T50-5K391E-F | 3.91 |
| 50-7.5 | T | SFT37T50-7.5K291E-F | 2.91 | 50-7.5 | T | SFT44T50-7.5K391E-F | 3.91 |
| 50-10 | T | SFT37T50-10K291E-F | 2.91 | 50-10 | T | SFT44T50-10K391E-F | 3.91 |
| 60-5 | T | SFT37T60-5K291E-F | 2.91 | 60-5 | T | SFT44T60-5K391E-F | 3.91 |
| 60-7.5 | T | SFT37T60-7.5K291E-F | 2.91 | 60-7.5 | T | SFT44T60-7.5K391E-F | 3.91 |
| 60-10 | T | SFT37T60-10K291E-F | 2.91 | 60-10 | T | SFT44T60-10K391E-F | 3.91 |
| 70-5 | T | SFT37T70-5K391E-F | 3.91 | | | | |
| 70-7.5 | T | SFT37T70-7.5K391E-F | 3.91 | | | | |
| 70-10 | T | SFT37T70-10K391E-F | 3.91 | | | | |
| 80-5 | T | SFT37T80-5K391E-F | 3.91 | | | | |
| 80-7.5 | T | SFT37T80-7.5K391E-F | 3.91 | | | | |
| 80-10 | T | SFT37T80-10K391E-F | 3.91 | | | | |

Type SF Dual, Round & Oval, Motor Run Capacitors

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 (μF-μF) | Case Code | Aluminum Catalog Part Number | H (in) |
|-------------|-----------|------------------------------|--------|
| 370V | | | |
| 15-5 | C | SFC37T15-5K291E-F | 2.91 |
| 15-10 | C | SFC37T15-10K291E-F | 2.91 |
| 20-5 | C | SFC37T20-5K291E-F | 2.91 |
| 20-7.5 | C | SFC37T20-7.5K291E-F | 2.91 |
| 20-10 | C | SFC37T20-10K291E-F | 2.91 |
| 25-5 | C | SFC37T25-5K291E-F | 2.91 |
| 25-7.5 | C | SFC37T25-7.5K291E-F | 2.91 |
| 25-10 | C | SFC37T25-10K291E-F | 2.91 |
| 25-15 | C | SFC37T25-15K391E-F | 3.91 |
| 30-5 | C | SFC37T30-5K391E-F | 3.91 |
| 30-7.5 | C | SFC37T30-7.5K391E-F | 3.91 |
| 30-10 | C | SFC37T30-10K391E-F | 3.91 |
| 30-15 | C | SFC37T30-15K391E-F | 3.91 |
| 30-20 | C | SFC37T30-20K391E-F | 3.91 |
| 35-5 | C | SFC37T35-5K391E-F | 3.91 |
| 35-7.5 | C | SFC37T35-7.5K391E-F | 3.91 |
| 35-10 | C | SFC37T35-10K391E-F | 3.91 |
| 35-15 | C | SFC37T35-15K391E-F | 3.91 |
| 35-20 | C | SFC37T35-20K391E-F | 3.91 |
| 40-5 | C | SFC37T40-5K391E-F | 3.91 |
| 40-7.5 | C | SFC37T40-7.5K391E-F | 3.91 |
| 40-10 | C | SFC37T40-10K391E-F | 3.91 |
| 40-15 | D | SFD37T40-15K391E-F | 3.91 |
| 45-5 | D | SFD37T45-5K391E-F | 3.91 |
| 45-7.5 | D | SFD37T45-7.5K391E-F | 3.91 |
| 45-10 | D | SFD37T45-10K391E-F | 3.91 |
| 45-15 | D | SFD37T45-15K391E-F | 3.91 |
| 50-5 | D | SFD37T50-5K391E-F | 3.91 |
| 50-7.5 | D | SFD37T50-7.5K391E-F | 3.91 |
| 50-10 | D | SFD37T50-10K391E-F | 3.91 |
| 60-5 | D | SFD37T60-5K475E-F | 4.75 |
| 60-7.5 | D | SFD37T60-7.5K475E-F | 4.75 |
| 60-10 | D | SFD37T60-10K475E-F | 4.75 |
| 70-5 | D | SFD37T70-5K475E-F | 4.75 |
| 70-7.5 | D | SFD37T70-7.5K475E-F | 4.75 |
| 70-10 | D | SFD37T70-10K475E-F | 4.75 |
| 80-5 | D | SFD37T80-5K475E-F | 4.75 |
| 80-7.5 | D | SFD37T80-7.5K475E-F | 4.75 |
| 80-10 | D | SFD37T80-10K475E-F | 4.75 |

| Cap (μF-μF) | Case Code | Aluminum Catalog Part Number | H (in) |
|-------------|-----------|------------------------------|--------|
| 440V | | | |
| 15-5 | C | SFC44T15-5K291E-F | 2.91 |
| 15-10 | C | SFC44T15-10K291E-F | 2.91 |
| 20-5 | C | SFC44T20-5K291E-F | 2.91 |
| 20-7.5 | C | SFC44T20-7.5K291E-F | 2.91 |
| 20-10 | C | SFC44T20-10K291E-F | 2.91 |
| 25-5 | C | SFC44T25-5K391E-F | 3.91 |
| 25-7.5 | C | SFC44T25-7.5K391E-F | 3.91 |
| 25-10 | C | SFC44T25-10K391E-F | 3.91 |
| 25-15 | C | SFC44T25-15K391E-F | 3.91 |
| 30-5 | C | SFC44T30-5K391E-F | 3.91 |
| 30-7.5 | C | SFC44T30-7.5K391E-F | 3.91 |
| 30-10 | C | SFC44T30-10K391E-F | 3.91 |
| 30-15 | C | SFC44T30-15K391E-F | 3.91 |
| 30-20 | C | SFC44T30-20K391E-F | 3.91 |
| 35-5 | C | SFC44T35-5K475E-F | 4.75 |
| 35-7.5 | C | SFC44T35-7.5K475E-F | 4.75 |
| 35-10 | C | SFC44T35-10K475E-F | 4.75 |
| 35-15 | C | SFC44T35-15K475E-F | 4.75 |
| 35-20 | C | SFC44T35-20K475E-F | 4.75 |
| 40-5 | D | SFD44T40-5K475E-F | 4.75 |
| 40-7.5 | D | SFD44T40-7.5K475E-F | 4.75 |
| 40-10 | D | SFD44T40-10K475E-F | 4.75 |
| 40-15 | D | SFD44T40-15K475E-F | 4.75 |
| 45-5 | D | SFD44T45-5K475E-F | 4.75 |
| 45-7.5 | D | SFD44T45-7.5K475E-F | 4.75 |
| 45-10 | D | SFD44T45-10K475E-F | 4.75 |
| 45-15 | D | SFD44T45-15K475E-F | 4.75 |
| 50-5 | D | SFD44T50-5K475E-F | 4.75 |
| 50-7.5 | D | SFD44T50-7.5K475E-F | 4.75 |
| 50-10 | D | SFD44T50-10K475E-F | 4.75 |
| 60-5 | D | SFD44T60-5K616E-F | 6.16 |
| 60-7.5 | D | SFD44T60-7.5K616E-F | 6.16 |
| 60-10 | D | SFD44T60-10K616E-F | 6.16 |



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Type SF Dual, Round & Oval, Motor Run Capacitors

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