Quality and reliability is our tradition

KYORITSU®

ISO 9001 : 2000 , BS EN 9001
APPROVED BY BVQI

KEW CAT. Ⅳ CLAMP METER SERIES

2040

CE

CAT.Ⅳ 600V

φ33

MAX AC 600A

2046R

CE

CAT.Ⅳ 600V

φ33

MAX AC/DC 600A

TRUE RMS

°C

2055

CE

CAT.Ⅳ 600V

φ40

MAX AC/DC 1000A

2056R

CE

CAT.Ⅳ 600V

φ40

MAX AC/DC 1000A

TRUE RMS

°C

- Designed to international safety standard IEC61010-1 CAT. Ⅳ 600V
- CAT. Ⅳ Clamp Meters can measure the Voltage and Current in both very low and high power circuits.
- Thus, very useful for power distribution companies, power utilities and maintenance fields.
- True RMS enables an accurate measurement (2046R/2056R).
- Red LED, as "Non Contact Voltage" function, gives warning to the user on the presence of AC voltage.
- Double molding gives comfortable feeling in palm.
- 6039 counts with Bar Graph display.
- MIN/MAX function enables to easing keep min & max value during measurement.

KYORITSU ELECTRICAL INSTRUMENTS WORKS,LTD.

KEW CAT. IV CLAMP M

2040 / 2046R

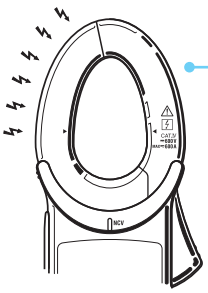
(Actual Size)

Designed to international safety standard IEC61010-1 CAT. IV 600V

600V input protection

Sleep Function to save battery life

NCV Function



Red LED on the upper area on the Panel lights up at All functions except for OFF when electric field exceeding 100V is detected by the sensor incorporated in the Jaws.
It indicates a presence of voltage in an electrical circuit or equipment without touching them.
NCV Sensor can detect electrical field only from left side jaw.
Put the fixed element (left side) closer to the conductor under test.
Detection against in-wall outlet is impossible.

Temperature measurement, switchable between °C and °F (2046R / 2056R) (with K-type temperature sensor)
8216 Optional Temperature Probe : Range -50~300°C(-58~572°F)

Temperature Probe

With Continuity & Diode Check Function

Capacity measurement of capacitors (2046R / 2056R)

Peak Hold Function enables Peak value measurement of inrush current. (Only at AC A Range)

Data Hold Function

Double molded main body provides comfortable feeling in palm

LCD Backlight function to facilitate working at dimly lit situations (Except 2040)

6039 counts with Bar Graph display

REL function to indicate measurement variation (Current, Voltage, Resistance measurement)

MIN/MAX function enables to keep min & max value during measurement

Selection Guide

MODEL	2040	2046R	2055	2056R
AC A	● 600A	● 600A	● 1000A	● 1000A
AC V	● 600V	● 600V	● 600V	● 600V
DC A		● 600A	● 1000A	● 1000A
DC V	● 600V	● 600V	● 600V	● 600V
Ω	● 60MΩ	● 60MΩ	● 60MΩ	● 60MΩ
Capacitance		● 40μF		● 40μF
Frequency	● 10kHz	● 10kHz	● 10kHz	● 10kHz
Temperature		●		●
Data Hold	●	●	●	●
Peak Hold		●		●
MAX / MIN	●	●	●	●
NCV*	●	●	●	●
Backlight		●	●	●
True RMS		●		●

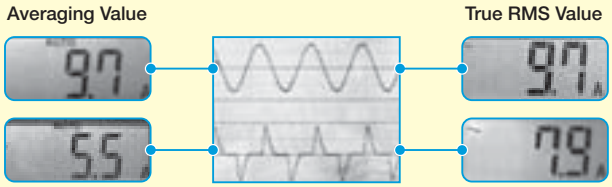
*Non-Contact Voltage

ETER SERIES

2055 / 2056R

(Actual Size)

True RMS (Root Mean Square value) Measurement



When load current is not affected by the distortion, both averaging value type and true RMS (root mean square) type clamp meters show the almost same value of about 10A with constant wave-form as the above display samples. However, when load current is affected by some distortions such as inverter, etc...,averaging value type clamp meter indicates 5.5A instead of 9.7A and true RMS type clamp meter indicates 7.9A instead of 9.7A with irregular wave-form. Accordingly, true RMS type clamp meter is recommendable for the measurement of the equipment with inverter control devices.

Due to the use of thyristors, inverters and other energy-saving controllers in recent electric wiring, current waveforms often include harmonic components and are distorted compared to sinusoidal waves (50/60Hz).

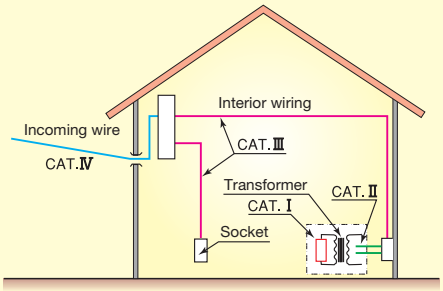
The Kyoritsu True RMS value tester is able to measure distorted waveforms using true RMS since waveforms are being internally calculated continuously. In contrast, when measurements are made with a averaging value tester, errors are generated in the measurement value because the tester cannot continuously track distorted waveforms.

(Compared to the true RMS value tester, measurement values for the averaging value generate more than 30% errors in some cases.)

