MOTWANE
EMPOWERING MEASUREMENT

Features

- Auto ranging 3¾ digits (3999) LCD-Display.
- True RMS reading for ACV & ACA
- 2 in 1 Clamp meter + Digital multimeter.
- Overload protection for all ranges.
- Data hold, Relative key facility.
- Water resistance front panel, fireproof heavy-duty ABS casing.
- Current sensor- Hall effect sensor
- Over range indication: 'OL' is displayed.
- Max Conductor size 60mm approx.
- Power – one 9V battery type (6F22)
- Size (H X W X L)-255 X 73 X 38 mm (approx)
- Net weight -515 gm with battery (approx)

DCM 39A/9930A

Digital Clamp Meter

MOTWANE's Digital Clamp Meter DCM 39A & DCM 9930A are highly precision, Industrial grade, Trms, auto ranging clamp meters with 3¾ Digit display. Both the clamp meters can be used as Multimeter with test leads for AC/DC Current measurements upto 400 mA, AC/DC Voltage, resistance, Frequency, Capacitance, Duty Cycle and Diode, Continuity etc. These clamp meters are provided with safety features like Water resistance front panel, fireproof heavy-duty ABS casing. It uses a Hall Effect sensor for measuring the current.

The model DCM 39A measures AC/DC currents up to 1000A.

The model DCM 9930A measures AC/DC currents up to 2000A.

Applications

- Generation, transmission & Distribution Substation
- Process industries.
- OEM's
- Railway's
- Telecom Industries
- Service Industries

Technical Specifications

AC/DC CURRENT (TRUE RMS FOR AC) - **DCM 39A**

Range	Resolution	Input	Accuracy
400µA	0.1µA	Direct Input (by using leads)	± 1.2% ± 5dgt
4000µA	1µA		± 1.2% ± 5dgt
40mA	0.01mA		± 1.2% ± 5dgt
400mA	0.1mA		± 1.2% ± 5dgt
400A	0.1A	Indirect Input (by using clamp)	± 2% ± 8dgt
1000A	1A		± 2% ± 8dgt

Overload protection : AC/DC 500mA(Fuse)
AC/DC 1000A/1000V

Frequency Response : 45Hz - 1KHz

AC/DC CURRENT (TRUE RMS FOR AC) - **DCM9930A**

Range	Resolution	Input	Accuracy
400µA	0.1µA	Direct Input (by using leads)	± 1.2% ± 5dgt
4000µA	1µA		± 1.2% ± 5dgt
40mA	0.01mA		± 1.2% ± 5dgt
400mA	0.1mA		± 1.2% ± 5dgt
400A	0.1A	Indirect Input (by using clamp)	± 2% ± 8dgt
2000A	1A		± 2% ± 8dgt

Overload protection : AC/DC 500mA(Fuse)
AC/DC 2000A/1000V

Frequency Response : 45Hz - 1KHz

Common Technical Specifications for DCM39A & DCM9930A

DC VOLTAGE

Range	Resolution	Accuracy	Overload protection
400mV	0.1mV	± 0.5% ± 2dgt	1000V DC or 1000V AC rms (Sine wave)
4V	0.001V	± 1% ± 2dgt	
40V	0.01V	± 1% ± 2dgt	
400V	0.1V	± 1% ± 2dgt	
1000V	1V	± 1% ± 2dgt	

Input Impedance : ≥10MΩ (Approx)

AC VOLTAGE

Range	Resolution	Accuracy	Overload protection
4V	0.001V	± 1.2% ± 5dgt	1000V DC or 1000V AC rms (Sine wave)
40V	0.01V	± 1.2% ± 5dgt	
400V	0.1V	± 1.2% ± 5dgt	
1000V	1V	± 1.2% ± 5dgt	

Input Impedance : 10MΩ (Approx)
Frequency Response : 45Hz - 1KHz

FREQUENCY

Range	Resolution	Accuracy	Overload protection
50Hz	0.01Hz	± 1% ± 5dgt	1000V AC/DC
500Hz	0.1Hz	± 1% ± 5dgt	
5KHz	1Hz	± 1% ± 5dgt	
50KHz	0.01KHz	± 1% ± 5dgt	
100KHz	0.1KHz	± 1% ± 5dgt	

Amplitude : < 5V

RESISTANCE

Range	Resolution	Accuracy	Overload protection
400Ω	0.1Ω	± 1% ± 5dgt	400V DC/AC RMS (Sine wave)
4KΩ	1Ω	± 1% ± 5dgt	
40KΩ	10Ω	± 1% ± 5dgt	
400KΩ	100Ω	± 1% ± 5dgt	
4MΩ	1KΩ	± 2% ± 2dgt	
40MΩ	10KΩ	± 3.5% ± 5dgt	

DUTY CYCLE

Range	Resolution	Accuracy	Over voltage Protection
1% -99%	0.1%	± 1% ± 5dgt	1000 V AC/DC

CAPACITANCE

Range	Resolution	Accuracy	Overload protection
50nF	10pF	± 3% ± 5dgt	400V DC/AC RMS (Sine wave)
500nF	100pF	± 3% ± 5dgt	
5µF	0.001µF	± 3% ± 5dgt	
50µF	0.01µF	± 3% ± 5dgt	

DIODE : Measures forward voltage drop
CONTINUITY CHECK : Buzzer sound if Resistance < 10Ω

Accessories

1) one set of test leads.
2) Carrying Case.
3) Instruction Manual
4) one 9V Battery

Notes

1.The Instrument is accompanied with Test & calibration sheet. 2.Test Facilities can be provided at the factory with the available test set-ups only. 3.The Company's policy is continuous improvement of its products. we therefore reserve the Right of any deviation from illustration or specifications without notice. 4.Stated accuracies are valid from 1/10th of range to FS. 5.Accuracy Specified for temperature range of 25°C ± 5°C & 55%RH ± 10%.

