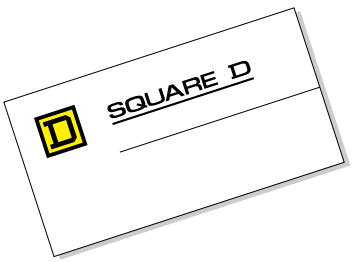
CLASS 5810
REACTIVAR™ Power Factor Capacitors
Fixed Fused and Unfused

Square D's new ReactiVar Fixed Power Factor Correction Capacitors are now constructed with an entirely dry dielectric system.

- New dry design provides no risk of fluid leakage, no environmental pollution and no need for drip pans.
- Available up to 300kVAR, 600V.
- Low loss self-healing Metalized Polypropylene Cell design has less than 0.5W/kVAR losses.
- Patented Multiple Protection Feature incorporates an internal protection device which negates the need for external fuses. Capacitor elements are encased in a non-flammable vermiculite filler as an added safety feature.
- For specifications which call for fusing, 3 phase current-limiting fusing is standard.
- Blown fuse indicators are standard on fused units.
- Large terminals for easy cable connection.
- Available in Type 1/12 indoor and 3R outdoor enclosure types.
- Convenient ground lug included as standard.
- Common footprint on all units up to 100 kVAR.
- Attractive finish: Indoor units are constructed of welded mild steel finished in a medium-blue textured polyester paint finish. Outdoor units are finished in ASA 61 light-grey outdoor paint.
- Mounting feet for easy installation. Wall mounting brackets available.
- UL Listed.
- CSA Certified.
- Complies with IEC standards.

Many Utilities effectively charge a penalty for low power factor. Power factor correction capacitors supply the reactive power (kVAR) required by inductive loads. By correcting poor power factor, capacitors reduce kVA demand thus off-loading transformers, switchgear and other equipment. The reduced kVA demand results in lower utility power bills, cooler equipment operation and longer equipment life.

ReactiVar dry fixed capacitors are ideally suited for power factor correction in applications where the load does not change or where the capacitor is switched with the load, such as the load side of a motor starter. ReactiVar capacitors are available up to 100 kVAR as individual units, and up to 300 kVAR in banks. Assemblies are available unfused, or fused with 3 fuses and 3 blown fuse indicators. Enclosures are available as indoor Type 1/12 or optional outdoor Type 3R and are suitable for floor or wall mounting with an optional wall mounting bracket.



