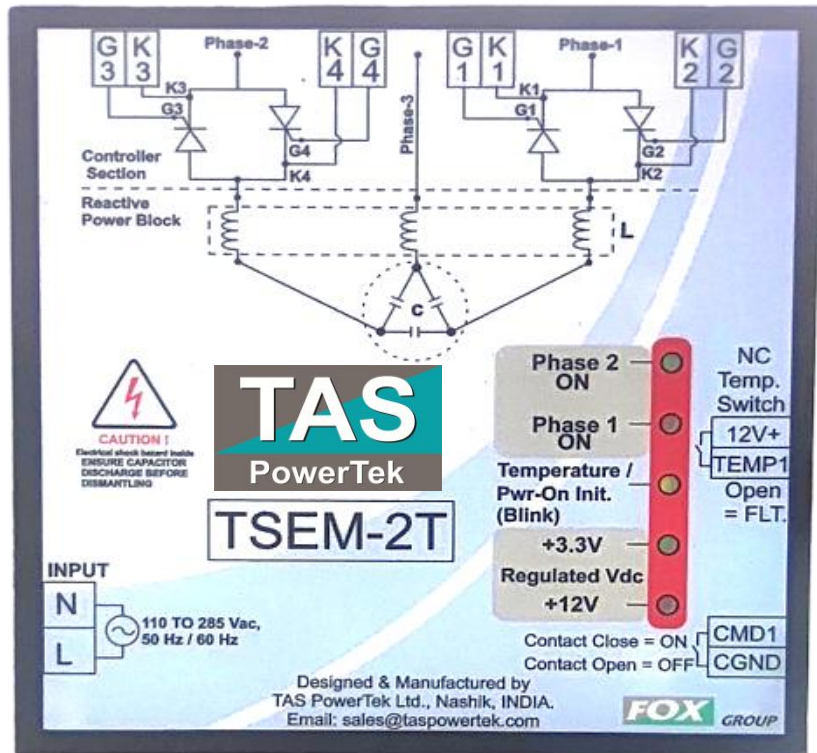




Product Data Sheet

TSEM – 2T

Capacitor Switch Thyristor Driver Module



TSEM – 2T - Capacitor switch Thyristor Driver Module is primarily designed for Real time power factor correction and reactive power consumption. This module used thyristors to switch capacitors in and out of a circuit, adjusting the reactive power in the system to maintain a good power factor. By rapidly switching capacitors, these modules can compensate for the reactive power demand of fluctuating loads, ensuring a power factor close to unity.

PRODUCT FEATURES

➤ **Power within built SMPS**

Means that the system includes a power supply unit that uses Switched Mode Power Supply technology. This type of switching techniques used to regulate voltage and current, making it more efficient than traditional linear power supplies, this often implies that the device might have a power factor lower than 1 due to the non-linear nature of SMPS current draw.

➤ **Active Firing through Pulse transformers**

Active firing through pulse transformers helps improve the power factor of a load by enabling control of the current drawn from the source. This is crucial because it ensures that the current precise aligns with the voltage waveform, reducing reactive power and improving overall power efficiency.

➤ **Microprocessor Based**

Enabling rapid and efficient switching of capacitor banks to maintain a desired power factor. This module utilizes microcontrollers and thyristors (or TRIACs) to control the switching of capacitors, offering advantages over traditional electromechanical contactors.

➤ **Minimizing off state thyristor voltage logic**

Improve efficiency and reliability by reducing voltage spikes and switching losses during the off-state of thyristors. Minimizing voltage spikes and switching losses improves the overall reliability and lifespan of the PFC system.

TECHNICAL SPECIFICATIONS

- Suitable for supply system up to 500V/3W/50-60Hz
- Control command DC +12V / +24V (with ext res)
- Useful with Thyristors with
 - Average Current - 15Amp to 390Amp
 - PIV – 1600 to 2400Vpk
- Supply Over/Under Voltage cut-off.