CPM-6

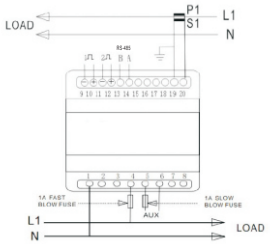
Din Rail Type LCD MULTIFUNCTION POWER METER
with 2 ALARMS / PULSE OUTPUT / RS-485

MANUAL

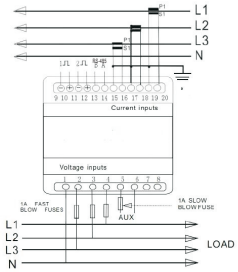
✻ Please understand key indicators & functions at the first operation.

WIRING CONNECTION

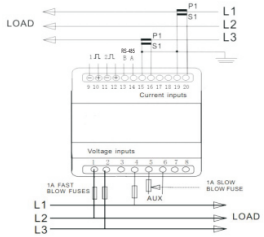
● 1 ϕ2 W (3LN, 3CT)



● 3 ϕ4 W (2LN, 1CT)

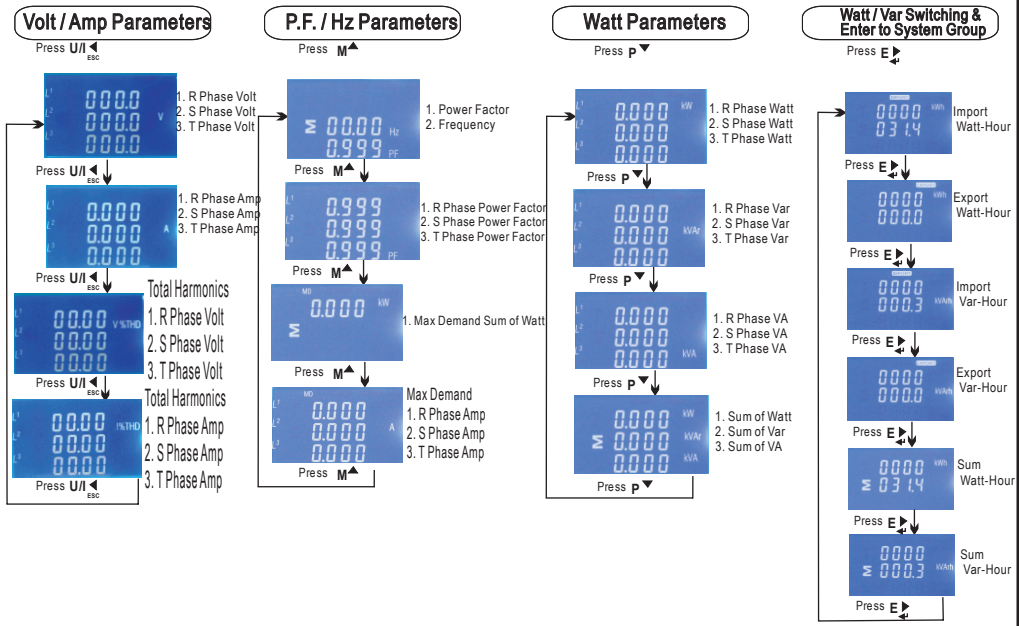


● 3 ϕ3 W (2LL, 1CT)

