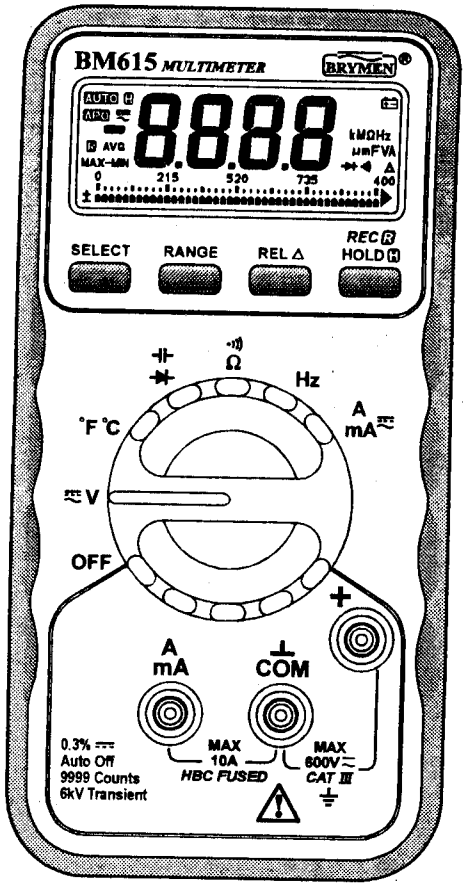
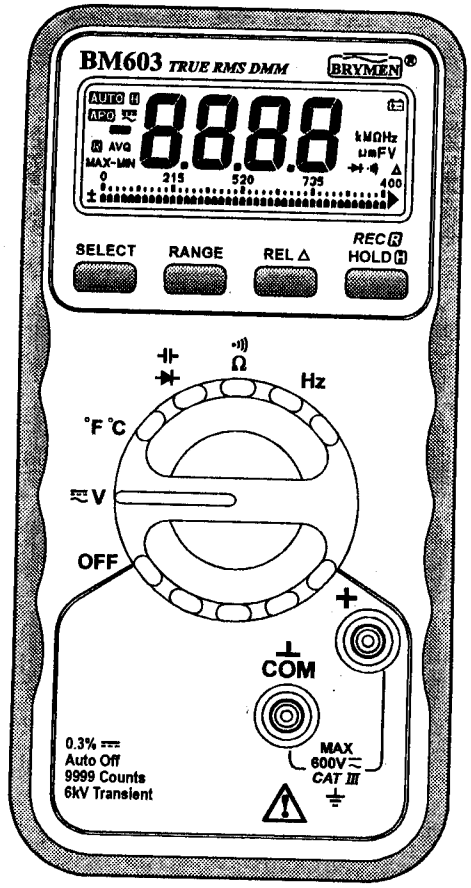
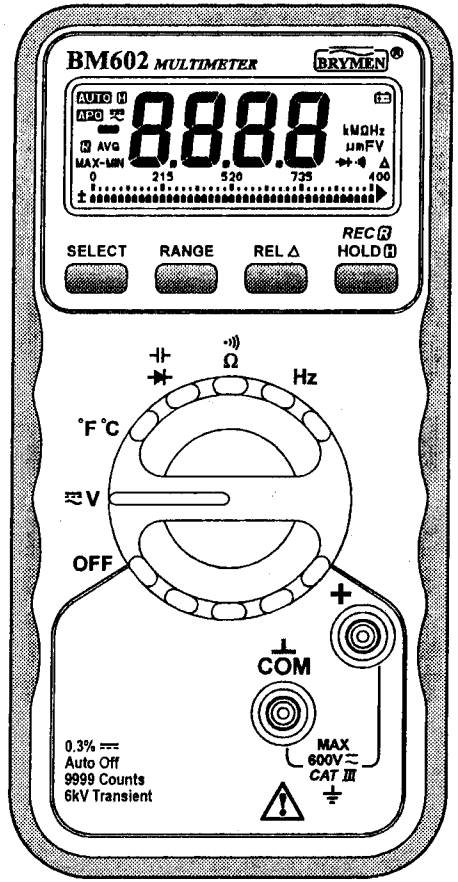