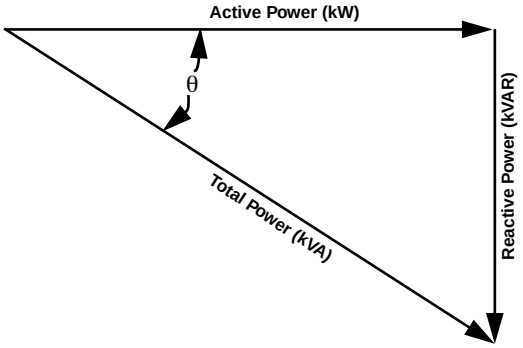


FIGURE 1

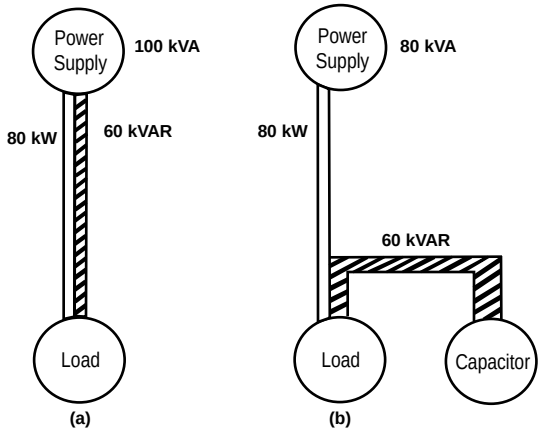


FIGURE 2

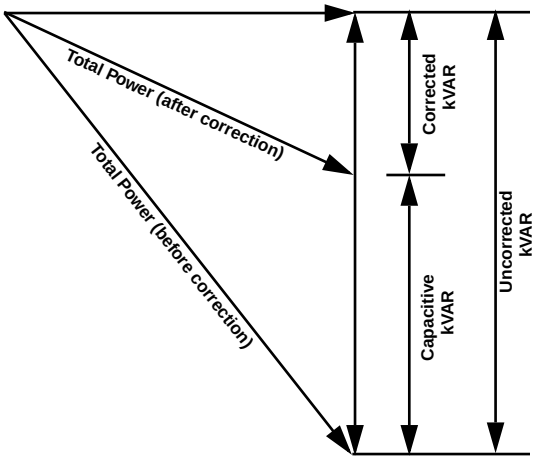


FIGURE 3

The total current required by inductive loads such as motors, transformers, and fluorescent lighting may be considered to be made up of two separate types of current.

Active current (or power producing current) is the current which is converted into useful work such as turning a lathe, providing light or pumping water. The power produced by this component is the *kilowatt* (kW).

Reactive current (also known as wattless, magnetizing or nonworking current) is the current which provides the magnetic flux necessary for the operation of these loads but is not converted into useful work. The power produced by this component is the *kilovar* (kVAR).

The *total current* is the current which is measured on an ammeter. It is the sum of both the active and the reactive components. The power produced by the total current is measured in *kilovolt amperes* (kVA).

Power Triangle

The relations between the various power components and the system voltage are illustrated in the power triangle shown in Figure 1. From Figure 1, it is apparent that the active power component is *in phase* with the applied voltage while the reactive component occurs 90 degrees out of phase with the voltage.

The equation that defines this relationship is:

$$(kW)^2 + (kVAR)^2 = (kVA^2)$$

Power Factor is the ratio of Real Power Consumed to Total Power Consumed (kW/kVA) and is in fact, a measure of efficiency. When the power factor reaches unity (as measured at the utility power meter), it can be said that the plant is operating at maximum efficiency. Depending on the local utility rate structure, a power factor below unity may result in higher utility power bills than are necessary.

Power Factor Correction

Power factor can be improved by either increasing the active power component or reducing the reactive component. Of course, increasing the active power component for the sole purpose of power factor correction would not be economically feasible. Thus, the only practical means for improving a systems power factor is to reduce the reactive power component.

One method of reducing this component is to provide reactive power locally at the load. This method will improve the power factor from the point where the reactive power source is connected back to the source. As an example, consider the load in Figure 2a. The total power required is 100 kVA of which 80 kW is active power and 60 kVAR is reactive power. If the reactive power is furnished locally (Figure 2b), the power system only has to carry 80 kVA (80 kW). Thus, the power factor (from the point where the reactive power is locally supplied back to the source) is improved to unity.

Capacitors for Power Factor Correction

Properly selected, capacitors offer an ideal means for improving the power factor of an inductive load. When a capacitor is connected to an inductive load, it acts as a reactive power generator locally furnishing the necessary reactive current required by the inductive load. In fact, power factor capacitors are rated in kVAR to indicate their reactive power generating capability.

Capacitors are able to perform this function since they draw a leading current which will effectively cancel lagging inductive current, complete cancellation of the two current components occur and the reactive power component will be reduced to zero. This is illustrated in Figure 3.

The result of improved power factor is reduced utility demand resulting in lower utility demand bills, released system capacity and lower system losses.

PFC Selection for Individual Motors

1. Select a capacitor kVAR size from Table 1 to match motor HP and speed. Select a capacitor catalog number to match the kVAR selection and motor voltage. If an exact size is not available, select the next ***lower*** size. Capacitors selected from Table 1 correct ***full load*** motor PF to approximately 95%.
2. Consult Square D for application of capacitors on motor frame types other than shown by Table 1.
3. When capacitors are applied on the load side of the motor over loads (as shown in diagram on page 5), reduce the overload or trip relay setting by the percent (%AR) in Table 1.
4. When the motor is controlled by other than full voltage non-reversing across the line starters, locate the capacitor upstream from the controller. ***Do not*** apply capacitors on the load side of motor starters subject to reversing, inching, jogging or plugging, or that are multi-speed, open transition, solid state, or when the load may drive the motor such as with cranes or elevators. ***Never*** apply capacitors in the presence of variable frequency drives, welders, soft starters or other non-linear loads. See application note on page 5.