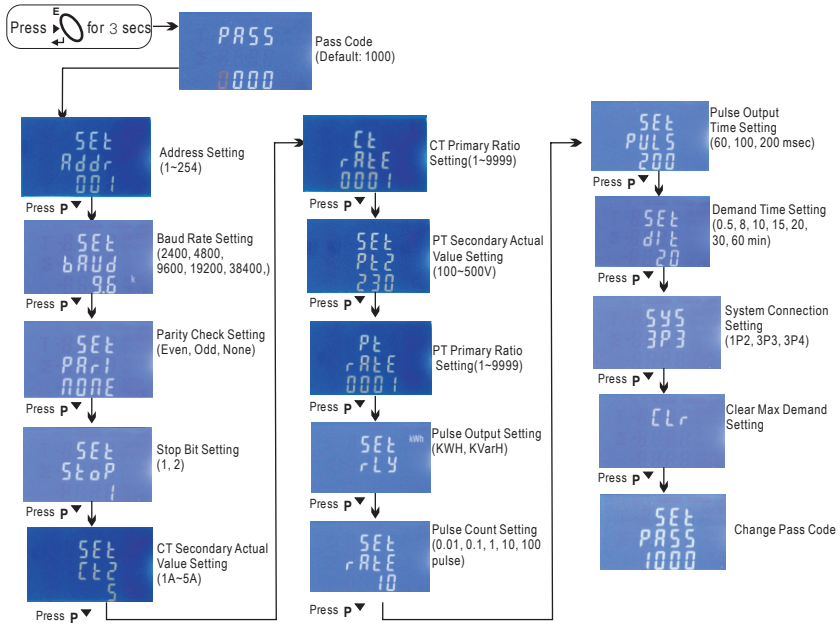


Key Name	Symbol	Descriptions
Right Key & Enter Key	E ▶	1. In the measu ring page, press this key for 3 sec can enter to pass code page. 2. In the parameter setting , press this key for 3 sec can modify this parameter. 3. In the parameter setting , press this key can move the cursor right. 4. In the parameter setting , press this key for 3 sec can save the value.
Left Key & Escapte Key	U/I ◀ ESC	1. In the measuring page, press this key can switch volt & current value. 2. In the parameter setting , press this key for 3 sec can escape the page. 3. In the parameter setting , press this key can move the cursor left.
Up Key	M ▲	1. In the parameter setting, press this key can increase the digits.
Down Key	P ▼	1. In the parameter setting , press this key can decrease the digits.

GENERAL MODE OPERATING PROCEDURES



System Setting Group Procedures



Modbus RTU Mode Protocol Address Table

■ INPUT REGISTERS

Address (Register)	Input Register Parameter				Modbus Protocol Start Address Hex		3 Ø	3 Ø	1 Ø
	Description	Length (bytes)	Data Format	Units	Hi Byte	Lo Byte	4 W	3 W	2 W
30001	Phase 1 line to neutral volts.	4	Float	V	00	00	√	X	√
30003	Phase 2 line to neutral volts.	4	Float	V	00	02	√	X	X
30005	Phase 3 line to neutral volts.	4	Float	V	00	04	√	X	X
30007	Phase 1 current.	4	Float	A	00	06	√	√	√
30009	Phase 2 current.	4	Float	A	00	08	√	√	X
30011	Phase 3 current.	4	Float	A	00	0A	√	√	X
30013	Phase 1 active power.	4	Float	W	00	0C	√	X	√
30015	Phase 2 active power.	4	Float	W	00	0E	√	X	X
30017	Phase 3 active power.	4	Float	W	00	10	√	X	X
30019	Phase 1 apparent power.	4	Float	VA	00	12	√	X	√
30021	Phase 2 apparent power.	4	Float	VA	00	14	√	X	X
30023	Phase 3 apparent power.	4	Float	VA	00	16	√	X	X
30025	Phase 1 reactive power.	4	Float	VAr	00	18	√	X	√
30027	Phase 2 reactive power.	4	Float	VAr	00	1A	√	X	X
30029	Phase 3 reactive power.	4	Float	VAr	00	1C	√	X	X
30031	Phase 1 power factor (1).	4	Float	None	00	1E	√	X	√
30033	Phase 2 power factor (1).	4	Float	None	00	20	√	X	X
30035	Phase 3 power factor (1).	4	Float	None	00	22	√	X	X
30037	Phase 1 phase angle.	4	Float	Degrees	00	24	√	X	√

