

Single & Twin Display Models
Up to 36 Function Ranges
Safe For CAT III Locations
Industrial Reliability
Stylish & Handy
Compact Size



BM110
BM120 Series

Versatile Clamp-on Multimeter

BRYMEN[®]
BRIGHT PEOPLE'S CHOICE
<http://www.brymen.com.tw>

BM126

BM125

BM112

BM111



BM126	BM125	BM112	BM111	FUNCTIONS & FEATURES
•	•	•	•	VERSATILE & STYLISH; CLAMP-ON + FULL MULTIMETER RANGES
•	•	•	•	FULLY AUTO-RANGING ON ALL FUNCTIONS FOR EASE OF USE
•	•	•	•	30ms MAX HOLD TO CAPTURE PEAK CURRENTS (AUTO-RANGING)
•	•	•	•	0.3% BEST DCV ACCURACY; FAST MEASUREMENTS
•	•	•	•	3-3/4 DIGITS 4,000 COUNTS HIGH RESOLUTION
•	•	•	•	600VAC/DC INPUT PROTECTION ON ALL FUNCTIONS
•	•	•	•	DATA HOLD
•	•	•	•	SIMULTANEOUS TWIN DISPLAYS A+V, A+°C, A+Ω, ... ETC
•	•	•	•	TYPE-K TEMPERATURE -20°C TO 300°C
	•	•	•	0.1μA RESOLUTION (VIA TEST LEADS) FOR FLAME SENSORS
		•	•	AC TRUE RMS VOLTAGE AND CURRENT FUNCTIONS
		•	•	RELATIVE ZERO FEATURE
		•	•	MEASURES NON-INVASIVE CURRENT FREQUENCY VIA CLAMP JAW
•	•	•	•	HIGH VOLTAGE FREQUENCY WITH AUTO-RANGING TRIGGER LEVELS
•	•	•	•	DCV 0.1mV TO 600V; ACV 1mV TO 600V
•	•	•	•	ACA 0.01A TO 400A NON-INVASIVE CURRENT MEASUREMENTS
•	•	•	•	RESISTANCE 0.1Ω TO 40MΩ; CAPACITANCE 100pF TO 3000μF
•	•	•	•	DIODE TEST; FAST AUDIBLE CONTINUITY
•	•	•	•	RUGGED FIRE RETARDED CASING; SOFT CARRYING POUCH
•	•	•	•	TRANSIENT PROTECTION 6.5kV 1.2/50μS LIGHTNING SURGE
•	•	•	•	LVD EN61010-2-032(1995) CAT III 600V
		•	•	LVD EN61010-2-032(1995) CAT II 600V & CAT III 300V
•	•	•	•	EMC EN61326(97/98A1), EN61000-4-2(95), EN61000-4-3(96)

It Is Not Only A Clamp-On But Also A Full Function Multimeter !

2 Times The Functions But At Half The Price By New ASIC Technology !



You Are Probably Working In CAT III Locations If You Measure Tens Of Amps & Up !

CAT III location examples given by IEC61010 second edition are: Measurements on distribution boards, circuit-breakers, wiring, including cables, bus-bars, junction boxes, switches, socket-outlets in the fixed installation.

BM111, BM112, BM125, & BM126 GENERAL SPECIFICATIONS

Display : 3-3/4 digits 4000 counts LCD display(s)
Update Rate : 3 per second nominal
Polarity : Automatic
Low Battery : Below approx. 2.4V
Operating Temperature : 0°C to 40°C
Relative Humidity : Maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50% relative humidity at 40°C
Altitude : Operating below 2000m
Storage Temperature : -20°C to 60°C, < 80% R.H. (with battery removed)
Temperature Coefficient : nominal 0.15 x (specified accuracy)/°C @ (0°C -18°C or 28°C -40°C), or otherwise specified
Sensing : Average sensing for BM111, BM125, & BM126. True RMS for BM112
Safety : Meets IEC61010-2-032(1994), EN61010-2-032(1995), UL3111-2-032(1999).
 For BM125 & BM126: Category III 600 Volts ac & dc.

For BM111 & BM112: Category II 600 Volts ac & dc, and Category III 300 Volts ac & dc.
Transient protection : 6.5kV (1.2/50µs surge) for all models
Pollution degree : 2
E.M.C. : Meets EN61326(1997, 1998/A1), EN61000-4-2(1995), and EN61000-4-3(1996)
 In an RF field of 3V/m:
 Capacitance function is not specified
 µA function (BM125 only) : Total Accuracy = Specified Accuracy + 65 digits
 Other function ranges: Total Accuracy = Specified Accuracy + 45 digits
 Performance above 3V/m is not specified
Overload Protections :
 ACA Clamp-on jaws : AC 400A rms continuous +/µA & COM terminals (all functions) : 600VDC/VAC rms
Power Supply : 1.5V alkaline button batteries (IEC/JIS LR44, GAP76, or V13GA). Two batteries

