Type PFCS, 3-Phase AC Power Factor Correction Capacitors

Type PFCS 3-phase series capacitors are designed for power factor correction in automatic PFC controllers. Each PFCS capacitor is made with three self-healing metallized polypropylene windings, connected in delta, enclosed in a cylindrical aluminum case and filled with an environmentally friendly fluid.

Highlights

- For 3-phase AC Power Factor Correction
- Delta connected
- Discharge resistors included
- UL810 approved internal pressure interrupter

Specifications

Capacitance Tolerance	0 to +10%
Rated Frequency (f_R)	50 Hz and 60 Hz
Rated AC Voltages (V_R)	240 Vac, 480 Vac, 600 Vac
Operating Temperature Range	–40 ºC to +55 ºC
kvar Range	0.5 kvar to 30.2 kvar
Maximum Permissible Voltage (Vmax)	110% of rated rms voltage 120% of rated peak voltage (1.2 x √2x Vrms)
Internal Connection	Delta (Δ)
Maximum Permissible Current (Imax)	135% of nominal rms current based on rated kvar and rated voltage - (up to 150% of I_R including combined effects of harmonics, over voltages and capacitances, tolerance)
Life	60,000 h w/94% survival rate
International Standards	Meets IEEE18, Standard (ANSI/IEEE Standard 18)
FIT (Failure In Time)	≤300 X 10^9 component h
Maximum Short Circuit Current	10 kA (according to UL 810)
Mechanical and Electrical Safety	Pressure Interrupter (PI) disengages all 3 phases in the event of capacitor end of life or overload
Discharge Resistor Time	≤ 60 seconds ≤ 50 V for 600 V or less; over 600 V ≤ 5 minutes
RoHS Compliant	

Dimensions

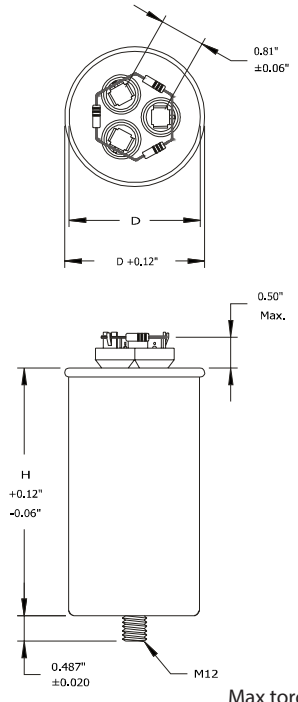

Figure 1

Max torque 88.5 in-lbs.

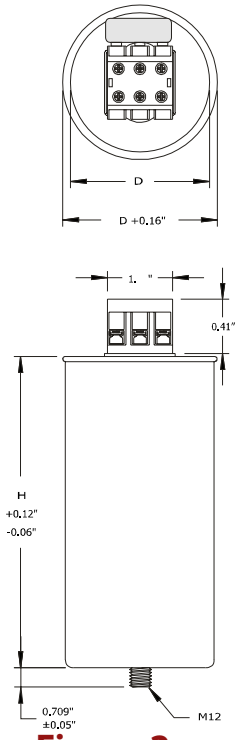

Figure 2

Max torque 88.5 in-lbs.

Construction Details	
Case Material	Extruded aluminum with steel or aluminum cover
Encapsulation	Environmentally safe dielectric fluid
Terminal Material	Tin plated copper, brass or steel

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Part Numbering System

PFC	S	T	480	C	6	S	779	T
Type		**Base Type**	**Voltage (Vac)**	**Case Material**	**kvar**	**Tolerance (%)**	**Can Height (inches)**	**Phases**
PFC	**S** = Std.	**S** = 2″ Round **T** = 2½″ Round **V** = 3″ Round **X** = 3.5″ Round	**24** = 240 **48** = 480 **60** = 600	**C** = Aluminum case w/steel cover M12 Stud **D** = Aluminum case w/aluminum cover M12 Stud	**Full kvar value** including decimals @ 60 Hz and	**S** = 0/+10%	**Expressed as 3 digit** rounded and displayed without decimal point	**T** = 3-Phase

Ratings

NOTE: Other ratings, sizes and performance specifications are available. Contact us.

