



FEATURES

- Accuracy : $\pm 0.2\%$ RO.
- Precision measurement for unbalance system
- Precision measurement even for distorted wave
- Measuring reverse watthour is available
- High impulse & surge protection (5KV)
- The case can be mounted on a 35mm rail which complies with DIN 46277



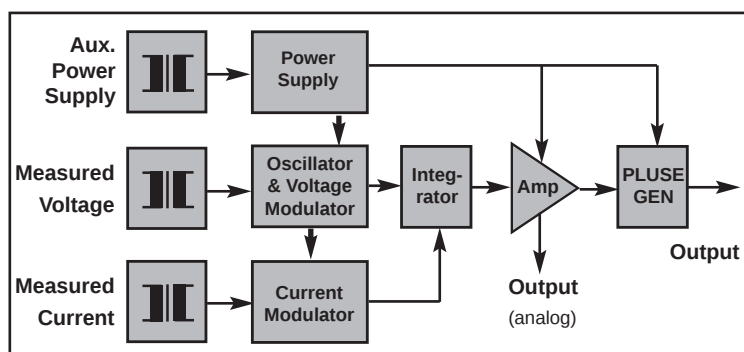
DESCRIPTION

Model : S3-WHD-1 1 Φ 2W, WATTHOUR

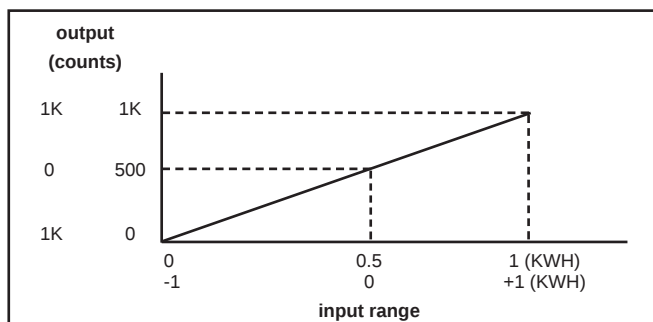
S3-WHD-3 3 Φ 3W, WATTHOUR

S3-WHD-3A 3 Φ 4W, WATTHOUR

For kilowatt-hour-measurement, we build in another Linear integrator Circuit. This circuit accepts signal from Watts portion and integrates with respect to time, to produce a pulse output via volt free contacts, result in pulses proportional to kilowatt-hours.



INPUT - OUTPUT CURVE



SPECIFICATION

Input

Input Range				Max. Input Over Capability
Circuit	Amp.	Voltage	Basic KWH	
Single Phase	5 A	110V(120V)	0~0.5 KWH	Ampere : 3 x rated continuous 10 x rated 10 secs. 50 x rated 1 sec.
		220V(240V)	0~1 KWH	
3-Phase 3-Wire	5 A	110V(120V)	0~1 KWH	
		220V(240V)	0~2 KWH	
3-Phase 4-Wire	5 A	190V(110V) (208/120V)	0~1.5 KWH	Voltage : 2 x rated continuous
		380V(220V) (416/240V)	0~3 KWH	

Output

Output Range		Output Mode		
per 1KWH	100 counts	Pulse	Open Collect	SPST Relay Contacts
	1000 counts			
	10000 counts	DC 15V, 10mA	DC 30V, 100mA	AC 110V, 0.5A DC 24V, 1A
	100000 counts			

Accuracy $\pm 0.2\%$ RD.
Input frequency 50HZ $\pm 3\text{HZ}$ or 60HZ $\pm 3\text{HZ}$
Input burden $\leq 0.1\text{VA}$ (ampere input)
..... $\leq 0.2\text{VA}$ (Voltage input)
Aux. power supply AC110V $\pm 15\%$, 50/60HZ
..... AC220V $\pm 15\%$, 50/60HZ
..... DC 24V, 48V, 110V, $\pm 15\%$
Power effect $\leq 0.1\%$ RO.
Power consumption $\leq 4\text{VA}$, $\leq \text{DC } 3\text{W}$
Waveform effect $\leq 0.2\%$ RO. at distortion factor 15%
Electromagnetic balance effect $\leq 0.1\%$ RO.
Mutual interference effect $\leq 0.1\%$ RO. between element.
Magnetic field strength 0.2% RO., 400A/M
Span adjustment range $\geq 5\%$ RO.
Zero adjustment range $\geq 1\%$ RO.
Operating temperature range 0~60°C
Storage temperature range -10~70°C
Temperature coefficient $\leq 100\text{PPM}$, 25°C $\pm 10^\circ\text{C}$
Max. relative humidity 95%
Isolation Input/output/power/case
Insulation resistance $\geq 100\text{M}\Omega$, DC 500V
Dielectric withstand voltage Between input/output/power/case
(IEC 414,688,ANSI C37) AC 2.6KV, 60HZ, 1min
Impulse withstand test 5KV, 1.2 x 50 μs
(IEC 255-4,ANSI C37 90a) Common mode & differential mode
Performance Designed to comply with IEC688
Safety requirements IEC414, BS5458