DBS/PC/DCM-02/REV 03

MOTWANE

EMPOWERING
MEASUREMENT

Digital Clamp Meter
DCM 49 A

FEATURES

- 3¾ digit LCD, 4000 counts, Multi function 1000A AC/DC.
- Large Jaw Size : 60mm.
- Function Rich, AC/DC Current, AC/DC Voltage, Resistance, Diode, Continuity, Capacitance, Frequency and Duty Cycle.
- Large Backlit display with rich annunciations.
- Auto Power Off for battery life saving.
- Relative Reading and Data Hold Functions.
- Ergonomic Design for holding.
- Suitable for use in Appliance Testing, Portable Tools, Building Wiring,
- Testing of Electronic / Electrical Products.

GENERAL SPECIFICATION :

- **Dimensions** : 260mm x 91mm X 44.5mm (approx).
- **Weight** : Approx 500gms.
- **Supplied Accessories** : Pair of Leads, Instruction Manual, Battery Installed.
- **Safety** : In accordance with IEC61010-1 and IEC61010-2- 32, double insulation DC 1000V and AC 700V, CAT-II and pollution degree II.

TECHNICAL SPECIFICATIONS

AC/DC CURRENT : (MANUAL RANGING) (50-60Hz)

Range	Resolution	Accuracy	Overload Protection
400A	0.1A	±(2.5% +10d)	120% of Full Scale for <60 sec.
1000A	1A		

DC VOLTS : (AUTO / MANUAL RANGING)

Range	Accuracy	Overload Protection	Input Impedance
4V	± (1.5% +10d)	DC 1000Vor AC 750V rms.	10MΩ(Approx)
40V			
400V			
1000V			

AC VOLTS : (AUTO / MANUAL RANGING)

Range	Frequency Response	Accuracy	Overload Protection	Input Impedance
4V	40Hz -400Hz	±(1.5% +10d)	DC1000V or AC 750V rms.	10MΩ || 30pF (Approx)
40V				
400V				
700V				

RESISTANCE : (AUTO / MANUAL RANGING)

Range	Accuracy	Overload Protection
400Ω	±(1% +5d)	250V DC or AC rms
4KΩ		
40KΩ		
400KΩ		
4MΩ		
40MΩ		

Diode : Measure forward voltage drop. Reverse Circuit. Voltage approx 1.5V. Input protected up to 250V DC or AC rms.

Continuity : Buzzer sound if resistance <50Ω. Input protected up to 250V DC or AC rms.

CAPACITANCE : (AUTO RANGING)

Range	Accuracy	Overload Protection	Open Circuit Voltage
100µF	±(3% + 10d)	250V rms AC or DC	<0.8V

FREQUENCY :

Range	Accuracy	Sensitivity	Overload Protection
10MHz	±(0.5% + 10d)	4V	250V rms AC or DC

DUTY CYCLE :

Range	Resolution	Sensitivity	Overload Protection
0.1% - 99.9%	0.1 %	4V	250V rms AC or DC

ACCURACY :

- All accuracies are claimed from 10% of the range to 95% of range.
- All claims of accuracy are at decade values i.e. 10, 100 etc.
- Accuracy is specified as ± (% of reading + offset in least count digits).
- Accuracy claim is at 23°C ± 3°C , 55% ±10% RH.

Note : Its use is not advised on Multi phase High Energy Circuits where heavy transients are likely to occur.

ENVIRONMENTAL :

Operating Temperature : 0°C to 40°C, <80%RH (Non Condensing).
Storage Temperature : -10° to + 60° < 80%RH (Non Condensing), Battery Removed.
Temperature Coefficient : 0.1 X Accuracy / deg C.

POWER :

Power Source is one 9V Battery NEDA 1604 / 6F22 / 006P
Auto Power OFF : 30 mins. of idle condition.

we have a solution....

DBS/PC/DCM-03/Rev-02

NOTES 1.The Instrument is accompanied with Test & calibration sheet. 2.Test Facilities can be provided at the factory with the available test set-ups only. 3.The Company's policy is continuous improvement of its products. we therefore reserve the Right of any deviation from illustration or specifications without notice. 4.Stated accuracies are valid from 1/10th of range to FS. 5.Accuracy Specified for temperature range of 25°C ± 5°C & 55%RH ±10%.

MOTWANE

EMPOWERING
MEASUREMENT

AC/DC Leakage Clamp Meter

DCM 600

Highly Accurate AC/DC Leakage Current Clamp-on Tester AC/DC 0~200mA/2000mA/10A

FEATURES

- Wide Application for process control and automotive service.
- The world's first AC/DC leakage current clamp tester with 0.1mA resolution.
- The least influence from the external magnetic field and noise with double shielding CT.
- Memory function for maximum Value and minimum value.
- For measurements of 4~20 mA current loop signal of transmission control.