Suggested Capacitor Ratings (kVAR)

TABLE 1 – Indoor Low Voltage T-Frame NEMA Class B Induction Motors

Motor Rating (HP)	Nominal Motor Speed											
	3600 RPM		1800 RPM		1200 RPM		900 RPM		720 RPM		600 RPM	
	Capacitor Rating	% AR	Capacitor Rating	% AR	Capacitor Rating	% AR	Capacitor Rating	% AR	Capacitor Rating	% AR	Capacitor Rating	% AR
3	1.5	14	1.5	23	2.5	28	3	38	3	40	4	40
5	2	14	2.5	22	3	26	4	31	4	40	5	40
7.5	2.5	14	3	20	4	21	5	28	5	38	6	45
10	4	14	4	18	5	21	6	27	7.5	36	8	38
15	5	12	5	18	6	20	7.5	24	8	32	10	34
20	6	12	6	17	7.5	19	9	23	10	29	12	30
25	7.5	12	7.5	17	8	19	10	23	12	25	18	30
30	8	11	8	16	10	19	14	22	15	24	22.5	30
40	2	12	13	15	16	19	18	21	22.5	24	25	30
50	15	12	18	15	20	19	22.5	21	24	24	30	30
60	18	12	21	14	22.5	17	26	20	30	22	35	28
75	20	12	23	14	25	15	28	17	33	14	40	19
100	22.5	11	30	14	30	12	35	16	40	15	45	17
125	25	10	36	12	35	12	42	14	45	15	50	17
150	30	10	42	12	40	12	52.5	14	52.5	14	60	17
200	35	10	50	11	50	10	65	13	68	13	90	17
250	40	11	60	10	62.5	10	82	13	87.5	13	100	17
300	45	11	68	10	75	12	100	14	100	13	120	17
350	50	12	75	8	90	12	120	13	120	13	135	15
400	75	10	80	8	100	12	130	13	140	13	150	15
450	80	8	90	8	120	10	140	12	160	14	160	15
500	100	8	120	9	150	12	160	12	180	13	180	15

Please note: These tables are to be used for T-Frame NEMA class B induction motors only – please contact the Groupe Schneider Power Quality Correction Group for any other applications, or motor types.

