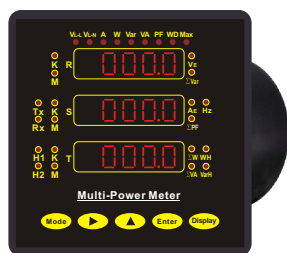


集合式電力錶 MULTI - POWER METER

Case : 110x110mm



CP500 Multi-Power Meter
CP510 Multi-Power Meter(Demand)

Case : 144x144mm



PM900 Multi-Power Meter
PM910 Multi-Power Meter(Demand)

Features

- Display of all the electric parameters V, A, W, Var, VA, PF, Hz, WH, VarH ect.
- True RMS conversion.
- Maximum function.
- Field programmable PT and CT ratio.
- Memory for all setup and energy data.
- Option :
 - 2 channels digital input
 - 2 channels D/O output.

Specifications

Display :	Red LED 0.4" high - - - CP500 Red LED 0.56" high - - - PM900
Over range Indication :	" o.L "
Conversion Rate :	1/sec.
Isolation :	Input/Output/Power/Case
Operating Temp. :	0~60°C/ Below 90%R.H.
Storage Temp. :	-10~70°C/ Below 80% R.H.
Temp. Coefficient :	±0.1% F.S/°C
CT, PT ratio :	1~9999
Interface :	RS-485(Standard), or RS-232
Power Supply :	AC 90~260V, 50/60Hz
Option :	DC 24, 120V ±20%
Power Consumption :	Approx. 7VA
Dielectric Strength :	DIN-IEC688, AC 2.3KV/1min, between terminal. AC 2.8KV/1min, between terminal and case
Isolation Resistance :	DC 500V, 100MΩ at above terminals
Dimensions :	110(W) × 110(H) × 140(D)mm - - - CP500 144(W) × 144(H) × 100(D)mm - - - PM900

Input

Voltage :	V1, V2, V3, Neutral (These are the 3phase Voltage and neutral)
Range :	600VL-L / 347VL-N
Current :	1S, 1L, 2S, 2L, 3S, 3L (These are the 3phase currents)
Range :	0~1A, 0~5A
Over load :	Voltage.....750V continuous 1.25 x rated continuous Current.....3 x rated continuous 10 x rated for 10sec.
Burden :	≤ 0.2VA per Voltage circuit ≤ 0.2VA per Current circuit
Frequency :	45~65Hz

RS-485 Interface

Address :	1 ~ 255
Baudrate :	19200,9600,4800,2400,1200
Protocol :	Modbus RTU Mode

DO output

2 channel Relay output
Contact Capacity :
AC 250V, 1A resistive load
DC 30V, 2A resistive load

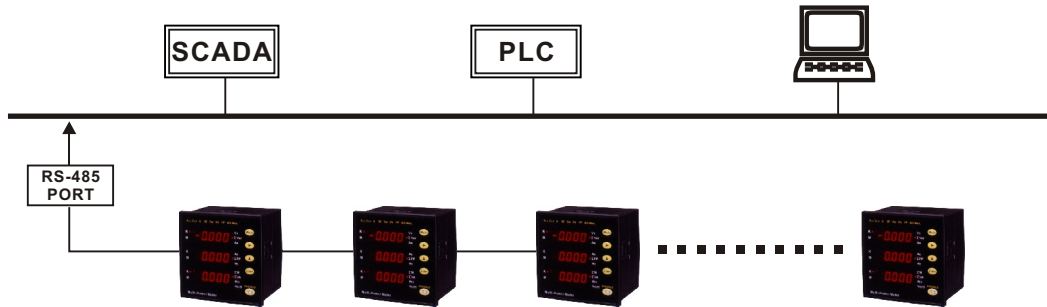
DI input

Digital input :	2 x point
Output :	RS-485

RS-485 Connection

We use the most convenient and the easiest RS-485 as our standard output port, besides, we adopt Modbus RTU mode, one of the most popular protocol in the world, as our standard protocol.

RS-485 communications allows multiple devices to be connected on the same bus. Up to 30 devices can be connected on a single RS-485 bus, which consists of a shield twisted pair cable. The overall length of the RS-485 cable connecting all devices cannot exceed 4000ft (1219m).