SPECIFICATIONS

Measuring Method	:	Dual integration method with true rms reading.
Measuring Function	:	DC current, AC current (true rms reading) max. hold, min. hold, data hold, auto power off.
Display	:	3½ digit LCD, max. reading of 1999.
Range	:	AC/DC 200mA, 2000mA, 10A.
Jaw Opening Capability	:	20 mm ø.
Sampling	:	1.6 times/s.
Over Range Indication	:	"OL" mark on LCD.
Data Hold Indication	:	"DH" mark on LCD.
Low Battery Indication	:	" ⊟+ " mark on LCD.
Resolution	:	0.1mA / 1mA / 0.01 A.
Accuracy	:	AC/DC Current : ± (3% of reading + 5digit). (23°C ± 5°C, 80% RH or less)
Limitation of Circuit Voltage	:	Less than AC/DC 300 V.
Withstanding Voltage	:	AC 2300V/1 minute max. between the core of CT & outer case.
Operating Temperature	:	0°C ~ 50°C, < 80% RH (Non - Condensing).
Storage Temperature	:	-20°C ~ 60°C, < 75% RH (Non - Condensing).
Power Supply	:	1.5V("AA" size, UM-3) X2.
Battery Life	:	120 hours or more (Alkaline).
Auto Power Off	:	The meter is set to power off mode approx. 10 minutes after the power switch on.
Size	:	76 (W) x 194 (H) x 30 (D) mm.
Weight	:	Approx. 340 g.
Accessories	:	a) Carrying Case....1 b) Instruction Manual....1 c) Batteries 2

SAFETY STANDARD

- Compliant with IEC 1010-2-032, IEC 1010-1(1995) CATII 300V.

APPLICATIONS

- The typical application of DCM 600 is in Railways, Substations & Industries where the Leakage Current of Batteries, Chargers is to be measured.
- It is useful in Telecom Industries.
- It also measures Leakage Current in Variable Frequency Drives.
- The meter is very useful for measurements of current loop signal of transmission control.
- General AC Load / Process Loop monitoring, Ground fault Current Measurement, Industrial Trouble Shooting Checks etc.

we have a solution....

DB/PC/DCM-07/Rev-03

NOTES

1.The Instrument is accompanied with Test & calibration sheet. 2.Test Facilities can be provided at the factory with the available test set-ups only. 3.The Company's policy is continuous improvement of its products. we therefore reserve the Right of any deviation from illustration or specifications without notice. 4.Stated accuracies are valid from 1/10th of range to FS. 5.Accuracy Specified for temperature range of 25°C ± 5°C & 55%RH ±10%.

MOTWANE

EMPOWERING
MEASUREMENT

Leakage Clamp Meter
DCM 10 A

FEATURES

- 0.01 mA resolution for measuring earth leakage currents.
- 300 A range for standard current measurements.
- Analogue Bargraph Display for trending .
- Pocket sized and lightweight.
- Jaw size 40mm Ø.

GENERAL SPECIFICATIONS

- Measuring Method : Dual integration mode
- Measuring Function : Leakage current and load current
- Display : 3½ digit L.C.D. max. reading of 3200
- Range : 0-30 mA / 300 mA / 30 A / 300 A (50/60 Hz)
- Ranging : 2 manual ranges

Range	Min. Resolution	Accuracy
30/300mA	0.01/ 0.1 mA	±1.2% rdg ± 5dgt.
30/300 A	0.01/ 0.1 A	0-200 A : ± 1.2% rdg ± 5 dgt.
		200-250 A : ± 3.0 % rdg ± 5 dgt.
		250-300 A : ± 5.0%rdg ± 5 dgt.

- Jaw Opening Capablity : 40 mmϕ
- Maximum Indication : 3200 counts
- Low Battery Indication : 2.5 V- 2.7 V, "[+ -]" mark on L.C.D.
- Over load indication : "OL" mark on LCD
- Data Hold Indication : " DH " mark on L.C.D.
- Sampling Time : Approx. 2 times / sec. (Digital Display) approx. 12 times / sec (bargraph display)
- Auto Power Off : The Meter is set to power off mode approx. 10 minutes after the power switch on
- Limitation of Circuit : Less than AC 600 V
- Voltage Withstanding Voltage : AC 3700 V/1 minute max. (between the core of CT and the unit housing)
- Operating Temperature : 0°C to 40°C < 80% RH (non-condensing)
- Storage Temperature : -10°C to 60°C < 70% RH (non-condensing)
- Accuracy Specified at operating temperature : 23°C ± 5°C, 80% RH max
- Power Supply : 2 X 1.5 V button cells LR44 or SR 44
- Power Consumption : Approx 5 mw
- Battery Life : Approx. 50 hrs (LR44)
- Size : 64(W) X 176(H) X 23(D)mm.approx
- Weight : Approx. 125g.

SAFETY

Meets the requirments for double insulation to IEC 1010-2-032, IEC 1010-1 (1995), EN 61010-1 (1995) installation Category II 600V phase to earth, Category III 300V phase to earth.

EMC

- The instrument meets EN 50081-1 and EN50082-1 (1992).

APPLICATION

A typical application for the clamp-meter would be the measurement of earth leakage current in a circuit where the RCD keeps tripping out. The measured result will quickly identify whether the earth leakage current present is excessive causing the RCD to trip, or that the RCD itself is faulty. Standing earth leakage can be the result of various undetected faults in the installation such as cable insulation deterioration, cable damage or the entry of moisture into areas where there are exposed terminals or fittings.

The instrument is pocket sized, light weight, rugged and easy to use, making it an ideal choice for the electrical industry.

APPLICATION AREAS

- Ground fault current measurement
- Electrical safety compliance testing
- Medical device safety testing
- Process loop monitoring
- General AC load monitoring.
- Industrial troubleshooting checks

we have a solution....