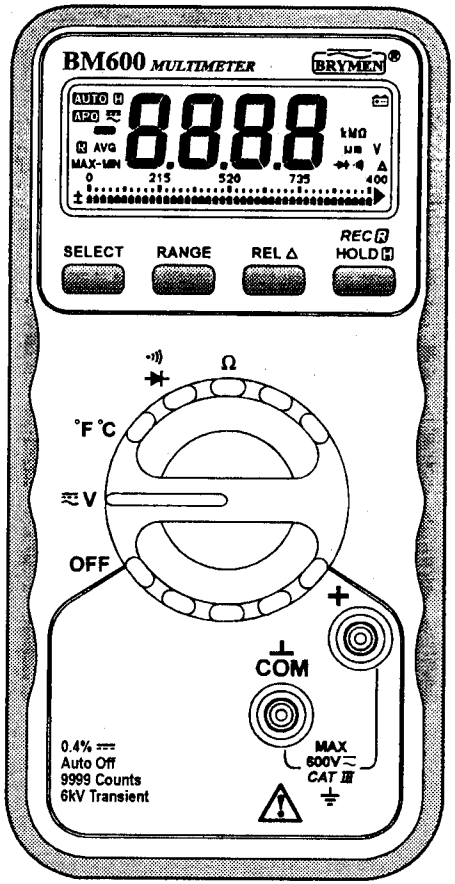
BM615



BM603

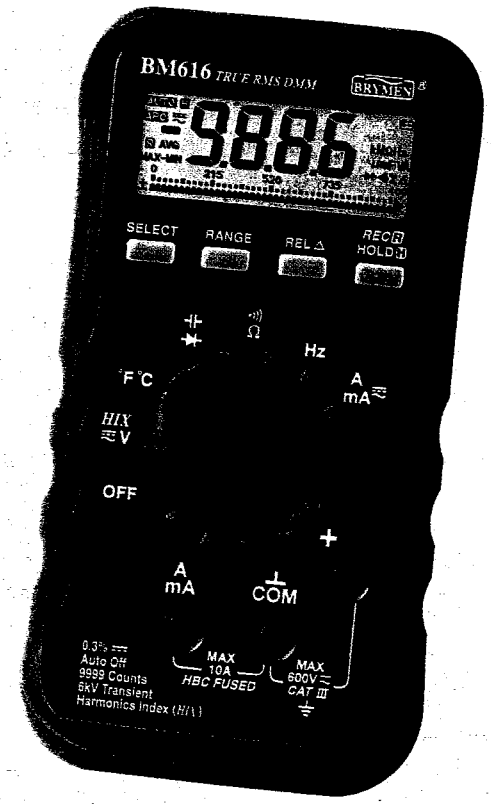


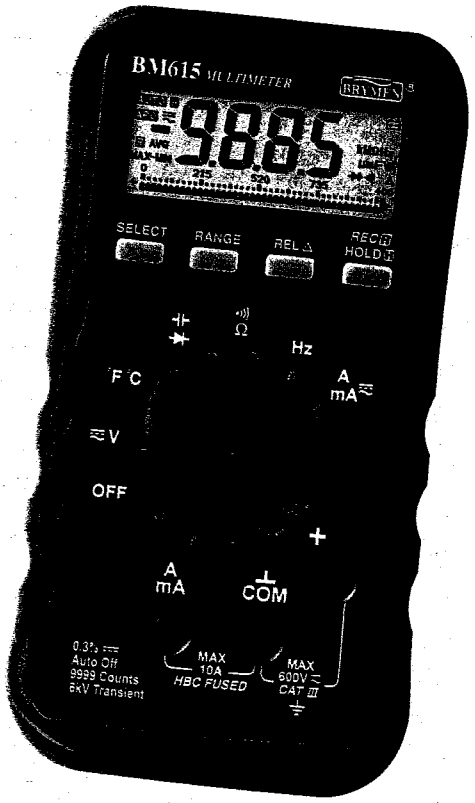
BM602



BM600

Up To 11 Functions!
Fully Autoranging!
Deluxe Features!
High Resolution!
Certified Safety!
High Accuracy!
Digital+Analog!
Gasket Sealed!
Easy To Use!
Compact!
Rugged!





BM600 series is designed especially for Industrial and HVAC applications with enhanced safety. The safety level is in compliance with EN61010-1 & IEC1010-1 installation category III for 600V (Compliant tested & certified in Europe). We adopted more than 11.5mm creepage and clearance in our design for double insulation, 5550V insulation testing, and 6.5kV (raised from 6kV) transient protection on lightning or switching surge with 1.2/50μs open circuit voltage & 8/20μs short circuit current combination waveform.

