

AC WATT-Hr / VAR-Hr TRANSDUCER

CWH/CQH

FEATURE

- Measuring Watt-Hr, Var-Hr or Watt-Hr & Var-Hr
1P2W, 3P3W, 3P4W Balanced or Unbalanced systems
- Precision measurement even for distorted wave
- High impulse & Surge protection
- High stability & low cost



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SPECIFICATION

INPUT: Watt / Var.

Connection	AC Input		Basic Ref. Value Watt or Var	Input Burden
	Voltage	Current		
1P2W	110V or 120V	5A (1A)	$\pm 0.5\text{ K} (\pm 0.1\text{K})$	$\leq 0.10\text{VA}$ or $\leq 0.15\text{VA}$
	220V or 240V		$\pm 1.0\text{ K} (\pm 0.2\text{K})$	
3P3W	110V or 120V		$\pm 1.0\text{ K} (\pm 0.2\text{K})$	
	220V or 240V		$\pm 2.0\text{ K} (\pm 0.4\text{K})$	
3P4W	380V or 416V	$\pm 3.0\text{ K} (\pm 0.6\text{K})$	$\pm 1.5\text{ K} (\pm 0.3\text{K})$	
	190V _{LL} -110V _{LN} or 208V _{LL} -120V _{LN}	$\pm 3.0\text{ K} (\pm 0.6\text{K})$		
	380V _{LL} -220V _{LN} or 416V _{LL} -240V _{LN}			

* The maximum input are 450V and 5A. If the input over the level please connects with CT or PT to the transducer.
* V_{LL} means Voltage of line to line; V_{LN} means Voltage of line to neutral.
* The basic ref. value are base on second of PT & CT, and versus the high range of output.

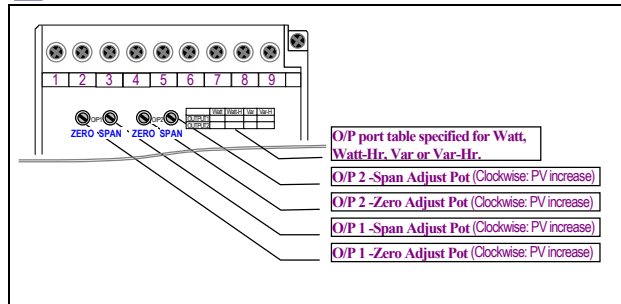
OUTPUT:

Output Range		Output Mode		
Per KWH or Per KVARH	1 count	V Pulse	Open Collect	Relay Contact
	10 counts	DC 15V	DC 30V, 100mA	AC 110V, 0.5A
	100 counts	10mA	(DC 60V)	DC 24V, 1A
	1000 counts			
	10000 counts			

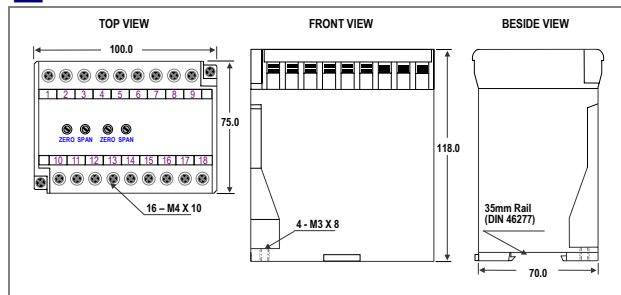
- Accuracy : $\leq \pm 0.2\%$ R.O.
- Waveform effect: $\leq 0.01\%$ R.O. at 15% distortion
- Max. input over capability: Voltage: 1.5 x rated continuous
2 x rated for 10 seconds
4 x rated for 2 seconds
Current: 3 x rated continuous
10 x rated for 10 seconds
50 x rated for 1 second
- Input Frequency : 50 Hz ± 3 Hz, 60 Hz ± 3 Hz
- Response time: ≤ 250 msec.
- Span adjustment: $\leq \pm 5\%$ of R.O. (or $\pm 20\%$ of R.O. specify)
- Zero adjustment: $\leq \pm 2\%$ of R.O. (or $\pm 20\%$ of R.O. specify)
- Output load effect: Current output $\leq 0.1\%$ R.O.
Voltage output $\leq 0.05\%$ R.O.
- Power supply: AC 115/230V $\pm 15\%$, 50/60 Hz
Option: AC 380 or 415V $\pm 15\%$, 50/60 Hz
Option: DC 24V, 48V, 110V, 220V $\pm 10\%$
Self Powered: Interior connection from input volt
Working Volt: $\pm 15\%$ rated of input voltage
- Power effect: $\leq 0.05\%$ R.O.
- Power consumption: $\leq 4\text{VA}$
- Mutual interference effect: $\leq 0.1\%$ R.O. between each element
- Magnetic field strength: 400ATM $\leq 0.2\%$ R.O.
- Operating temperature: 0-60 °C
- Operating relative humidity: 20-95 %RH, non-condensing
- Temperature coefficient: ≤ 100 PPM/°C
- Storage temperature: -10-70 °C
- Dielectric Strength: IEC 414, IEC 688:1992, ANSI C37.90a
Between Input / Output / Power / Case
AC 4KV, 50/60Hz, 1 min.
- Surge test: IEC 255-4, ANSI C37.90a
6KV, 1.2 x 50 μ sec.