208 & 240 Volt 3 Phase/60Hz

kVAR Rating		Indoor Type 1/12			Outdoor Type 3R			Rated Current (Amperes)		Recommended Wire Size ▲	Recommended Minimum Size Protection Rating (Amperes) ▲			
											Fuse		Breaker Trip	
@ 240V	@208V	Unfused	Fused	Enclosure ✗	Unfused	Fused	Enclosure ✗	@240V	@208V	(AWG)	@240V	@208V	@240V	@208V
2.5	1.88	PFCD2002	PFCD2002F	1	PFCD2002R	PFCD2002RF	1R	6.0	5.2	14	10	10	15	15
3.5	2.63	PFCD2003	PFCD2003F	1	PFCD2003R	PFCD2003RF	1R	8.4	7.3	14	15	15	15	15
4	3.00	PFCD2004	PFCD2004F	1	PFCD2004R	PFCD2004RF	1R	9.6	8.3	14	20	15	15	15
5	3.75	PFCD2005	PFCD2005F	1	PFCD2005R	PFCD2005RF	1R	12.1	10.4	12	20	20	20	20
6	4.50	PFCD2006	PFCD2006F	1	PFCD2006R	PFCD2006RF	1R	14.5	12.5	12	25	25	25	20
7.5	5.63	PFCD2007	PFCD2007F	1	PFCD2007R	PFCD2007RF	1R	18.1	15.6	10	30	30	30	25
10	7.50	PFCD2010	PFCD2010F	1	PFCD2010R	PFCD2010RF	1R	24.1	20.9	8	40	35	40	35
12.5	9.38	PFCD2012	PFCD2012F	1	PFCD2012R	PFCD2012RF	1R	30.1	26.1	8	50	45	45	40
15	11.25	PFCD2015	PFCD2015F	1	PFCD2015R	PFCD2015RF	1R	36.2	31.3	8	60	60	60	50
17.5	13.13	PFCD2017	PFCD2017F	2	PFCD2017R	PFCD2017RF	2R	42.2	36.5	6	70	60	70	60
20	15.00	PFCD2020	PFCD2020F	2	PFCD2020R	PFCD2020RF	2R	48.2	41.7	6	80	70	80	70
22.5	16.88	PFCD2022	PFCD2022F	2	PFCD2022R	PFCD2022RF	2R	54.2	46.9	4	90	80	90	70
25	18.75	PFCD2025	PFCD2025F	3	PFCD2025R	PFCD2025RF	3R	60.3	52.1	4	100	90	90	80
27.5	20.63	PFCD2027	PFCD2027F	3	PFCD2027R	PFCD2027RF	3R	66.3	57.3	3	125	100	100	90
30	22.50	PFCD2030	PFCD2030F	3	PFCD2030R	PFCD2030RF	3R	72.3	62.6	3	125	125	125	100
35	26.25	PFCD2035	PFCD2035F	4	PFCD2035R	PFCD2035RF	4R	84.4	73.0	2	150	125	150	125
40	30.00	PFCD2040	PFCD2040F	5	PFCD2040R	PFCD2040RF	5R	96.4	83.4	1/0	175	150	150	125
45	33.75	PFCD2045	PFCD2045F	7	PFCD2045R	PFCD2045RF	7R	108.5	93.8	1/0	200	175	175	150
50	37.50	PFCD2050	PFCD2050F	7	PFCD2050R	PFCD2050RF	7R	120.5	104.3	2/0	200	175	200	175
60	45.00	PFCD2060	PFCD2060F	7	PFCD2060R	PFCD2060RF	7R	144.6	125.1	3/0	250	200	225	200
70	52.50	PFCD2070	PFCD2070F	8	PFCD2070R	PFCD2070RF	8R	168.7	146.0	4/0	300	250	300	225
75	56.25	PFCD2075	PFCD2075F	10	PFCD2075R	PFCD2075RF	10R	180.8	156.4	250 MCM	300	300	300	250

◆ Wall mounting brackets available for units up to 40 kVAR. Order catalogue number PFCDBR1 (sold in pairs). Wall mounting brackets not available for units above 40 kVAR.
▲ Consult local Electrical Codes for proper sizing of moulded case circuit breaker frame, disconnect switch rating, and wire size.
✗ For dimensions, see page 5.
■ For additional sizes, ratings or options, please consult your nearest Square D/Groupe Schneider sales office.

