

PMA82 Three phase power analyser user manual

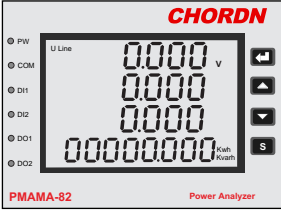
Product description

Three phase power analyser with key-in setting is especially applicable to variables display and parameter measurement the primary loop and the secondary loop. Standard DIN rail mounting. Panel protection level IP40. Two digital inputs, two relay outputs or under and overcurrent, voltage alarm output.

Application

Multi-function smart meter is mainly used in three-phase four wire power system, can measure voltage, current, frequency, power factor, active power, reactive power, apparent power, electric energy and so on. It forms a large and medium-sized data acquisition system with upper computer by communicating with the upper computer through RS485 communication interface. High precision timely measurement, high reliability, good protection performance.

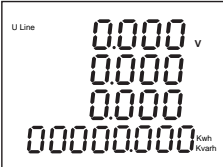
Display panel instruction



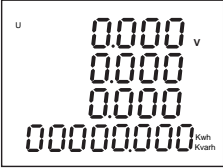
Display panel instruction

When the meter is powered on, the power indicator (PW) blinks. The communication indicator (COM) blinks when there is communication data receiving and transmitting. The DI indicator is on when there is switching input signal, and the DO indicator is on when there is switching output or alarm output. The measuring display panel occurs when the power and the LCD screen lights up. Press **▲** or **▼** key to scroll the display. Press **▶** to set and select and press **▶** to confirm.

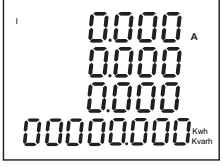
1. Three-phase line voltage and electric energy display



2. Three-phase voltage and electric energy display



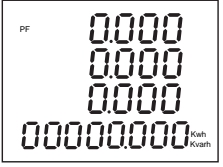
3. Three-phase current value and electric energy display



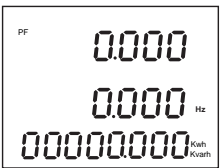
4. Zero sequence current value and electric energy display



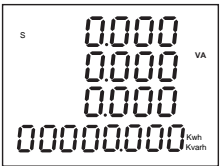
5. Three-phase power factor and electric energy display



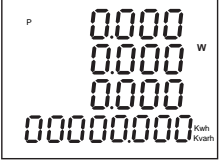
6. Frequency and total power factor and electric energy display



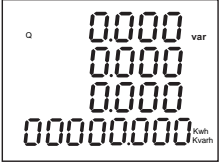
7. Three-phase apparent power value and electric energy display



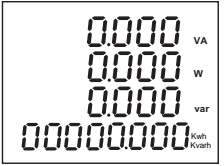
8. Three-phase active power and electric energy display



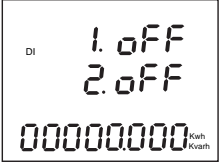
9. Three-phase reactive power and electric energy display



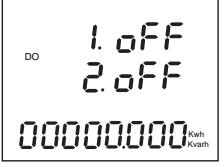
10. Total apparent, active and reactive power value and electric energy display



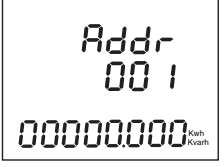
11. Digital input state and electric energy display



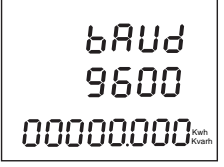
12. Digital output state and electric energy display



13. Communication address and electric energy display



14. Communication baud rate and electric energy display



15. Current PT(voltage ratio) and electric energy display



16. Current CT(current ratio) and electric energy display

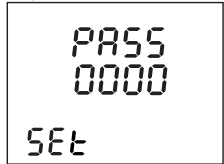


Parameter setting

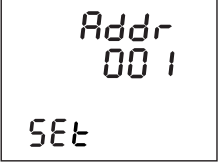
Press **▶** to access to the password setting interface, press **▶** to switch, press **▲** or **▼** to modify the value, then press **▶** to the next character, press **▶** to confirm after completing input. The default password is '0000'. If not, please input the actual password. If the password is correct, press **▶** or **▼** to switch different interfaces. Press **▶** to set the parameter of the interface, press **▶** or **▼** to modify the value, then press **▶** to the next character, finally press **▶** to confirm. Press **▶** or **▼** to switch to the 'End' interface and then press **▶** to return to the measurement interface after setting all the parameters.

