

3 phase Power Meter

■ Features

- Display of all electric parameters: V, A, W, Var, VA, PF, Hz, WH, VarH etc.
- True RMS conversion.
- Field programmable PT and CT ratio.
- Memory for all setup and energy data.
- 2 channels digital input
- 2 channels Relay output.



Starting from
US\$550



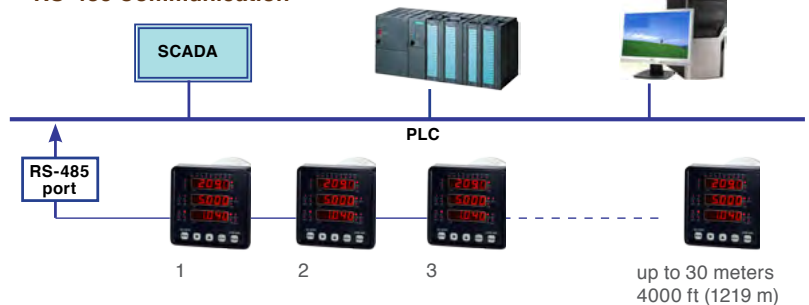
Model # CPW-503



■ Specification

- Display: Red LED 0.4" high
- 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 / Below 80%R.H.
- Temp. Coefficient: ±0.1% F.S / °C
- CT, PT ratio: 1~9999
- Interface: RS-485
- Power Supply: 85-264 VAC / 120-370 VDC
- Option: DC 24V
- 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: 110mm(W) x 110mm(H) x 140mm(D)

RS-485 Communication



■ Input

- Voltage: V1, V2, V3, (3 phase voltage) and Neutral
- Range : 600V_{L-L} / 347 V_{L-N}
- Current: 1S, 1L, 2S, 2L, 3S, 3L (3 phase current)
- Range: 0.05~1A, 0.5~5A
- Over load: Voltage.....750V continuous
1.25 x rated continuous.
Current.....3 x rated continuous
10 x rated for 10 sec.
- Burden: ≤0.2VA per Voltage circuit
≤0.2VA per Current circuit
- Frequency: 45~65Hz

■ RS-485 Interface

- Address: 1 ~ FF (16 HEX)
- Baud rate: 19200,9600,4800,2400,1200
- Protocol: Modbus RTU

■ DO output

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

■ DI input

- Digital input: 2 point
- Output: RS-485

■ Power Meter

Measurement	Items
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	ΣVarH
Demand W	DW, Max.DW (1~60min free setting)
RS-485	

■ Programmable Measurement & Indication

Items	L1	L2	L3	Total	Average	Accuracy (F.S)	Display (Max.)
V _{L-N}	V1	V2	V3		V _E	± 0.25%	9999V / KV
V _{L-L}	V12	V23	V13		A _E	± 0.25%	9999A / KA
A	A1	A2	A3			± 0.5%	±9999W / KW / MW
W	W1	W2	W3	ΣW		± 0.5%	±9999Var / KVar / MVar
Var	Var1	Var2	Var3	ΣVar		± 0.5%	9999VA / KVA / MVA
VA	VA1	VA2	VA3	ΣVA		± 0.5%	±0.999
PF	PF1	FP2	FP3	ΣPF		± 0.1%	45.0 ~ 65.0 Hz
Hz						± 0.5%	9999999999 KWH
WH				WH		± 0.5%	9999999999 KVarH
VarH				VarH			
Accuracy performance range							Measurement range
V: 10 ~ 100 %			PF: 0.5 ~ ±1.0		V: 10 ~ 120 %		
A: 5 ~ 100 %			Hz: 45 ~ 65 Hz		A: 5 ~ 120 %		

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

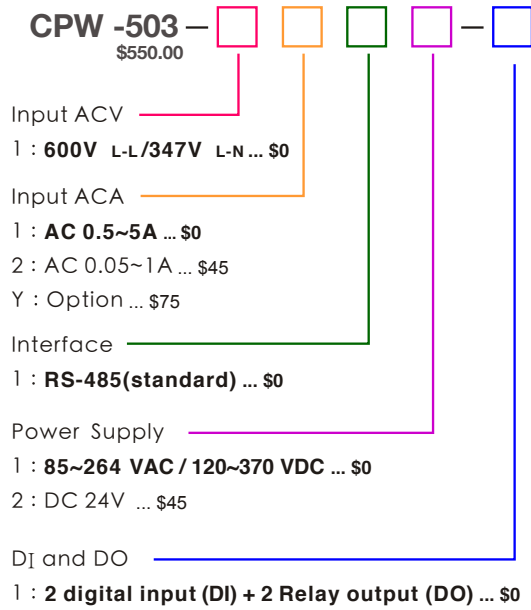
$$A_E = (A_1 + A_2 + A_3) / 3$$

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

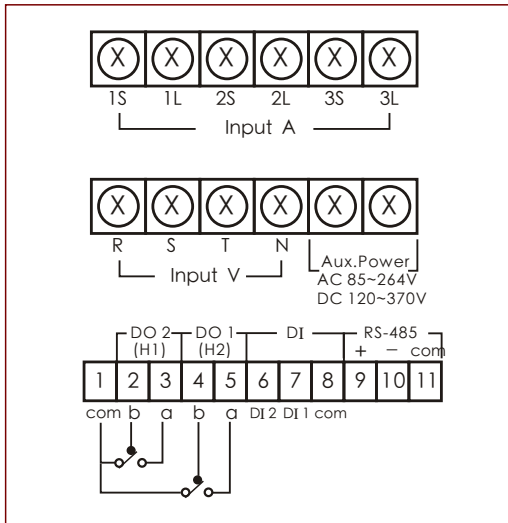
$$\Sigma PF = \Sigma W / [V_1 A_1 + V_2 A_2 + V_3 A_3]$$