480 Volt 3 Phase/60Hz

kVAR Rating	Indoor Type 1/12			Outdoor Type 3R			Rated Current (Amperes)	Recommended Wire Size ▲	Recommended Minimum Size Protection Rating (Amperes) ▲	
									Fuse	Breaker Trip
@ 480V	Unfused	Fused	Enclosure ✗	Unfused	Fused	Enclosure ✗	@ 480V	(AWG)	@ 480V	@ 480V
2.5	PFCD4002	PFCD4002F	1	PFCD4002R	PFCD4002RF	1R	3.0	14	5	15
4	PFCD4004	PFCD4004F	1	PFCD4004R	PFCD4004RF	1R	4.8	14	10	15
5	PFCD4005	PFCD4005F	1	PFCD4005R	PFCD4005RF	1R	6.0	14	10	15
6	PFCD4006	PFCD4006F	1	PFCD4006R	PFCD4006RF	1R	7.2	14	15	15
7.5	PFCD4007	PFCD4007F	1	PFCD4007R	PFCD4007RF	1R	9.0	14	15	15
10	PFCD4010	PFCD4010F	1	PFCD4010R	PFCD4010RF	1R	12.0	12	20	20
12.5	PFCD4012	PFCD4012F	1	PFCD4012R	PFCD4012RF	1R	15.0	10	25	25
15	PFCD4015	PFCD4015F	1	PFCD4015R	PFCD4015RF	1R	18.0	10	30	30
17.5	PFCD4017	PFCD4017F	1	PFCD4017R	PFCD4017RF	1R	21.0	10	35	35
20	PFCD4020	PFCD4020F	1	PFCD4020R	PFCD4020RF	1R	24.0	8	40	40
22.5	PFCD4022	PFCD4022F	1	PFCD4022R	PFCD4022RF	1R	27.0	8	45	45
25	PFCD4025	PFCD4025F	2	PFCD4025R	PFCD4025RF	2R	30.0	8	50	45
27.5	PFCD4027	PFCD4027F	2	PFCD4027R	PFCD4027RF	2R	33.0	8	60	50
30	PFCD4030	PFCD4030F	2	PFCD4030R	PFCD4030RF	2R	36.0	8	60	55
35	PFCD4035	PFCD4035F	3	PFCD4035R	PFCD4035RF	3R	42.0	6	70	65
40	PFCD4040	PFCD4040F	3	PFCD4040R	PFCD4040RF	3R	48.0	6	80	75
45	PFCD4045	PFCD4045F	4	PFCD4045R	PFCD4045RF	4R	54.0	4	90	85
50	PFCD4050	PFCD4050F	4	PFCD4050R	PFCD4050RF	4R	60.0	4	100	90
60	PFCD4060	PFCD4060F	5	PFCD4060R	PFCD4060RF	5R	72.0	3	125	125
70	PFCD4070	PFCD4070F	5	PFCD4070R	PFCD4070RF	5R	84.0	2	150	150
75	PFCD4075	PFCD4075F	5	PFCD4075R	PFCD4075RF	5R	90.0	1	150	150
80	PFCD4080	PFCD4080F	6	PFCD4080R	PFCD4080RF	6R	96.0	1/0	175	150
90	PFCD4090	PFCD4090F	6	PFCD4090R	PFCD4090RF	6R	108.0	1/0	200	175
100	PFCD4100	PFCD4100F	6	PFCD4100R	PFCD4100RF	6R	120.0	2/0	200	200
125	PFCD4125	PFCD4125F	9	PFCD4125R	PFCD4125RF	9R	150.0	4/0	250	225
150	PFCD4150	PFCD4150F	9	PFCD4150R	PFCD4150RF	9R	180.0	250MCM	300	300
175	PFCD4175	PFCD4175F	11	PFCD4175R	PFCD4175RF	11R	210.0	300MCM	350	350
200	PFCD4200	PFCD4200F	11	PFCD4200R	PFCD4200RF	11R	240.0	(2) 2/0	400	400
225	PFCD4225	PFCD4225F	12	PFCD4225R	PFCD4225RF	12R	270.0	(3) 3/0	500	450
250	PFCD4250	PFCD4250F	13	PFCD4250R	PFCD4250RF	13R	300.0	(2) 4/0	500	450
275	PFCD4275	PFCD4275F	13	PFCD4275R	PFCD4275RF	13R	330.0	(2) 4/0	550	500
300	PFCD4300	PFCD4300F	13	PFCD4300R	PFCD4300RF	13R	360.0	(2) 250MCM	600	550