CDE Catalog Number	60Hz Output Kvar	60Hz I_R (A)	50Hz Output Kvar	50Hz I_R (A)	Capacitance (µF)	Case Diameter (in)	Case Height (in)	Style
			240Vac					
PFCSS24C0.5S572T	0.5	1.2	0.4	1.0	3 x 7.7	2.0	5.72	
PFCSS24C1S572T	1	2.4	0.8	2.0	3 x 15.4	2.0	5.72	
PFCSS24C1.5S572T	1.5	3.6	1.3	3.0	3 x 23.0	2.0	5.72	
PFCSS24C2S572T	2	4.8	1.7	4.0	3 x 30.7	2.0	5.72	
PFCSS24C2.5S572T	2.5	6.0	2.1	5.0	3 x 38.4	2.0	5.72	**Fig. 1**
PFCST24C3S572T	3	7.2	2.5	6.0	3 x 46.1	2.5	5.72	
PFCST24C4S572T	4	9.6	3.3	8.0	3 x 61.4	2.5	5.72	
PFCST24C5S778T	5	12.0	4.2	10.0	3 x 76.8	2.5	7.78	
PFCSV24D6S635T	6	14.4	5.0	12.0	3 x 92.1	3.0	6.35	
PFCSX24D6.3S635T	6.3	15.2	5.3	12.6	3 x 96.7	3.5	6.35	
PFCSX24D7.5S635T	7.5	18.0	6.3	15.0	3 x 115.1	3.5	6.35	
PFCSV24D8.3S842T	8.3	20.0	6.9	16.6	3 x 127.4	3.0	8.42	
PFCSX24D10S842T	10	24.1	8.3	20.0	3 x 153.5	3.5	8.42	
PFCSX24D12.5S842T	12.5	30.1	10.4	25.1	3 x 191.9	3.5	8.42	**Fig. 2**
PFCSX24D15S108T	15	36.1	12.5	30.1	3 x 230.3	3.5	10.78	
PFCSX24D16.7S108T	16.7	40.2	13.9	33.5	3 x 256.4	3.5	10.78	
PFCSX24D17.5S108T	17.5	42.1	14.6	35.1	3 x 268.6	3.5	10.78	
PFCSX24D20S137T	20	48.1	16.7	40.1	3 x 307.0	3.5	13.73	
			480Vac					
PFCSS48C0.5S572T	0.5	0.6	0.4	0.5	3 x 1.9	2.0	5.72	
PFCSS48C1S572T	1	1.2	0.8	1.0	3 x 3.8	2.0	5.72	
PFCSS48C1.5S572T	1.5	1.8	1.3	1.5	3 x 5.8	2.0	5.72	
PFCSS48C2S572T	2	2.4	1.7	2.0	3 x 7.7	2.0	5.72	**Fig. 1**
PFCSS48C2.5S572T	2.5	3.0	2.1	2.5	3 x 9.6	2.0	5.72	
PFCSS48C3S572T	3	3.6	2.5	3.0	3 x 11.5	2.0	5.72	

