High Performance, High Resolution & High Quality !
Plus Attractive High Technology Prices !

CE

BM115/BM116
Performance Clamp-On Series

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

BM116

BM115

116	115	FUNCTIONS & FEATURES
●	●	Versatile & Stylish
●	●	1000A AC Clamp-on + Full Multimeter ranges
●	●	45mm Large jaws opening
●	●	Fully auto-ranging on all functions for ease of use
●	●	4000 counts high resolution; Fast measurements
●	●	600VAC/DC input protection on all functions
●		AC True RMS voltage and current functions
●	●	Data HOLD
●	●	Relative Zero feature
●	●	DCV 0.1mV to 600V
●	●	ACV 0.1mV to 600V
●	●	ACA 0.1A to 1000A non-invasive current measurements
●	●	Ohm 0.1Ω to 40.00MΩ
●	●	Fast Audible Continuity
●	●	Diode Test
●	●	Battery cover with Probe holders
●	●	Rugged Fire retarded casing; Soft carrying pouch
●	●	Transient protection 6.5kV 1.2/50μs lightning surge
●	●	LVD EN61010-2-032 CAT III 600V
●	●	EMC EN61326(97/98A1)/EN61000-4-2(95)/EN61000-4-3(96)

Large Jaws Plus Large LCD Digits !

An Industrial Quality Tool That Is Simple & Easy To Use !

LARGE U-SHAPE CLAMP JAWS
MEASURE ACA OF LARGE SINGLE CONDUCTOR
OR DIFFERENTIAL ACA OF MULTIPLE CONDUCTORS

RUGGED & DURABLE
HIGH-IMPACT FIRE-RETARDED ENCLOSURE
FOR REINFORCED SAFETY & RELIABILITY

LVD CAT III 600V SAFETY
MEETS EN61010-2-032 CAT III 600V

TRUE RMS MEASUREMENTS (BM116 ONLY)
FOR NON-SINUSOIDAL WAVEFORMS
OF AC VOLTAGES & AC CURRENTS

HIGH SPEED AUTO-RANGING
SHORTENS THE TIME TO TEST
AND INCREASES THE EASE OF USE

FUNCTION SELECTION
CONVENIENTLY TOGGLE BETWEEN
PRIMARY & SECONDARY FUNCTIONS

5 FULL DC VOLTAGE RANGES
FROM 400mV RANGE
UP TO 600 V RANGE

5 FULL AC VOLTAGE RANGES
FROM 400mV RANGE
UP TO 600 V RANGE

UP TO AC 1000 AMPS MEASUREMENTS
2 NON-INVASIVE AC CURRENT AUTO-RANGES
VIA CLAMP JAWS; BEST RESOLUTION 0.1A

EMC
MEETS EN61326(1997, 1998/A1),
EN61000-4-2(1995), & EN61000-4-3(1996)

STYLISH & HANDY
ALSO COMES WITH A SOFT POUCH
FOR EASY CARRYING & PROTECTION

DATA HOLD
FREEZES THE DISPLAYING
READING FOR LATER VIEWING

BATTERY COMPARTMENT
WITH ACCESS DOOR FOR
EASY BATTERY REPLACEMENT

PROBE HOLDERS
BUILT-IN PROBE STORAGE HOLDERS

RELATIVE ZERO MODE
FOR CONVENIENT READINGS
COMPARISON & OFFSET ADJUSTMENT

LARGE EASY-TO-READ LCD DIGITS
WITH 3/SEC NOMINAL UPDATE RATE

MANUAL-RANGING MODE
AUTO-RANGING WITH MANUAL-RANGING OVERRIDE

DIODE TEST
FOR TESTING DIODES AND RECTIFIERS

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

RESISTANCE
6 RANGES; AUTO-RANGING
UP TO 40MEGA OHMS WITH 600V PROTECTION

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

BM115 & BM116 GENERAL SPECIFICATION

Display: 3-3/4 digits 4000 counts
Update Rate: 3 per second nominal
Polarity: Automatic
Operating Temperature: 0°C ~ 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 ~ 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 BM115
True RMS sensing for BM116

