

# NEW MCM SERIES MULTI-CHANNEL ENERGY METER



## Introduction

BLUEJAY new generation multi-channel energy meter is engineered for precise energy monitoring in both residential and industrial settings. It offers flexible channel configurations from 1 to 24, supporting both single-phase and three-phase measurements for diverse applications.

Designed with rigorous safety standards, the meter meets CATIII-300V requirements and can withstand voltages up to 4KV. It also provides versatile communication options, including RS485 and Ethernet, with optional modules such as DI, DO, PO, and AO for enhanced system integration.

## Main Features

- 0.5s High accuracy energy measurement;
- Single-phase and three-phase measurements;
- Supports 1 to 24 channels multi-channel configuration;
- Residential and industrial energy monitoring applications;
- CATIII-300V voltage safety standards;
- Up to 4KV withstand capability;
- Communication: RS485, Modbus-RTU; Ethernet, TCP/IP optional;
- Expandable modules: DI, DO, PO, AI and AO optional;

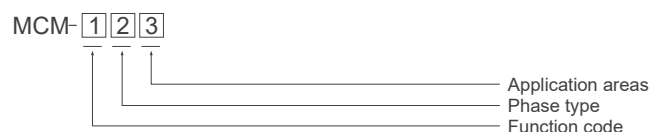
## Measurement Function

| Model                              | MCM211D | MCM243d | MCM263T | MCM283D | MCM283R |
|------------------------------------|---------|---------|---------|---------|---------|
| <b>Metering features</b>           |         |         |         |         |         |
| Basic parameters                   | ●       | ●       | ●       | ●       | ●       |
| Volt. harmonic distortion          | ●       | ●       | ○       | ●       | ●       |
| Curr. harmonic distortion          | ●       | ●       | ○       | ●       | ●       |
| Individual harmonic                | ●       | ●       | ○       | ●       | ●       |
| Time of use (TOU)                  | ●       | ●       | ○       | ●       | ●       |
| Curr. / Volt. unbalance            | ●       | ●       | ○       | ●       | ●       |
| SOE record                         | ●       | ●       | -       | ●       | ●       |
| <b>Measurement signal access</b>   |         |         |         |         |         |
| 1A & 5A                            | ○       | ○       | ●       | ○       | ○       |
| 100mA                              | ●       | ●       | ○       | ●       | ●       |
| 333mV                              | ●       | ●       | ○       | ○       | ○       |
| L-N 300V, 3P                       | ●       | ●       | ●       | ●       | ●       |
| L-L 480V,1P                        | -       | ●       | ●       | ●       | ●       |
| <b>Communications and I/O port</b> |         |         |         |         |         |
| RS-485/ Modbus RTU                 | ●       | ●       | ●       | ●       | ●       |
| Ethernet 10/100MB                  | ○       | ○       | -       | ○       | ○       |
| Digital input/ output              | ○       | ○       | ●       | ○       | ○       |
| Analog input/ output               | ○       | ○       | -       | ○       | ○       |
| Pulse output                       | ○       | ○       | ●       | ○       | ○       |

●With this function ○Optional function -Without this function

(1) Basic parameters: Voltage, Current, Frequency, Total power factor, Active power, Reactive power, Apparent power, Active energy, Reactive energy, Individual harmonic.

## Ordering Information



| Num. | Code | Description   |
|------|------|---|
| 1    | 1    | 1 Metering ICs built-in: for 3*single phase measurement only  |
|      | 2    | 2 Metering ICs built-in: for 6*single phase/2*three phases  |
|      | 4    | 4 Metering ICs built-in: for 12*single phase /4*three phases  |
|      | 6    | 6 Metering ICs built-in: for 18*single phase/6*three phases   |
|      | 8    | 8 Metering ICs built-in: for 24*single phase /8*three phases  |
| 2    | 1    | Single phase  |
|      | 3    | Three phases  |
| 3    | T    | T: CT access, Default 5A CT, 100mA CT optional, for industrial use<br>t: CT access, 333 mV/100mA CT optional, for residential billing |
|      | D    | D: Direct access, for industrial use<br>d: Direct access, for residential billing   |
|      | R    | R: RJ45 current terminal, for industrial use<br>r: RJ45 current terminal, for residential billing                                     |

## Technical Characteristics

| Model                      | MCM211D   | MCM243d               | MCM263T        | MCM283D              | MCM283R              |
|----------------------------|---|-----------------------|----------------|----------------------|----------------------|
| Current measurement (TRMS) |   |                       |                |                      |                      |
| Power supply               | DC/AC 85~265 ± 10 %, 50 / 60 Hz                                 |                       |                |                      |                      |
| Consumption                | < 10 VA   |                       |                |                      |                      |
| Measurement channels       | 3*1P  | 4*3P/ 12*1P           | 6*3P/ 18*1P    | 8*3P/ 24*1P          | 8*3P/ 24*1P          |
| Current measurement (TRMS) |   |                       |                |                      |                      |
| PT secondary               | 100mA,333mV optional  | 100mA, 333mV optional | Standard 1A/5A | 100mA,333mV optional | 100mA,333mV optional |
| Frequency                  | 0 ... 9999A   |                       |                |                      |                      |
| Overload                   | 1.2 times rated continuous; 5 seconds for 10 times of the rated |                       |                |                      |                      |
| Input consumption          | <0.2 VA   |                       |                |                      |                      |
| Voltage measurement (TRMS) |   |                       |                |                      |                      |
| PT secondary               | 100VAC / 400VAC   |                       |                |                      |                      |
| Overload                   | 30 seconds for 2 times of the rated                             |                       |                |                      |                      |
| Input consumption          | <0.2 VA   |                       |                |                      |                      |
| Safety                     |   |                       |                |                      |                      |
| Voltage level              | /   |                       | CATIII-300V    |                      |                      |
| Withstand voltage          | 2.5KV   |                       | 4KV            |                      |                      |
| Communication              |   |                       |                |                      |                      |
| Interface                  | RS485/Ethernet optional   |                       |                |                      |                      |
| Protocol                   | Modbus RTU/TCP,IP   |                       |                |                      |                      |