



Make It Easy



JOY121MP
 Single Phase DIN-Rail Prepaid Electricity Meter

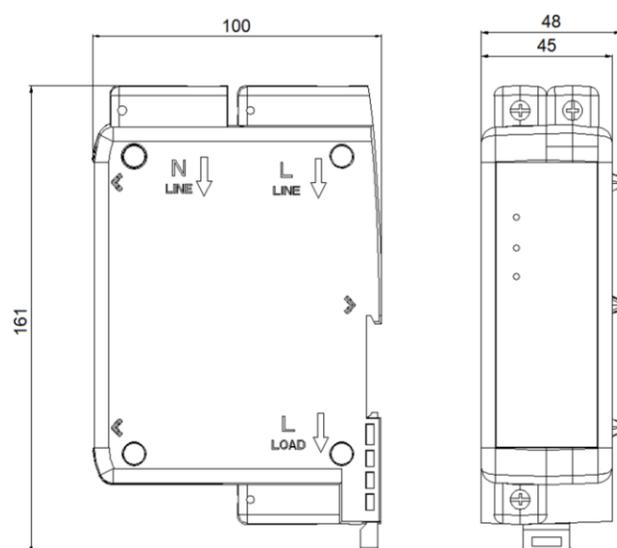
DESCRIPTION

JOY121MP is a DIN-Rail STS prepaid electricity meter, which consists of two parts named MCU (Metering Control Unit) and CIU (Customer Interface Unit).

The MCU can be installed outside the house in a meter box and communicates with the CIU via Power Line Carrier, while the CIU is installed in customer's house. The PLC communication uses existing household power line and does not require additional wiring to the consumer's house.

FEATURES

- ▶ Slim enclosure
- ▶ Significant Reverse Energy (SRE) detection
- ▶ Magnetic interference detection
- ▶ Over load protection
- ▶ Easy switch between prepayment and post-payment option
- ▶ Automatic diagnosis of malfunction includes relay fault, memory fault, etc.
- ▶ Wide working voltage range from 120 to 240V
- ▶ Terminal cover open detection
- ▶ No-load protection
- ▶ STS compliant



TECHNICAL SPECIFICATIONS

Item	Parameter	
Nominal Voltage	120/220/230/240V	
Operating Range	70% to 130% of Un	
Frequency Range	50/60Hz	
Base Current (Ib)	5A/10A	
Max Current (Imax)	100A	
Pulse Constant	1000 imp/kWh	
Accuracy	Class 1	
Starting Current	4%Ib	
Max Withstand Voltage	420V (48hr)	
Insulation Classification	Double insulation	
Insulation Level	4kV rms for 1 minute	
Voltage Circuit	≤ 2W/10VA	
Current Circuit	≤ 1.0VA@Ib	
Electrostatics Discharge	16kV air discharge; 10kV contact discharge	
Immunity to Fast Transient Burst	4KV	
Surge Immunity	4kV or 6kV alternative	
Communication	Optical port	
External Interface	JOYU1	
Disconnection Device	Internal relay	
Terminal Type	Moving cage	
Maximum Cable Size	Φ8.5 mm	
LED Indicator	Pulse LED: 1000 imp/kWh	
	Credit LED: low credit alarm with blinking	
	Communication LED	
Communication With CIU	PLC	
	Distance: over 200m	
Installation	MCU: DIN Rail mounted	
	CIU: free standing/wall mounted	
Weight(without CIU)	400g	
Product Life	15 Years	
	Data retained over 20 years	
Operating Temperature	-30°C ~ 60°C	
Storage Temperature	-40°C ~ 70°C	
Relative Humidity	≤ 95%; annual mean 75%	
IP Rating	IP51	
Standard Compliance	Meter Standard	IEC 62052-11, IEC62053-21, IEC 62055-31
	Communication Standard	IEC62055-41, IEC62056-21