DBSPCDCM-06/Rev-02

NOTES

1.The Instrument is accompanied with Test & calibration sheet. 2.Test Facilities can be provided at the factory with the available test set-ups only. 3.The Company's policy is continuous improvement of its products. we therefore reserve the Right of any deviation from illustration or specifications without notice. 4.Stated accuracies are valid from 1/10th of range to FS. 5.Accuracy Specified for temperature range of 25°C ± 5°C & 55%RH ± 10%.

MOTWANE

EMPOWERING MEASUREMENT

DIGITAL CLAMP METER

DCM23A

ADDED TEMPERATURE MEASUREMENT

WITH AFFORDABILITY

- Average, $3\frac{1}{2}$ digit (2000 counts)
- Auto/Manual ranging mode
- 600V AC/DC & Up to 400A AC
- Temperature measurement
- 23mm clamp jaw size
- Overload indication 'OL'
- Data Hold / Max Hold / Backlight

TECHNICAL SPECIFICATION

AC Current (through clamp)

Range	Resolution	Accuracy (% of reading)
2.000 A	0.001A	± (2.5% + 10 digits)
20.00 A	0.01A	± (2.5% + 4 digits)
200.0 A	0.1A	
400 A	1A	± (3% + 4 digits)

DC-Voltage

Range	Resolution	Accuracy (% of reading)	Input Impedence
200.0 mV	0.1mV	± (0.8% + 5 digits)	7.8MΩ
2.000 V	0.001V	± (1.2% + 3 digits)	
20.00 V	0.01V		
200.0 V	0.1V		
600 V	1V	± (1.5% + 3 digits)	

AC Voltage

Range	Resolution	Accuracy (% of reading)	Input Impedence
200.0 mV	0.1mV	± (1.5% + 30 digits)	7.8MΩ
2.000 V	0.001V	± (1.5% + 3 digits)	
20.00 V	0.01V		
200.0 V	0.1V		
600 V	1V	± (2% + 4 digits)	

Note : No Auto ranging at 200mV AC voltage range

Resistance

Range	Resolution	Accuracy (% of reading)
200.0Ω	0.1Ω	± (1.0% + 4 digits)
2.000KΩ	0.001Ω	± (1.5% + 2 digits)
20.00KΩ	10Ω	
200.0KΩ	100Ω	
2.000MΩ	1KΩ	± (2.0% + 3 digits)
20.00MΩ	10KΩ	± (3.0% + 5 digits)

Temperature (Type K)	-20°C to 1000°C	± (3% + 5°C)
	-4°F to 1832°F	± (3% + 8°F)

Display:	:	LCD
Diode Test	:	Test current of 0.3mA typical; Open circuit voltage 1.5V DC typical
Continuity Check	:	Threshold <120Ω; Test current < 1mA
Sampling Rate	:	2 per second, nominal
Low Battery Indication	:	"BAT" is displayed
Operating Temperature	:	-10°C to 50°C
Relative Humidity	:	90% (0°C to 30°C), 75% (30°C to 40°C), 45% (40°C to 50°C)
Battery	:	Two 1.5V 'AAA' batteries
Safety	:	CE, EN 61010-1, CAT III 600V
Auto power off	:	approx. 15 mins at Temperature range
AC Current bandwidth	:	50/60Hz
AC Voltage bandwidth	:	50/400Hz
Dimensions/Weight	:	201x69x35mm/200g approx.
Standard Accessories	:	Test leads, Calibration certificate, Instruction manual, Carrying case, Bead K type thermocouple

Notes

1.The Instrument is accompanied with Test & calibration sheet. 2.Test Facilities can be provided at the factory with the available test set-ups only. 3. The Company's policy is continuous improvement of its products. We therefore reserve the Right of any deviation from illustration or specifications without notice.

MOTWANE

EMPOWERING
MEASUREMENT

Digital Clamp Meter
DCM 30A

FEATURES

- 3½ digit (1999 counts) Backlit LCD Display with annunciators.
- Overload protection on all ranges.
- Size (HxWxD) 260 x 91 x 44.5 mm (approx.)
- Net Weight : 435.0 gms. (approx.)
- Max jaw opening : 50 mm. (approx.)
- Power : One 9V Battery Type 6F 22 or equivalent.

ELECTRICAL SPECIFICATION

DC-VOLTAGE

Range	Resolution	Accuracy	Input Impedance
200V	0.1V	± (1.0% + 2 dgt)	⩾ 10 MΩ approx.
1000V	1V	± (1.0% + 2 dgt)	

Max Input Voltage : 1000V DC

AC-VOLTAGE

Range	Resolution	Accuracy	Input Impedance	Frequency Response
200V	0.1V	±(1.0% + 3 dgt)	≥ 10 MΩ approx.	40Hz - 400Hz
700V	1V	±(2.0% + 5 dgt)		

Max Input Voltage : 750V AC True RMS.

AC-CURRENT (Through Clamp)

Range	Resolution	Accuracy
20A	10mA	± (2.0% + 5 dgt)
200A	0.1A	
1000A	1A	±(2% + 5 dgt) ≥ 600A ±(2% + 5 dgt) ≤600A

Overload Protection : 120% of full value, Time < 60 seconds.

RESISTANCE

Range	Resolution	Accuracy
20 KΩ	10 Ω	± (1.5%+10dgt)
2 MΩ	1K Ω	

Overload Protection : 250VDC or AC True RMS

FREQUENCY (Auto Ranging)

Range	Resolution	Accuracy
2KHz	1Hz	± (0.1% + 3dgt)
20KHz	10Hz	
200KHz	100Hz	
2MHz	1KHz	
20MHz	10 KHz	

Overload Protection : 250V AC True RMS

Continuity : Buzzer Sound if resistance < 30Ω
Diode : Measures forward voltage drop
Accessories Supplied : a) One set of test lead.
b) Operating manual.
c) Carrying case.
d) One 9V Battery.

we have a solution....

