

17 FUNCTIONS 25 RANGES

Model 2736

Transient Protection
6.5kV
(1.2/50 S surge)

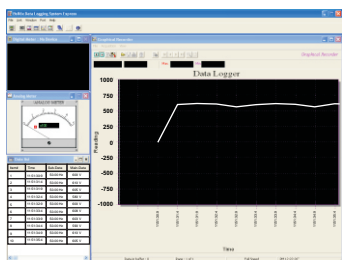


SPECIAL FEATURES

- Selectable Power parameters of KW, KVAR & KVA with Total Power Factor in dual-display
- AutoVA (Auto Selection on ACV, DCV or ACA functions)
- THD%-F Function
- Backlight display
- Display Hold; Peak-rms Hold
- PC Interface Capabilities (Optional)

GENERAL SPECIFICATION :

- * **Sensing :** True RMS sensing
- * **Jaw opening & Conductor diameter :** 45mm max
- * **Display :**
Voltage Function : 6000 counts LCD display
Power, Ohm & Hz functions : 9999 counts LCD display
ACA clamp-on function : 4000 counts LCD display
- * **Update Rate :**
Power function : 2 per second nominal Voltage,
ACA clamp-on & Ohm functions : 2 per second nominal
Hz function : 1 per second nominal
- * **Polarity :** Automatic
- * **Operating Temperature :** 0°C to 40°C
- * **Relative Humidity :** Maximum relative humidity 80% for temperature upto 31°C decreasing linearly to 50% relative humidity at 40°C
- * **Low Battery :** Below approx 2.4V
- * **Altitude :** Operating below 2000m
- * **Storage Temperature :** -20°C to 60°C, < 80% R.H. (With battery removed)
- * **Temperature Coefficient :** nominal 0.15x (specified accuracy) / °C @ (0°C -18°C or 28°C - 40°C), or otherwise specified
- * **Power supply :** Standard 1.5V AAA Battery x 2.
- * **Power Consumption :**
Voltage, ACA, Hz & Power :11mA typical
- * **Ohm function :** 5.5mA typical
- * **APO Timing :** Idle for 30 minutes
- * **APO Consumption :** 4mA typical
- * **Dimension :** 224(L) x 78(W) x 40(H) mm
- * **Weight :** approx. 224 gms.



PC Software Screen



Software CD



BA-1XX Cable

BUA-2303 USB to Serial Adapter

BC-100R USB port Cable

SAFETY :

- Meets IEC61010-2-032(2002), EN61010-2-032(2002), UL61010B-2-032(2003)
- **Measurement Category :** CAT III 600 Volts AC & DC
- **Pollution degree :** 2
- **E. M. C. :** Meets EN61326(1997, 1998/A1), EN61000-4-2(1995,2000/A2), and EN61000-4-3(2002) In an RF field of 3V/m :
Total Accuracy = specified Accuracy + 50 digits
Performance above 3V/m is not specified
- **Overload Protections :**
ACA Clamp-on jaws : AC 1000A rms continuous
& COM Terminals : 600VDC / VAC rms

ACCESSORIES :

Test leads (pair), batteries installed, user's manual & soft carrying case, banana plug type-K thermocouple.

OPTIONAL ACCESSORIES :

PC interface kit (including BA -1XX Cable, BUA-2303 USB to serial adapter, BC-100R USB port Cable & 2709 Software CD).

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

True RMS 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 waveforms. Fundamentals are specified at 50Hz and 60Hz.

ACA CURRENT (Clamp-on)

Range	Resolution	Accuracy ¹⁾²⁾
50Hz / 60Hz		
40.00 A	0.01 A	± (1.0%rdg + 5dpts)
400.0 A	0.1 A	
1000 A	1 A	
45Hz ~ 500Hz		
40.00 A	0.01 A	± (2.0%rdg + 5dpts)
400.0 A	0.1 A	
1000 A	1 A	
500Hz ~ 3.1kHz		
40.00 A	0.01 A	± (2.5%rdg + 5dpts)
400.0 A	0.1 A	
1000 A	1 A	

ACV AutoVA™ Threshold : 1A AC (40Hz ~ 500Hz only) nominal
Crest Factor : <2.5 :1at full scale & <5.0 :1 at half scale for 40.00A & 400.0A ranges
 <1.4 : 1 at full scale & <2.8 : 1 at half scale for 1000A range.

- ¹⁾ Induced error from adjacent current carrying conductor : <0.06A/A
- ²⁾ Specified accuracy is from 1% to 100% of range and 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 jaw marking lines (away from jaw Opening)
 Add 4% to specified accuracy for measurements made BEYOND jaw marking lines (toward jaws Opening)

SINGLE-PHASE & 3-PHASE BALANCED-LOAD POWER

Range	Accuracy ¹⁾²⁾³⁾		
0 ~ 600.0kVA	F ~ 10th	11th ~ 45th	46th ~ 51st
@ PF = 0.99 ~ 0.1	2.0%+6d	3.5%+6d	5.5%+6d
Range	Accuracy¹⁾²⁾⁴⁾		
0 ~ 600.0kW / kVAR	F ~ 10th	11th ~ 25th	26th ~ 45th
@ PF = 0.98 ~ 0.70	2.0%+6d	3.5%+6d	4.5%+6d
@ PF = 0.70~0.50	3.0%+6d		10%+6d
@ PF = 0.50~0.30		4.5%+6d	
@ PF = 0.30~0.20		10%+6d	15%+6d

