saving energy losses everywhere.....





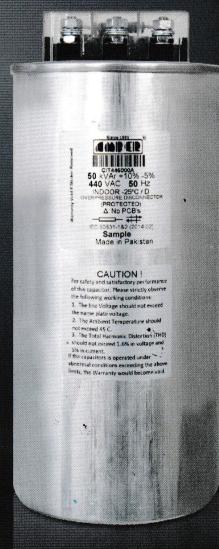


**AMBER CAPACITORS LIMITED** is an ISO 9001:2015 certified company. The Company was established in 1991 by Chairman Engr. **Ata-ur-Rehman Arain** (Late), and continues to grow under the able guidance of Chief Executive Engr. **Farhan Ata Arain**.

**AMBER** specializes in manufacturing low voltage capacitors of many types, including Three and Single phase capacitors for industrial Power-Factor Correction.

What sets **AMBER** apart from competition is the fact that **AMBER** capacitors are especially designed and tested to suite the local conditions. Right from selection of Raw Materials, up till Testing and R&D, special focus is towards quality and performance in Pakistani environment. This strict quality control is backed by a rock-solid performance warranty for better satisfaction and assurance of the customer.





www.ambercaps.com



ISO 9001:2015 CERTIFIED COMPANY

#### **DESIGN / CONSTRUCTION:**

AMBER series 'CI' Low Voltage Power Capacitors in "Impregnated & Protected" design are manufactured out of Low Loss Self-Healing Metallised Polypropylene Film, and impregnated in non-PCB oil of low viscosity. The capacitors incorporate internal pressure disconnection system which fully protects the capacitors against bursting in case of fault.

#### **DISCHARGE RESISTORS:**

Fitted to reduce the voltage to a level below 75V within 3 minutes of switch-off.

#### TERMINATION:

Single phase (2- way), and three phase (3-way) Terminal Block.

#### HOUSING:

Cylindrical Aluminum Can with mounting stud, and steel cover.

#### SPECIFICATIONS:

IEC 60831(2014-02) Parts 1 & 2 "Shunt Power Capacitors of the self-healing type for AC Systems having a rated voltage up to and including 1000 V".

#### TEMPERATURE CATEGORY: -25°C / D

Minimum ambient air temperature:	-25°C
Maximum ambient air temperature during a year:	+55°C
Highest mean over any period of 24 hours:	$+45^{\circ}C$
Highest mean over any period of 1 year:	+35°C

#### **APPLICATIONS:**

Indoor. The capacitors are specially suited for environments having consistently high ambient temperatures and high harmonic level.

RATED VOLTAGES: 230, 240, 400, 415, 440, 460, 480V AC

RATED FREQUENCIES: 50 Hz (60 Hz available on demand)

**CONNECTIONS:** For three phase capacitors: Delta

LOSSES: Less than 0.5 W / kVAr.

CONTINUOUS OVERVOLTAGE: 1.1 U, (except transients)

CONTINUOUS OVERCURRENT: 1.3 I, (except transients)

#### TEST VOLTAGE:

Between terminals: 2.15 U<sub>n</sub> AC for 2 seconds Terminals to case: 3 kV AC for 10 seconds

#### TOLERANCE: - 5% / +10%

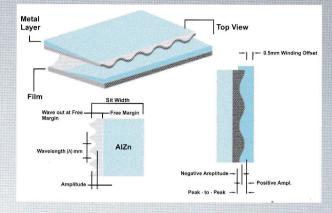
PROTECTION: Over-pressure disconnection. (Connections to be made only with flexible strips or flexible cables, a clearance of at least 15 mm is required above the capacitor.)

**INSTALLATION:** Vertical, Indoor

kVAr RANGE: 12.5kVAr, 25.0kVAr, 50.0kVAr (Custom designs are welcome)

# **CI Series** (Heavy Duty Type)

### HEAVY DUTY SPECIAL FEATURE



Inside the capacitor the mechanical contact between the end-spraying layer and the metallized film is an extremely important factor for a good dissipation factor and a high pulse capability. A contact edge in wave-cut form in combination with an optimised winding off-set can significantly improve the contact of the end-spraying layer.



Thin polypropylene films wound with a high tension are particularly prone to mechanical stress at the margin side. Damage can then easily occur on the adjacent metal layer. A wave-cut at the free margin edge spreads these stresses and reduces the risk at high operating temperatures or high currents.

This also reduces the current density, and associated thermal stress, thereby increasing the current capacity of end surface for the same area. Reliability of the capacitor goes up by way of reduced failures on this count. The wave cut distributes film tension layers more evenly, and causes less mechanical stress and heat treatment during capacitor manufacture.

## AMBER CAPACITORS LIMITED

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