KINGSINE PMC180 Three Phase Digital Power Meter

- Complete power parameter measurement, energy measurement, 31 order voltage / current harmonic analysis.
- Threshold Crossing Alert for power parameter, online monitoring, relay relevance alarm output.
- Support 2 channel DI/DO, can configure transducer output.
- Support MODBUS-RTU, RS485 communication.

Overview

PMC180 series three phase digital power meter adopts customized, modularized, high brightness LED display, very beautiful and grand; use low-power microprocessor as core, to achieve all-electric parameter measurement and energy metering. Can optional configure various binary, relay, analog output interface to achieve user's various needs; integrates RS-485 communication ports, can easily fulfill the integration of various intelligent distribution System. The product function is practical, easy to use and maintenance. Can be used in on-site equipment monitoring and control , provide measure support for electric application experts, provide data basis for SCADA and Smart Grid, provide decision-making basis for effective intelligent energy management.

Function Features

Function Features	PMC180Z	PMC180C	PMC180P	PMC180U	PMC180I
Instantaneous real virtual value					
current single phase & neutral line	◆		◆		◆
voltage	◆		◆	◆	

Line/line & Phase/Line					
frequency	◆				
active power Three phase & single phase	◆		◆		
reactive power Three phase & single phase	◆				
power factor Three phase & single phase	◆	◆			
Energy					
active energy	◆				
reactive energy	◆				
Power Quality					
Harmonic distortion current & voltage	◆				
31 order harmonic analysis voltage & current	◆				
Communication					
RS485 /MODBUS protocol	◆	◆	◆	◆	◆
Display					
LED display	◆	◆	◆	◆	◆
other					
2 channel DI	◆	◆	◆	◆	◆
*2 channel DO	◆	◆	◆	◆	◆
*1 channel AO:4-20Ma	◆	◆	◆	◆	◆
2 channel limits alarm	◆	◆	◆	◆	◆
support program online upgrade	◆	◆	◆	◆	◆

Technical parameter

Electrical Characteristics		
Measurement Type		Three-phase three-wire AC system Three-phase four-wire AC system
		Sampling rate: 64 times per cysle
Data refresh rate		1S
Measurement Accuracy	Current	0.2%
	Voltage	0.2%
	Power	0.5%

	Frequency	0.05Hz
	Active Energy	1.0%
	Reactive Energy	2.0%
	AO	1%
Input voltage characteristics	Measuring voltage	3 X 220/380V(connected directly)
		3 X 57.7/100V(connected by CT)
	Allowed overload	1.2 times / continuous
	Input impedance	1.8MΩ
Input current characteristic	Measuring current	5A or 1A (connected by CT)
	Allowed overload	1.2 times / continuous
	Input impedance	<0.1Ω
Binary INPUT	Working voltage	12~24 VDC (external power supply)
	Input impedance	12KΩ
	Isolation voltage	2KV
Relay output	Node Type	Mechanical shock
	Node capacity	220 VAC/5A, 30 VDC/5A
4-20mA DC Output	Open circuit voltage	5VDC
	overload capacity	≤200Ω
	Isolation voltage	2KV
Working power supply	AC	85~265 VAC/45-65Hz
	DC	100~300 VDC
	Power dissipation	< 3W
Mechanical properties		
Weight		0.5kg
IP protection grade		panel IP52, body IP30
Size		96 X 96 X 72 mm
Operating temperature		-25~70℃
Storage Temperature		-40~85℃
Relative Humidity		5% - 90%RH, No condensation
EMC		
Electrostatic discharge interference		IEC 61000-4-2, Level 4
Group of anti-fast transient pulse		IEC 61000-4-4, Level 4
Anti-impact		IEC 61000-4-5, Level 3
Anti-frequency magnetic field		IEC 61000-4-8, Level 3

Electrical insulation performance	
Insulation resistance	GB/T13729, >50MΩ
Frequency withstand voltage	GB/T13729, AC 2KV 50Hz /1min
Impulse voltage	GB/T13729, 5KV, 1.2/50us