

DCEM SERIES DC ENERGY METER

■ DC ENERGY METER



■ Introduction

DCEM series DC energy meter is mainly used to monitor the DC circuit, which can measure the basic power, demand, extreme value of the DC circuit, and measure the combined electric energy. All DC metering device is with RS485 communication interface and the accuracy class is 0.5.

DC metering offered by Blue Jay includes DCEM-4MS, DCEM-7MS, DCEM-5MC, DCEM-96S and DCEM-3MS. They are compatible with DC shunts or Hall effect current transformers, widely used in communication base stations, solar panels, vehicle charging stations, and DC panel.

■ Main Features

- Small and portable, easy to install.
- Powerful data acquisition and processing functions.
- Ultra-clear screen display, clearly view the measurement results.
- Fast response, rapid measurement of current or voltage changes.
- High precision for accurate current, voltage and resistance measurements.
- High voltage shock resistance reaches level 4; surge anti-interference to level 3.
- Electrostatic discharge immunity reaches level 3; electrical fast transient burst immunity reaches level 4.

■ Application



■ Ordering Information

Model	Current signal	Voltage signal	Measurement channel	Access	Appearance Info
DCEM-4MS	Shunt input: 0-75mV Hall CT input:5-500A	Typical 100V, Max up to 1000V	2 Channels	Shunt/ CT	Segment LCD 72*94.5*48.5mm
DCEM-7MS	Directly input default: 10A (Optional 1mA, 20mA, 100mA, 1A/5A)	Typical 100V, Max up to 600V	8 Channels	Directly access / external CT	No screen 120*110.5*50mm
DCEM-5MC	Hall CT input, default 0-4VDC	Typical 300V, Max up to 1000V	4 Channels	CT	Dot matrix LCD 89*128*41mm
DCEM-96S	Shunt input, default 75mV	Typical 300V, Max up to 600V	1 Channels	Shunt	Segment LCD 96*96*75mm
DCEM-3MS	Shunt input, default 75mV	Typical 300V, Max up to 1000V	1 Channels	Shunt	Segment LCD 50*104*63mm

Technical Characteristics

Model	DCEM-4MS	DCEM-7MS	DCEM-5MC	DCEM-96S	DCEM-3MS
Working power					
Power supply	AC / DC 80-265V, 45-65Hz DC 20-60V Optional	9~30 VDC	AC / DC 80-265V, 45-65Hz DC 20-60V Optional		
Power consumption	≤4VA				
Measurement					
Impedance	>1 KΩ/V	> 2 KΩ/V	>1 KΩ/V		
Overload	Measurement: 1.2 times Instantaneous: 2 times/10s				
Channel	2 Channels	8 Channels	4 Channels	1 Channel	1 Channel
Accuracy (depends on transducer)	1.0fs for enegyger, 0.5fs for other	U / I :0.2%fs, P :0.2%fs, Energy :0.5%fs	0.5%fs	1.0fs for enegyger, 0.5fs for other	0.5%fs
Safety					
Insulation resistor	>100MΩ				
Pressure resistance	Input and power supply>4kV; input and output>4kV; power supply and output>4kV.	Input and power>2kV; input and output>2kV; power and output>2kV.			
Other					
Communication	RS485 MODBUS-RTU				
Storage environment	-30~75°C				
Working environment	-25~55°C ,Altitude ≤2000m, 98%RH, no condensation, no corrosive gas.				