BPM SERIES STANDARD DIGITAL PANEL METER

Introduction

BPM series standard digital panel meter especially developed for indication and supervision of the three-phase circuit, replaces an analogical display meter, reducing installation procedure and optimizing utilization of panel space.

It's ideal for protection of single phase or three- phase networks, it is monitored and usually have superior and subordinate alarms. Protection of the parameters of programming by password.

Main Features

- Measurement functions include:current, voltage, three-phase total power, power factor, frequency.
- 0.5% high-precision measurement.
- Large HD LED screen display.
- Password protected programming parameters.
- Protection for single-phase and three-phase networks.
- ITF technology:input and output current insulation protection.
- RS-485 communication, optional expandable I/O modules.
- Various installation sizes, excellent panel space utilization.
- Wide range power supply (85-265VAC/DC)

Ordering Information

BPM 1 – 2 3 – 4 5

- 1: Series type
- 2: Panel size
- 3: Function code
- 4: Communication
- 5: Phase number

Num.	Code	Description
1	2	Basic type
	3	Economic type
2	96	96(W)x96(H)x71(D)mm
	72	72(W)x72(H)x71(D)mm
	80	80(W)x80(H)x71(D)mm
3	U	Voltage meter
	I	Current meter
	P	Active power meter
	Q	Reactive power meter
	H	Power factor meter
	F	Frequency meter
	UI	Voltage & current combine meter
	UIF	Voltage & current& frequency combine meter
	PQH	Power & power factor combine meter
	E	Economic multifunction meter
4	Blank	Without this function
	R	With RS485 interface, Modbus-RTU
5	1	Single-phase
	3	Three-phases

Note: BPM2 series only can select from num.2-4.

Measurement Function

Model	BPM2/3 -96U	BPM2/3 -96I	BPM2/3 -96P	BPM2/3 -96Q	BPM2/3 -96H	BPM2/3 -96F	BPM3 -96UI	BPM3 -96UIF	BPM3 -96PQH	BPM3 -96E
Parameter										
Voltage	●	-	-	-	-	-	●	●	-	●
Current	-	●	-	-	-	-	●	●	-	●
Active power	-	-	●	-	-	-	-	-	●	●
Reactive power	-	-	-	●	-	-	-	-	●	●
Power factor	-	-	-	-	●	-	-	-	●	●
Frequency	-	-	-	-	-	●	-	●	-	●
Active energy	-	-	-	-	-	-	-	-	-	●
Reactive energy	-	-	-	-	-	-	-	-	-	●
Expansion module										
Analog output	-	-	-	-	-	○	○	○	○	○
Digital output	-	-	-	-	-	○	○	○	○	○
Energy pulse output	-	-	-	-	-	○	○	○	○	●

●With this function ○Optional function -Without this function

Technical Characteristics

Model	BPM2	BPM3
Current measurement (TRMS)		
CT secondary	1 or 5 A Ture RMS	
Measurement range	0 ... 11 kA	
Input consumption	<0.4 VA	
Voltage measurement (TRMS)		
Measurement range	18 ... 400 VAC Ture RMS	
PT secondary	100VAC or 400VAC	
Frequency	50 / 60 Hz	
Input consumption	<0.1 VA	
Frequency measurement		
Measurement range	45 ... 65 Hz	
Accuracy	±0.02Hz	
Measurement accuracy		
Voltage, current	0.50% (IEC 61557-12)	
Active power, reactive power	0.50% (IEC 62053-21)	
Active energy	Class 1.0 (IEC 62053-22)	
Reactive energy	Class 2.0 (IEC 62053-23)	
Power supply		
AC voltage	220VAC	85-265V AC/DC ± 10 %,Optional 20-60VDC
Consumption	≤4VA	
I/O Module		
Pulse outputs (PO)	NONE	Equipped on meter with energy meter function
Quantities	/	Optional 1 - 2 channel
Pulse constant	/	5000imp/kWh 20000imp/kVarh
Optocoupler isolation capability	/	2kVac r.m.s
Relay outputs (DO)	/	Optional 1 - 4 channel
Load capacity	/	5A@250Vac or 5A@30Vdc
Digital inputs (DI)	/	Optional 1 - 6 channel
Quantities of port	/	96mm size meter max 6*DI 80mm and 72mm size meter max 4* DI
Load capacity	/	Ri<500Ω turn on, Ri>100kΩ turn off
Analog output (AO)	/	Optional 1 - 3 channel, current 4~20mA,
Load capacity		load <390Ω, or 0~10V, load >100KΩ
Quantities of port	/	96mm size meter max 3*AO 80mm and 72mm size meter max 1* AO
Communication		
Protocol	/	Modbus RTU
MODBUS speed	/	4800 / 9600 / 19200 bauds
Others		
Calibration environment	27°C ± 5°C	
Operation environment	0 to 50°C,RH < 70%	
Storage environment	-10 to 60°C,RH < 70%	
Weight	Appx.300-400g	Appx.300g
Dielectric strength (AUX terminal)	2 kV at 50Hz for 1 min	