

# Make It Easy





**JOY311MC Three Phase Prepaid Electricity Meter** 





















## **JOY311MC Three Phase Prepaid Electricity Meter**

▶ STS compliant

▶ Open cover detection

▶ Over load protection ▶ No-load protection

External circuit breaker

► External Current Transformer

avoided

OHigh security

level



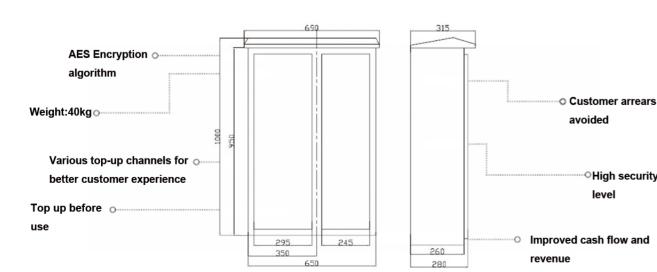
### **DESCRIPTION**

JOY311MC Three Phase Keypad Prepaid Electricity Meter is a new developed CT(Current Transformer) operated meter, which can be provided singly or with the whole solution of meter, CT, and contactors together assembled in a meter box.

It is suitable for residential and commercial applications. Credit and management data is transferred from a point of sales (POS) to the meter via a 20-digit numeric token that is generated using the Standard Transfer Specification (STS) encryption protocol and entered into meter via a keypad.

### **FEATURES**

- Suitable for commercial metering
- ► Complete set of solution of CT meter
- ► Keypad with audible and text feedback
- ▶ Adjustable audio and visual low credit warning level
- Improved sealing against ingress of insects
- ▶ Significant Reverse Energy (SRE) detection
- ▶ Magnetic interference detection
- Easy switch between prepayment and post-payment option
- ▶ Automatic diagnosis of various faults includes contactor fault, memory devices fault, etc.
- ► Optional configuration: JOY311MC (Integrated)



#### **TECHNICAL SPECIFICATIONS**

| Item                             |                           | Parameter   |
|----------------------------------|---------------------------|---|
| Nominal Voltage                  |                           | 3X220/230/240V  |
| Operating Range                  |                           | 70% to 130% of Un                                       |
| Frequency Range                  |                           | 50/60Hz   |
| Base Current (lb)                |                           | 1.5A  |
| Max Current (Imax)               |                           | 6A  |
| Constant                         |                           | 10000 imp/kWh   |
| Accuracy                         |                           | Class 1   |
| Starting Current                 |                           | 4‰lb  |
| Max Withstand Voltage            |                           | 450V (48hr)   |
| Insulation Level                 |                           | 4kV rms for 1 minute                                    |
| Voltage Circuit                  |                           | ≤ 2W/10VA   |
| Current Circuit                  |                           | ≤ 4.5VA@Ib  |
| Electrostatic Discharge          |                           | 16kV air discharge; 10kV contact discharge              |
| Immunity to Fast Transient Burst |                           | 4kV   |
| Surge Immunity                   |                           | 4kV or 6kV alternative                                  |
| User Interface                   |                           | 12 keys, international outlay standard with 0-9 numeric |
|                                  |                           | key, backspace and enter key                            |
| Maximum Cable Size               |                           | Φ6 mm   |
| LCD                              |                           | 8 digits + icons + 2 digits (index)                     |
|                                  |                           | Size: 87mm x 34mm                                       |
|                                  |                           | Backlight reserved                                      |
| LED Indicator                    |                           | Active: 10000 imp/kWh                                   |
|                                  |                           | Reactive: 10000 imp/kVarh                               |
|                                  |                           | Credit LED: low credit alarm with blinking              |
|                                  |                           | Communication LED                                       |
| Buzzer                           |                           | Feedback on key press                                   |
|                                  |                           | Token accept or reject                                  |
|                                  |                           | Low credit alarm with beeps                             |
| Communication(MCU&CIU, if split) |                           | Wired: Non-polarized 2 wires                            |
| Meter Weight                     |                           | 1900g   |
| Meter Dimension                  |                           | 287mm x 170mm x75mm                                     |
| Operating Temperature            |                           | -30°C - 60°C  |
| Storage Temperature              |                           | -40°C - 70°C  |
| Relative Humidity                |                           | ≤ 95%;annual mean 75%                                   |
| IP Rating                        |                           | IP54  |
| Standard<br>Compliance           | Meter Standard            | IEC 62052-11, IEC62053-21, IEC 62055-31                 |
|                                  | Communication<br>Standard | IEC62055-41, IEC62056-21                                |