

# DER EE<sup>®</sup>

# D. P. M. (MICROPROCESS)

## WATT HOUR METER

ISO 9001



- DE - 12WH** 1  $\phi$  2 W Watt-Hour Meter
- DE - 13WH** 1  $\phi$  3 W Watt-Hour Meter
- DE - 33WH** 3  $\phi$  3 W Watt-Hour Meter
- DE - 34WH** 3  $\phi$  4 W Watt-Hour Meter

### Features

- Max. display 8 digits (Total)  
Max. display 5 digits can change  
Watt-Hour or Watt
- Rate free setting
- RS-485 interface (Option)  
Pulse output (Option)
- ABS fire-retardant case(94-V0)
- DIN case 96 x48mm

### Specifications

- Display** : 8 digits Red LED 0.3" (7.6mm) high  
5 digits Green LED 0.3" (7.6mm) high
- Parameter setting** : Touch switches
- Memory** : NV RAM
- Accuracy** :  $\pm 0.25\%$  FS.  $\pm 2$  digit (  $23 \pm 5^\circ\text{C}$  )
- Operating Temp.** :  $0\sim 50^\circ\text{C}$  / Below 80%R.H.  
(No Condensation)
- Storage Temp.** :  $-10\sim 60^\circ\text{C}$  / Below 70% R.H.  
(No Condensation)
- Power Supply** : AC 115 / 230V  $\pm 10\%$ , 50/60Hz  
Option : DC 24, 48, 120V  $\pm 20\%$
- Power Consumption** : Approx. 4VA
- Weight** : Approx. 550g
- Dielectric Strength** : AC 2000V/1min ( Input/Power )
- Insulation Resistance** : More than  $100\text{M}\Omega$  at 500VDC
- Dimensions** : 96(W) x48(H) x144(D)mm
- Panel Cut-Out** : 91.5(W) x44(H)mm

### Input

Model	Circuit	AC Input			Max. Reading (KWH/VAR)
MP-12WH	1 $\phi$ 2 W	Voltage 120V 240V 480V	Current 1A 5A	Frequency 50Hz 60Hz	99999.999
MP-13WH	1 $\phi$ 3 W				999999.99
MP-33WH	3 $\phi$ 3 W				9999999.9
MP-34WH	3 $\phi$ 4 W				99999999

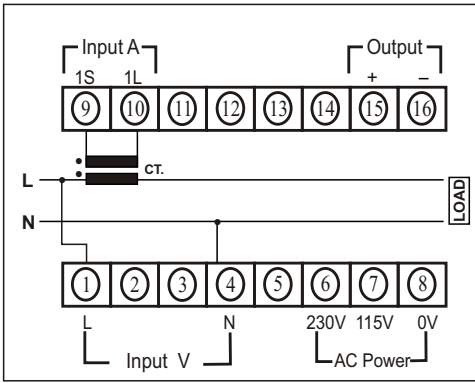
- Watt : 4 digits, auto. Range
- Burden : Voltage 0.2VA  
Current 0.2VA
- Max. over : Voltage  $\rightarrow$  AC 650V continuous  
Current  $\rightarrow$  3 x rated continuous

### Output

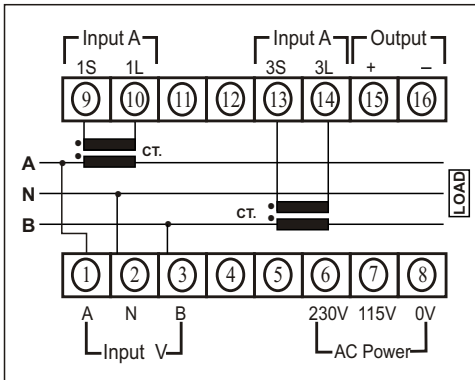
- RS-485 Interface (Option)**  
Address : 1 ~ FF  
Baudrate : 19200, 9600, 4800, 2400, 1200  
Frame : N.8.1  
Protocol : Modbus RTU Mode
- Pulse Output (Option)**  
Output : Open collector  
1 Count / 1Pulse (Standard)

## ■ Connection Diagram

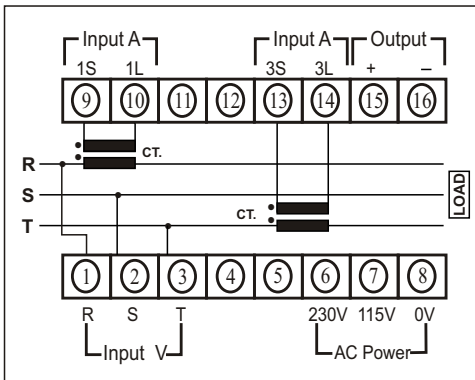
### Model : DE - 12WH



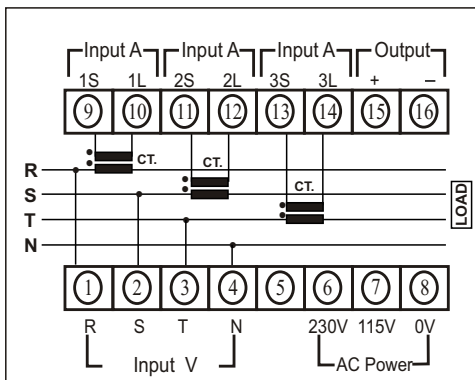
### Model : DE - 13WH



### Model : DE - 33WH



### Model : DE - 34WH



## ■ Order Code

DE - 12WH

DE - 13WH

DE - 33WH

DE - 34WH

Input AC V

1 : 120V

2 : 240V

3 :  $\sqrt{3} \cdot 120V/120V$

4 :  $\sqrt{3} \cdot 240V/240V$

Y : Option

Input A

1 : 0.01~1A

2 : 0.05~5A

Y : Option

Input Freq.

1 : 50Hz

2 : 60Hz

Y : Option

Power Supply

1 : AC 115/230V  $\pm 10\%$ , 50/60Hz

Y : Option. (DC 24, 48, 120V)

Output

N : None

1 : RS-485

2 : 1 Count / Pulse

Y : Option

### Code Number

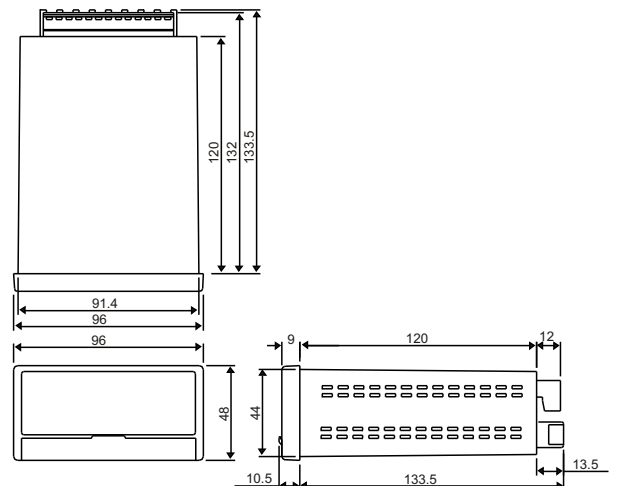
Example : DE - 33WH - 122 - 1 - 1

Input : AC 120V, 0.05~5A, 60Hz

Power Supply : AC 115/230V  $\pm 10\%$ , 50/60Hz

Output : RS-485

## ■ Dimensions



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ISO 9001

Appearance and specification may be revised if needed without notice in prior.