Pollution Degree: 2
Safety: Meets IEC61010-2-032 (1994), EN61010-2-032 (1995), UL3111-2-032 (1999)
Measurement Category:
CAT III 600V ac & dc
E.M.C.: Meets EN61326 (1997, 1998/A1), EN61000-4-2 (1995), & EN61000-4-3 (1996)
In an RF Field of 3V/m:
Total accuracy = Specified accuracy + 45 digits
Performance above 3V/m is not specified
Overload Protection:
ACA Clamp-on jaws:
AC 1000A rms continuous
+ & COM terminals (all functions):
600VDC/VAC rms

Transient Protection:
6.5kV (1.2/50μs surge) for both models
Low Battery: Below approx. 2.4V
Power Supply: standard 1.5V AAA size (NEDA 24A or IEC LR03) battery x 2
Power Consumption: 2.2mA typical
APO Consumption:
40μA typical on all models functions except 190μA typical on BM116 voltage & current functions
APO Timing: Idle for 30 minutes
Dimension: L224mm x W78mm x H40mm
Weight: approx. 220 gm
Jaws opening & Conductor Diameter: 45mm max
Accessories: Test leads (pair), batteries installed, user's manual, soft carrying pouch

BM115 & BM116 Electrical Specification

Accuracy is ± (% of reading digits + number of digits) or otherwise specified, at 23°C ± 5°C & less than 75% R. H.
True RMS models BM116 ACV & ACA clamp-on accuracies are specified from 5% to 100% of range or otherwise specified. Maximum Crest Factor are as specified below, and with frequency spectrums, besides fundamentals, fall within the meter specified AC bandwidth for non-sinusoidal waveform.

DC Voltage

RANGE	Accuracy
400.0mV	1.0%+ 3d
4.000V, 40.00V, 400.0V	1.7%+ 3d
600V	2.0%+ 4d

NMRR: > 50dB @ 50Hz/60Hz
CMRR: > 120dB @ DC, 50Hz/60Hz, Rs=1kΩ
Input Impedance: 10MΩ, 30pF nominal;
(1000MΩ for 400.0mV range)

AC Voltage

RANGE	Accuracy
50Hz ~ 500Hz	
400.0mV [1]	4.0%+5d
50Hz ~ 60Hz	
4.000V, 40.00V, 400.0V	2.0%+5d
60Hz ~ 500Hz	
4.000V, 40.00V, 400.0V	2.5%+5d
50Hz ~ 500Hz	
600V	3.0%+5d

CMRR: > 60dB @ DC to 60Hz, Rs=1kΩ
Input Impedance: 10MΩ, 30pF nominal
True RMS model BM116 Crest Factor:
< 2.5 : 1 at full scale & < 5 : 1 at half scale
[1]Selection by RANGE button manually, and is specified from AC 40mV (AC 60mV for True RMS model BM116) & up

Ohms

RANGE	Accuracy
400.0Ω	1.5%+6d
4.000kΩ, 40.00kΩ, 400.0kΩ	1.0%+4d
4.000MΩ	1.5%+4d
40.00MΩ	2.5%+4d

Open Circuit Voltage: 0.4VDC typical

Audible Continuity Tested

Open Circuit Voltage: 0.4VDC typical
Range: 400.0Ω; Accuracy: 1.5%+6d
Audible Threshold: between 10Ω and 120Ω

Diode Tester

Open Circuit Voltage	Test Current (Typical)
< 1.6VDC	0.4mA

ACA Clamp-on Current

RANGE	Accuracy [1] [2] [3]
50Hz / 60Hz	
400.0A	1.5%+5d
1000A	1.5%+5d

True RMS model BM116 Crest Factor:
< 2.6 at full scale & < 5.2 at half scale
[1]Add 8d to specified accuracy while reading is below 15% of range
[2]Induced error from adjacent current-carrying conductor: < 0.06A/A
[3]Specified accuracy is for measurements made at the jaw center. When the conductor is not positioned at the jaw center, position errors introduced are:
Add 1% to specified accuracy for measurements made WITHIN jaws marking lines (away from jaws opening)
Add 4% to specified accuracy for measurements made BEYOND jaws marking lines (toward jaws opening)

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BRIGHT PEOPLE'S CHOICE

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