

**Up To 45 Function Ranges With Industrial
Reliability At Great Prices !
30ms Fast Max Hold
& Beep-Jack™
Warning
Features !**



BM800 Series
Practical Multimeter

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

BM807**BM806****BM805**

BM807	BM806	BM805	FUNCTION & FEATURE
●	●	●	3-3/4 DIGITS 4,000 COUNTS LARGE EASY TO READ LCD DISPLAY
●	●	●	BEEP-JACK™ AUDIBLE WARNING AGAINST IMPROPER PLUG IN
●	●	●	MAX HOLD (30ms RESPONSE TIME)
●	●	●	FAST AUTO-RANGING MEASUREMENTS
●	●	●	0.3% BEST DCV ACCURACY
●	●	●	RELATIVE ZERO MODE
●	●	●	AUTO POWER OFF
●	●	●	DATA HOLD
●			AC TRUE RMS VOLTAGE & CURRENT FUNCTIONS
●			BACK-LIGHTED LARGE EASY TO READ LCD DISPLAY
●	●		TYPE-K TEMPERATURE -20°C TO 300°C
●	●	●	DCV 0.1mV TO 1000V
●	●	●	ACV 0.1mV TO 1000V
●	●	●	DCA 0.1μA TO 20A
●	●	●	ACA 0.1μA TO 20A
●	●	●	OHM 0.1Ω TO 40MΩ
●	●	●	FREQUENCY 5Hz TO 1MHz
●	●	●	CAPACITANCE 100pF TO 3000μF
●	●	●	DIODE TEST
●	●	●	FAST AUDIBLE CONTINUITY
●	●	●	RUGGED FIRE RETARDED CASING
●	●	●	REPLACEABLE AND WASHABLE PROTECTIVE HOLSTER
●	●	●	600V GENERAL PROTECTION ON OHM, CAPACITANCE, ... ETC
●	●	●	TRANSIENT PROTECTION UP TO 6.5kV 1.2/50μs LIGHTNING SURGE
●	●	●	LVD MEETS EN61010-1 CAT II 1kVDC/AC & CAT III 600VAC/DC
●	●	●	EMC EN61326(97/98A1), EN61000-4-2(95), EN61000-4-3(96)

People Can Hardly Build Better Value Even With Cheap Materials ... And The Bright People Will Not Sacrifice Safety For Cost !

FULLY AUTORANGING

SHORTENS THE TIME TO TEST AND INCREASES THE EASE OF USE

%4-20mA LOOP CURRENT

SUPPORTS CALIBRATION LEVEL 0.05% ACCURACY ON THE 40mA RANGE, AND TRANSFERS THE CURRENT READINGS TO %4-20mA READINGS FOR PROCESS CONTROL APPLICATIONS

T1-T2 TEMPERATURE

T1-T2 TWO CHANNELS K-TYPE TEMPERATURE MEASUREMENTS

FUNCTION SELECTION

CONVENIENTLY TOGGLE BETWEEN PRIMARY & SECONDARY FUNCTIONS

RANGE

AUTORANGING WITH MANUAL-RANGING OVERRIDE

CAPACITANCE

AUTORANGING UP TO 10.00mF WITH 600V PROTECTION

DIODE TEST

FOR CHECKING DIODES AND RECTIFIERS

Hz FUNCTION

FREQUENCY MEASUREMENT WITH 4 SELECTABLE TRIGGER LEVELS

HARMONICS INDEX (HIX)

INDICATES THE PRESENCE OF HARMONICS BY A PERCENTAGE % INDEX READING

HBC FUSE PROTECTED

HIGH BREAKING CAPACITY 600V CERAMIC FUSE PROTECTED

PROTECTIVE HOLSTER

INCREASES PRODUCT DURABILITY

TRUE RMS
MEASURES TRUE VALUE REGARDLESS OF WAVEFORMS

0.15% HIGH BASIC ACCURACY
WITH LARGE EASY TO READ DISPLAY

AUTO POWER OFF (APO)
TO EXTEND BATTERY LIFE

FAST MEASUREMENTS
DATA UPDATES 4 TIMES / SEC

MAX, MIN, & AVG RECORD
RECORD MAX, MIN, MAX-MIN, AND AVG READINGS, AUTORANGING

DATA HOLD
FREEZES THE DISPLAYING READING FOR LATER VIEW

RELATIVE ZERO MODE
FOR CONVENIENT READINGS COMPARISON & OFFSET

AUDIBLE CONTINUITY
FOR QUICK OPEN-SHORT TESTS ON SWITCHES, FUSES, AND WIRES

0.01µA HIGH RESOLUTION
FOR FLAME DETECTORS APPLICATIONS

FIRE RETARDED CASE
FOR REINFORCED SAFETY

SPLASH PROOF CONSTRUCTION
FOR HARSH ENVIRONMENT

TRANSIENT PROTECTION
UP TO 6.5kV 1.2/50µs LIGHTNING SURGE, MORE CONFIDENCE FOR SERIOUS USERS

EMC
MEETS EN55022/A1 CLASS B, EN50082-1, IEC801-2, IEC801-3

LVD
MEETS EN61010-1 CAT III
11.5mm BASIC CREEPAGE & CLEARANCE



BM805, BM806, & BM807 GENERAL SPECIFICATIONS

Display : 3-3/4 digits 4000 counts LCD display
Polarity : Automatic
Update Rate : 3 per second nominal
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 BM805 & BM806. True RMS for BM807
Safety : Meets IEC61010-1(1995), EN61010-1(1995), UL3111-1(1994) to terminals:
V/R : Category III 600 Volts ac and dc, and Category II 1000 Volts ac and dc
A : Category II 250 Volts ac and 150 Volts dc

