

Low Voltage Fixed Capacitors

ReactiVar low voltage fixed capacitors are ideally suited for power factor correction applications where the load does not change or where the capacitor is switched with the load, such as on the load side of a motor starter. ReactiVar fixed capacitors are best suited for applications where there are no harmonic currents or voltages present.

Features:

- Heavy edge, slope metallizations and wave-cut profile to ensure high inrush current capabilities.
- Special resistivity and profile metallization for better self-healing and enhanced life (up to 130,000 hours).
- Unique safety feature which disconnects the capacitors at the end of their useful life electrically.
- Less than 0.5w/kVAR losses, including discharge resistors.
- Constructed with a dry type metalized polypropylene capacitor element with no liquid dielectrics.
- Can be easily mounted inside panels or in a stand alone configuration.

Application Note:

Capacitors are low impedance path for the harmonic currents produced by variable frequency drives, motor soft starters, welders, computers, PLCs, robotics and other electronic equipment. These harmonic currents can cause the capacitor to overheat, and shorten its life. Furthermore, the resonant circuit formed by shunt capacitors coupled with system inductances (motors and transformers) can amplify harmonic currents and voltages in the electrical network. This amplification can cause nuisance fuse operation and/or damage to electrical equipment including capacitors and other electronic devices. If power factor correction is required in the network where harmonic is present, please contact your nearest Square D/Schneider Electric sales office for assistance.

Table 4.43: Unfused 208 V 3 phase/ 60Hz unit [2]

kVAR rating	Regular duty Indoor NEMA 1 unit	Rated Current (A)	Recommended copper wire size[3]	Recommended circuit protection device rating[4]	
				Fuse	Circuit breaker
@ 208 V	Catalog Number	@ 208 V	AWG		
2	PFCD1002	6.3	14	15	15
5	PFCD1005	13.6	10	30	20
6	PFCD1006	17.7	10	40	25
7.5	PFCD1007	20.9	8	45	30
10	PFCD1010	27.1	8	60	40
13	PFCD1013	35.4	6	75	50
15	PFCD1015	41.7	4	90	60
17	PFCD1017	48	4	100	70
21	PFCD1021	59.4	3	125	90
25	PFCD1025	68.8	2	150	100
27	PFCD1027	75.1	2	150	110
30	PFCD1030	83.4	1	175	125
34	PFCD1033	93.8	1/0	200	150
37.5	PFCD1037	104.3	2/0	225	150
41	PFCD1040	114.7	2/0	250	175
45	PFCD1045	125.1	3/0	250	175
49	PFCD1048	135.5	4/0	300	200
53	PFCD1053	147	4/0	300	225
60	PFCD1060	168.9	300 kcmil	350	250
70	PFCD1070	198.1	350 kcmil	450	300
80	PFCD1080	222	500 kcmil	450	350

Table 4.44: Unfused 240 V 3 phase/ 60Hz unit [2]

kVAR rating	Regular duty Indoor NEMA 1 unit	Rated Current (A)	Recommended copper wire size[3]	Recommended circuit protection device rating[4]	
				Fuse	Circuit breaker
@ 240 V	Catalog Number	@ 240 V	AWG		
3	PFCD2003	7.2	14	15	15
6	PFCD2006	15.6	10	35	25
8	PFCD2008	20.5	8	45	30
10	PFCD2010	24.1	8	50	35
13	PFCD2013	31.3	6	70	45
15	PFCD2015	36.1	6	75	50
17.5	PFCD2017	40.9	6	90	60
20	PFCD2020	48.1	4	100	70
22.5	PFCD2023	55.3	3	125	80
25	PFCD2025	61.4	3	125	90
27.5	PFCD2028	68.6	2	150	100
30	PFCD2030	72.2	2	150	100
32.5	PFCD2033	79.4	1	175	110
37.5	PFCD2036	86.6	1	175	125
40	PFCD2040	96.2	1/0	200	150
45	PFCD2045	108.3	2/0	225	150
50	PFCD2050	120.3	2/0	250	175
60	PFCD2060	144.4	4/0	300	200
70	PFCD2070	169.6	300 kcmil	350	250
80	PFCD2080	194.9	350 kcmil	400	300
90	PFCD2090	218.9	400 kcmil	450	300
100	PFCD2100	239.4	500 kcmil	500	350

Table 4.45: Unfused 480V 3 phase/ 60Hz unit [2]

kVAR rating	Regular duty Indoor NEMA 1 unit	Rated Current (A)	Recommended copper wire size[3]	Recommended circuit protection device rating[4]	
				Fuse	Circuit breaker
@ 480 V	Catalog Number	@ 480 V	AWG		
6	PFCD4006	7.2	14	15	15
8	PFCD4008	10.2	12	20	15
10	PFCD4010	12	12	25	20
12.5	PFCD4012	15	10	30	25
15	PFCD4015	18	10	40	30
17	PFCD4017	19.8	8	40	30
20	PFCD4020	24	8	50	35
25	PFCD4025	30	6	60	45
27.5	PFCD4027	33	6	70	50
30	PFCD4030	36	6	75	50
33	PFCD4033	39.6	6	80	60
35	PFCD4035	42	4	90	60
40	PFCD4040	48	4	100	70
45	PFCD4045	54	4	110	75
50	PFCD4050	60	3	125	90
60	PFCD4060	72	2	150	100
65	PFCD4065	78	1	175	110
70	PFCD4070	84	1	175	125
75	PFCD4075	90	1/0	200	125
80	PFCD4080	96	1/0	200	150
90	PFCD4090	108	2/0	225	150
100	PFCD4100	120	2/0	250	175
125	PFCD4125	150	250	300	225
150	PFCD4150	180	300	400	250
175	PFCD4175	210	400	450	300
200	PFCD4200	240	500	500	350

Table 4.46: Unfused 600V 3 phase/ 60Hz unit [2]

kVAR rating	Regular duty Indoor NEMA 1 unit	Rated Current (A)	Recommended copper wire size[3]	Recommended circuit protection device rating[4]	
				Fuse	Circuit Breaker
600 V	Catalog Number	@ 600 V	AWG		
10	PFCD6010	9.6	12	20	15
15	PFCD6015	14.4	10	30	20
20	PFCD6020	19.2	10	40	30
23	PFCD6022	22.1	8	50	35
25	PFCD6025	24	8	50	35
27	PFCD6027	26	8	50	40
30	PFCD6030	28.8	8	60	45
35	PFCD6035	33.6	6	70	50
40	PFCD6040	38.4	6	80	60
45	PFCD6045	43.2	4	90	60
50	PFCD6050	48	4	100	70
60	PFCD6060	57.6	3	125	80
70	PFCD6070	67.2	3	150	100
75	PFCD6075	72	2	150	100
80	PFCD6080	76.8	1	150	110
90	PFCD6090	86.4	1	175	125
100	PFCD6100	96	1/0	200	150
125	PFCD6125	120	3/0	250	175
150	PFCD6150	144	4/0	300	200
175	PFCD6175	168	300 kcmil	350	250

[2] For fused unit, add suffix "F" to the existing part number. Consult Schneider Electric sales office for pricing.

[3] Conductor should be copper and rated 90 °C min. Refer to local electrical codes for proper wire size

[4] Consult local electrical codes for proper sizing of molded case circuit breaker frame or disconnect switch rating