DBS/PC/DCM-01/Rev-03

NOTES

1. The Instrument is accompanied with Test & calibration sheet. 2. Test Facilities can be provided at the factory with the available test set-ups only. 3. The Company's policy is continuous improvement of its products. we therefore reserve the Right of any deviation from illustration or specifications without notice. 4. Stated accuracies are valid from 1/10th of range to FS. 5. Accuracy Specified for temperature range of 25°C ± 5°C & 55%RH ± 10%.

MOTWANE

EMPOWERING MEASUREMENT

DIGITAL CLAMP METER

DCM33A

MEASUREMENT ATTRIBUTES

FULLY LOADED

- Average, $3\frac{3}{4}$ digits (4000 counts), Auto/Manual ranging
- 1000V AC/DC & Up to 1000A AC
- 55mm clamp jaw size
- Capacitance / Diode / Continuity / Frequency Testing
- Auto power off / Data Hold / Zero Adjustment

TECHNICAL SPECIFICATION

AC Current (through clamp)

Range	Resolution	Accuracy (% of reading)
40.00 A	0.01A	± (2.5% + 10 digits)
400.0 A	0.1A	± (2.5 % + 5 digits)
1000 A	1A	± (3.0 % + 4 digits)

DC-Voltage

Range	Resolution	Accuracy (% of reading)	Input Impedence
4.000 V	0.001V	± (0.5% + 3 digits)	10MΩ
40.00 V	0.01V		
400.0 V	0.1V		
1000 V	1V		

AC Voltage

Range	Resolution	Accuracy (% of reading)	Input Impedence
400.0 mV	0.1mV	± (1.0% + 8 digits)	10MΩ
4.000 V	0.001V	± (1.0% + 4 digits)	
40.00 V	0.01V		
400.0 V	0.1V		
1000 V	1V		

Note : No Auto ranging at 400mV AC voltage range

Resistance

Range	Resolution	Accuracy (% of reading)
400.0Ω	0.1Ω	± (1.0% + 4 digits)
4.000KΩ	1Ω	± (1.0% + 2 digits)
40.00KΩ	10Ω	
400.0KΩ	100Ω	
4.000MΩ	1KΩ	± (1.5% + 3 digits)
40.00MΩ	10KΩ	± (2.0% + 3 digits)

Display	:	LCD
Capacitance (Auto ranging)	:	40nF to 100µF (Refer user manual for details)
Frequency	:	5Hz to 10MHz (Up to ±1.2% till 500KHz & ±1.5% for 10MHz)
Frequency (Sensitivity)	:	10V rms min.
Duty cycle digits)	:	0.5 to 99.0% (±1.2% reading + 2 Pulse width 100µs - 100ms
Diode Test	:	Test current of 0.3mA typical; Open circuit voltage 1.5V DC typical
Continuity Check	:	Threshold <100Ω ; Test current < 1mA
Sampling Rate	:	2 per second, nominal
Operating Temperature	:	-10 to 50°C
Relative Humidity	:	90% (0°C to 30°C), 75% (30°C to 40°C), 45% (40°C to 50°C)
Battery	:	One "9V" Battery
Dimensions/Weight	:	270 x 107 x 50mm / 500g approx.
Safety	:	CAT III 1000V, CAT IV 600V
Standard Accesories	:	Test leads, Calibration certificate, Instruction manual, Carrying case

MOTWANE

EMPOWERING MEASUREMENT

DIGITAL CLAMP METER

DCM45A

SINGLE SOLUTION DELIVERING

MULTIPLE APPLICATIONS

- True RMS, $3\frac{3}{4}$ digits (4000 counts) ,Auto/Manual ranging
- 600V AC / DC & Up to 1000A AC / DC
- NCV (Non contact voltage detector) detects presence / absence of voltage
- Temperature measurement
- 52mm clamp jaw size
- Overload indication 'OL'
- Auto Power off / Data Hold / Zero Adjustment/ Peak Hold

TECHNICAL SPECIFICATION

AC & DC Current (through clamp)

Range	Resolution	Accuracy (% of reading)
40.00 A	0.01A	± (2.8% + 10d)
400.0 A	0.1A	± (2.8% + 8d)
1000 A	1A	± (3.0% + 8d)

DC-Voltage

Range	Resolution	Accuracy (% of reading)	Input Impedence
400.0mV	0.1mV	± (0.8% + 2d)	10MΩ
4.000V	0.001V	± (1.5% + 2d)	
40.00V	0.01V		
400.0V	0.1V		
600V	1V	± (2.0% + 2d)	

AC Voltage

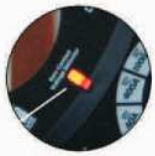
Range	Resolution	Accuracy (% of reading)	Input Impedence
400.0mV	0.1mV	± (1.0% + 10d)	10MΩ
4.000 V	0.001V	± (1.5% + 5d)	
40.00 V	0.01V		
400.0 V	0.1V		
600 V	1V	± (2.0% + 8d)	

Resistance

Range	Resolution	Accuracy (% of reading)
400.0Ω	0.1Ω	± (1.0% + 4d)
4.000KΩ	1Ω	± (1.5% + 2d)
40.00KΩ	10Ω	
400.0KΩ	100Ω	
4.000MΩ	1KΩ	± (2.5% + 5d)
40.00MΩ	10KΩ	± (3.5% + 10d)