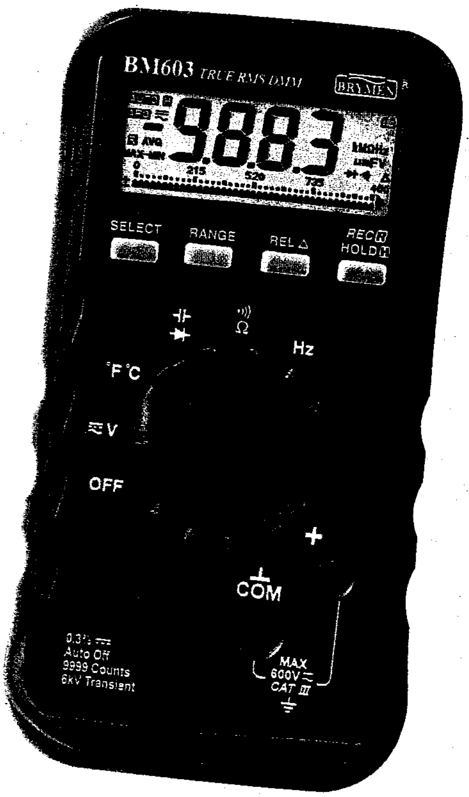
To reinforce the safety of BM600 series, the same level of high energy fuse used in our flag ship model BM837 is adopted to the current function of BM600 series. This high energy fuse is capable of interrupting a high energy fault current up to 100kA under a 600VAC system voltage.

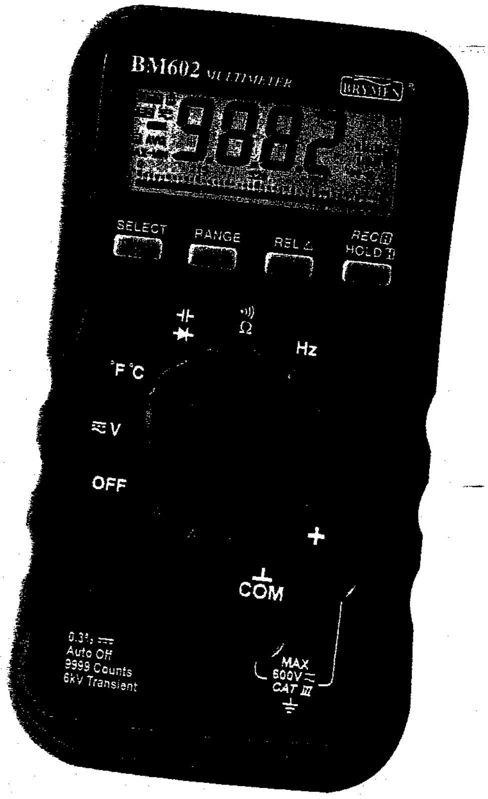
Popular functions are incorporated like DC voltage, AC voltage, DC current, AC current, Resistance, Capacitance, Temperature, Diode, Audible continuity, as well as Frequency measurement with 4 selectable sensitivities for noisy signal applications. We have further invented a brand new function named Harmonics Index™ (HIX™) in the model BM616 for the people who deal with harmonics. HIX™ function is a cost effective alternative to THD or Total Harmonic Distortion. Although HIX™ does not give you the whole harmonic spectrum like the other expensive harmonic analyzer does, HIX™ can effectively indicate the presence of Voltage Harmonics in most cases by a comparative percentage index. Harmonics normally appears in the current waveforms, however, the current harmonics will distort the system voltage waveform and cause voltage harmonics when the system impedance is relatively high. These voltage harmonics will then affect other devices within the same system.

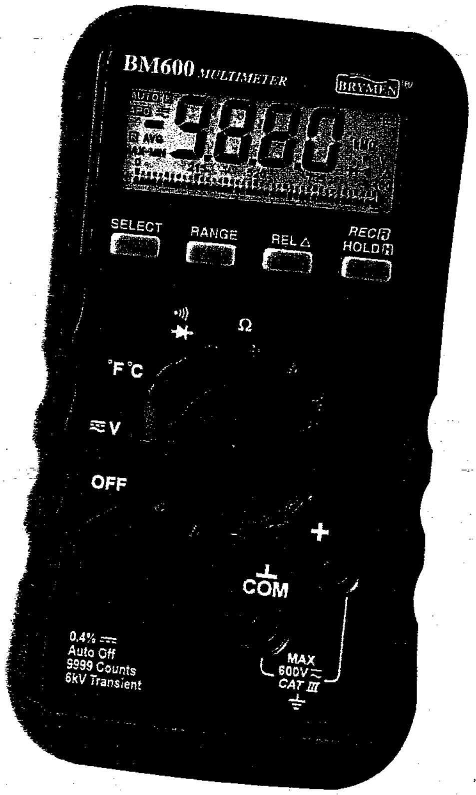
To assist you to work more efficiently, popular features are added as additional bonus like MAX, MIN, MAX-MIN, AVG readings recording mode, relative zero mode, data hold, convenient secondary function selection button, fully autoranging on ALL functions with manual-ranging override, high speed analog bargraph as well as full annunciators on a deluxe LCD display.

