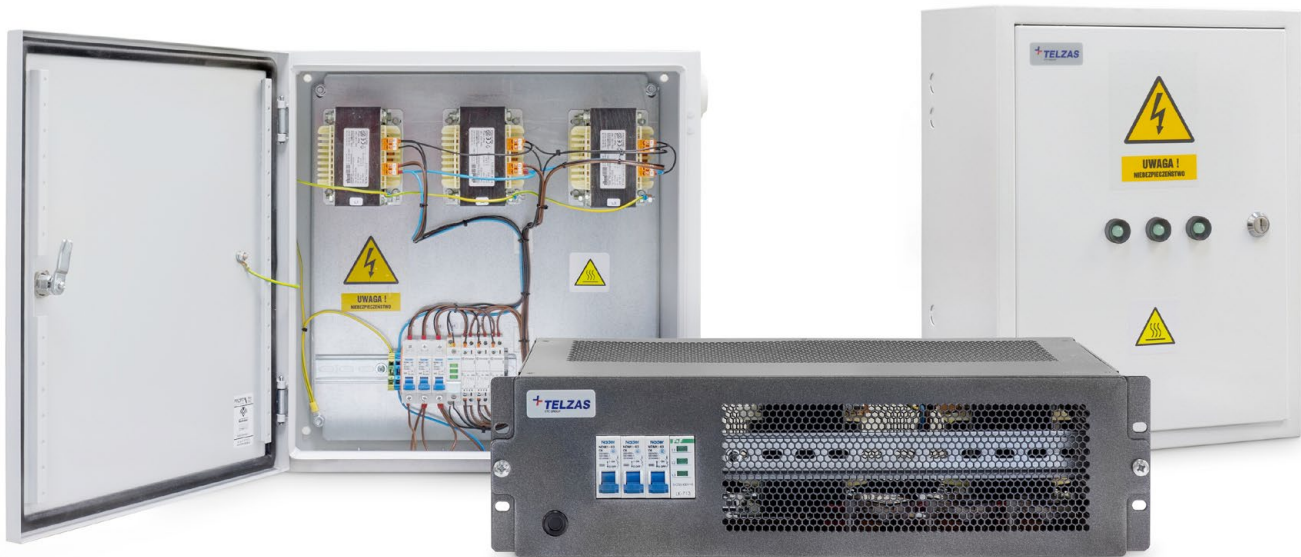


Reactive power compensator

Inductive and capacitive reactive power compensation



KMB (Reactive Power Compensator) is a series of devices for compensating reactive inductive or capacitive power in power supply and distribution systems.

GENERAL DESCRIPTION

The principle of operation is to connect a three-phase compensation choke of appropriate value in parallel to the mains of the site.

On the basis of measurements taken at the site and determination of the amount of reactive power to be compensated, a suitable choke is selected. There is also a solution with a regulator that allows automatic change of the value of the reactive power of the choke.

Depending on the type of choke used, the degree of compensation can range from 0.15 to 10kVar (up to 2.4kVar for 19" 3U housing).

APPLICATION

- telecommunications
- ICT
- industry
- energetics

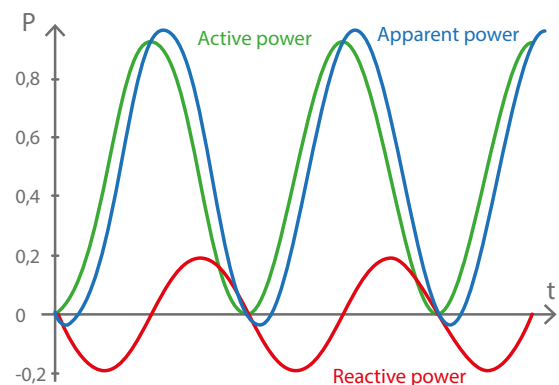
REACTIVE POWER

Moc bierna w obwodach prądu zmiennego jest wielkością opisującą pulsowanie energii elektrycznej między elementami obwodu.

This oscillating energy is not converted into useful work or heat, nevertheless it is necessary for the operation of some electrical equipment (e.g. transformers, engines). The energy is taken from the source during part of the period of the alternating waveform, stored by the receiver (in the form of electric or magnetic field energy) and returned to the source during another part of the period, when the electric or magnetic field in the receiver disappears.

There are the following types of reactive power:

- inductive reactive power
- capacitive reactive power.



BENEFITS

- ✓ Reduction of costs associated with feeding capacitive or inductive reactive energy into the electricity system
- ✓ Reduction of the charge for capacitive or inductive reactive energy previously billed by the electricity supplier.

AUTOMATIC COSINE φ ADJUSTMENT

Capacitive reactive power compensators can be equipped with an automatic $\cos \varphi$ control system. The electronic power factor controller automatically adjusts the power of attached reactors to the needs of the network (to obtain a constant value of $\cos \varphi$).

The operation consists in connecting or disconnecting chokes of a certain power rating. The power factor controller compares the current value of the power factor $\cos \varphi$ with the set value and, depending on the need, controls the number of attached stages.

TYPES OF COMPENSATORS AND ENCLOSURES

Depending on the type of power to be compensated and the type of application: indoor / outdoor, power compensators can be supplied in the following types of enclosures.

