DCEM SERIES
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. Moreover , it can measure DC current and DC system electrical parameters. All DC metering device is with RS485 communication interface and the accuracy class is 0.5.

DC metering offered by Blue Jay includes DCEM-7MS, DCEM-5MC, DCEM-96S and DCEM-3MS. It can track the performance of DC systems on multiple parameters. They are used in conjunction with DC shunts or DC transformers, widely used in communication base stations, solar panels, car charging piles, 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	Access	Screen	Dimension
DCEM-7MS	Directly input default 10ADC (Optional 1mA, 20mA, 100mA, 1A/5A)	Typical 100V, Max up to 600V	Directly access / external CT	/	120*110.5*50mm
DCEM-5MC	Hall CT input, default 0-4VDC	Typical 300V, Max up to 1000V	CT	Dot matrix LCD	89*128*41mm
DCEM-96S	Shunt input, default 75mV	Typical 300V, Max up to 600V	Shunt	Segment LCD	96*96*75mm
DCEM-3MS	Shunt input, default 75mV	Typical 300V, Max up to 1000V	Shunt	Segment LCD	50*104*63mm

Technical Characteristics

Model	DCEM-7MS	DCEM-5MC	DCEM-96S	DCEM-3MS
Working power				
Power supply	9~30 VDC	85~265 VDC/AC	85~265 VDC/AC	85~265 VDC/AC
Power consumption	≤4VA	≤4VA	< 5VA	≤4VA
Measurement				
Impedance	> 2 KΩ/V	>1 KΩ/V	>1 KΩ/V	>1 KΩ/V
Overload	Measurement: 1.2 times Instantaneous: 2 times/10s			
Channel	8 Channels	4 Channels	1 Channel	1 Channel
Accuracy (depends on transducer)	U / I :0.2%fs, P :0.2%fs, Energy :0.5%fs	0.5 class	1.0fs for enegyer, 0.5fs for other	0.5%fs
Safety				
Insulation resistor	>100MΩ			
Pressure resistance	Input and Power>2KV; Input and Output>2KV; Power and Output>2KV			
Other				
Communication	RS485 MODBUS-RTU/ Ethernet, Modbus TCP-IP			
Storage environment	-30~75°C			
Working environment	-25~55°C ,Altitude ≤2000m, 98%RH, no condensation, no corrosive gas			