30039	Phase 2 phase angle.	4	Float	Degrees	00	26	√	X	X
30041	Phase 3 phase angle.	4	Float	Degrees	00	28	√	X	X
30043	Average line to neutral volts.	4	Float	V	00	2A	√	X	X
30047	Average line current.	4	Float	A	00	2E	√	√	√
30049	Sum of line currents.	4	Float	A	00	30	√	√	√
30053	Total system power.	4	Float	W	00	34	√	√	√
30057	Total system volt amps.	4	Float	VA	00	38	√	√	√
30061	Total system VAr.	4	Float	VAr	00	3C	√	√	√
30063	Total system power factor (1).	4	Float	None	00	3E	√	√	√
30067	Total system phase angle.	4	Float	Degrees	00	42	√	√	√
30071	Frequency of supply voltages.	4	Float	Hz	00	46	√	√	√
30073	Total Import kWh	4	Float	kWh	00	48	√	√	√
30075	Total Export kWh.	4	Float	kWH	00	4A	√	√	√
30077	Total Import kVArh .	4	Float	kVArh	00	4C	√	√	√
30079	Total Export kVArh .	4	Float	kVArh	00	4E	√	√	√
30081	Total VAh	4	Float	kVAh	00	50	√	√	√
30083	Ah	4	Float	Ah	00	52	√	√	√
30085	Total system power demand (2) .	4	Float	W	00	54	√	√	√
30087	Maximum total system power demand (2).	4	Float	W	00	56	√	√	√
30101	Total system VA demand.	4	Float	VA	00	64	√	√	√
30103	Maximum total system VA demand.	4	Float	VA	00	66	√	√	√
30105	Neutral current demand.	4	Float	Amps	00	68	√	X	X
30107	Maximum neutral current demand.	4	Float	Amps	00	6A	√	X	X
30109	Total system reactive power demand. (2)	4	Float	VAr	00	6C	√	X	√
30111	Maximum total system reactive power demand(2)	4	Float	VAr	00	6E	√	X	√

30201	Line 1 to Line 2 volts.	4	Float	V	00	C8	√	√	X
30203	Line 2 to Line 3 volts.	4	Float	V	00	CA	√	√	X
30205	Line 3 to Line 1 volts.	4	Float	V	00	CC	√	√	X
30207	Average line to line volts.	4	Float	V	00	CE	√	√	X
30225	Neutral current.	4	Float	A	00	E0	√	X	X
30235	Phase 1 L/N volts THD	4	Float	%	00	EA	√	X	√
30237	Phase 2 L/N volts THD	4	Float	%	00	EC	√	X	X
30239	Phase 3 L/N volts THD	4	Float	%	00	EE	√	X	X
30241	Phase 1 Current THD	4	Float	%	00	F0	√	√	√
30243	Phase 2 Current THD	4	Float	%	00	F2	√	√	X
30245	Phase 3 Current THD	4	Float	%	00	F4	√	√	X
30249	Average line to neutral volts THD.	4	Float	%	00	F8	√	X	√
30251	Average line current THD.	4	Float	%	00	FA	√	√	√
30255	Total system power factor (1).	4	Float	Degrees	00	FE	√	√	√
30259	Phase 1 current demand.	4	Float	A	01	02	√	√	√
30261	Phase 2 current demand.	4	Float	A	01	04	√	√	X
30263	Phase 3 current demand.	4	Float	A	01	06	√	√	X
30265	Maximum phase 1 current demand.	4	Float	A	01	08	√	√	√
30267	Maximum phase 2 current demand.	4	Float	A	01	0A	√	√	X
30269	Maximum phase 3 current demand.	4	Float	A	01	0C	√	√	X
30335	Line 1 to line 2 volts THD.	4	Float	%	01	4E	√	√	X
30337	Line 2 to line 3 volts THD.	4	Float	%	01	50	√	√	X
30339	Line 3 to line 1 volts THD.	4	Float	%	01	52	√	√	X
30341	Average line to line volts THD.	4	Float	%	01	54	√	√	X
30343	Total kWh (3)	4	Float	kWh	01	56	√	√	√

30345	Total kVArh (3)	4	Float	kVArh	01	58	√	√	√
30347	L1 import kWh	4	Float	kWh	01	5A	√	√	√
30349	L2 import kWh	4	Float	kWh	01	5C	√	√	X
30351	L3 import kWh	4	Float	kWh	01	5E	√	√	X
30353	L1 export kWh	4	Float	kWh	01	60	√	√	√
30355	L2 export kWh	4	Float	kWh	01	62	√	√	X
30357	L3 export kWh	4	Float	kWh	01	64	√	√	X
30359	L1 total kWh	4	Float	kWh	01	66	√	√	√
30361	L2 total kWh	4	Float	kWh	01	68	√	√	X
30363	L3 total kWh	4	Float	kWh	01	6A	√	√	X
30365	L1 import kVArh	4	Float	kVArh	01	6C	√	√	√
30367	L2 import kVArh	4	Float	kVArh	01	6E	√	√	X
30369	L3 import kVArh	4	Float	kVArh	01	70	√	√	X
30371	L1 export kVArh	4	Float	kVArh	01	72	√	√	√
30373	L2 export kVArh	4	Float	kVArh	01	74	√	√	X
30375	L3 export kVArh	4	Float	kVArh	01	76	√	√	X
30377	L1 total kVArh	4	Float	kVArh	01	78	√	√	√
30379	L2 total kVArh	4	Float	kVArh	01	7A	√	√	X
30381	L3 total kVArh	4	Float	kVArh	01	7C	√	√	X
30385	resettable total active energy	4	Float	kWh	01	80	√	√	√
30387	resettable total reactive energy	4	Float	kVArh	01	82	√	√	√
30389	resettable import active energy	4	Float	kWh	01	84	√	√	√
30391	resettable export active energy	4	Float	kWh	01	86	√	√	√
30393	resettable import reactive energy	4	Float	kVArh	01	88	√	√	√
30395	resettable export reactive energy	4	Float	kVArh	01	8A	√	√	√

