Internally Fused Power Capacitors

ELGIN POWER SOLUTIONS

Application

Internally fused power capacitors are recommended for the following applications in electrical systems:

- Static VAR compensators.
- Power factor correction / elimination of penalties.
- Series and parallel compensation of reactive power.
- Mitigation of harmonic voltage and current distortions by means of passive harmonic filters.

The fuses act on every faulty internal element until the imbalance protection shuts the capacitor bank off.

One of the main advantages of this technology lies in the fact that a higher reactive power builds up inside a capacitor housing. This allows capacitor banks to be installed in smaller areas where the physical space is an important issue.

Fully Tested Equipment

Laboratory testing is conducted to perform routine, type, and special tests as outlined in international standards such as IEEE 18, IEC 60871, and IEC 60143.

Elgin's capacitors are produced in a cutting-edge facility in Brazil, which holds ISO 9001, ISO 14001, and ISO 45001 certifications.

With decades of experience, Elgin specializes in delivering products focused on power factor correction and power quality.

Design Features

All Elgin capacitors are manufactured as per the following technical specifications:

- "All-film" technology (dielectric with a polypropylene film) with an aluminum foil and a folded margin.
- Impregnation with WEMCOL II biodegradable oil, providing the best operation at different temperatures.
- Vitrified porcelain bushings as insulators, welded directly to the tank.
- Capacitance tolerance of 0% to +10%.
- Discharge resistor: 50V in 5 minutes.
  (Call us for other ratings and times.)
- Installation altitude up to 3,280 FT above sea level. (Call us for higher altitudes.)
- PCB-free equipment.
- Temperature Class from -40 °C to +50 °C.
  (Call us for other temperatures.)

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Specifications

All in all, four internally fused capacitor models are available:

1. Standard-Duty (SD)

Standard-Duty capacitors are developed to withstand system voltage fluctuations in industrial/commercial and transmission and distribution applications. They are designed to operate at 110% overvoltages in a contingency.

Ratings:

- 110% overvoltage on a continuous basis (12 every 24 hours of operation).
- Operating temperature from -40 °C to +55 °C. (Call us for other temperatures.)

2. Heavy-Duty (HD)

Heavy-Duty capacitors can operate at 110% overvoltages on a continuous basis.

Ratings:

- 110% overvoltage on a continuous basis (12 every 24 hours of operation).
- Operating temperature from -40 °C to +55 °C. (Call us for other temperatures.)

3. Extra Heavy-Duty (EHD)

Extra Heavy-Duty capacitors are designed to operate at 125% overvoltages on a continuous basis.

Ratings:

- 125% overvoltage on a continuous basis.
- Operating temperature from -40 °C to +55 °C. (Call us for other temperatures.)

4. Ultra Heavy-Duty (UHD)

Ultra Heavy-Duty capacitors are designed to withstand an overvoltage as high as 140% on a continuous basis. These are utilized in environments with an extreme harmonic influence.

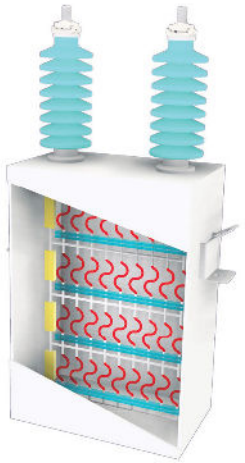
Ratings:

- 140% overvoltage on a continuous basis.
- Operating temperature from -40 °C to +55 °C. (Call us for other temperatures.)

Technical Information

POWER (kVAR)	VOLTAGE (V)	DIMENSIONS				
		A	B	C	D	E
400	3810 to 7200	33 7/8" (860mm)	27 9/16" (700mm)	15 15/16" (405mm)	6" (153mm)	7 7/8" (200mm)
	7201 to 9960	36 5/8" (930mm)	27 9/16" (700mm)	15 15/16" (405mm)	6" (153mm)	15 3/16" (385mm)
500	3810 to 7200	35 13/16" (910mm)	29 1/2" (750mm)	15 15/16" (405mm)	7 3/16" (182mm)	7 7/8" (200mm)
	7201 to 9960	38 9/16" (980mm)	29 1/2" (750mm)	15 15/16" (405mm)	7 3/16" (182mm)	15 3/16" (385mm)
600	3810 to 7200	36 5/8" (930mm)	30 5/16" (770mm)	15 15/16" (405mm)	8" (203mm)	7 7/8" (200mm)
	7201 to 9960	39 3/8" (1000mm)	30 5/16" (770mm)	15 15/16" (405mm)	8" (203mm)	15 3/16" (385mm)
700	3810 to 7200	40 9/16" (1030mm)	34 1/4" (870mm)	15 15/16" (405mm)	8" (203mm)	7 7/8" (200mm)
	7201 to 9960	43 5/16" (1100mm)	34 1/4" (870mm)	15 15/16" (405mm)	8" (203mm)	15 3/16" (385mm)
800	3810 to 7200	44 1/2" (1130mm)	38 3/16" (970mm)	15 15/16" (405mm)	8" (203mm)	7 7/8" (200mm)
	7201 to 9960	47 1/4" (1200mm)	38 3/16" (970mm)	15 15/16" (405mm)	8" (203mm)	15 3/16" (385mm)

Technical Drawing



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