Temperature (Type K)	-20°C to 760°C	± (3% + 5°C)
	-4°F to 1400°F	± (3% + 9°F)

Display	:	LCD
Low Battery Indication	:	is displayed
Capacitance (Auto ranging)	:	4nF to 40mF (Refer user manual for details)
Frequency	:	4.0KHz (± (1.5% + 2d))
Frequency (Sensitivity)	:	100V (<50Hz); 50V (50 to 400Hz); 5V (401 to 4000Hz)
Diode Test	:	Test current of 0.3mA typical; Open circuit voltage 1.5V DC typical
Continuity Check	:	Threshold 40Ω; Test current < 0.5mA
Peak	:	Captures peaks >1ms
Input Impedance	:	10MΩ (VDC and VAC)
Sampling Rate	:	2 per second, nominal
Auto Power Off	:	After 30min approx.
Operating Temperature	:	5°C to 40°C
Operating Humidity	:	Max 80% upto 87°F (31°C) decreasing linearly to 50% at 104°F (40°C)
Battery	:	One "9V" Battery
Dimensions/Weight	:	271 x 93 x 47mm / 500g approx.
Safety	:	CE, CAT IV 600V, CAT-III 1000V, EN-61010-1
Standard Accessories	:	Test leads, Calibration certificate, Instruction manual, Carrying case, Bead K type thermocouple



NCV
Detect Voltage
at
Electrical outlet
Powercord
Terminal strip

MOTWANE

EMPOWERING MEASUREMENT

Digital Earth Clamp Tester

DECT-2

- Long jaw size: 65mm x 32mm Ø
- The unique long jaw is particularly suitable where grounding is done by flat steel or copper strips.
- Range: 0.01Ω to 1200Ω
- Resistance measurement resolution 0.001Ω
- Memory Storage capability of 99 records
- Alarm setting feature with selection range available from 1Ω to 199Ω
- Display 4 digits LCD, 47x28.5mm in length
- Double insulation level and also protected from External magnetic field as well as electric field.
- Automatic range selection, Automatic self calibration
- Automatic self calibration
- Single measuring time: 0.5 second.
- Improved Jaw Opening & Closing
- Soft touch keys

General Specifications :

Display	4 digit LCD , 47 mm X 28.5 mm
Resistance Measurement Range	0.01Ω to 1200Ω
Memory Storage Facility	99 records
Single Measurement Time	0.5 Second
Resistance Measurement Frequency	> 1 KHz
Sound & Light annunciator	Beep sound, Flashing symbol, 'AL' key to turn on-off & setting the sound & Light alarm
Selection range of resistance for setting alarm value	1Ω – 199Ω
Protection Level	Double Insulation
External Magnetic Field	< 40 A/m
External Electric Field	< 1V/m
Power Source	6VDC (4x1.5 V AA alkaline battery)
Auto Power Off	approx 5 minutes
Environmental	Working Temperature:-10°C to 55°C Relative Humidity : 10% to 90%
Jaw Size	65mm X 32mm
Dimension (L x B x H)	285mm x 85mm x 56mm
Net Weight (Including Batteries)	1160 gms

Technical Specifications :

Mode	Range	Resolution	Accuracy
Resistance	0.010-0.099 Ω	0.001 Ω	±(1% + 0.01Ω)
	0.10-0.99 Ω	0.01 Ω	±(1% + 0.01Ω)
	1.0-49.9 Ω	0.1 Ω	±(1% + 0.1Ω)
	50.0-99.5 Ω	0.5 Ω	±(1.5% + 0.5Ω)
	100-199 Ω	1 Ω	±(2% + 1Ω)
	200-395 Ω	5 Ω	±(5% + 1Ω)
	400-590 Ω	10 Ω	±(10% + 10Ω)
	600-880 Ω	20 Ω	±(20% + 20Ω)
	900-1200 Ω	30 Ω	±(25% + 30Ω)

Applications :

- Measures Earth Resistance of the electrical ground rod and grid.
- Used to test the quality of the grounding without disconnecting the ground rod under test.
- Conduct field surveys fast and effectively and retrieves and analyzes the readings for later reference.
- Used to test the telecommunication Tower's grounding.
- Used in finding the earth fault such as discontinuation or loose contact of earthing strips or cables.
- To find the resistance of earth pit.

Standard Accessories:

- Carrying Case
- Standard Loop Resistance of 5.1Ω
- Instruction Manual
- Calibration Certificate

DBS/PC/ET-02/Rev-02

MOTWANE

EMPOWERING MEASUREMENT

DECT-3

Digital Earth Clamp Tester With Leakage Current Measurement

An ISO 9001:2000 Certified Company

Features :

- RS 232 Interface for monitoring, uploading, analyzing & printing of data
- Memory Storage capability of 99 records
- Extended resistance range upto 1200Ω
- AC Leakage current measurement up to 20A
- Alarm setting feature with selection range available for resistance and current
- Improved Jaw Opening & Closing
- Fast self test & Calibration
- Soft touch keys
- Rugged casing and easy to use

www.fairpowerage.com

General Specifications :

