



POWER FACTOR CORRECTION CAPACITOR CELLS

SPECIFICATIONS

DESCRIPTION

Metallized polypropylene capacitors offer improved performance and proven reliability in applications requiring power factor correction or harmonic filtering.

Metallized polypropylene film is used for its ability to operate at low temperatures and minimal loss of capacitance over the life of the cell. Encapsulated by a thermal setting polymer resin, excellent heat dissipation is achieved. In the event of a fault, three-phase pressure sensitive interrupters disconnect all three phases effectively taking the capacitor out of the circuit.

CAPACITOR PROPERTIES



- Individual capacitors are self-healing. Vacuum deposited conductors on a polypropylene dielectric act as electrodes in this process.
- Each three-phase capacitor is furnished with a UL recognized, pressure sensitive interrupter. The interrupter will disconnect all three phases at the same time to maintain a balanced circuit.
- Capacitors are contained in hermetically sealed metal cans to prevent atmospheric contaminants from reducing the useful life.
- The dielectric material exhibits a loss of less than 0.5 Watts per KVAR.
- Encapsulation medium shall be a thermosetting polymer resin, which allows out gassing to engage the pressure interrupter.
- Nominal design life is 20 years.
- Individual capacitor cells are covered by a 2-year limited warranty.
- All capacitor cell terminations are threaded terminals for wire connection.
- All three-phase capacitors are listed as UL Recognized, CSA, and CE.

CONSTRUCTION FEATURES

Termination – 12-24 NC-2A threaded studs to ensure superior contact through compression. See figures 2-1 and 2-2.

Cell Housing – Constructed from a plated steel, the cell is hermetically sealed to prevent contamination.

Dielectric / Electrode – Constructed of metallized polypropylene film, a self healing, low loss material. Results in low operating temperature and minimal loss of capacitance over the life of the cell.

Three-Phase Construction – Internally connected in a three-phase delta connection to ensure three-phase operation under all conditions and minimize external wiring.

Three-Phase Pressure Interrupters – UL Recognized device (10,000 amps fault current) to disconnect all three phases if fault occurs thus preventing single phase operation.

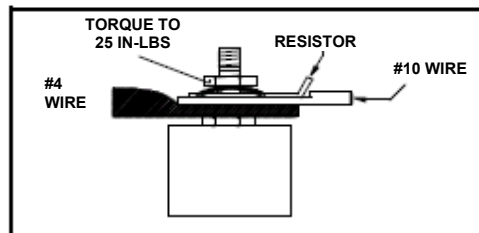


Figure 2-1: Cell Termination Connection 1

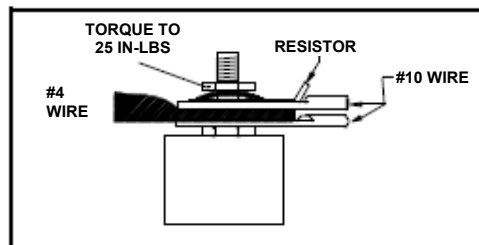


Figure 2-2: Cell Termination Connection 2

Note: Wire size shown is for example only.
Wire should be sized according to each
application.

PERFORMANCE CHARACTERISTICS

Ambient Temperature Range: -40°F to 115°F (-40°C to 46°C)

