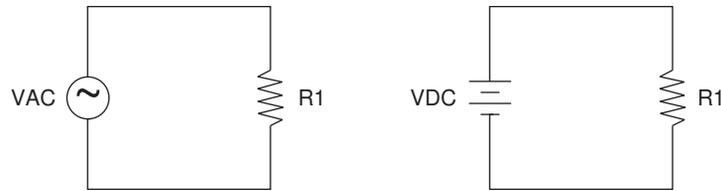


● **What does RMS mean ?**

RMS is the Root Mean Square or effective heating of any AC Voltage or Current waveform. RMS is the equivalent DC heating value of an AC waveform.

● **What is TRMS ?**

TRMS means TRUE ROOT MEANS SQUARE VALUE.



(Power consumed in R1 is same for both AC & DC source if the VAC RMS equals VDC)

● **What causes Non-Sinusoidal waveforms ?**

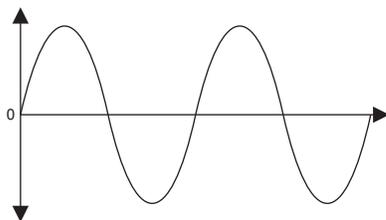
Waveform distortion is caused by non-linear loads which include virtually all electronics loads such as :

- Power Supplies
- Elevators
- Conveyors
- Machine Tool Drives
- High-Tech / IT-Intensive Environments
- Solid State Electronics
- Variable Frequency / Speed Drives
- Fan Controls
- Motor Controls
- High Efficiency HVAC Systems
- Low Voltage Systems
- Phase Controls etc. Dimmers
- Computers
- Inverters
- LED Lamps etc.

● **What is TRMS Meter ?**

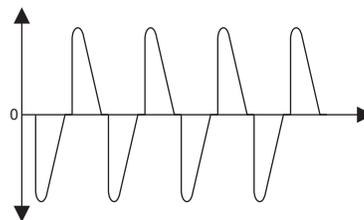
TRMS Meter is a Meter which can accurately measure both Sinusoidal and Non Sinusoidal AC waveforms which usual instrument does not give Correct reading.

Sinusoidal Alternating Current Waves



Pure, without distortion, with symmetrical transitions between peaks and valleys.

Non Sinusoidal Waves



Waves with distorted, irregular patterns-spikes, pulse trains, squares, triangles, sawtooths and any other ragged or angular waves.

● **Response of TRMS Meter vs Average Reading Meter**

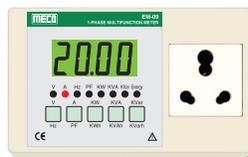
Meter Type	Response to Sine Wave	Response to Square Wave	Response to Single Phase Diode Rectifier	Response to 3 Phase Diode Rectifier
Average Reading	✓	10% High	40% Low	5% to 30% Low
TRMS Reading	✓	✓	✓	✓

Thus the Average - Reading Meter will give bad readings for Non Sinusoidal Wave Shape Measurements. The TRMS Meter will give accurate readings as shown above.

● **MECO Offers a Complete Range of Measuring Instruments for all Your TRMS Applications :**



Multifunction Meter



Energy Meter / Appliance Tester



Digital Panel Meter



Transducer



Multimeter



Clampmeter