600 Volt 3 Phase/60Hz

kVAR Rating	Indoor Type 1/12			Outdoor Type 3R			Rated Current (Amperes)	Recommended Wire Size ▲	Recommended Minimum Size Protection Rating (Amperes) ▲	
									Fuse	Breaker Trip
@ 600V	Unfused	Fused	Enclosure ✗	Unfused	Fused	Enclosure ✗	@ 600V	(AWG)	@ 600V	@ 600V
3	PFCD6003	PFCD6003F	1	PFCD6003R	PFCD6003RF	1R	2.9	14	5	15
4	PFCD6004	PFCD6004F	1	PFCD6004R	PFCD6004RF	1R	3.8	14	10	15
5	PFCD6005	PFCD6005F	1	PFCD6005R	PFCD6005RF	1R	4.8	14	10	15
6	PFCD6006	PFCD6006F	1	PFCD6006R	PFCD6006RF	1R	5.8	14	10	15
7.5	PFCD6007	PFCD6007F	1	PFCD6007R	PFCD6007RF	1R	7.2	14	15	15
10	PFCD6010	PFCD6010F	1	PFCD6010R	PFCD6010RF	1R	9.6	14	20	15
12.5	PFCD6012	PFCD6012F	1	PFCD6012R	PFCD6012RF	1R	12.0	12	20	20
15	PFCD6015	PFCD6015F	1	PFCD6015R	PFCD6015RF	1R	14.4	12	25	25
17.5	PFCD6017	PFCD6017F	1	PFCD6017R	PFCD6017RF	1R	16.8	10	30	25
20	PFCD6020	PFCD6020F	1	PFCD6020R	PFCD6020RF	1R	19.2	10	35	30
22.5	PFCD6022	PFCD6022F	1	PFCD6022R	PFCD6022RF	1R	21.6	10	40	35
25	PFCD6025	PFCD6025F	2	PFCD6025R	PFCD6025RF	2R	24.1	8	40	40
27.5	PFCD6027	PFCD6027F	2	PFCD6027R	PFCD6027RF	2R	26.5	8	45	40
30	PFCD6030	PFCD6030F	2	PFCD6030R	PFCD6030RF	2R	28.9	8	50	50
35	PFCD6035	PFCD6035F	3	PFCD6035R	PFCD6035RF	3R	33.7	8	60	60
40	PFCD6040	PFCD6040F	3	PFCD6040R	PFCD6040RF	3R	38.5	6	70	60
45	PFCD6045	PFCD6045F	4	PFCD6045R	PFCD6045RF	4R	43.3	6	80	70
50	PFCD6050	PFCD6050F	4	PFCD6050R	PFCD6050RF	4R	48.1	6	80	80
60	PFCD6060	PFCD6060F	5	PFCD6060R	PFCD6060RF	5R	57.7	4	100	90
70	PFCD6070	PFCD6070F	5	PFCD6070R	PFCD6070RF	5R	67.3	3	125	110
75	PFCD6075	PFCD6075F	5	PFCD6075R	PFCD6075RF	5R	72.2	3	125	110
80	PFCD6080	PFCD6080F	6	PFCD6080R	PFCD6080RF	6R	77.0	2	150	125
90	PFCD6090	PFCD6090F	6	PFCD6090R	PFCD6090RF	6R	86.6	1	150	150
100	PFCD6100	PFCD6100F	6	PFCD6100R	PFCD6100RF	6R	96.2	1/0	175	150
125	PFCD6125	PFCD6125F	9	PFCD6125R	PFCD6125RF	9R	120.3	2/0	200	200
150	PFCD6150	PFCD6150F	9	PFCD6150R	PFCD6150RF	9R	144.3	3/0	250	225
175	PFCD6175	PFCD6175F	11	PFCD6175R	PFCD6175RF	11R	168.4	4/0	300	275
200	PFCD6200	PFCD6200F	11	PFCD6200R	PFCD6200RF	11R	192.4	300MCM	350	300
225	PFCD6225	PFCD6225F	12	PFCD6225R	PFCD6225RF	12R	216.5	350MCM	400	350
250	PFCD6250	PFCD6250F	13	PFCD6250R	PFCD6250RF	13R	240.5	400MCM	400	400
275	PFCD6275	PFCD6275F	13	PFCD6275R	PFCD6275RF	13R	264.6	500MCM	450	400
300	PFCD6300	PFCD6300F	13	PFCD6300R	PFCD6300RF	13R	288.6	(2) 3/0	500	450

◆ Wall mounting brackets available for units up to 100 kVAR. Order catalogue number PFCDBR1 (sold in pairs). Wall mounting brackets not available for units above 100 kVAR.
▲ Consult local Electrical Codes for proper sizing of moulded case circuit breaker frame, disconnect switch rating, and wire size.
✗ For dimensions, see next page.
■ For additional sizes, ratings or options, please consult your nearest Square D/Groupe Schneider sales office.