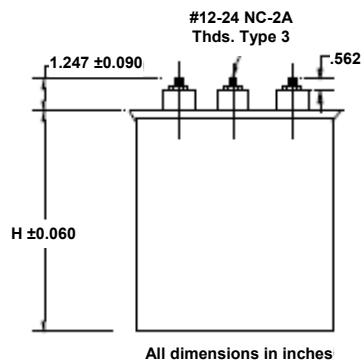
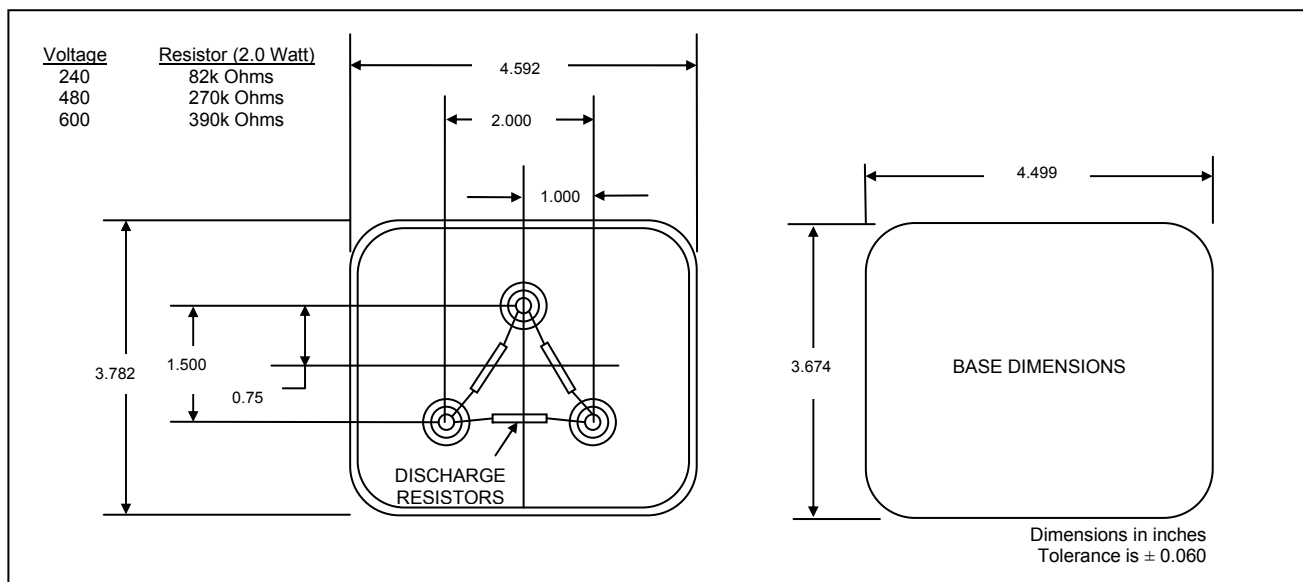
Operating Temperature Range: -40°F to 158°F (-40°C to 70°C)

Design Life: Life expectancy of capacitor cells is 20 years within operating specifications.

Continuous Operation: Up to 135% rated (nameplate) KVAR, including the effects of 110% rated voltage (121% KVAR), 15% capacitance tolerance and harmonic voltages over the fundamental frequency (60 Hz).

Tolerance: Capacitor cell KVAR tolerance is 0% to +5%.

DIMENSIONS



**MODEL
SELECTION**

Table 1 offers a wide array of standard capacitor cells for most Power Factor Correction applications.

Notes:

1. All capacitor cells are shown as 3 phase units.
2. These capacitors use a dry type thermoplastic medium.
3. CUSTOMER must provide over-current protection as required by code.
4. All units are supplied un-painted.
5. Case material is plated steel approximately 0.017 inches thick.
6. Discharge resistors are included with all capacitor cells.
7. Consult factory for height dimensions.

TABLE 1: Standard Dry Cell Chart

Voltage Rating	kVAR	MZI Number	Weight
VAC			Pounds
240	1	CAP4004	2.1
240	1.5	CAP4006	2.1
240	2	CAP4007X	2.1
240	2.5	CAP4010	2.5
240	3	CAP4012X	3.2
240	4	CAP4016S	3.5
240	5	CAP2005	2.8
240	6	CAP2006	3.2
240	7.5	CAP2007X	3.5
240	8.33	CAP2008B	3.5
240	10	CAP2010	3.5
480	1	CAP4001	2.1
480	1.5	CAP4001X	2.1
480	2	CAP4002	2.1
480	2.5	CAP4002X	2.1
480	3	CAP4003	2.1
480	4	CAP4004	2.1
480	5	CAP4005	2.1
480	6	CAP4006	2.1
480	7.5	CAP4007X	2.1
480	10	CAP4010	2.5
480	12.5	CAP4012X	3.2
480	15	CAP4015	3.2
480	16.67	CAP4016S	3.5
480	17.5	CAP4017X	3.5
480	20	CAP4020	4.2
600	2	CAP6002	2.1
600	2.5	CAP6002X	2.1
600	3	CAP6003	2.1
600	4	CAP6004	2.1
600	5	CAP6005	2.1
600	7.5	CAP6007X	2.1
600	10	CAP6010	2.6
600	12.5	CAP6012X	3.2
600	15	CAP6015	3.5
600	16.67	CAP6016S	3.5
600	17.5	CAP6017X	3.5
600	20	CAP6020	5.0

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