- Safety: Common mode & differential mode
IEC 414, BS 5458
- Enclosure: IEC 529 (IP50)
- Isolation: Input / Output / Power / Case
- Insulation resistance: $\geq 100\text{M}$ ohm, DC 500V
- Performance: Designed it comply with IEC 688
- Mounting: Wall or DIN rail (EN 50022)
- Weight: Under 650g

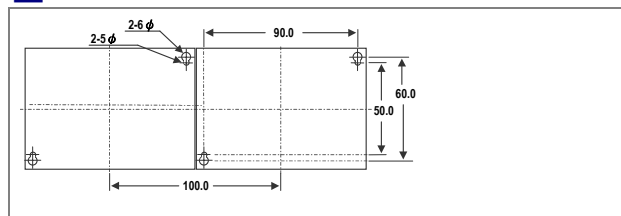
ADJUSTMENT



DIMENSIONS



PANEL MOUNTING HOLES



B1-5

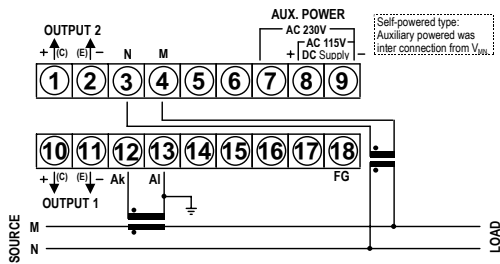
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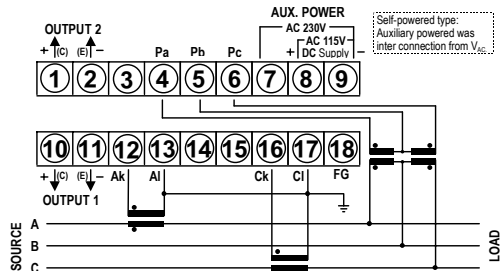
POWER TRUE SYSTEMS CORP.

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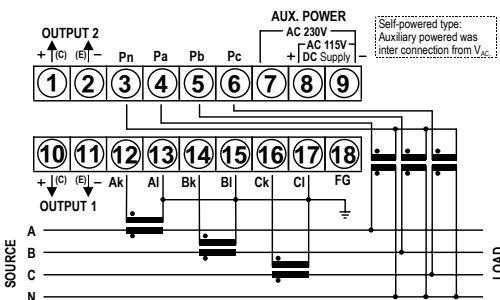
Watt-Hr / Var-Hr / Watt-Hr & Var-Hr - 1Φ2W (Unbalanced Load)



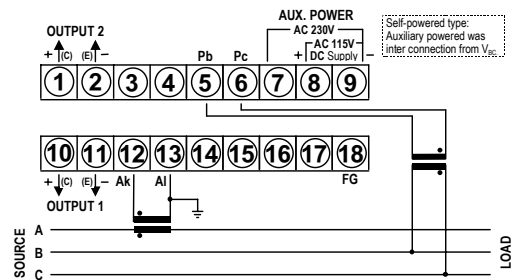
Watt-Hr / Var-Hr / Watt-Hr & Var-Hr - 3Φ3W (Unbalanced)



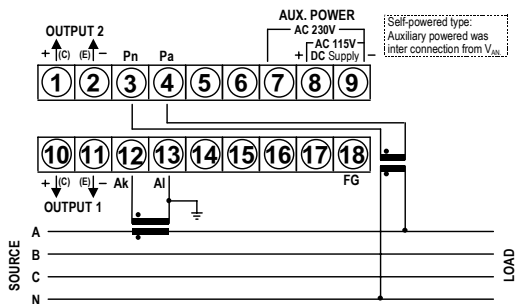
Watt-Hr / Var-Hr / Watt-Hr & Var-Hr - 3Φ4W (Unbalanced Load)



Watt-Hr / Var-Hr / Watt-Hr & Var-Hr - 3Φ3W (balanced Load)



Watt-Hr / Var-Hr / Watt-Hr & Var-Hr - 3Φ4W (balanced Load)



ORDER INFORMATION