Set and Display interface instruction

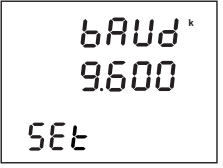
1. Set a password



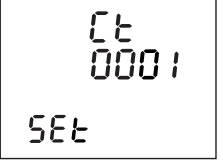
2. Communication address



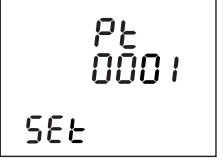
3. Baud rate(Speed)



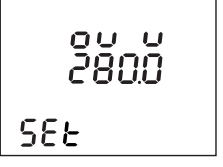
4. CT (Current ratio)



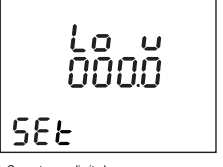
5. PT(voltage ratio)



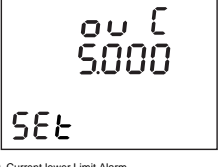
6. Voltage upper limit alarm



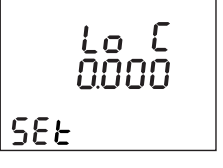
7. Voltage lower limit alarm



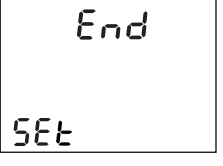
8. Current upper limit alarm



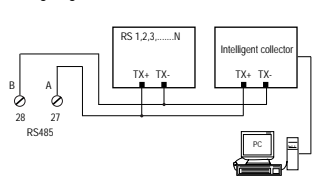
9. Current lower Limit Alarm



10. End

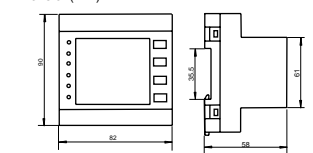


Wiring diagram of RS485



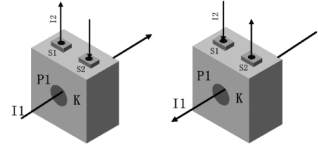
Disconnect power source before wiring.
The torque should be between 2Nm and 6Nm while facing wiring terminals to ensure wiring safety and steady.

Dimension(mm)



Pin instruction

NO.	Name	Instruction
1	L+	230VAC live line or DC positive
2		Useless
3	N/-	230VAC nul line or DC negative
4		Useless
5	L1	Three-phase four wire phase A
6		Useless
7	L2	Three-phase four wire phase B
8		Useless
9	L3	Three-phase four wire phase C
10		Useless
11	N	Three-phase four wire N
12	DI1	Switch input 1
13	DI2	Switch input 2
14	COM	Switch input common end
15	DO1	Switch output or alarm output (voltage)
17	DO2	Switch output or alarm output (current)
19	I1	A phase current transformer secondary input IN
20	I1	A phase current transformer secondary input OUT
21	I2	B phase current transformer secondary input IN
22	I2	B phase current transformer secondary input OUT
23	I3	C phase current transformer secondary input IN
24	I3	C phase current transformer secondary input OUT
25	In	Zero sequence current transformer secondary input IN (ZCT must be connected)
26	In	Zero sequence current transformer secondary input IN (ZCT must be connected)
27	A+	RS485 A
28	B-	RS485 B



As shown above, the polarity connection of the current transformer is correct, therefore the power meter can measure data correctly. If the measured data is abnormal, the possible reason is that the primary and secondary of the current transformer is reversed.

Three-phase four wire power system connection