Display	4 digit LCD , 47 mm X 28.5 mm
Resistance Measurement Range	0.01Ω to 1200Ω
Current Measurement Range	0 to 20 A
Memory Storage Facility	99 records
Computer Interfacing	RS 232 for uploading the stored data and analysing at later time
Single Measurement Time	0.5 Second
Resistance Measurement Frequency	> 1 KHz
Current measurement Frequency	50 / 60 Hz
Sound & Light annunciator	Beep sound, Flashing 🔊 symbol, 'AL' key to turn on-off & setting the sound & Light alarm
Selection range of resistance for setting alarm value	1Ω – 199Ω
Selection range of current for setting alarm value	1mA - 499 mA
Protection Level	Double Insulation
External Magnetic Field	< 40 A/m
External Electric Field	< 1V/m
Power Source	6VDC (4x1.5 V AA alkaline battery)
Auto Power Off	approx 5 minutes
Environmental	Working Temperature:0°C to 50°C Relative Humidity : 10% to 90%
Jaw Size	65mm X 32mm
Dimension (L x B x H)	285mm x 85mm x 56mm
Net Weight (Including Batteries)	1160 gms

Technical Specifications :

Mode	Range	Resolution	Accuracy
Resistance	0.010-0.099 Ω	0.001 Ω	± (1% + 0.01Ω)
	0.10-0.99 Ω	0.01 Ω	± (1% + 0.01Ω)
	1.0-49.9 Ω	0.1 Ω	± (1% + 0.1Ω)
	50.0-99.5 Ω	0.5 Ω	± (5% + 5Ω)
	100-199 Ω	1 Ω	± (5% + 5Ω)
	200-395 Ω	5Ω	± (10% + 10Ω)
	400-590 Ω	10 Ω	± (10% + 25Ω)
	600-880 Ω	20 Ω	± (20% + 30Ω)
	900-1200 Ω	30 Ω	± (25% + 30Ω)
Current	0-9 mA	0.05 mA	Unspecified
	10-99 mA	0.1 mA	± (2.5% + 20mA)
	100-300 mA	1 mA	± (2.5% + 20mA)
	0.30-2.99 A	0.01 A	± (2.5% + 0.15mA)
	3.0-9.9 A	0.1 A	± (2.5% + 0.5mA)
	10.0-20.0 A	0.1 A	± (2.5% + 1A)

Applications :

- Measures Earth Resistance of the electrical ground rod and grid.
- Measures AC leakage current of transformer neutral.
- Used to test the quality of the grounding without disconnecting the ground rod under test.
- Conduct field surveys fast and effectively and retrieves and analyzes the readings for later reference.
- Used to test the telecommunication Tower's grounding.
- Used in finding the earth fault such as discontinuation or loose contact of earthing strips or cables.
- To find the resistance of earth pit.

Standard Accessories:

- Carrying Case
- Standard Loop Resistance of 5.1Ω
- Instruction Manual
- RS 232 Cable
- PC Software CD
- Calibration Certificate

Ratiometric Synchronous Rectification
Now with RSR

MOTWANE
EMPOWERING MEASUREMENT

Digital Earth Tester
DET-20

FEATURES

- 3½ digit LCD display with Max Reading 1999.
- Earth Resistance Ranges of 0.01Ω to 1999Ω .
- Rechargeable Internal Ni-MH Battery.
- 4 Wire Soil Resistivity Measurement.
- Measurement Method - 3 terminal & 4 terminal.

GENERAL SPECIFICATIONS

- **Earth Resistance Ranges**
  0.01Ω To 19.99 Ω
  0.1Ω To 199.9 Ω
  1Ω To 1999 Ω

- 4 Wire Soil Resistivity Measurement.
- Measurement Method - 3 terminal & 4terminal.
- Type Tested as per IS-9223.
- Earth Voltage Measurement up to 200V.

- **Accuracy (25° C ± 5° C)**
  ± 1.5% of reading ±5 digits valid from 10% of reading to 95% of the range.
- Earth voltage accuracy : 2% of Range.
  Earth voltage resolution : 0.1V
- **Test Frequency** : 128 Hz ±0.5 Hz
- **Test Current**
  20-Ohm Range : 10 mA AC rms
  200-Ohm Range : 1 mA AC rms
  2000-Ohm Ranges : 100 µA AC rms
  Test current is generally constant throughout the range.
- **Interference**
  Interference voltages of 20 V ±5% peak-to-peak, 50 Hz in the potential circuit will have a maximum effect of ±1% on the reading obtained for the 20Ω to 2 kΩ ranges.
- **Minimum Open Circuit Output Voltage** : 36 V Approx.
- **Display :** 3½ digits LCD, max. Reading 1999
- **Influence of Temperature :**
  < ± 0.2% per °C over the temperature range 0-20°C and 28-55 °C.
- **Temperature Range:**
  Operating : 0°C to +55°C
  Storage : - 20°C to +70°C
- **Humidity**
  Operating : 95% RH non condensing max. at 40°C
  Storage : 93% RH max. at 55°C
  Flash Test : 3 kV AC.
- **Voltage Withstand**
  In the event of a system fault, the instrument will withstand 240V AC, applied between any two terminals.
- **Dimensions** : Approx. 180 (H) x 100(W) x 54(D)mm.
- **Weight** : Approx. 550gms.
- **Power supply** : Internal, rechargeable Ni-MH 1.2V, 600mAh x 8 Nos.
- **Charging time** : Recommended 16hrs.
- **Single Charge Battery Life** : Approximately 5 - 6 hrs of continuous operation on mid ranges.

we have a solution....

STANDARD ACCESSORIES

1. Operating Instruction Manual
2. Battery Charger.
3. Carrying bag containing
a. Four spikes of 10 mm dia, 450 mm. long.
b. 10 m, 20 m, 30 m & 40 m of cable on a winder as standard.
c. Hammer

APPLICATION

- Outdoor Earth Testing.
- Substations.
- Captive Power Plants.
- Soil Resistivity for new Installations.

