



Automatic Power Factor Controller



Reactive and active power are calculated from voltage and current. The actual $\cos \theta$ is constantly compared to the target $\cos \theta$ and the difference between these two values serves as a basis to determine the compensating reactive power required. Capacitors in any size can be used in the automatic mode of operation. No pre-selected switching programme is required, because the controller will always select the optimum switch sequence. When switching capacitors, the reactive KVAR output of each step is determined and stored. This enables permanent supervision of the reactive power output of each individual capacitor step. In this way the number of switching operations is considerably reduced. Due to the permanent supervision of capacitor stages, Fischer PF Relays do not require a fixed switching sequence when energizing capacitor steps for compensation. Relays are preset at the factory for immediate service following installation. However, the customer can also select his own switching parameters such as switching time per step

- 4 quadrant measurement of reactive and constant supervision of inductive / capacitive load measurement and supervision of step kvar output during switching process.
- Adjustment of target $\cos \theta$ in the range 0.70 (lag)-2-0.90 (lead) Adjustable switching time.
- Manual switching may be selected
- No-volt release with mains interruption greater than 35ms
- 90 sec s lockout time following mains failure and subsequent power restoration
- Optical indication of each individual stage.
Failure alarm if target $\cos \theta$ is not achieved (after fulfillment of 75 switching cycles)
- Failure alarm if relay detects there is a risk of overloading capacitors due to excessive harmonic current.

- System $\cos \theta$ indication : 7 segment multifunction LED display
- Fully automatic control
- Measuring voltage - 400V, 50 / 60 HZ
- Automatic matching capacitors
- Adjustable values of target $\cos \theta$... π 0,7-1-c0,9
- Disconnection in case of power failure (35ms)
- Disconnection in case of loss of current input (1=0 10min)
- Visual alarm of low power factor



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