KUSAM-MECO®

An ISO 9001:2015 Company

# AC/DC TRUE RMS DIGITAL CLAMPMETER WITH EF-DETECTION, AMPTIP FUNCTION FOR LOW CURRENT MEASUREMENT

THINK SAFETY
THINK KUSAM-MECO®

## MODEL KM 035

### SPECIAL FEATURES :

- AmpTip™ low-current range calibrated at Jaw-tip for slim-conditions for accurate readings
- MAX / MIN Recording mode.
- MAX / MIN Crest (Peak-Hold) mode.
- Relative-zero mode.
- Display Hold
- EF-Detection (NCV).
- Back-lighted easy-to-read LCD display
- Fully Autoranging
- BeepLit™ Feature.

NEW



Preliminary Data

### GENERAL SPECIFICATIONS :

- ✶ **Basic accuracy (DCV) :** 1.0%
- ✶ **Sensing :** True RMS
- ✶ **Jaws Opening size :** 26mm Max.
- ✶ **Display :** 3-5/6 digits 6000 counts
- ✶ **Update Rate :** 5 per second nominal
- ✶ **Polarity :** Automatic
- ✶ **Operating Temperature :** 0ºC to 40ºC
- ✶ **Relative Humidity :** Maximum relative humidity 80% for temperature up to 31ºC decreasing linearly to 50% relative humidity at 40ºC
- ✶ **Altitude :** Operating below 2000m
- ✶ **Storage Temperature :** -20°C ~ 60°C, \ <80% R.H. (with battery removed)
- ✶ **Temperature Coefficient :** Nominal 0.1 x (specified accuracy) / °C @ (0°C — 18°C or 28°C — 40°C), or otherwise specified
- ✶ **Power Supply :** Standard 1.5V AAA Size Battery X 2
- ✶ **Power Consumption :** typical 14mA
- ✶ **Low Battery :** Below approx. 2.85V for Capacitance & Hz
  Below approx. 2.5V for other functions
- ✶ **APO timing :** Idle for 32 minutes
- ✶ **APO Consumption :** typical 5mA
- ✶ **Dimension :** 188(L) x 66(W) x 32(H)mm
- ✶ **Weight :** approx 202 gms.

### SAFETY :

- **Safety :** Certified per IEC/UL/CSA_C22.2_# / EN standards.
  61010-1 Ed.3.0, 61010-2-032 Ed. 3.0,61010-2 033 Ed. 1.0 & 61010-031 Ed. 2.0 to
  **Measurement Categories** CAT III 600V AND CAT IV 300V AC & DC.
- **Overload Protection :**
  Current via jaws : 600A DC / AC rms at <400Hz.
  Voltage via terminal: 660V DC / 920VAC rms.
  Other functions via terminals : 600V DC / VAC rms
- **Pollution Degree :** 2
- **E.M.C. :** Meets EN61326-1
  DCA and ACA Functions, in an RF field of 1V/m :
  Total Accuracy = Specified Accuracy + 40 digits at around 87MHz
  DCmA & Ohm Functions, in an RF field of 1V/m :
  Total Accuracy = Specified Accuracy + 25 digits
  Other Functions, in an RF field of 3V/m :
  Total Accuracy = Specified Accuracy + 20 digits
- **Transient Protection :** 6.0kV (1.2/50ms surge)
- **Rugged Fire retarded housing.**
- **LVD EN61010-1/61010-2-032/61010-2-033 to CAT III 600V & CAT IV 300V**

**ACCESSORIES :** Test leads set, Users Manual, Carrying case.

## ELECTRICAL SPECIFICATIONS : KM 035

Accuracy is ± (% of reading digits + number of digits) or otherwise specified, at 23°C ± 5°C
Maximum Crest Factor <2 :1 at full scale & <4:1 at half scale or otherwise specified, and with frequency spectrum not exceeding the specified frequency bandwidth for non-sinusoidal waveforms.

