

Automatic Power Factor Controller



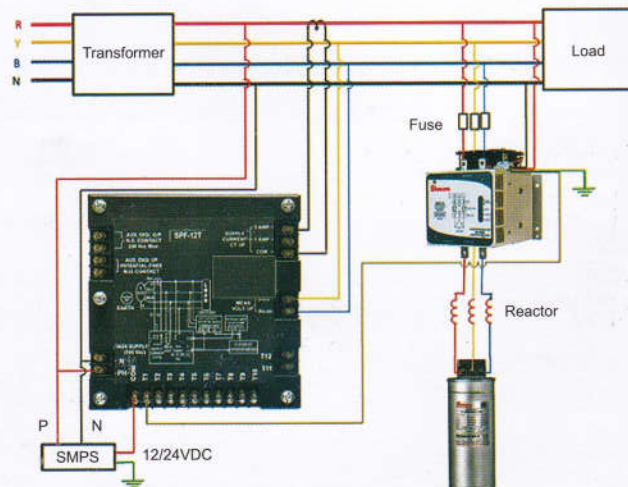
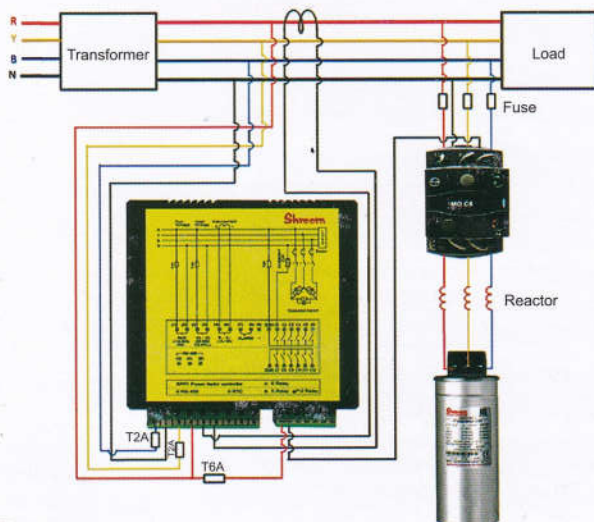
SPFi Series



SPF Series

Description	SPFi - 04 / 06 / 08 / 12
AUXILIARY SUPPLY	110-550VAC, 42-70Hz.
MEASUREMENT SUPPLY	30-550VAC, 42-70Hz.
RELAY	250V, 1000W.
CURRENT INPUT	1A/5A, Single CT
CURRENT MEASUREMENT	10mA-5A.
DISPLAY	16 x 2 Line Graphical LCD Display.
OPERATING TEMP.	-10 to 60°C.
WEIGHT	0.5kg.
MECH. DIMENSION	For 4 stage - 96x96x56mm. For 6/8/12 stage - 144x144x56mm.
PROTECTION CLASS	Front side IP-54, Back side IP-20.
P.F. CORRECTION TIME	10-1800 Sec.
DISCHARGE TIME	60-1800 Sec.
FEATURES	Auto initialization to detect no. of cap. connected kVAR values (for balanced load condition), phase correction angle.
	Cap. kVAR can be programmed either as direct kVAR value, Control series or auto detected value.
	Voltage & current inputs are configurable & adopt system network itself according to configuration.
	Demand parameter, Recall function of recorded values. Storage max. & min. line parameters.
PROTECTION/ALARM	Over/Under voltage, O/U current, Over temp., O/U freq., O/U compensation, Over capacitor switching utilization count.
DISPLAY PARAMETER	Line voltage, Current, Reactive /Active/App. power, Temp., THD-V/I- individual harmonics in %, Difference to PF, Energy kWh, kVAh (Import/Export), kVAh, Run hour, On hour, No. of interruptions, System fault 1/2, System warning.
STD. COMPATIBILITY	Safety std. IEC 61010-1, EMC std. IEC 61326
COMMUNICATION PORT	RS - 485 (Optional).

