

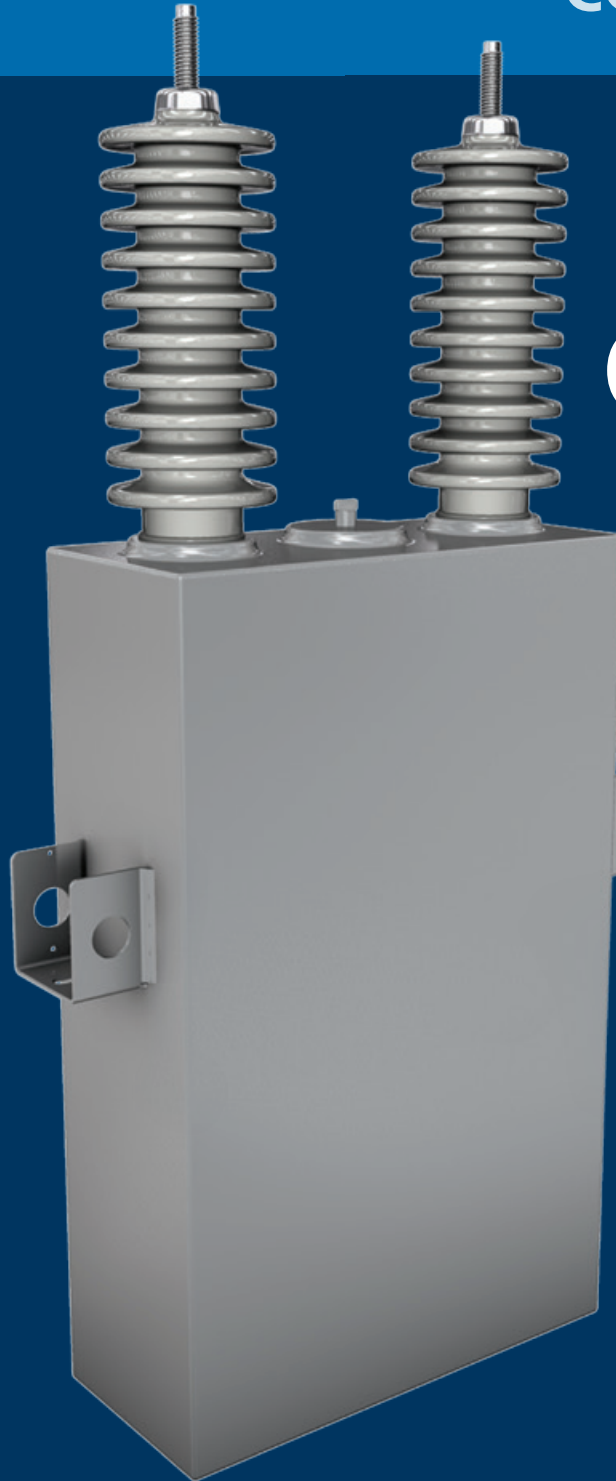
COOPER POWER
SERIES

Power Capacitors

It's what's on
the inside
that matters

When selecting a power capacitor, there are many considerations.

Quality components, a proven track record and reliable performance are essential. To learn more about Eaton's technological advances, explore the components inside and discover the Eaton difference.



EATON

Powering Business Worldwide

Anatomy of a capacitor

- 1 **Stainless steel tank** — Type 409 SS assures superior corrosion resistance, allowing for application in the harshest of environments
- 2 **Continuous lead wire** — Lead wire is routed through bushing and soldered to the terminal connection point. Eliminating transition points and material property changes
- 3 **Surface-altered film** — Permits a high stacking factor and reduces amount of fluid dielectric needed to impregnate Eaton's capacitor, resulting in unprecedented low loss level of 0.05 watt/kVAR
- 4 **Extended-foil construction** — Assures exceptionally uniform current distribution throughout packs, resulting in outstanding transient performance
- 5 **Internal separation** — Provides isolation of adjacent elements for parallel configurations to achieve the kVAR unit requirements within an efficient footprint
- 6 **Mechanical crimp connector** — Assures unequaled energy-handling characteristics. Eaton's SD and HD capacitors can be applied in high-fault current (up to 10 kA) installations without risking tank rupture, while XD capacitors can be applied in installations with up to 15 kA without risking tank rupture
- 7 **Laser cut foil** — Grants superior DIV characteristics, under all operating conditions. Allows for reduced size, lower fluid content and lighter weight designs