Power Meter

Measurement	Items	PM900 / CP500	PM910 / CP510
V_{L-N}	V1, V2, V3, V_E	●	●
V_{L-L}	V12, V23, V13, V_E	●	●
A	A1, A2, A3, A_E	●	●
W	W1, W2, W3, ΣW	●	●
Var	Var1, Var2, Var3, ΣVar	●	●
VA	VA1, VA2, VA3, ΣVA	●	●
PF	PF1, PF2, PF3, ΣPF	●	●
Hz		●	●
WH	ΣWH	●	●
VarH	$\Sigma VarH$	●	●
Demand W	DW, Max.DW(1~60min free setting)		●
RS-485		●	●

Programmable Measurement & Indicating

Items	L1	L2	L3	Total	Average	Accuracy(F.S)	Display (Max.)
V_{L-N}	V1	V2	V3		V_E	$\pm 0.25\%$	9999V/KV
V_{L-L}	V12	V23	V13				
A	A1	A2	A3	ΣW		$\pm 0.5\%$	$\pm 9999 W/KW/MW$
W	W1	W2	W3				
Var	Var1	Var2	Var3	ΣVar		$\pm 0.5\%$	$\pm 9999 Var/KVar/MVar$
VA	VA1	VA2	VA3	ΣVA		$\pm 0.5\%$	9999 VA/KVA/MVA
PF	PF1	PF2	PF3	ΣPF		$\pm 0.5\%$	± 0.999
WH				WH		$\pm 0.5\%$	9999999999 KWH
VarH				VarH		$\pm 0.5\%$	9999999999 KVarH
Hz						$\pm 0.1\%$	45.0~65.0 Hz
Accuracy performance range				Measurement range			
V : 10~100%		PF : 0.5~ ± 1.0		V : 0~120%		A : 0~120%	
A : 5~100%		Hz : 45~65Hz					

$$V_E = (V_{12} + V_{23} + V_{13}) / 3$$

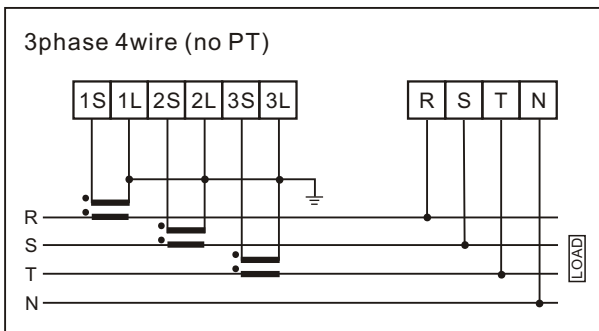
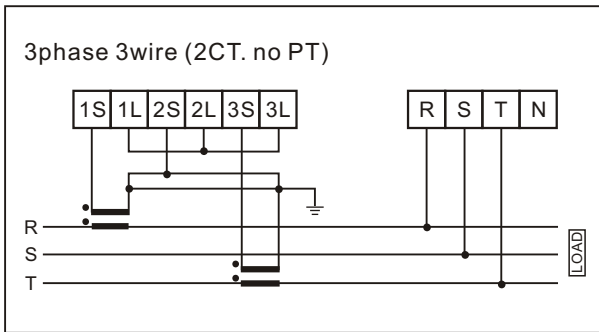
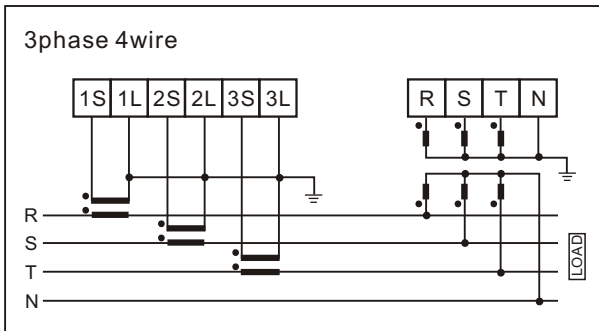
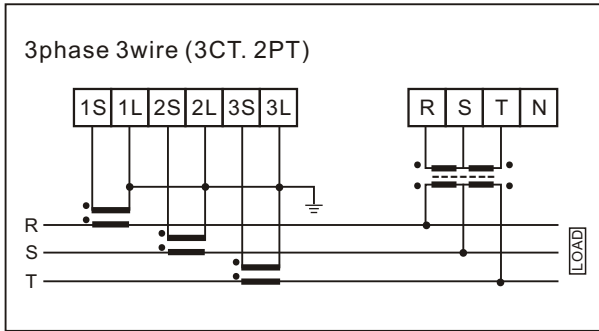
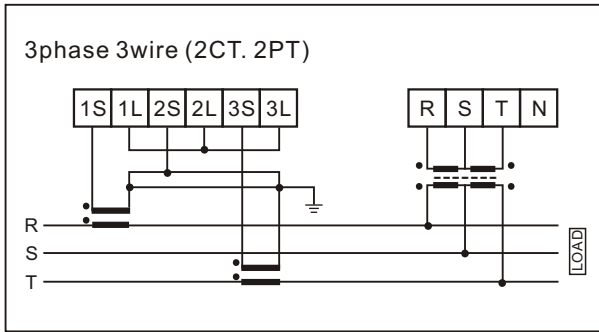
$$A_E = (A_1 + A_2 + A_3) / 3$$