Last but not least, BM600 series has a high basic DCV accuracy of 0.3%, and a high resolution of up to 9999 counts 4 digits in most functions. Standard protective holster and gasket sealed casing are also incorporated for the BM600 series to maintain years of service under harsh environment.

BM600 series is a high technology tool for your job, and it is built by high technology production system. Apart from its compact size, BM600 series also has an attractive high technology price to make it a lot more easier to carry.







SELECTION GUIDE	BM600	BM602	BM603	BM615	BM616
4 DIGITS 9999 COUNTS RESOLUTION	■	■	■	■	■
DATA UPDATES 4 TIMES/SEC	■	■	■	■	■
BARGRAPH UPDATES 20 TIMES/SEC	■	■	■	■	■
4 SELECTABLE SENSITIVITIES ON Hz		■	■	■	■
RECORD MAX, MIN, MAX-MIN, AVG	■	■	■	■	■
RELATIVE ZERO	■	■	■	■	■
DATA HOLD	■	■	■	■	■
AUTO POWER OFF	■	■	■	■	■
TRUE RMS			■		■
DCV 999.9mV TO 600.0V	■	■	■	■	■
ACV 999.9mV TO 600.0V	■	■	■	■	■
DCA 4000mA TO 10.00A				■	■
ACA 4000mA TO 10.00A				■	■
Ohm 999.9Ω TO 40.00MΩ	■	■	■	■	■
TEMPERATURE -20℃ TO 500℃	■	■	■	■	■
CAPACITANCE 1.000uF TO 10.00mF		■	■	■	■
FREQUENCY 9.999Hz TO 50.00kHz		■	■	■	■
HARMONICS INDEX 0.0% TO 99.9%					■
FAST AUDIBLE CONTINUITY	■	■	■	■	■
DIODE TEST	■	■	■	■	■
SPLASH PROOF	■	■	■	■	■
FIRE RETARDED CASE	■	■	■	■	■
PROTECTIVE HOLSTER	■	■	■	■	■
6.5kV TRANSIENT PROTECTION	■	■	■	■	■
600V HBC FUSE (IR=100kA) ON A INPUT				■	■
LVD, EN61010-1 CAT III CERTIFIED	■	■	■	■	■
EMC, EN55011 & EN50082-1 COMPLIANT	■	■	■	■	■

GENERAL SPECIFICATIONS

Display : 4 digits 9999 counts LCD
Polarity : Automatic
Update Rate :
Data : 4 per second nominal;
42 Segments Bar graph : 20 per second max
Low Battery: Low battery indicator appears when the battery voltage drops below approx. 7.2VDC
Operating Temperature : 0℃ to 35℃, 0-80% R.H.; 35℃ to 40℃, 0-70% R.H.
Storage Temperature : -20℃ to 55℃, 0-80% R.H. (with battery removed)
APO Timing : Idle for 4 minutes
APO Consumption : 30 μA Typical
Power Supply : Single 9V battery; NEDA1604, JIS006P or IEC6F22
Power Consumption : 3.5 mA Typical
Temperature Coefficient : Nominal 0.15 x (specified accuracy)/℃ @ 0℃ to 18℃ or 28℃ to 40℃
Sensing : True RMS for BM603 & BM616; average responding for BM600, BM602 & BM615
Safety : Certified in Europe to BSEN61010-1 (IEC1010-1) installation category III for 600V, pollution degree 1; and Designed to UL3111-1
E.M.C. : Meets EN55011 and EN50082-1
Overload Protections :
mA & A : 15A/600V HBC Fuse, IR 100kA;
Others : 600VDC/VAC rms
Dimension : L150mm X W75mm X H34mm; L160mm X W82mm X H48mm (with holster)
Weight : Approx. 252 gm; approx. 345 gm (with holster)
Accessories : Test leads (pair), battery (installed), and user's manual
Special Features : Autoranging Relative (Zero), Autoranging Record (Max, Min, Max-Min, Avg readings), and Data Hold

ELECTRICAL SPECIFICATIONS

ACCURACY IS ±(% READING DIGITS + NUMBER OF DIGITS) OR OTHERWISE SPECIFIED, AT 23℃ ±5℃ & LESS THAN 75% R.H.