Modbus RTU Mode Protocol Address Table

■HOLDING REGISTERS

Address Register	Parameter Number	Parameter	Modbus Protocol Start Address Hex		Valid range	Mode
			High Byte	Low Byte		
40001	1	Demand Time	00	00	Read minutes into first demand calculation. When the demand time reaches the demand Period then the demand values are valid. **Length : 4 byte** **Data Format : Float**	ro
40003	2	Demand Period	00	02	Write demand period: 0, 5,8, 10, 15, 20, 30 or 60 minutes, default 60. Setting the period to 0 will cause the demand to show the current parameter value, and demand max to show the maximum parameter value since last demand reset. **Length : 4 byte** **Data Format : Float**	r/w
40011	6	System Type	00	0A	Write system type: 3p4w = 3, 3p3w = 2 & 1p2w= 1 Requires password, see parameter 13 **Length : 4 byte** **Data Format : Float**	r/w

40013	7	Pulse output 1 Width	00	OC	Write relay on period in milliseconds: 60, 100 or 200, default 200. **Length : 4 byte** **Data Format : Float**	r/w
40015	8	Password Lock	00	OE	Read password lock status: 0 = locked. 1 = unlocked. **Length : 4 byte** **Data Format : Float**	ro
40019	10	Parity Stop	00	12	Write the parity/stop bits for MODBUS Protocol, where: 0 = One stop bit and no parity, default. 1 = One stop bit and even parity. 2 = One stop bit and odd parity.3 = Two stop bits and no parity. **Length : 4 byte** **Data Format : Float**	r/w
40021	11	Modbus Address	00	14	Write the Modbus Address address: 1 to 247 for MODBUS Protocol, default 1. Note, both the MODBUS node addresses can be changed via the display setup menus. **Length : 4 byte** **Data Format : Float**	r/w
40023	12	Pulse 1 Divisor	00	16	Write pulse divisor index: n = 1 to 6 1--0.01kwh/imp 2--0.1kwh/imp 3--1kwh/imp 4-10kwh/imp 5-100kwh/imp 6-1000kwh/imp **Length : 4 byte** **Data Format : Float**	r/w
40025	13	Password	00	18	Write password for access to protected registers. Default password is 1000. **Length : 4 byte** **Data Format : Float**	r/w

40029	15	Baud Rate	00	1C	Write the baud rate for MODBUS Protocol, where: 0 = 2400 baud. 1 = 4800 baud. 2 = 9600 baud, default. 3 = 19200 baud. 4 = 38400 baud. **Length : 4 byte** **Data Format : Float**	r/w
40063	32	CT ratio	00	3E	CT Ratio range:1~2000 CT Ratio= primary current /secondary current **Length : 4 byte** **Data Format : Float** Requires password, see parameter 13 (Non MID)	r/w
40065	33	PT ratio	00	40	PT Ratio range:1~2000 PT ratio= primary voltage /secondary voltage **Length : 4 byte** **Data Format : Float** Requires password, see parameter 13 (Non MID)	r/w
40087	44	Pulse 1 Energy Type	00	56	Write MODBUS Protocol input parameter for pulse out 1: 37 = total kwh or 39 = total kVarh, default 39. **Length : 4 byte** **Data Format : Float**	r/w
461457	30729	Reset	F0	10	00 00 ： reset the Maximum demand 00 03：reset the resettable energy **Length : 2 byte** **Data Format:Hex**	wo