Crest Factor

The ratio of peak value to root mean square value, expressing the dynamic range. The crest factor on an undistorted sinusoidal wave is 1.41. Any value outside of this means that the waveform is considered to be distorted.

Measurement categories (Over-voltage categories)



To ensure safe operation of measuring instruments, IEC61010-1 establishes safety standards for various electrical environments, categorized as CAT.Ⅰ to CAT.Ⅳ, and called measurement categories. Higher-numbered categories correspond to electrical environments with greater transient energy (that can be very dangerous), so a measuring instrument designed for CAT.Ⅳ environments can endure greater transient energy than one designed for CAT.Ⅲ or lower.

CAT.Ⅰ : Secondary electrical circuits connected to an outlet through a transformer or similar device. Secondary electrical circuit parts inside equipments like TVs, PCs, Copiers, etc.

CAT.Ⅱ : Primary electrical circuits or equipments connected to an outlet by a power cord. Outlets at more than 10 meters from CAT.Ⅲ source, or at more than 20 meters from CAT.Ⅳ source.

CAT.Ⅲ : Primary electrical circuits of the equipment connected directly to the distribution panel. Switchboards, busbars and feeders from the distribution panel to outlets.

CAT.Ⅳ : The circuit from the service drop to the service entrance, and to the power meter and primary over current protection device (distribution panel). Circuits close to the secondary side of low voltage power transformer.

Specifications

MODEL	2040	2046R	2055	2056R
	 CAT.Ⅳ 600V, φ33, MAX AC 600A	 CAT.Ⅳ 600V, φ33, MAX AC/DC 600A, TRUE RMS, °C	 CAT.Ⅳ 600V, φ40, MAX AC/DC 1000A	 CAT.Ⅳ 600V, φ40, MAX AC/DC 1000A, TRUE RMS, °C
AC A	0~600.0A 1.5%rdg±5dgt(50/60Hz) 3.5%rdg±8dgt(40~400Hz)	0~600.0A 2.0%rdg±5dgt(50/60Hz) 3.5%rdg±5dgt(40~500Hz)	0~600.0/1000A 1.5%rdg±5dgt(50/60Hz) 3.0%rdg±5dgt(40~400Hz)	0~600.0/1000A 2.0%rdg±5dgt(50/60Hz) 3.5%rdg±5dgt(40~500Hz)
AC V	6/60/600V Auto Ranging 1.3%rdg±4dgt(50/60Hz) 3.0%rdg±5dgt(40~400Hz)	6/60/600V Auto Ranging 1.5%rdg±4dgt(50/60Hz) 3.5%rdg±5dgt(40~400Hz)	6/60/600V Auto Ranging 1.3%rdg±4dgt(50/60Hz) 3.0%rdg±5dgt(40~400Hz)	6/60/600V Auto Ranging 1.5%rdg±4dgt(50/60Hz) 3.5%rdg±5dgt(40~400Hz)
DC A	—	0~600.0A 1.5%rdg±5dgt	0~600.0A/1000A 1.5%rdg±5dgt	0~600.0A/1000A 1.5%rdg±5dgt
DC V	600m/6/60/600V Auto Ranging 1.0%rdg±3dgt	600m/6/60/600V Auto Ranging 1.0%rdg±3dgt	600m/6/60/600V Auto Ranging 1.0%rdg±3dgt	600m/6/60/600V Auto Ranging 1.0%rdg±3dgt
Frequency / DUTY	10/100/1k/10kHz (Auto Ranging) / 0.1~99.9%			
Ω	600/6k/60k/600k/6M/60MΩ (Auto Ranging) 1%±5dgt(600~6M) / 5%±8dgt(60M)			
Continuity buzzer	Buzzer Sounds at 100Ω			
Conductor Size	φ33mm		φ40mm	
Diode Check	●	●	●	●
Capacitance		400n/4μ/40μF (Auto Ranging)		400n/4μ/40μF (Auto Ranging)
Temperature		●		●
Data Hold	●	●	●	●
Peak Hold		●		●
MAX / MIN	●	●	●	●
Bar Graph	●	●	●	●
NCV*	●	●	●	●
Backlight Display		●	●	●
Withstand Voltage	6880V AC for 5 seconds			
Applicable Standard	IEC61010-1 CAT.Ⅳ 600V, IEC61010-031, IEC61010-2-032, IEC61326			
Power Source	R03 (1.5V)(AAA) × 2			
Dimensions	243(L) × 77(W) × 36(D) mm		254(L) × 82(W) × 36(D) mm	
Weight	300g		310g	
Accessories	Test Lead, R03 × 2 Carrying Case Instruction Manual	Test Lead, R03 × 2 Carrying Case Instruction Manual	Test Lead, R03 × 2 Carrying Case Instruction Manual	Test Lead, R03 × 2 Carrying Case Instruction Manual
Option		Temperature Probe		Temperature Probe

*Non-Contact Voltage

Safety Warnings : Please read the "Safety Warnings" in the instruction manual supplied with the instrument thoroughly and completely for correct use. Failure to follow the safety rules can cause fire, trouble, electrical shock, etc. Therefore, make sure to operate the instrument on a correct power supply and voltage rating marked on each instrument.

For inquires or orders :

KYORITSU ELECTRICAL INSTRUMENTS WORKS, LTD.
No.5-20,Nakane 2-chome, Meguro-ku,
Tokyo, 152-0031 Japan
Phone:81-3-3723-0131
Fax:81-3-3723-0152
URL:http://www.kew-ltd.co.jp
E-mail:info@kew-ltd.co.jp
Factories:Uwajima & Ehime

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