Joymeter

Make It Easy

JOY311
Three Phase Prepaid Electricity Meter

CE MID KEMA LoRa STS ASSOCIATION TUV SUD dlms COSEM Compliant OMS CNAS ISO ISO9001 M-Bus wireless

Joy Electronic Technology Co., Ltd

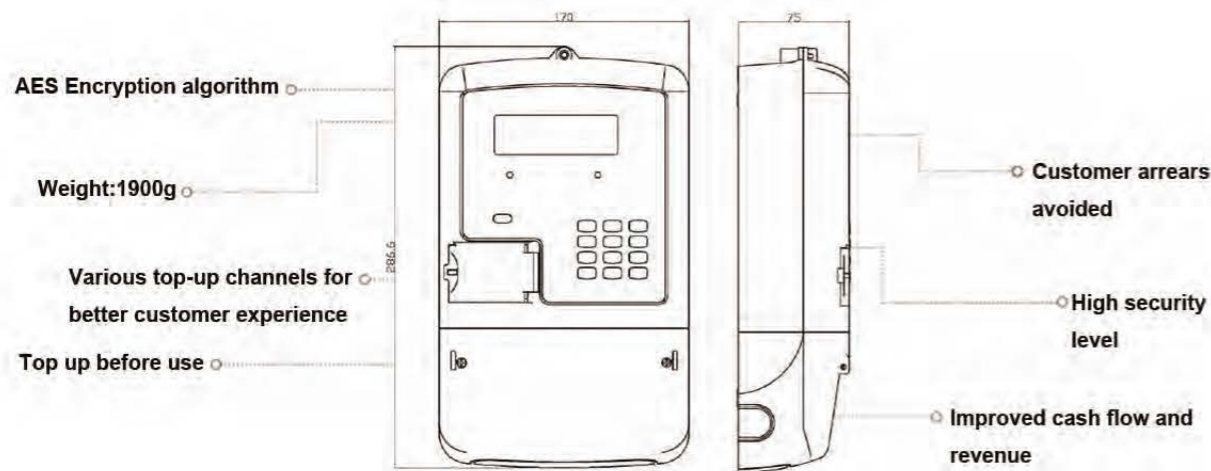# JOY311 Three Phase Prepaid Electricity Meter

↗ DESCRIPTION

JOY311 provides integrated/split solution for kWh measurement and prepayment. It is suitable for residential, commercial and light industrial environments. Credit and management data is transferred from a point of sales (POS) to the meter via a 20-digit numeric token which is generated using the Standard Transfer Specification (STS) encryption protocol and entered into meter via a keypad.

The meter (integrated) or CIU(split) can be installed inside the home making it accessible for the consumer to enter in a credit token.

↗ FEATURES

- ▶ Adjustable audio and visual low credit warning level
- ▶ Reliable three in one relay in controlling the power supply
- ▶ Significant Reverse Energy (SRE) detection
- ▶ Magnetic interference detection
- ▶ Keypad with audible and text feedback
- ▶ Easy switch between prepayment and post-payment option
- ▶ Automatic diagnosis of various faults includes contactor fault, memory devices fault, etc.
- ▶ Optional configuration:
    - JOY311M0 (Integrated)
    - JOY311M2 +CIU3 (2 wire communication)
    - JOY311MP +CIU1 (PLC communication)

- ▶ STS compliant
- ▶ Open cover detection
- ▶ Over load protection
- ▶ No-load protection
- ▶ Enlarged LCD

AES Encryption algorithm

Weight:1900g

Various top-up channels for better customer experience

Top up before use

Customer arrears avoided

High security level

Improved cash flow and revenue

↗ TECHNICAL SPECIFICATIONS

Item		Parameter
Nominal Voltage		3X220/230/240V
Operating Range		70% to 130% of Un
Frequency Range		50/60Hz
Base Current (Ib)		5A/10A
Max Current (Imax)		100A
Constant		1000 imp/kWh
Accuracy		Class 1
Starting Current		4‰Ib
Max Withstand Voltage		450V (48hr)
Insulation Level		4kV rms for 1 minute
Voltage Circuit		≤ 2W/10VA
Current Circuit		≤ 1.0VA@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		Φ9.5 mm
LCD		8 digits + icons + 2 digits (index)
		Size:87mm x 34mm
		Backlight reserved
LED Indicator		Pulse LED: 1000 imp/kWh
		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)		2-wire or PLC
		Distance: over 200m
Installation		Indoor or outdoor wall-mounted
		CIU optional
Operating Temperature		-30°C - 60°C
Storage Temperature		-40°C - 70°C
Relative Humidity		≤ 95%;annual mean 75%
IP Rating		IP54
Standard Compliance	Meter Standard	IEC 62052-11, IEC62053-21, IEC 62055-31
	Communication Standard	IEC62055-41, IEC62056-21