$$\Sigma VAR = \sqrt{VA^2 - W^2} + \sqrt{VA^2 - W^2} + \sqrt{VA^2 - W^2}$$

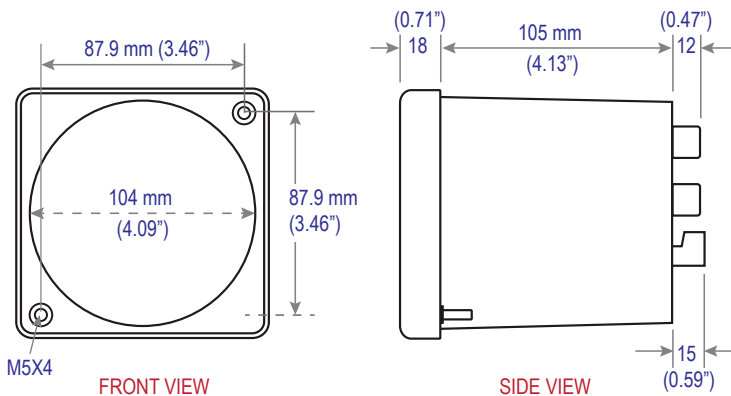
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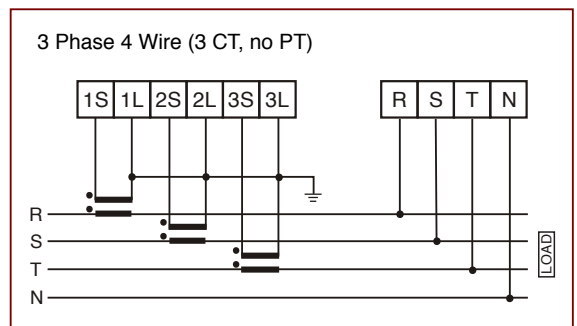
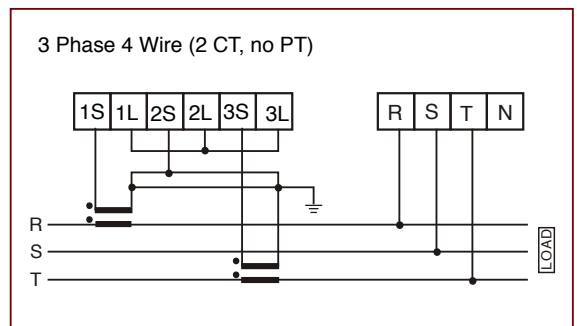
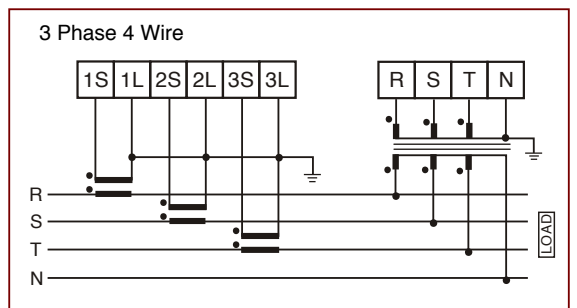
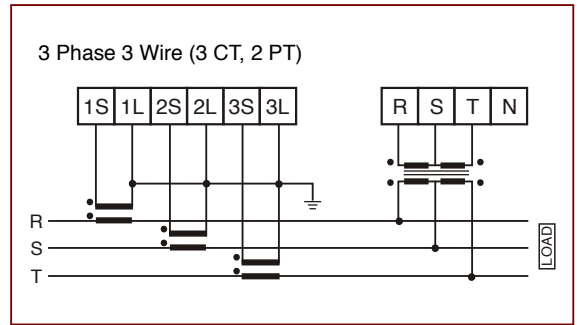
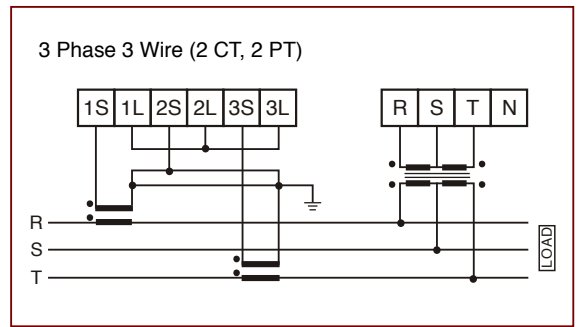
Connection Diagram



Case Dimension



Input Wiring Diagram



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