mA/μA : Category II 250 Volts ac and 150 Volts dc
Transient protection : 6.5kV (1.2/50μs surge)
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
AC 4.000V range: Total Accuracy = Specified Accuracy + 700 digits
AC 400.0μA range: Total Accuracy = Specified Accuracy + 300 digits
Other function ranges: Total Accuracy = Specified Accuracy + 40 digits
Performance above 3V/m is not specified
Overload Protections :
μA & mA : 0.5A/250V Fuse;
A : 15A/250V Fuse;
V : 1050Vrms, 1450Vpeak;
Ω, & Others : 600VDC/VAC rms

Power Supply : 1.5V AAA Size (NEDA 24A or IEC LR03) battery X 2
Power Consumption : 3.2 mA typical
Low Battery : Below approx. 2.4V
Sleep Mode Timing : Idle for 30 minutes
Sleep Mode Consumption : 300μA typical for BM805 & BM806; 360μA typical for BM807
Dimension : L186mm X W87mm X H35.5mm; L198mm X W97mm X H55mm with holster
Weight : 296 gm; 396 gm with holster
Special Features : 30ms Max Hold; Data Hold; Relative zero mode; Beep-Jack™ input warning; Back-lighted display (BM807 only)
Accessories : Test leads (pair), batteries installed, user's manual
Optional Accessories : Banana plug type-K bead probe Bkp60 (BM806 & BM807 only), Banana pins to type-K socket plug adapter Bkb32 (BM806 & BM807 only)

BM805, BM806, & BM807 ELECTRICAL SPECIFICATIONS

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

¹⁾ Model BM807 True RMS accuracy of ACV & ACA is specified from 5 % (10% for AC400.0mV range) 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 components 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
1000V	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	
400.0mV*	4.0% + 5d
4.000V, 40.00V, 400.0V	1.5% + 5d
1000V	4.0% + 5d

CMRR : >60dB @ DC to 60Hz, Rs=1kΩ
Input Impedance : 10MΩ, 30pF nominal
(1000MΩ for 400.0mV range)

*Selection by RANGE button manually

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

DC Current

RANGE	Accuracy	Burden Voltage
400.0μA	2.0% + 5d	0.15mV/μA
4000μA	1.2% + 3d	0.15mV/μA
40.00mA	2.0% + 5d	3.3mV/mA
400.0mA	1.2% + 3d	3.3mV/mA
4.000A	2.0% + 5d	0.03V/A
10.00A*	1.2% + 3d	0.03V/A

*10A continuous, 20A for 30 second max with 5 minutes cool down interval

AC Current

RANGE	Accuracy ¹⁾	Burden Voltage
50Hz -- 500Hz		
400.0μA	2.0% + 6d	0.15mV/μA
4000μA	1.5% + 4d	0.15mV/μA
40.00mA	2.0% + 6d	3.3mV/mA
400.0mA	1.7% + 4d	3.3mV/mA
4.000A	2.0% + 6d	0.03V/A
10.00A*	1.8% + 4d	0.03V/A

*10A continuous, 20A for 30 second max with 5 minutes cool down interval

Hz Frequency

RANGE	Accuracy
5.000Hz, 50.00Hz, 500.0Hz, 5.000kHz, 50.00kHz, 500.0kHz, 1.000MHz	0.5%+4d

Operating input voltage : < 20VAC rms.
Input Signal : Sine wave, or Square wave with duty cycle > 40% & < 70%

Sensitivity :
5Hz -- 100kHz : > 1.3Vp;
100kHz -- 500kHz : > 2.2Vp;
500kHz -- 1MHz : > 4.2Vp

Update Rate : 2 per second nominal

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

Diode Tester

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

Type-K Temperature (BM806 & BM807)

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

Audible Continuity Tester

Audible threshold : between 20Ω and 120Ω.



BRYMEN TECHNOLOGY CORPORATION

TEL: +886 2 2226 3396 (rep)

FAX: +886 2 2225 0025

http://www.brymen.com.tw

Copyright (C) MMI B.t.c. All rights reserved.
Specifications subject to change without notice.
Patents pending. Printed in Taiwan

Distributor :

REGIONALNE BIURO HANDLOWE
03-450 WARSZAWA, Ratuszowa 11 pok.68
tel.: 022 211-13-03; kom. +48 505 107 957
e-mail: warszawa@biall.com.pl

SIEDZIBA GŁÓWNA, SPRZEDAŻ
80-174 GDAŃSK, Otomin, Stoleczna 43
tel.: 058 322-11-91,92; fax: 058 322-11-93
e-mail: biall@biall.com.pl

