

Auto PF Controller

Certificates 



Model No.

KCP - 
① ②

① Display type and number of circuits

06 LED 6 Circuit

12 LED 12 Circuit

SM LCD 6 Circuit

② Communication

C RS-485

N/A None

Overview

Measuring the electrical data and control the external capacitor(condenser) in order to compensate Power factor (Balanced type)

Recommendation

Please be advised that 1st relay to be used for PF compensation of low load PT.

And the last relay to be used for spare to compensate PF.

Characteristics

- Automatic phase finding function
- Easy setting and easy operation with dip switch
- Setting active power / reactive power for potential transformer, and control the PF in night time.
- Setting low load condition and restrain the relay operation.
- Over / under voltage, target PF with Day/night setting, Setting condenser capacity. (KCP-SM)
- Monitoring PF trend, and condenser input time (For KCP-SM)

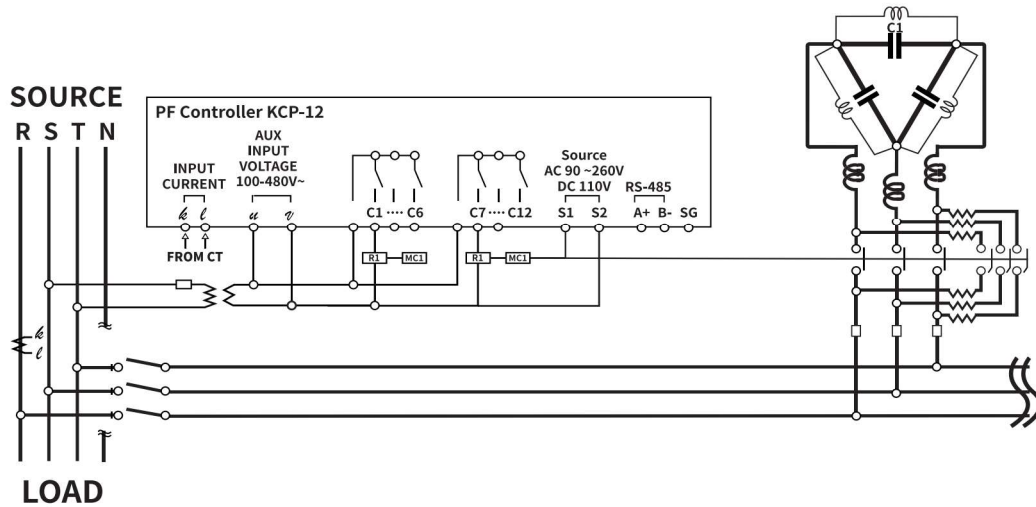
Specification

	KCP-06	KCP-12	KCP-SM
Output	Number of circuits : 6 point (1Common)	Number of circuits : 12 point (2Common)	Number of circuits : 6 point (1Common)
Setting	- PT Ratio - 500(Direct connection), 380/110, 380√3/190√3, 440/110, 3300/110, 6600/110, 22900/110, 22900√3/190√3 - CT Ratio - 5/5 ~ 6000/5A - Target power factor - LAG (+) 80~100 - Control method - 1 (sequential)/2(Circulation) - Low power range - 0 ~ 999(kW/MW) - Input / delay time - 5~1800 second		- Basic setting - voltage / current ratio, daytime target, nighttime target, voltage range, delay time, clock setting, communication address - Control method - sequential, circulation, intelligent - OFFSET - Active power OFFSET Reactive power OFFSET - Wiring correction - Automatic, Manual
Display	Power factor, voltage, current, active power, reactive power		Power factor, voltage, current, active power, reactive power Power factor trend, condenser input time
Common	- Aux. power - AC 90~260V(50/60Hz), DC 110V - Operating temperature / humidity - 10~50°C/20~85% - Insulation resistance - More than 10MΩ - Withstand voltage - AC 2kV / 1min - Contact capacity - Relay AC 250V, 2A / DC 30V, 2A - Communication Interface ▶ RS - 485 Multi-Drop 2Wire Protocol ▶ Modbus RTU		
	- Surge impulse - Voltage(1.2μs/ 50μs, 5kV), current(8μs,20μs) - Burst - Level 4(IEC 61000 -4-4) - Input - Voltage ▶ line voltage(S-T), AC 500V Current ▶ Current R phase current input, AC 5A - Communication data - Refer to page 116 Transmission rate ▶ 9600bps		

Input

Range	Voltage	S-T line AC 50~ 500V	Accuracy	Voltage	± (0.3% of rdg + 0.2% of FS)
	Current	R phase AC 0.05~ 6.0A		Current	± (1.0% of rdg + 0.2% of FS)
				Power Factor	± (3.0% of rdg + 1.0°)

Connection diagram

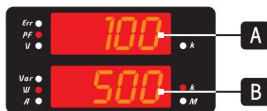


Drawing

Refer to page 80 Type D

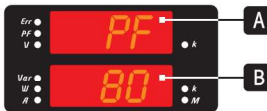
KCP-06/12 Display

KCP-06/12 Normal Display



- A power factor 100% is displayed on the A window, and power 500 kW is displayed on the B window.
- You can switch the measured value by pressing the button.

KCP-06/12 Setting Display



- PF is displayed on the A window and the setting value is displayed on in the B window.
- You can change setting value by pressing the button.
- Within the range of 80 to 100, it is controlled by the set power factor target value.

KCP-SM Setting Display

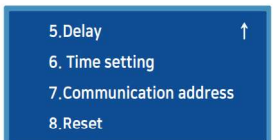
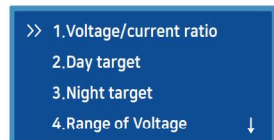
KCP-SM Normal Display



Press "▲", "▼" button to select the modes.

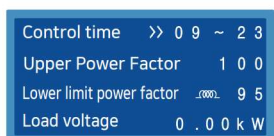
Symbol of lag - and lead " "

KCP-SM Setting Display



Setting item selection (▲ / ▼) → Start (ENT) → Change (▲ / ▼) → Save (ENT) → End setting & previous menu (SET)

KCP-SM PF setting display



- ① Press ▲ / ▼ button, and ">>" will be located at setting item.
- ② Press ENT button to change setting with ▲ and ▼ button.
- ③ Change remaining items, and press ENT button to finish.