- ¹⁾ Specified accuracy is for ACA clamp measurement at the center of jaws.
 When the conductor is not positioned at the jaw center, position errors introduced are :
 Add 1% to specified accuracy for ACA measurements made WITHIN jaw marking lines (away from jaw opening)
 Accuracy is not specified for ACA measurement made BEYOND jaw Marking lines (toward jaws opening)
- ²⁾ Add 4d to specified accuracy for 3-Phase Balanced-load Power measurements.
- ³⁾ Add 1% to specified accuracy @ ACA fundamental <6A or ACV fundamental <90V. Accuracy is not specified @ ACA fundamental < 1A or ACV Fundamental <30V
- ⁴⁾ Add 1% to specified accuracy @ ACA fundamental <6A or ACV fundamental < 90V.
 Accuracy is not specified @ ACA fundamental < 2A or ACV fundamental <50V

FREQUENCY

Range	Resolution	Accuracy
5Hz~500Hz	0.01Hz~0.1Hz	±(0.5%rdg + 4dpts)

Sensitivity (Sine RMS)
 40A range : > 4A
 400A range : > 40A
 1000A range: >400A
 600V range : >30V

TEMPERATURE

Range	Accuracy ¹⁾
-50°C ~ 300°C	2% rdg + 3°C
-58°F ~ 572°F	2% rdg + 6°F

Type K-thermocouple range & accuracy not specified.
¹⁾ specified accuracy plus 3°C @ -20°C ~ 50°C or 6°F @ -4°F ~ -58°F)

RESISTANCE

Range	Resolution	Accuracy
999.9	0.1	±(1.0%rdg+6dpts)

Open Circuit Voltage : 0.4VDC typical

AUDIBLE CONTINUITY TESTER

Audible threshold	between 10 and 300
Response time	250ms

PEAK-rms HOLD (ACA & ACV Only)

Response	65 ms to >90%
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AC VOLTAGE

Range	Resolution	Accuracy
50Hz / 60Hz		
600.0V	0.1V	±(0.5%rdg + 5dpts)
45Hz ~ 500Hz		
600.0V	0.1V	±(1.5%rdg + 5dpts)
500Hz ~ 3.1kHz		
600.0V	0.1V	±(2.5%rdg + 5dpts)

CMRR : > 60dB @ DC to 60Hz, Rs=1k

Input Impedance : 2M , 30pF nominal

Crest Factor : < 2.3 : 1 at full scale & < 4.6 : 1 at half scale

ACV AutoVA™ Threshold : 30VAC (40Hz ~ 500Hz only) nominal

DC VOLTAGE

Range	Resolution	Accuracy
600.0V	0.1V	±(0.5%rdg + 5dpts)

NMRR : >50dB @ 50 to 60Hz

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

Input Impedance: 2M , 30pF nominal

DCV AutoVA™ Threshold : 2.4VDC nominal

TOTAL POWER FACTOR (PF)

Range	Accuracy ¹⁾	
0.10 ~ 0.99	F ~ 21 st	22 nd ~51 st
	3d	5d

Specified accuracy @ ACA fundamental > 2A;
 ACV fundamental > 50V

A-lags-V Indication :

LCD annunciator "A-lags-V" turns on to indicate an inductive circuit, or Current lags Voltage V (i.e., Phase-shift angle φ is "+"). A-lags-V Indication is specified at 50/60Hz fundamental without the presence of harmonics, and at ACV > 90V, ACA > 9A and PF < 0.95

THD%-F

Range	Harmonic order	Accuracy ¹⁾
0.0% ~ 50.0%	Fundamental	1.5% + 6d
	2nd ~ 3rd	7% + 6d
	4th ~ 21st	2.5% + 6d ²⁾³⁾
	22nd ~ 51st	10% + 10d ⁴⁾
50.0% ~ 100%	2nd ~ 3rd	Unspecified
	4th ~ 21st	2.5% + 6d ⁵⁾⁶⁾
	22nd ~ 51st	10% + 10d ⁴⁾
100% ~ 450% ⁷⁾	2nd ~ 3rd	Unspecified
	4th ~ 21st	7% + 6d ²⁾⁴⁾
	22nd ~ 51st	Unspecified

THD%-F is defined as : (Total Harmonic RMS / Fundamental RMS) x 100%

- ¹⁾ Accuracy specified @ fundamental ≥ 70V & Total RMS ≤ 600V for ACV THD%-F, fundamental ≥ 6A & Total RMS ≤ 1000A for ACA THD%-F, and Crest Factors @ :
 <2.5 for 600V Range
 <2.5 for 40A Range
 < 3.0 for 400A Range
 < 1.6 for 1000A Range
- ²⁾ Add 4d to specified accuracy @ 40A Range
- ³⁾ Add 4.5% to specified accuracy @ 1000A range
- ⁴⁾ Unspecified @ 1000A range
- ⁵⁾ Add 1% + 4d to specified accuracy @40A Range
- ⁶⁾ Add 4.5% to specified accuracy @ 400A - 750A: Unspecified @ > 750A
- ⁷⁾ -150% for 600V Range.

All Specifications are subject to change without prior notice