

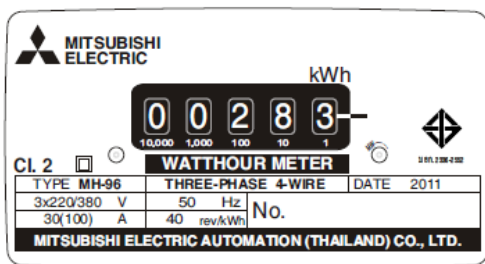
## WATTHOUR METER

### Three-Phase 4-Wire

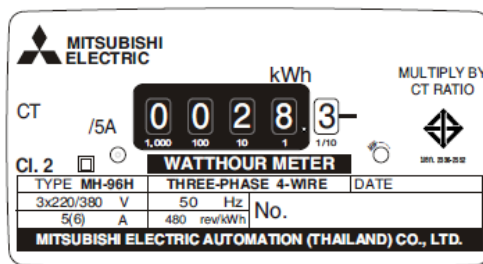
#### How to read the energy (kilo-watthour)

The measured energy is shown on register in 2 formats.

1. Energy shown in the integer only. This format is used for direct-connected meter  
(Example in figure 1)
2. Energy shown in the integer with a decimal. This format is used for CT-operated meter  
(Example in figure 2)



**Figure 1**



**Figure 2**

For example:

#### For direct-connected meter:

Figure 1 : measured energy is 283 kWh or 283 unit.

#### For CT-operated meter:

The actual energy consumption is measured by following formula..

$$\text{Actual Energy Consumption} = \text{Energy reading by meter} \times \text{CT Ratio}$$

Figure 2: The energy reading by meter is 28.3 kWh or 28.3 unit, if the CT Ratio is 200/5, the actual energy consumption is measured as following.

$$\begin{aligned} \text{The actual energy consumption} &= 28.3 \times (200/5) \\ &= 28.3 \times 40 = 1132 \text{ kWh (unit)} \end{aligned}$$

## Watt-hour meter supplied in Thailand

### For direct-connected type :

Model	Rating	Energy reading (kWh)	
MH-96	15(45)A 220/380V 50Hz 80 rev/kWh	99999	5 digits without decimal
	30(100)A 220/380V 50Hz 40 rev/kWh		
	50(150)A 220/380V 50Hz 20 rev/kWh		

### For CT-Operated type :

#### (1) Bottom connected type

Model	Rating	Energy reading (kWh)	
MH-96H	5(6)A 220/380V 50Hz 480 rev/kWh	9999.9	5 digits including a decimal

#### (2) Switchboard type

Model	Rating	Energy reading (kWh)	
MH-96HV	5(6)A 220/380V 50Hz 480 rev/kWh	9999.9	5 digits including a decimal