ORDERING INFORMATION

S3-WHD-1

S3-WHD-3

S3-WHD-3A

Model

S3-WHD-1 for 1 Φ 2W

S3-WHD-3 for 3 Φ 3W

S3-WHD-3A for 3 Φ 4W

Input Current

5 : 5A

0 : Option

Input Voltage

1 : 110V(120V)

2 : 220V(240V)

3 : 190V/110V(208V/120V)

4 : 380V/220V(416V/240V)

0 : Option

Input Frequency

5 : 50HZ $\pm$ 3HZ

6 : 60HZ $\pm$ 3HZ

0 : Option

Output Range (per KWH)

1 : 100 counts

2 : 1000 counts

3 : 10000 counts

4 : 100000 counts

5 : Option

Output Mode

P : Pulse

C : Open collect

R : Relay contact

Aux. Power Supply

A : AC 110V C : DC 24V

B : AC 220V D : DC 48V

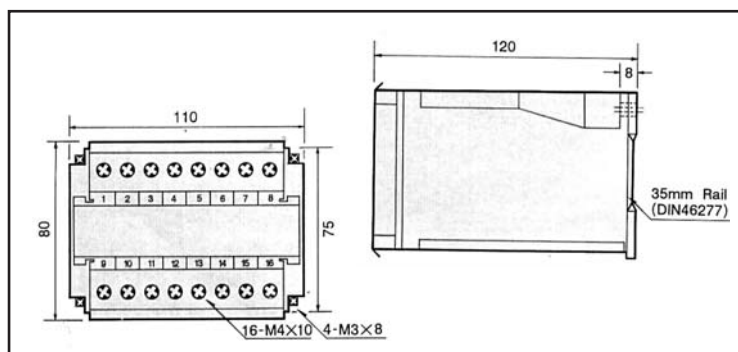
O : Option E : DC 110V

Reverse Required

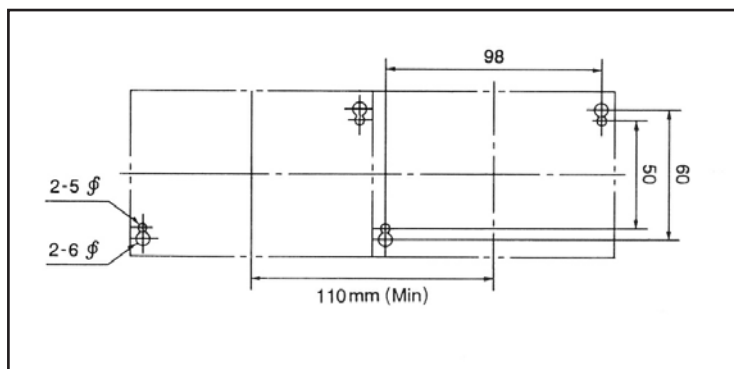
Y : Yes

N : No

THE OUTSIDE DIMENSION (UNIT:mm)

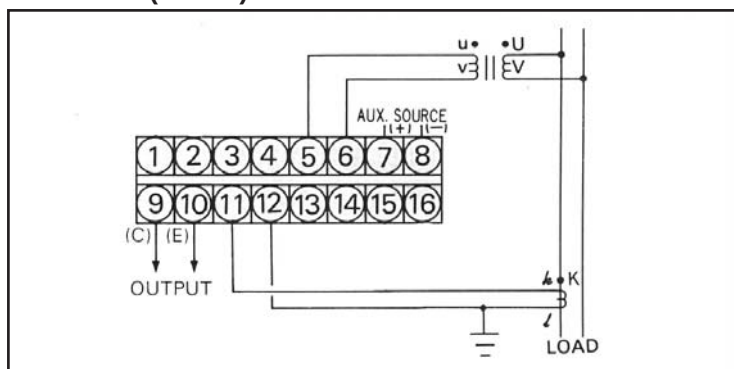


★ PANEL MOUNTING HOLES (UNIT:mm)

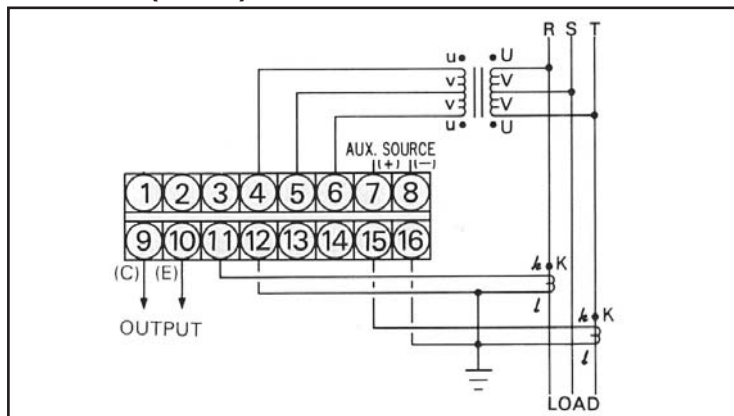


CONNECTION DIAGRAM

S3-WHD-1 (1 Φ 2W)



S3-WHD-3 (3 Φ 3W)



S3-WHD-3A (3 Φ 4W)