$$\Sigma W = W_1 + W_2 + W_3$$

$$\Sigma PF = \Sigma W / [V_1 A_1 + V_2 A_2 + V_3 A_3]$$

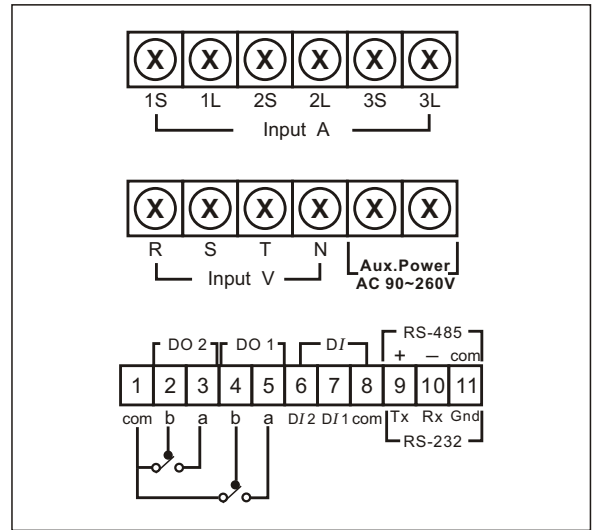
$$\Sigma VAR = \sqrt{VA_1^2 - W_1^2} + \sqrt{VA_2^2 - W_2^2} + \sqrt{VA_3^2 - W_3^2}$$

Writing diagrams of input

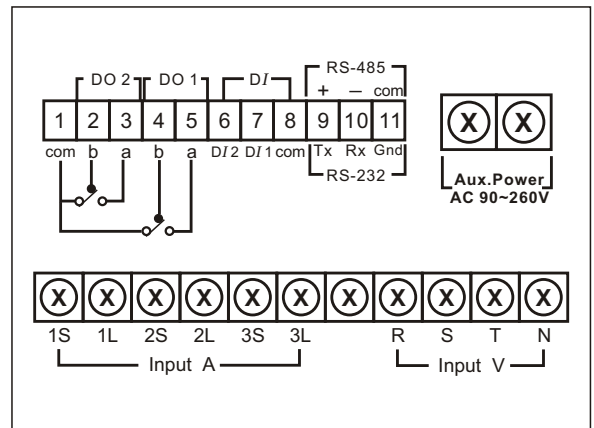


Connection Diagram

Model : CP500



Model : PM900



Order Code

Model — —

Input ACV

1 : 600VL-L / 347VL-N

Input ACA

1 : AC 5A

2 : AC 1A

Y : Option

Interface

1 : RS-485(standard)

2 : RS-232

Power Supply

1 : AC 90~260V, 50/60Hz

2 : DC 24V

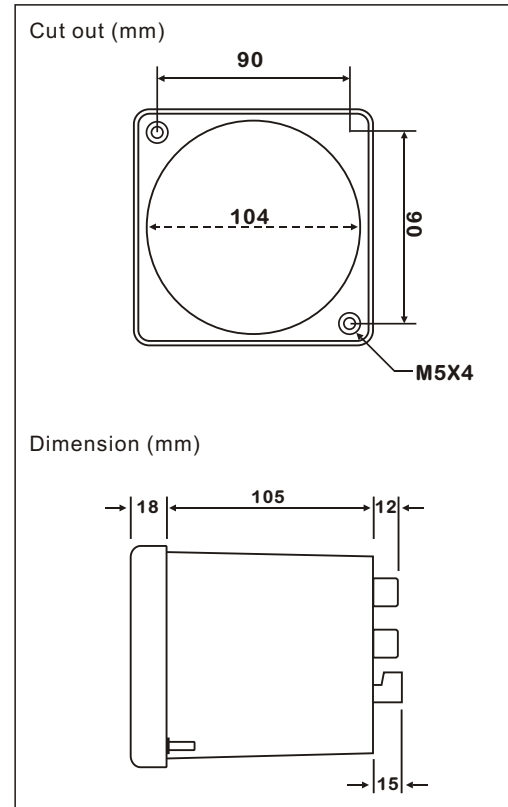
3 : DC 120V

Option

1 : 2 digital input (DI) + 2 Relay output (DO)

N : None

Model : CP500



Model : PM900