### REGULAR AC CLAMP-ON CURRENT

| Range | Resolution | Accuracy[1] |
|---|---|---|
| **50Hz ~ 100Hz** | | |
| 600.0 A | 0.1 A | ±(1.5%rdg + 5dgts) |
| **100Hz ~ 400Hz** | | |
| 600.0 A | 0.1 A | ±(2.0%rdg + 5dgts) |

[1] **Induced error from adjacent current-carrying conductor :** < 0.1A/A

### REGULAR DC CLAMP-ON CURRENT

| Range | Resolution | Accuracy[1] [2] |
|---|---|---|
| 600.0 A | 0.1 A | ±(2.0%rdg + 5dgts) |

[1] **Induced error from adjacent current-carrying conductor :** < 0.1A/A
[2] Specified with DC-Zero mode applied to offset the non-zero residual readings, if any.

### CLAMP-ON AmpTip™ AC CURRENT

| Range | Resolution | Accuracy[1] |
|---|---|---|
| **50Hz ~ 60Hz** | | |
| 60.00 A | 0.01 A | ±(1.0%rdg + 5dgts) |

[1] **Induced error from adjacent current-carrying conductor :** < 0.01A/A

**All Specifications are subject to change without prior notice**

# ELECTRICAL SPECIFICATIONS : KM 035

### CLAMP-ON AmpTip™ DC CURRENT

| Range | Resolution | Accuracy[1)2)3)] |
|---|---|---|
| 60.00 A | 0.01 A | ±(1.0%rdg + 5dgts) |

[1)] **Induced error from adjacent current-carrying conductor :** < 0.01A/A
[2)] Specified with DC-Zero mode applied to offset the non-zero residual readings, if any.
[3)] Add 5d to the specified accuracy @<4A.

### AC VOLTAGE (with Digital Low-Pass Filter)

| Range | Resolution | Accuracy |
|---|---|---|
| **50Hz ~ 60Hz** | | |
| 600.0 V | 0.1 V | ±(1.5%rdg + 5dgts) |

**Input Impedance :** 10MW, 100pF nominal

### RESISTANCE

| Range | Resolution | Accuracy |
|---|---|---|
| 600.0 W | 0.1 W | ±(1.0%rdg + 5dgts) |
| 6.000KW | 1 W | |

**Open Circuit Voltage :** 1.0VDC typical

### BeepLit™ DIODE TESTER

| Range | Resolution | Accuracy[1)] |
|---|---|---|
| 3.000 V | 1 mV | ±(1.5%rdg + 5dgts) |

**Test Current :** 0.3mA typically
**Open Circuit Voltage :** < 3.5VDC typically
**Short Beep Alert Threshold :** Drop across 0.850V
**BeepLit™ ON Threshold :** <0.100V
**Audible indication :** Beep Sound
**Visible Indication :** LCD Backlight.

### CREST (Peak-Hold)

| | |
|---|---|
| **Applicability** | Voltage & Non-invasion Current functions |
| **Accuracy** | Add ± 250 digits to specified accuracy for changes > 5ms in duration. |

### DC VOLTAGE

| Range | Resolution | Accuracy |
|---|---|---|
| 600.0 V | 0.1 V | ±(1.0%rdg + 5dgts) |

**Input Impedance :** 10MW, 100pF nominal

### BeepLit™ CONTINUITY TESTER

| | |
|---|---|
| **Continuity Threshold** | Between 30W & 480W |
| **Continuity ON Response Time** | 15ms approx. |
| **Audible Indication** | Beep sound |
| **Visible Indication** | LCD Backlight |

### NON-CONTACT EF-DETECTION

| Bar-Graph Indication | EF-H (Hi Sensitivity) | EF-L (Lo Sensitivity) |
|---|---|---|
| | Typical Voltage (Tolerance) | |
| - | 10V (2V~20V) | 40V (10V~70V) |
| - - | 20V (4V~40V) | 80V (20V~140V) |
| - - - | 40V (8V~70V) | 160V (40V~280V) |
| - - - - | 80V (16V~140V) | 320V (80V~560V) |
| - - - - - | 160V (>40V) | 500V (>160V) |

**Indication :** Bar-graph segments & audible beep tones proportional to the field strength.
**Detection Frequency :** 50/60Hz
**Detection Antenna :** Inside the top side of the stationary jaw
**Probe-Contact EF-Detection :** For more precise indication of live wires, such as distinguishing between live and ground connections, use one single probe to test via terminal COM for direct Metal Probe-contact EF-Detection to achieve the most distinctive indication.

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