Accuenergy DC Power Meter

- Measures Power & Energy
- 3 Line LCD Display
- Limit Alarm
- Analog & Relay Outputs
- Modbus Communication
- Digital Input & Output Options
- 72x72 DIN Mounting

AcuDC243

Applications:

- DC Energy Management
- Solar Photovoltaic Systems
- Industrial DC Control Systems
- Wind Power Generation
- Light Rail Transit Systems
- Metallurgy & Electroplating
- DC Excitation Systems
- Telecommunication Power Distribution

SPECIFICATIONS

Parameter	Accuracy	Resolution	Range
Voltage	0.2%	0.001V	0~1200V
Current	0.2%	0.005A	0~±50000A
Power	0.5%	0.001kW	0~±60000kW
Energy	0.5%	0.01kWh	0~9999999.99kWh

Voltage Input Range	Direct Input 0~1000V; Via Hall Effect Sensor 0~1200V
Input Impedence / Load	2Mohm / <0.6W
Current Input Range	0~±20A(Direct Input, pick up current 0.02A); 0~±50000A(Via Shunt or Hall Effect Sensor)
Shunt	50~100mV(programmable)
Hall Effect Sensor	0~±5V/0-±4V, 4~20mA/12mA±8mA
Power Consumption	2W(Max)
Digital Input (DI)	Dry Contact, 2500Vac isolation
Relay Output (RO)	Form A, 250Vac/30Vdc@3A
Isolation	4000Vac
Digital Output (DO)	PhotoMOS, 2500Vac isolation
Load Voltage Range	0~250Vac/dc, 100mA(max)
Max Output Frequency	25Hz, 50% duty cycle
Analog Output (AO)	4-20mA/0~20mA; 0~5V/1-5V
Load Capacity	mA: 750 Ohm; V: 20 mA
Communications	RS485, half duplex, 2500Vac isolation
Protocol	Modbus-RTU, 1200~38400bps
Operating Temperature	-25°C ~ +70°C 5%~95% RH (non-condensing)

ORDERING INFORMATION

To Order—Insert Number Code for Each Letter to Select Catalog Number.
Order Example: AcuDC243-300-A2-P1-X1-C

AcuDC243– [A] – [B] – [C] – [D] – [E]

A	Voltage Input	
	1000	1000VDC nominal
	600	600VDC nominal
	300	300VDC nominal
	60	60VDC nominal
	5	5V/4V via Hall sensor
B	Current Input	
	A0	±20A
	A1	50 or 100mV shunt
	A2	Volt Hall Sensor 0 to ±5V/±4V
	A3	Current Hall Sensor 4-20mA
C	Power Supply	
	P1	100-415 VAC, 50-60 Hz; 100-300 VDC, 3 W
	P2	20-60 VDC, 3 W
D	I/O	
	X1	2DI+2AO (4-20mA/0-20mA)
	X2	2DI+2AO (0-5V/1-5V)
	X3	2DI+2RO
	X4	2DI+2DO
E	Communication	
	C	RS485, Modbus RTU
	(blank)	None

Byram Digital Synchroscope

- Measure Voltage Difference, Phase Angle Difference, Frequency Difference
- True RMS Measurements
- Relay Output
- ANSI Case
- Touch Screen Graphic Display

Applications

- Synchronizing alternator & BUS inputs.
- Synchronizing two different BUS inputs.
- Synchronizing two different alternator inputs.

The Byram Digital Synchroscope displays actual difference of voltage, frequency & phase angle between the BUS (Reference) voltage & generator (Incoming) voltage. When two alternators or sources are to be parallelled it is necessary that their frequency & amplitude should be equal and phase difference be near to zero. When all these 3 parameters are within the required limits, the meter indicates that the two sources can be parallelled.

SPECIFICATIONS

Input Voltage (nominal):	100-500V Line-Line
Input Voltage Burden:	0.2 VA nominal
Max Input Voltage:	600V Line-Line
Overload Withstand:	2x nominal voltage for 1 sec., repeated 10 times at 10 second intervals
Frequency Range:	45 to 66 Hz
Response Time:	Approx. 1 second for step input
Isolation:	2kV rms for 1 minute, between running & incoming circuits
Accuracy	
Voltage Difference:	±1% of nominal value
Phase Angle Difference:	±2 degrees
Temperature Coefficient:	0.05%/degC
Output	
Relay Contacts:	Form A (NO)
Contact Rating:	240V AC, 5 Amp
General	
Operating Temperature:	-10 to +55°C, <95% RH non-condensing
Storage Temperature:	-20 to +65°C
Warmup Time:	3 minutes minimum
Rating:	CAT III, pollution degree 2
Protection:	IP54 front
Enclosure:	Polycarbonate front and case
Dimensions:	4.31" x 4.31" x 1.55" depth (114x114x39mm)
Panel Cut Out:	4.06" (103mm) diameter, 4 stud positions

ORDERING INFORMATION

MCS106452-DIGITAL	Digital Synchroscope with Relay