DC Voltage

Range	BM600	BM602	BM603	BM615	BM616
	Accuracy				
999.9 mV, 9.999 V, 99.99 V	0.4% + 4d	0.3% + 3d			
600.0 V	0.4% + 5d	0.3% + 5d			

NMRR : >50dB @ 50/60Hz
CMRR : >100dB @ DC, 50/60Hz, Rs=1kΩ
Input Impedance:10MΩ, 30pF nominal (16MΩ nominal for 999.9mV range)

AC Voltage

Range	BM600	BM602	BM603*	BM615	BM616*
	Accuracy				
50Hz – 200Hz					
999.9mV	2.5% + 5d				
50Hz – 500Hz					
9.999V, 99.99V, 600.0V	1.5%+4d	1.5%+4d	1.2%+4d	1.5%+4d	1.2%+4d
500Hz – 2kHz					
9.999V, 99.99V, 600.0V	Unspec'd	Unspec'd	2.0%+5d**	Unspec'd	2.0%+5d**

CMRR : >60dB @ DC to 60Hz, Rs=1kΩ
Input Impedance : 10MΩ, 30pF nominal (16MΩ nominal for 999.9mV range)
Trms Crest factor : < 3:1 at full scale, and < 6:1 at half scale
*True RMS Specified from 5% to 100% of range
**True RMS Specified from 10% to 100% of range

DC Current

Range	BM600	BM602	BM603	BM615	BM616
	Accuracy				
4000mA	N/A	N/A	N/A	0.9% + 4d	0.9% + 4d
10.00A*	N/A	N/A	N/A	0.7% + 3d	0.7% + 3d

Burden Voltage : 0.03V/A
*10A Continuous; 20A for 30 Second Max with 5 minutes cool down interval

AC Current

Range	BM600	BM602	BM603	BM615	BM616*
	Accuracy				
50Hz – 500Hz					
4000mA	N/A	N/A	N/A	2.0% + 6d	2.0%+6d**
10.00A***	N/A	N/A	N/A	1.2% + 5d	1.2%+4d
500Hz – 2kHz					
10.00A***	N/A	N/A	N/A	Unspec'd	3% + 5d

Burden Voltage : 0.03V/A
*True RMS Specified from 10% to 100% of range
**True RMS Specified from 25% to 100% of range
***10A Continuous; 20A for 30 Second Max with 5 minutes cool down interval

Harmonics Index™ HIX (BM616 only)

Range	0.0% to 99.9%
Input Voltage	500mVAC to 600VAC

Ohms

Range	BM600	BM602	BM603	BM615	BM616
	Accuracy				
999.9Ω	1.2% + 6d	0.5% + 6d			
9.999kΩ, 99.99kΩ	1.2% + 3d	0.5% + 2d			
999.9kΩ, 4.000MΩ	1.5% + 3d	0.8% + 2d			
40.00MΩ	4% + 3d	1.5% + 2d			

Open Circuit Voltage : Typical 1.3VDC (2.7VDC @ 999.9Ω Range)

Capacitance

Range	BM600	BM602	BM603	BM615	BM616
	Accuracy*				
1.000uF	N/A	1.0% + 4d			
10.00uF, 100.0uF	N/A	1.0% + 3d			
1.000mF	N/A	2.0% + 4d			
10.00mF	N/A	4.0% + 5d			

*Accuracies with film capacitors, or capacitors that have negligible dielectric absorption

Frequency

Range	BM600	BM602	BM603	BM615	BM616
	Accuracy				
9.999Hz	N/A	0.04% + 4d			
99.99Hz, 999.9Hz, 9.999kHz, 50.00kHz	N/A	0.02% + 4d			

Selectable Sensitivities : 1Vrms, 2Vrms, 20Vrms, & 200Vrms (by RANGE button)
Input Signal : Sine wave, or Square wave with duty cycle >40% & <70%

Temperature

Range	Accuracy
-20℃ to 300℃ / 0°F to 572°F	±(3℃+1d) / ±(6°F+2d)
301℃ to 500℃ / 573°F to 932°F	±(2%+1d) / ±(2%+2d)

Sensor : "K" Type Thermocouple, sensor accuracy not included

Diode Tester

Range	Test Current (Typical)	Open Circuit Voltage
9.999V	0.5mA	< 3.5 VDC

Audible Continuity Tester

BM602 BM603 BM615 BM616
Audible threshold : the beeper sounds if the measured resistance is lower than 10 Ω, and turns off when greater than 200 Ω. Response time <150 μs
BM600
Audible threshold : the beeper sounds if the measured voltage is lower than 30 mV, and turns off when greater than 200 mV. Response time <500 ms

BRYMEN TECHNOLOGY CORPORATION

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SILICON INSTRUMENTATION PTE LTD
705 SIMS DRIVE #05-04
SHUN LI INDUSTRIAL COMPLEX
SINGAPORE 387384
TEL : (65) 6743 3318 FAX : (65) 6743 4818
EMAIL: silicon@singnet.com.sg