for BM111 & BM112, and four batteries for BM125 & BM126
Power Consumption : 2.5 mA typical
APO Timing : Idle for 30 minutes
APO Consumption : 0.8µA typical on all model functions except that 25µA typical on BM126 temperature function, and 150µA typical on BM112 voltage & current functions
Dimension : L190mm X W63mm X H32mm
Weight : 187 gm approx
Jaw opening & Conductor diameter : 26mm max
Accessories : Test leads (pair), batteries installed, user's manual, & soft carrying pouch. Banana plug type-K bead probe Bkp60 x 1 (BM126 only)
Optional Accessories : Banana pins to type-K socket plug adapter Bkb32 (for BM126 only)

BM111, BM112, BM125, & BM126 ELECTRICAL SPECIFICATIONS

Accuracy is +/- (% reading digits + number of digits) or otherwise specified, at 23°C +/- 5°C & less than 75% R.H.

¹⁾ Model BM112 True RMS accuracy of ACV is specified from 5% to 100% of range, and ACA is specified from 10% to 100% of range, or otherwise specified. Maximum Crest Factor < 1.75 : 1 at full scale & < 3.5 : 1 at half scale, and with frequency component within the specified frequency bandwidth for non-sinusoidal waveforms

DC Voltage

RANGE	Accuracy
400.0 mV	0.3% + 4d
4.000V, 40.00V, 400.0V	0.5% + 3d
600V	1.0% + 4d

NMRR : >50dB @ 50/60Hz
 CMRR : >120dB @ DC, 50/60Hz,
 Rs=1kΩ

Input Impedance : 10MΩ, 30pF nominal
 (1000MΩ for 400.0mV range)

AC Voltage

RANGE	Accuracy ¹⁾
50Hz -- 500Hz	
4.000V, 40.00V, 400.0V	1.5% + 5d
600V	2.0% + 5d

CMRR : >60dB @ DC to 60Hz, Rs=1kΩ
 Input Impedance : 10MΩ, 30pF nominal

ACA Current (Clamp-on)

RANGE	Accuracy ¹⁾
50Hz / 60Hz	
40.00A	1.9% + 8d
400.0A	1.9% + 8d*
600A**	unspecified

*Accuracy specified to 350A continuous, and 400A for 60 second max with 5 minutes cool down interval

**Added range to indicate instantaneous over-range current values

Max Hold (where applicable)

Specified accuracy +/- 50 digits for changes > 25ms in duration

Audible Continuity Tester

Audible threshold : between 20Ω and 120Ω.

Ohms

RANGE	Accuracy
400.0Ω	0.8% + 6d
4.000kΩ, 40.00kΩ, 400.0kΩ	0.6% + 4d
4.000MΩ	1.0% + 4d
40.00MΩ	2.0% + 4d

Open Circuit Voltage : 0.4VDC typical

Capacitance

RANGE*	Accuracy**
500.0nF, 5.000µF, 50.00µF, 500.0µF, 3000µF	3.5%*** + 6d

*Additional 50.00nF range accuracy is not specified

**Accuracies with film capacitor or better

***Specified with battery voltage above 2.8V (approximately half full battery). Accuracy decreases gradually to 12% at low battery warning voltage of approximately 2.4V

Hz Frequency

Function	Sensitivity (Sine RMS)	Range
400.0mV	150mV	10Hz -- 2kHz
4.000V	3.2V	5Hz -- 40kHz
40.00V	25V	5Hz -- 100kHz
400.0V	100V	5Hz -- 100kHz
600V	400V	5Hz -- 25kHz
*400.0µA	500µA	10Hz -- 30kHz
*2000µA	500µA	10Hz -- 30kHz
**40.00A	45A	40Hz -- 400Hz
**400.0A	55A	40Hz -- 400Hz

Best resolution: 0.001Hz

Accuracy: 0.5%+4d

*Hz available to BM125 only

**Hz available to BM111 & BM112 only

Diode Tester

Open Circuit Voltage	Test Current (Typical)
< 1.6 VDC	0.25mA

DC µA (BM125 only)

RANGE	Accuracy	Burden Voltage
400.0µA	1.5% + 4d	2.8mV/µA
2000µA	1.2% + 3d	2.8mV/µA

AC µA (BM125 only)

RANGE	Accuracy	Burden Voltage
50Hz -- 500Hz		
400.0µA	2.0% + 5d	2.8mV/µA
2000µA	1.5% + 5d	2.8mV/µA

Type-K Temperature (BM126 only)

RANGE	Accuracy*
-20°C TO 300 °C	2% + 3 °C
-4 °F TO 572 °F	2% + 6 °F

*Type-K thermocouple range & accuracy not included



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