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CDE Catalog Number	60Hz Output Kvar	60Hz I_R (A)	50Hz Output Kvar	50Hz I_R (A)	Capacitance (µF)	Case Diameter (in)	Case Height (in)	Style
			480Vac					
PFCSS48C4S572T	4	4.8	3.3	4.0	3 x 15.4	2.0	5.72	
PFCST48C5S572T	5	6.0	4.2	5.0	3 x 19.2	2.5	5.72	**Fig. 1**
PFCST48C6S572T	6	7.2	5.0	6.0	3 x 23.0	2.5	5.72	
PFCST48C7.5S778T	7.5	9.0	6.3	7.5	3 x 28.8	2.5	7.78	
PFCSV48D8.3S635T	8.3	10.0	6.9	8.3	3 x 31.9	3.0	6.35	
PFCSV48D9S635T	9	10.8	7.5	9.0	3 x 34.5	3.0	6.35	
PFCSX48D10S635T	10	12.0	8.3	10.0	3 x 38.4	3.5	6.35	
PFCSV48D12.5S842T	12.5	15.0	10.4	12.5	3 x 48.0	3.0	8.42	
PFCSV48D15S108T	15	18.0	12.5	15.0	3 x 57.6	3.0	10.78	**Fig. 2**
PFCSV48D16.7S108T	16.7	20.1	13.9	16.7	3 x 64.1	3.0	10.78	
PFCSV48D18S108T	18	21.7	15.0	18.0	3 x 69.1	3.0	10.78	
PFCSV48D20S108T	20	24.1	16.7	20.0	3 x 76.8	3.0	10.78	
PFCSX48D25S108T	25	30.1	20.8	25.1	3 x 95.9	3.5	10.78	
PFCSX48D30S137T	30	36.1	25.0	30.1	3 x 115.1	3.5	13.73	
			600Vac					
PFCSS60C1S572T	1	1.0	0.8	0.8	3 x 2.5	2.0	5.72	
PFCSS60C1.5S572T	1.5	1.4	1.3	1.2	3 x 3.7	2.0	5.72	
PFCSS60C2S572T	2	1.9	1.7	1.6	3 x 4.9	2.0	5.72	
PFCSS60C2.5S572T	2.5	2.4	2.1	2.0	3 x 6.1	2.0	5.72	
PFCSS60C3S572T	3	2.9	2.5	2.4	3 x 7.4	2.0	5.72	
PFCSS60C4S572T	4	3.8	3.3	3.2	3 x 9.8	2.0	5.72	**Fig. 1**
PFCST60C5S572T	5	4.8	4.2	4.0	3 x 12.3	2.5	5.72	
PFCST60C6S572T	6	5.8	5.0	4.8	3 x 14.7	2.5	5.72	
PFCST60C6.1S572T	6.1	5.9	5.1	4.9	3 x 15.0	2.5	5.72	
PFCST60C6.3S572T	6.3	6.1	5.3	5.1	3 x 15.5	2.5	5.72	
PFCST60C6.9S778T	6.9	6.6	5.8	5.5	3 x 16.9	2.5	7.78	
PFCSV60D7.5S635T	7.5	7.2	6.3	6.0	3 x 18.4	3.0	6.35	
PFCSV60D8.1S635T	8.1	7.8	6.8	6.5	3 x 19.9	3.0	6.35	
PFCSV60D8.3S635T	8.3	8.0	6.9	6.7	3 x 20.4	3.0	6.35	
PFCSX60D10S635T	10	9.6	8.3	8.0	3 x 24.6	3.5	6.35	
PFCSV60D12.2S842T	12.2	11.7	10.2	9.8	3 x 30.0	3.0	8.42	
PFCSV60D12.5S842T	12.5	12.0	10.4	10.0	3 x 30.7	3.0	8.42	
PFCSV60D13.8S842T	13.8	13.3	11.5	11.1	3 x 33.9	3.0	8.42	
PFCSV60D14.6S108T	14.6	14.0	12.2	11.7	3 x 35.9	3.0	10.78	**Fig. 2**
PFCSV60D15S108T	15	14.4	12.5	12.0	3 x 36.8	3.0	10.78	
PFCSV60D16.7S108T	16.7	16.1	13.9	13.4	3 x 41.0	3.0	10.78	
PFCSV60D17.5S108T	17.5	16.8	14.6	14.0	3 x 43.0	3.0	10.78	
PFCSV60D20S108T	20	19.2	16.7	16.0	3 x 49.1	3.0	10.78	
PFCSV60D22.5S108T	22.5	21.7	18.8	18.0	3 x 55.3	3.0	10.78	
PFCSX60D25S108T	25	24.1	20.8	20.0	3 x 61.4	3.5	10.78	
PFCSX60D30.2S137T	30.2	29.1	25.2	24.2	3 x 74.2	3.5	13.73	

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