Type 1 Enclosure Dimensions ■

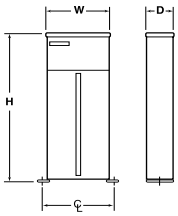
Encl.	Height (H)		Width (W)		Depth (D)		Mounting ℄	
	IN	(mm)	IN	(mm)	IN	(mm)	IN	(mm)
1	16.12	409.45	11.75	298.45	4.81	122.17	13.25	336.55
2	18.87	479.30	11.75	298.45	4.81	122.17	13.25	336.55
3	20.06	509.52	11.75	298.45	4.81	122.17	13.25	336.55
4	22.81	579.37	11.75	298.45	4.81	122.17	13.25	336.55
5	26.75	679.45	11.75	298.45	4.81	122.17	13.25	336.55
6	34.00	863.60	19.08	484.63	6.20	157.48	13.25	336.55
7	22.75	577.85	14.85	377.19	14.78	375.41	7.75	196.85
8	25.50	647.70	14.85	377.19	14.78	375.41	7.75	196.85
9	28.88	733.55	14.85	377.19	14.78	375.41	7.75	196.85
10	29.50	749.30	14.85	377.19	14.78	375.41	7.75	196.85
11	34.00	863.60	14.85	377.19	14.78	375.41	7.75	196.85
12	28.88	733.55	21.78	553.21	14.78	375.41	14.68	372.87
13	34.00	863.60	21.78	553.21	14.78	375.41	14.68	372.87

Type 3R Enclosure Dimensions ■

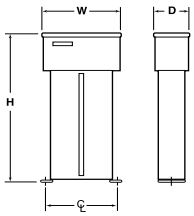
Encl.	Height (H)		Width (W)		Depth (D)		Mounting ℄	
	IN	(mm)	IN	(mm)	IN	(mm)	IN	(mm)
1R	16.12	409.45	19.08	484.63	6.20	157.48	13.25	336.55
2R	18.87	479.30	19.08	484.63	6.20	157.48	13.25	336.55
3R	20.06	509.52	19.08	484.63	6.20	157.48	13.25	336.55
4R	22.81	579.37	19.08	484.63	6.20	157.48	13.25	336.55
5R	26.75	679.45	19.08	484.63	6.20	157.48	13.25	336.55
6R	34.00	863.60	19.08	484.63	6.20	157.48	13.25	336.55
7R	22.75	577.85	14.85	377.19	14.78	375.41	7.75	196.85
8R	25.50	647.70	14.85	377.19	14.78	375.41	7.75	196.85
9R	28.88	733.55	14.85	377.19	14.78	375.41	7.75	196.85
10R	29.50	749.30	14.85	377.19	14.78	375.41	7.75	196.85
11R	34.00	863.60	14.85	377.19	14.78	375.41	7.75	196.85
12R	28.88	733.55	21.78	553.21	14.78	375.41	14.68	372.87
13R	34.00	863.60	21.78	553.21	14.78	375.41	14.68	372.87

■ Dimensions are approximate only. Do not use for construction. For actual dimensions, contact your local Square D/Groupe Schneider sales office.

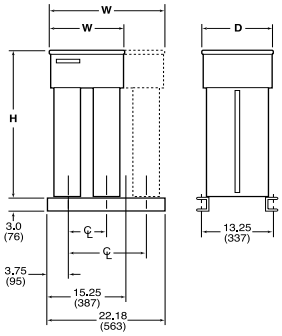
Fixed Capacitors Enclosures 1 to 5



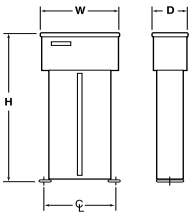
Fixed Capacitors Enclosure 6



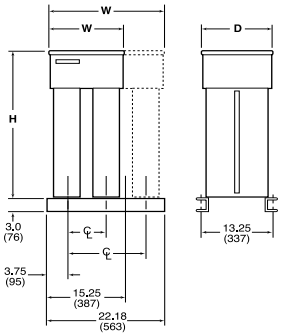
Fixed Capacitors Banks Enclosures 7 to 13