Description	SPF - 08T / 12T
AUXILIARY SUPPLY	90-240VAC, 47-53Hz.
MEASUREMENT SUPPLY	Ph-Ph 415VAC (+20% to -40% Voltage tolerance).
RELAY	TTL O/P 20mA. max. capacity. Using external supply 12/24VDC.
CURRENT INPUT	1A/5A, Single CT.
CURRENT MEASUREMENT	Accuracy class - 2.
DISPLAY	16x2 Line LCD Display.
OPERATING TEMP.	10 to 55°C.
WEIGHT	1 kg.
MECH. DIMENSION	144x144x62mm.
PROTECTION CLASS	Front side IP-54, Back side IP-10.
P.F. CORRECTION TIME	1-250 Cycle.
DISCHARGE TIME	1-60 Sec.
FEATURES	High speed switching transistor output of SPF to control high speed thyristor switches.
	One Aux. Input & Output.
PROTECTION/ALARM	THD & Individual odd harmonics for voltage & current up to 15th order.
	Over/Under voltage, O/U current, Over temp., O/U freq., O/U compensation, Voltage THD-F %, Load current THD-F %.
DISPLAY PARAMETER	Line voltage, Current, Reactive /Active/App. power, Frequency, Temperature., THD-V/I- individual harmonics in % for V & I, Each step kVAR., Bank status & Control status.
STD. COMPATIBILITY	Safety std. IEC 61010-1, EMC std. IEC 61000-4.
COMMUNICATION PORT	N.A.



Automatic Power Factor Controller



SPFi-L Series

Description	SPFi-L - 04 / 06 / 08
AUXILIARY SUPPLY	80-300VAC, 50Hz.
MEASUREMENT SUPPLY	80-300VAC, 240VAC nominal.
RELAY	Max. 250VAC/1000W.
CURRENT INPUT	1A/5A, Single CT.
CURRENT MEASUREMENT	10mA-5A.
DISPLAY	3 digit, 7- Segment LED Display.
OPERATING TEMP.	0 to 55°C.
WEIGHT	0.25kg.
MECH. DIMENSION	4 Stage - 96x96x35mm, 6/8 Stage - 96x96x61mm.
PROTECTION CLASS	Front side IP-54, Back side IP-20.
P.F. CORRECTION TIME	5-999 Sec.
DISCHARGE TIME	10-999 Sec.
FEATURES	Min. user intervention by auto CT polarity correction, Auto bank value detection, Connected bank count.
	Self optimized intelligent control mode.
	Auto no. of detection of Cap. bank & blocking of non connected bank.
	Intelligent bank algorithm for optimum bank switching.
PROTECTION/ALARM	Over/Under voltage, Under current, Capacitor protection, Over/Under Compensation.
DISPLAY PARAMETER	Power Factor.
STD. COMPATIBILITY	Safety std. IEC 61010-1, EMC std. IEC 61326.
COMMUNICATION PORT	N.A.



SPF3-XXM-XXMT Series

Description	SPF3 - 08MT/16MT, SPF3 - 08M/16M
AUXILIARY SUPPLY	100-500VAC, 47-53Hz.
MEASUREMENT SUPPLY	Ph-N 60-300VAC (3Ph, 4-Wire).
RELAY	SPF3-XXMT : TTL O/P 20mA, max. capacity. Using external supply. 12/24VDC. SPF3-XXM : "NO" contacts with 0.5A/250VAC capacity.
CURRENT INPUT	1A/5A, Three CT.
CURRENT MEASUREMENT	1.5 % of I _n .
DISPLAY	16 x 2 Line Graphical LCD Display.
OPERATING TEMP.	0 to 55°C.
WEIGHT	0.940kg.
MECH. DIMENSION	146x146x107mm.
PROTECTION CLASS	Front side IP-54, Back side IP-10.
P.F. CORRECTION TIME	SPF3-XXMT : 1-240 Cycle, SPF3-XXM : 1-240 Sec.
DISCHARGE TIME	SPF3-XXMT : 1-300 Sec, SPF3-XXM : 0-300 Sec.
FEATURES	External removable fast blow fuse protection for cap. bank O/P & Aux. Supply.
	Real time clock (RTC), Dual target power factor setting.
	Data log-in for interval, faults & event records in internal memory.
PROTECTION/ALARM	Over/Under voltage, O/U current, Over temp., O/U freq., Under compensation, Voltage/Current THD %.
DISPLAY PARAMETER	Overall, Max./min. & individual phase values for voltage, Current, Reactive /Active/App. power, Active/Reactive energy, THD in % for voltage & current, Neutral current, Step kVAr.
	Last 2 characters of display shows various status & faults of Cap. bank like OV, ZV, OK, VH etc.
STD. COMPATIBILITY	Safety std. IEC 61010-1, EMC std. IEC 61000-4.
COMMUNICATION PORT	RS-232 Serial port, RS-485 MODBUS.

