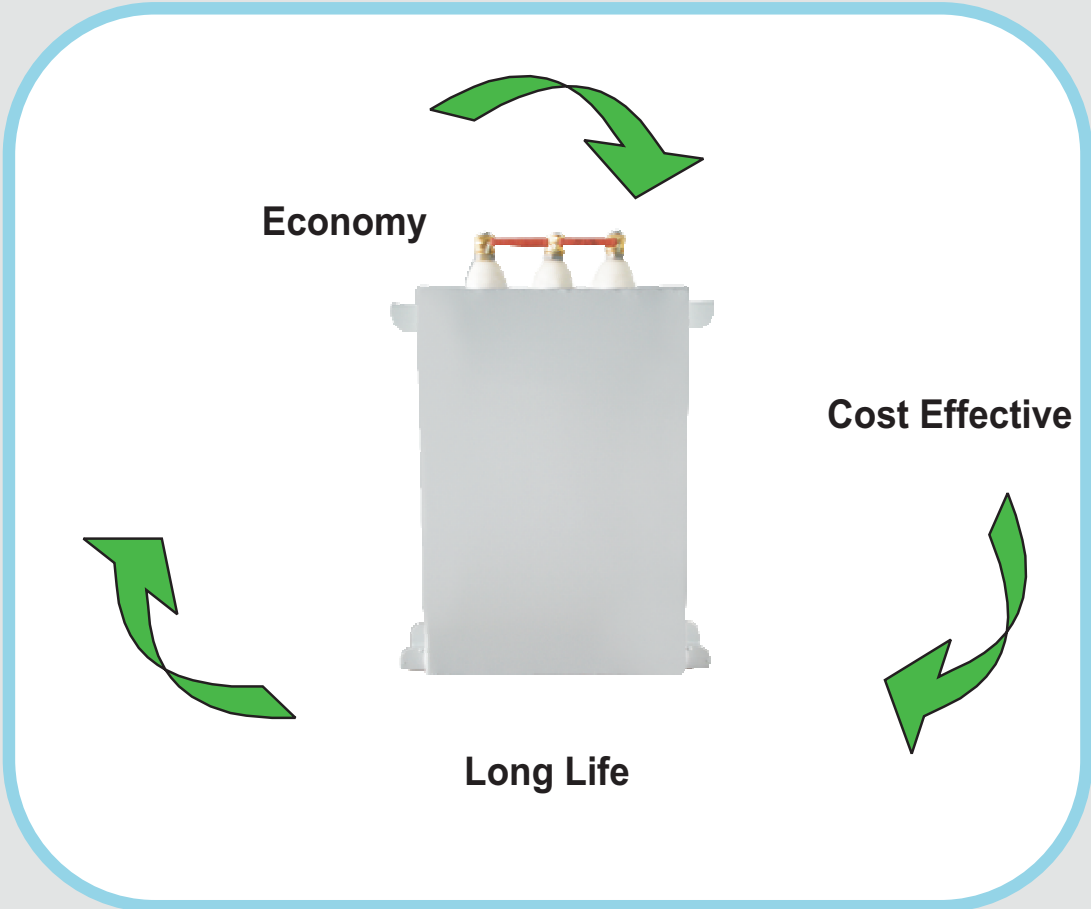


Ultra Heavy Duty



LOW VOLTAGE CAPACITOR
APP Technology



General

The energy metering devices record active and reactive energy consumption. The electricity suppliers generally show the term $\tan \theta$ or $\cos \theta$ on their bill. Unlike the $\cos \theta$, it is easy to see that the value of $\tan \theta$ should be as small as possible in order to have the least reactive energy consumption.

A good power factor is $\cos \theta$ high (close to 1) or $\tan \theta$ low (close to 0).

Reactive power compensation gives you the following benefits:

- Savings on electrical equipment, a decrease of the power demand.
- An increase in available power of the supply transformer.
- Lower voltage drops and Watt losses in cables.
- Savings on electricity bills by eliminating reactive energy consumption.
- The reduction of subscribed power KVA (if available)

To compensate for reactive power, it is necessary to provide reactive power by installing compensation equipments instead of taking it from the main distribution.

If the value of reactive power to compensate it is small compared to the total apparent power of all the loads ($Q_c/St < 15\%$), we can choose fixed type compensation equipment. If this value is higher ($Q_c/St > 15\%$), it is advisable to choose an automatic compensation equipment.

Application

These capacitors are suitable for Three phase power Factor correction where there is Dynamic fluctuation of the load and system Voltage variation is around 20%

Feature

- Manufactured by using imported hazy BOPP film as main dielectric.
- High purity (>99%) Aluminium Foil used as Electrode for high current inrush.
- Basic elements are vacuum impregnated with NPCB PXE oil
- Internal fuse to each element is possible for better safety.
- Robust & Highly reliable capacitor performance.
- Guaranteed output for a longer period i.e. 10-15 years.



Technical data

Range	5 - 50 kVar
Type	APP type - - Ultra Heavy Duty
Standards	IS 13585-1994, IEC 60931-2002
Rated Frequency	50 Hz, 60 Hz
Rated Voltage	415 / 440 V
Over Voltage	+10% (12h/24h), +15% (30m/25h) +20% (5m/24h), +30% (1m/25h)
Over Current	Upto 3 x IN
Peak inrush current	Upto 500 x IN
Operating Losses (Dielectric)	< 0.2 W / kVAR
Operating Losses (Total)	< 0.35 W / kVAR
Tolerance on capacitance	0 / +10% as per IS
Degree of protection	IP52 with terminal cap
Ambient Temperature	-25° to 70°C
Cooling	Natural or forced air cooling
Safety Features	Internal Fuse
Impregnation	Non PCB, Biodegradable Oil
Casing	Steel Sheet
Terminals	Porcelain Bushing
Discharge Resistors / Time	Discharge Resistors fitted, Standard discharge time 60 seconds, Other discharge times on request



Capacitor Unit

KVAr : 5 to 50 KVAr
Un : 415 / 440 V, 3 Phase, 50 Hz
Protection : Internal fuse
Other Voltage : 480, 525, 690, 850, 1000
available on request



Capacitor Bank

KVAr : 50 to 500 KVAr
Un : 415 / 440 V, 3 Phase, 50 Hz
Protection : Internal fuse / HRC fuse



Automatic Bank (APFC)

KVAr : 100 to 1000 KVAr
Un : 440 V, 3 Phase, 50 Hz
Protection : Switch / Fuses/
MCCB/Relay/ACB etc.,
Harmonic Filter Bank available
on request.

Today Energe capacitors focuses primarily on electrical power quality and provides turnkey solutions to industrial, commercial and utilities. Our power quality systems have saved our clients an average of approximately 15% of their total electric usage costs, with guarantees of a minimum of 7.5% savings. In addition to these energy savings, our clients have experienced improved production reliability, reduced maintenance on electrical equipment and protection against harmful electrical disturbances such as voltage surges and transients.



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