

Power factor correction

Type LCR fixed, detuned capacitor banks

Purpose

PSS™ Detuned Capacitor systems are applied to improve the power factor of electrical systems where harmonic distortion prevents the use of capacitor banks alone. The de-tuned capacitor bank provides a small reduction of the 5th harmonic, which extends component life per reducing voltage stress of system dielectric insulation.

Give your capacitors CPR

Capacitor Protection Reactors used in our detuned capacitor banks are engineered to block harmful harmonics (5th and 7th, typically) from the capacitor. Computer design, finite element analysis, circuit simulation, and factory bench testing assures reactor integrity through the full range of system load swings.

Quality

PSS™ capacitor systems are designed and assembled under quality standard ISO 9001 and are UL (Underwriter's Laboratories) certified.

Typical applications

Fixed detuned capacitor banks are commonly used to improve the power factor of non-linear inductive loads such as motors operated by variable speed drives, grouped, non-linear inductive loads with little fluctuation in loading curve, or motors connected to a harmonic rich source.

Internal connection

Fixed capacitor banks with CPR™ are factory assembled using single-phase capacitor cells in either delta or wye configuration. The Capacitor Protection Reactor is connected in series with the capacitor, creating a detuned LC circuit at a frequency that avoids system resonance.

Easy installation and low maintenance

De-tuned capacitors are easy to install and require little maintenance. Contact PSS Field Services for any of your maintenance needs.



Power factor correction

Type LCR fixed, detuned capacitor banks

208* - 240 Volts, 3-Phase, 60 Hz, Nema 1 Enclosed Units

| KVAR | Tuned Frequency | Model | | |
|------|-----------------|---------------------|-----------------------------|-------------------------|
| | | NO Fuses | Fuses/Lights | Main Circuit Breaker |
| 25 | 3.85 | LCR 0025 240 N1 4TH | LCR 0025 240 N1 4TH FUS LMP | LCR 0025 240 N1 4TH MCB |
| 50 | 3.85 | LCR 0050 240 N1 4TH | LCR 0050 240 N1 4TH FUS LMP | LCR 0050 240 N1 4TH MCB |
| 75 | 3.85 | LCR 0075 240 N1 4TH | LCR 0075 240 N1 4TH FUS LMP | LCR 0075 240 N1 4TH MCB |
| 100 | 3.85 | LCR 0100 240 N1 4TH | LCR 0100 240 N1 4TH FUS LMP | LCR 0100 240 N1 4TH MCB |

480 Volts, 3-Phase, 60 Hz, Nema 1 Enclosed Units

| KVAR | Tuned Frequency | Model | | |
|------|-----------------|---------------------|-----------------------------|-------------------------|
| | | NO Fuses | Fuses/Lights | Main Circuit Breaker |
| 25 | 3.85 | LCR 0025 480 N1 4TH | LCR 0025 480 N1 4TH FUS LMP | LCR 0025 480 N1 4TH MCB |
| 50 | 3.85 | LCR 0050 480 N1 4TH | LCR 0050 480 N1 4TH FUS LMP | LCR 0050 480 N1 4TH MCB |
| 75 | 3.85 | LCR 0075 480 N1 4TH | LCR 0075 480 N1 4TH FUS LMP | LCR 0075 480 N1 4TH MCB |
| 100 | 3.85 | LCR 0100 480 N1 4TH | LCR 0100 480 N1 4TH FUS LMP | LCR 0100 480 N1 4TH MCB |
| 125 | 3.85 | LCR 0125 480 N1 4TH | LCR 0125 480 N1 4TH FUS LMP | LCR 0125 480 N1 4TH MCB |
| 150 | 3.85 | LCR 0150 480 N1 4TH | LCR 0150 480 N1 4TH FUS LMP | LCR 0150 480 N1 4TH MCB |
| 175 | 3.85 | LCR 0175 480 N1 4TH | LCR 0175 480 N1 4TH FUS LMP | LCR 0175 480 N1 4TH MCB |
| 200 | 3.85 | LCR 0200 480 N1 4TH | LCR 0200 480 N1 4TH FUS LMP | LCR 0200 480 N1 4TH MCB |

Dimensions

240 and 480 Volts, 60hz, Floor-standing Nema 1 enclosures

| 240 volts Catalog No. | Dimensions (in / mm) | | | Weight Lbs / kg |
|--------------------------|----------------------|----------|----------|--------------------|
| | Height | Width | Depth | |
| LCR 0025 240 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 330 / 150 |
| LCR 0050 240 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 363 / 165 |
| LCR 0075 240 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 374 / 2.2 |
| LCR 0100 240 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 484 / 2.2 |
| 480 volts | | | | |
| LCR 0025 480 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 308 / 140 |
| LCR 0050 480 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 341 / 155 |
| LCR 0075 480 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 352 / 160 |
| LCR 0100 480 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 385 / 175 |
| LCR 0125 480 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 440 / 200 |
| LCR 0150 480 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 462 / 210 |
| LCR 0175 480 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 506 / 230 |
| LCR 0200 480 N1 4TH | 48 / 1200 | 24 / 600 | 32 / 800 | 550 / 250 |