Fixed Capacitors Enclosures 1R to 6R



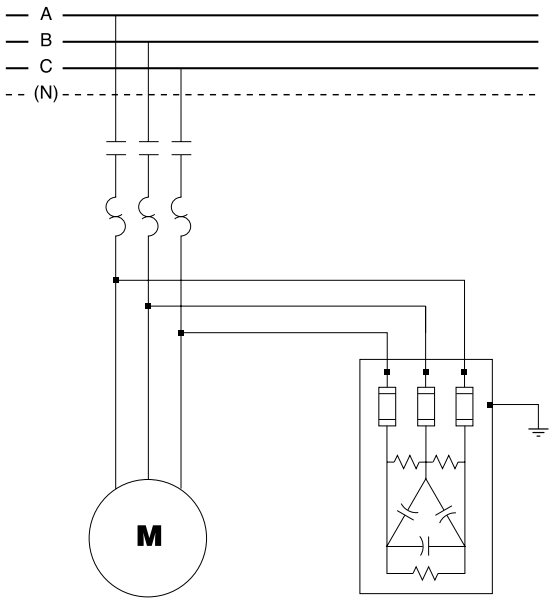
Fixed Capacitors Banks Enclosures 7R to 13R



Application Note:

All capacitors are a low impedance path for harmonic currents produced by non-linear loads such as variable frequency drives, motor soft-starters, welders, computers, PLC's, robotics and other electronic equipment. These harmonic currents can be drawn into the capacitor causing it to overheat, shortening it's life and possibly preventing proper operation. Furthermore, the resonant circuit formed by the capacitor in parallel with the system inductance's (transformers and motors) can magnify harmonic currents and voltages which can cause nuisance fuse operation and/or damage electrical equipment. Should your electrical system contain any non-linear loads, please contact Square D/Groupe Schneider for application assistance. For applications which require power factor correction in harmonic-rich environments, substitute the AV6000 Anti-resonant automatic capacitor bank. Consult Square D/Groupe Schneider for more information.

Typical Wiring Diagram (FVNR Starter):



Type:		Self-healing, internally protected capacitor elements, dry design
Dielectric:		Metalized polypropylene film, no liquid dielectrics
Internal connection:		3 Phase, Delta
Tolerance on capacitance:		0% / +15%
Discharge mechanism:		Polycarbonate resistor, 1 per phase
Discharge time:		< 50 V in 1 minute
Losses:		< 0.5W/ kVAR, including discharge resistors
Expected life:		95% rated kVAR: 150,000 hrs (nominal voltage & current, 0% THD)
Rated voltage (U_n):		208 V....600 V.
Rated frequency:		60 Hz
Insulation level:		3 kV rms/ 15 kV crest
Interrupting rating	Unfused:	10 kA I.C. Symmetrical
	Fused:	200 kA I.C. Symmetrical
Continuous overvoltage:		1.1 x U_n
Continuous overcurrent:		1.35 x I_n
Maximum recommended harmonic current (I_h):		1.05 x I_n
Maximum recommended harmonic voltage (V_h):		1.03 x V_n
Temperature range:		-40°C to +50°C (-40°F to +122°F)
Highest mean over:	24 hours:	+40°C (+104°F)
	1 year:	+30°C (+86°F)
	Other Conditions:	Consult Square D/Groupe Schneider
Altitude:		1800 meters (6000 feet) without de-rating
Approvals:		UL Listed under file #LR-23506-57 CSA Certified under file #E173372
Standards:		Built to IEC 831-1-2 (1988); Complies with: IEC, NEC, NEMA CP-1, ANSI and IEEE std. 18.
Paint finish:	Indoor:	Medium blue textured polyester powder ASA 49 & 61 available upon request. Consult Square D/Groupe Schneider.
	Outdoor:	Light grey ASA 61.
Enclosure:		16 Gauge steel

Other Products and Services:

- AV4000 and AV5000 standard automatic capacitor banks for power factor correction in electrical networks which have less than 15% non-linear loads.
- AV6000 Anti-resonant bank for power factor correction in harmonic-rich environments
- AV7000 Harmonic filters for removal of harmonics
- Active (electronic) filters
- AV9000 Real Time Reactive Compensation banks and filters for highly transient loads.
- Medium voltage fixed and automatic switched banks up to 37 kV
- Medium voltage Real Time Compensation Banks up to 15 kV
- Engineering services such as:

- Size and rating assistance
- Harmonic analysis
- Computer simulations
- Commissioning
- Service contracts

Consult your nearest Square D/Groupe Schneider sales office for pricing.

Specifications subject to change without notice.

VISIT OUR WEBSITE AT WWW.REACTIVAR.COM

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