



ISO 9001

VISHAWKARMA SCIENTIFIC WORKS

AN ISO 9001 : 2015 Certified Company

761, Dina Mandi, Ambala Cantt

website: www.viskawmeters.co.incontact: +91 9953241920, 8882030155 Email- viskawmeters@gmail.com

DYNAMOMETRIC 1PH / 3PH POWER & POWER FACTOR METER



DESCRIPTION:

Dynamometric-instruments are used for measurement of active, reactive & absolute power in 1 Phase & 3 Phase systems for balanced / unbalanced load conditions. Watt & Var instruments incorporate current coils, which are connected in series with the load & pressure coils of fine wire gauge, which are connected across the load. These instruments work on "Air cored Electro-Dynamometric" principle.

Power Factor meter incorporates two pressure coils one with non-inductive resistance in series & other with capacitance in series & are cross connected. The deflecting torque produced is proportional to the phase angle between current & voltage vectors. The pointer rests anywhere on the scale when meter is not connected in the circuit, as there is no controlling torque.

FEATURES:

- Scale : Non Linear. Side zero or center zero are available.
- Enclosure : Sheet Metal (Black painted).
- Terminal protection : Shrouded terminals to protect from accident. (on request).



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ELECTRICAL SPECIFICATIONS :

Type : Dynamometric.

Operating Voltage : 75V to 500V for 1 Ph. 110V / 440V – PT secondary for 3Ph.

Burden : <1.25VA upto 75V, <2.5VA 100V to 150V, <5VA 200V to 300V<10VA 350V to 600V

Operating Current :0.5A to 10A for 1 Ph. 1A / 5A – CT secondary for 3Ph.

Burden : <5VA upto 5A, <10VA upto 10A.

Frequency : 45 ~ 65Hz. (400Hz. on request).

Accuracy : Class 1.5 for Watt / Var /. 2° for PF.

Insulation Resistance : Greater than 20M Ω at 500V DC

Dielectric Test : 2kV RMS for 1 minute.

Overload Continuous : 1.2 times

Overload Short Time : 2 times VN /10 times IN for 5 seconds.

Operating Temp : -10°C to 55°C

Storage Temp : -20°C to 70°C

Humidity : Up to 95% RH

Conforms To : I.S. 1248 / I.E.C. 60051(Part 3) for WATT / VAR , (Part 5) for PF.

MECHANICAL SPECIFICATIONS :

MODEL	SMI72 (Slide in)	SMI96(Slide in)
SIZE (mm)	72x72x60	69x69
PANEL CUTOUT (mm)	68x68 ^{+0.7}	92x92 ^{+0.8}
SCALE LENGTH (Approx. mm)	90	90
WEIGHT (Approx gms)	<145 For 72 SQ Amps <180 For 72 SQ Volts	<200 For 96 SQ Amps <230 For 96 SQ Volts

Note : Meters are also available in 48x48x45 (smi 48) & 144x144x60 (smi 144) in non slide in dial version

MODEL	SMI72 (Slide in)	SMI96(Slide in)
SIZE (mm)	48x48x45	144x144x50
PANEL CUTOUT (mm)	45x45 ^{+0.6}	138x138 ^{+1.0}
SCALE LENGTH (Approx. mm)	40	145
WEIGHT (Approx gms)	100	400

ORDERING INFORMATION:

1) Type 2) Model 3) Operating Voltage & PTR Voltmeter 4) Operating Current & CTR For Ammeter.