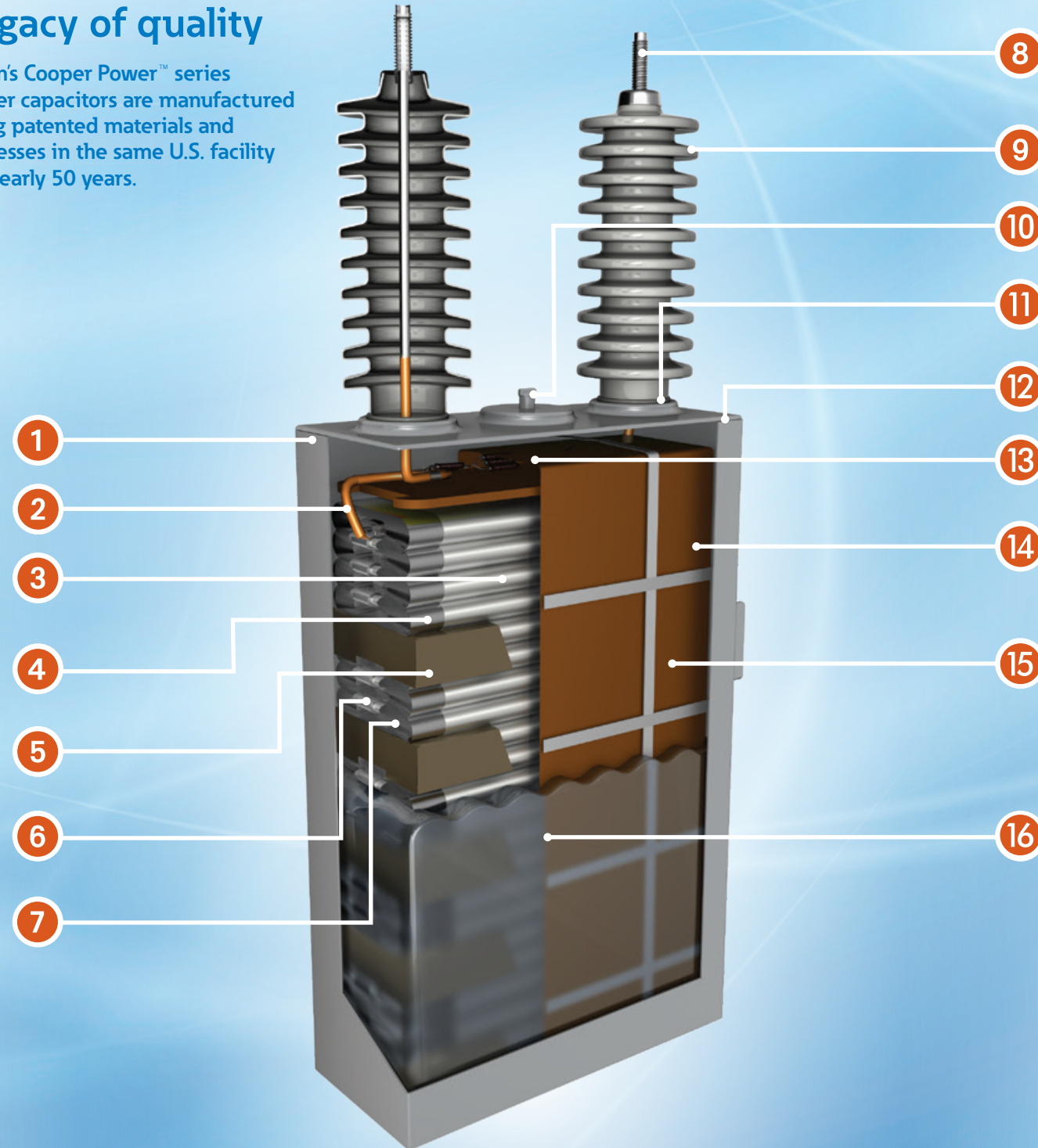
Designed, manufactured and tested to meet or exceed the requirements of ANSI, IEEE and IEC standards, Eaton power capacitors provide low cost per kVAR and a reliable source of reactive power.

Standards

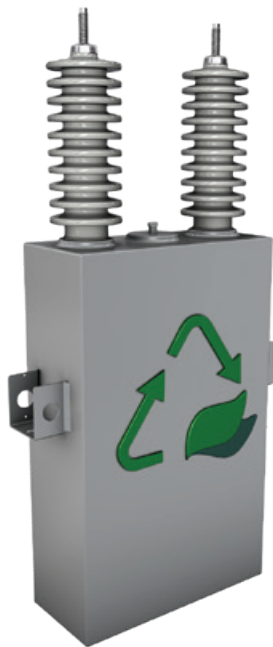
IEEE	Std 18-2002 (Standard-duty ratings) Std 18-2012 (Heavy-duty ratings) Std 18-2012 (Extreme-duty ratings)
IEC	60871-1
CSA	CAN/CSA-C871-1

Legacy of quality

Eaton's Cooper Power™ series power capacitors are manufactured using patented materials and processes in the same U.S. facility for nearly 50 years.



- 8 **Terminal cap** — Nickel plated for improved aging performance, directly soldered to continuous lead wire
- 9 **Porcelain bushing** — Field-proven, industry-standard, wet-process porcelain bushings meet all application BIL and creepage requirements
- 10 **Impregnation fill tube** — Full-annealed-copper tube is cold-welded and soldered to protect Edisol™ dielectric fluid from contamination, allowing for individual closed-loop impregnation system which assures superior process control and positive pressure impregnation for outstanding cold-temperature performance
- 11 **CapSeal™ bushing bonding** — Innovative design utilizing molecularly bonded bushing at terminal caps and tank cover assure leak-free hermetic seal without the need for a gasket by means of an adhesive bonding improving durability and process control
- 12 **TIG seam weld** — Tank seams between housing and cover/bottom plates are TIG-welded with stainless-steel fillet wire assuring structural integrity and corrosion performance
- 13 **Discharge resistors** — Lathe-trimmed, thick film resistive elements on high-durability ceramic cores assure long mechanical and electrical life. Used to safely dissipate stored energy prior to maintenance actions
- 14 **Major insulation** — Entire pack construction is wrapped in multiple layers of kraft paper providing isolation between the internal electrical connections and the enclosure, allowing the unit to withstand higher impulse levels and terminal to case AC overvoltages without failure
- 15 **Composite banding** — Pack is banded to ensure compressed assembly, allowing for reducing air voids and allowing for compact construction
- 16 **Edisol VI fluid dielectric** — PCB free, environmentally friendly dielectric fluid that results in reduced losses and enhanced DIV characteristics across entire temperature range. Improved performance under DC voltage stress. *Note that liquid fills the inside of the unit. The capacitor graphic has been altered to show the internal components*



Power capacitor recycling program

Eaton has expanded our sustainability focus to include end-of-life management for product equipment. With the power capacitor recycling program, customers may recycle any capacitor regardless of age, condition or even manufacturer.



Learn more

Learn more at
[Eaton.com/capacitors](https://www.eaton.com/capacitors)

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