KUSAM-MECO®

An ISO 9001:2008 Company

SINGLE PHASE TRMS POWER CLAMPMETER WITH PC INTERFACE Model - KM 2740

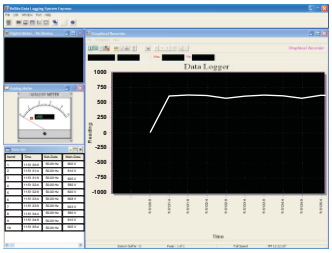
15 FUNCTIONS 23 RANGES

SPECIAL FEATURES :

- Power measurement of selectable W, VAR & VA with dual-display Total Power Factor features
- Auto VA (Auto selection on ACV, DCV or ACA functions).
- Peak-rms HOLD.

GENERAL SPECIFICATIONS

- **Sensing :** True RMS sensing
- **Jaw Opening & Conductor diameter :** 45mm max.
- **Display :** Voltage functions: 6000 counts LCD display(s)
  Power, Ohm & Hz functions:9999 counts LCD display(s)
  ACA clamp-on function: 4000 counts LCD display(s)
- **Update Rate :** Power functions:1 per second nominal.
  Voltage, ACA Clamp-on, Ohm, Hz & Temperature functions : 4 per second nominal.
- **Polarity :** Automatic
- **Low Battery Indication :** 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.
- **APO Timing :** Idle for 17 minutes
- **APO Consumption :** 10µA typical
- **Dimension :** 224mm(L) x 78mm(W) x 40mm(H)
- **Weight :** 224 gms, approx.



PC Software Screen

Software CD

BA-1XX Cable | BUA-2303 USB to Serial Adapter | BC-100R USB port Cable

SAFETY :

- **Safety :** Meets IEC61010-2-032 (2002), EN61010-2-032(2002), UL61010B-2-032(2003)
  Measurement Category : CAT III 600V AC & 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:
  Total Accuracy = Specified Accuracy + 45 digits
  Performance above 3V/m is not specified
- **Overload Protections :** ACA Clamp-on jaws: AC 1000A rms continuous
  + & COM terminals (all functions):600V DC / AC rms.

ACCESSORIES :

Test Leads(pair), Batteries Installed, User's Manual, Soft Carrying Pouch.

OPTIONAL ACCESSORIES :

PC interface kit (including BA -1XX Cable, BUA-2303 USB to serial adapter, BC-100R USB port Cable & KM 2740 Software CD).

All Specifications are subject to change without prior notice

ELECTRICAL SPECIFICATIONS : KM 2740

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 60 Hz.

AC VOLTAGE

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

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

AC CURRENT

Range	Resolution	Accuracy[1)2)]
50Hz / 600Hz		
40.00 A	10 mA	±(1.0%rdg + 5dgts)
400.0 A	100 mA	
1000 A	1 mA	
45Hz ~ 500Hz		
40.00 A	10 mA	±(2.0%rdg + 5dgts)
400.0 A	100 mA	
1000 A	1 mA	±(2.5%rdg + 5dgts)
500Hz ~ 3.1kHz		
40.00 A	10 mA	±(2.5%rdg + 5dgts)
400.0 A	100 mA	
1000 A	1 mA	±(3.0%rdg + 5dgts)

ACA AutoVA Threshold : 1A AC(40Hz~500Hz only)nominal
Crest Factor : < 2.5 : 1 at 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)

PEAK-RMS HOLD (ACA & ACV only)

Response	65ms to 90%

FREQUENCY

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

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

DC VOLTAGE

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

NMRR : > 50dB @ 50 / 60Hz
CMRR : > 120dB @ DC, 50/60Hz, Rs=1K
Input Impedance : 2M , 30pF nominal
DCV AutoVA Threshold : 2.4VDC nominal

RESISTANCE

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

Open Circuit Voltage : 0.4VDC typical

AUDIBLE CONTINUITY TESTER

Audible Threshold	Response time
between 10 and 300	250 S

SINGLE-PHASE & 3-PHASE 3 WIRE BALANCED-LOAD POWER

Range	Accuracy [1) 2)]		
0 ~ 600.0kVA	F~10th	11th~45th	46th~51st
@PF= 0.99~0.1	2.0%+6d	3.5%+6d	5.5%+6d

RANGE	Accuracy [1) 2) 3)]			
0.~ 600.0kW / kVAR	F~10th	11th~25th	26th~45th	46th~51st
@PF= 0.98 ~ 0.70	2.0%+6d	3.5%+6d	4.5%+6d	10%+6d
@PF= 0.70 ~ 0.50	3.0%+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 1% to specified accuracy @ ACA fundamental <5A or ACV fundamental <90V.
Accuracy is not specified @ACA fundamental < 1A or ACV fundamental < 30V
3) Add 1% to specified accuracy @ ACA fundamental <5A or ACV fundamental <90V.
Accuracy is not specified @ ACA fundamental < 2A or ACV fundamental <50V.

TOTAL POWER FACTOR (PF)

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

1)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 A lags Voltage V (i.e., Phase-shift angle is +).
1)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

All Specifications are subject to change without prior notice

KUSAM-MECO®
An ISO 9001:2008 Company

G-17, Bharat Industrial Estate, T. J. Road, Sewree (W), Mumbai - 400 015. INDIA.
Sales Direct.: 022 -24156638, **Tel. :** 022-241224540, 24181649, **Fax :** 022 - 24149659
Email : kusam_meco@vsnl.net, **Website :** www.kusamelectrical.com,