NOTES

1.The Instrument is accompanied with Test & calibration sheet. 2.Test Facilities can be provided at the factory with the available test set-ups only. 3.The Company's policy is continuous improvement of its products. we therefore reserve the Right of any deviation from illustration or specifications without notice. 4.Stated accuracies are valid from 1/10th of range to FS. 5.Accuracy Specified for temperature range of 25°C ± 5°C & 55%RH ±10%.

DBS/PC/ET-01/Rev-02

The smallest Clamp Meter

MOTWANE

EMPOWERING MEASUREMENT

FEATURES

- 3 ½ LCD display, max reading "1999" with Low Battery & Polarity Indication.
- Max jaw opening: 25mm
- Measurement Speed of 2.5~3 times/sec
- Overload Protection on All Ranges and Functions
- Over Range Indication
- Data hold function
- 600 A AC measurement

E25C

Digital Clamp Meter

MOTWANE E25C DIGITAL CLAMP METER

Motwane E25C is 3 1/2 digital clamp meter is a portable handheld Clamp meter with steady performance, safety, reliability and with full functions. The instrument has a unique and more attractive outline for convenient operation.
The instrument is designed with high-performance A/D converter and high grade SMD components. All the measuring ranges have overload protection.
AC current is measured through the clamp jaw with four ranges of 2000mA, 20A, 200A, 600A.The rest input through the test lead and can test AC Voltage, DC Voltage, Resistance, Diode and Continuity.

General Specifications:

- 3 ½ LCD display, max reading "1999" with LOBAT & Polarity Indication.
- Max jaw opening: 25mm
- Measurement principle: double integration A/D transform.
- Range select: manual
- Measurement speed: 2.5~3 times/sec
- Polarity display: it displays "-" as inputting negative polarity.
- Overloading display: only 1 appears on the display screen.
- Data hold function: " H " is shown on the top of LCD.
- Low battery display: it displays on the left of LCD.
- Power supply: 2×1.5V
- Dimensions: 170×65×27 mm
- Weight: approx. 140g (without battery)
- Operating Temperature: 5 °C to 45 °C
- Storage Temperature : -10°C to 50°C

Technical Specifications:

Basic Functions	Range	Resolution	Accuracy
AC Current	2000mA	1mA	±(3.0%+5)
	20A	10mA	±(2.5%+5)
	200A	0.1A	±(2.5%+5)
	600A	1A	±(3.0%+5)
AC Voltage	600V	1V	±(2.0%+5)
DC Voltage	600V	1V	±(1.2%+2)
Resistance	0-2000Ω	1Ω	±(2.0%+5)
Diode Test	Yes		
Continuity Buzzer	Approx <40Ω		

Accessories:

User's manual
Test lead
Battery 2 x 1.5V

MOTWANE

EMPOWERING MEASUREMENT

High Voltage Detectors

The High Voltage Detector is a SAFETY DEVICE used to verify that the overhead line is not LIVE prior to earthing. It is suitable for 11 KV/ 33 KV / 132 KV / 220 KV/ 440 KV supply lines. It is powered by a single 9V battery. The HV Detector starts annunciation with flashing Red LED's and buzzer beeps indicating that the line is LIVE and not safe to earth and carry any operations.

FEATURES

- Colour code models for different voltage levels.
- Non contact type Probe.
- Indicates the presence of HIGH VOLTAGE by audio annunciation as well as visual indication.
- Bright high intensity RED LED'S provide clear visual indication even in unfavorable daylight conditions. A buzzer produces a loud beep which is audible even in noisy backgrounds.
- Supplied as a complete Kit with HV Detector Probe, Telescopic Fibre Glass Reinforced plastic Insulation stick and ergonomically designed sturdy Carrying bag.
- Self Test button to test battery and proper functioning of HV detector.
- Selectable sensing level 1m/3m/5m for HV-D 132/HV-D 220/HV-D 440
- Powered by a single 9V Battery type (6F22), Easily replaceable on field.
- Type tested at CPRI .

HV-50 :

Safety Device Designed for 6.6 KV to 33 KV AC 50 Hz overhead lines in HV Switch yards, Distribution lines, Power Plants and similar installations. Sensing distance approx. 3 mtrs. for 33 KV and 1 mtr. for 11 KV circuit.

HV-132 :

Safety Device Designed for 11 KV to 132 KV AC 50 Hz overhead lines in HV Switch yards, Transmissions lines, Power Plants and similar installations.

HV-220 :

Safety Device Designed for 33 KV to 220 KV AC 50 Hz overhead lines in HV Switch yards, Transmissions lines, Power Plants and similar installations.

HV-440 :

Safety Device Designed for 66 KV to 440 KV AC 50 Hz overhead lines in EHV Switch yards, Transmissions lines, Power Plants and similar installations.

GENERAL SPECIFICATIONS

HIGH VOLTAGE INDICATION :

RED LEDs start flashing with an audible buzzer if taken into High Voltage induction area.

TEST VOLTAGE RANGE :

Test Voltage range as per the models : HV-50 for 6.6 KV to 33 KV, HV-132 for 11 KV to 132 KV, HV-220 for 33 KV to 220 KV, HV-440 for 66 KV to 440 KV.

ELECTRICAL SPECIFICATIONS :

Insulation Resistance	:	Greater Than 100M Ohms by 1KV I.R. Tester.
Dielectric Strength	:	Equivalent or greater than as per model selected.

POWER SPECIFICATIONS :

Current Consumption	:	30mA maximum
Battery Low	:	7.2 V Nominal
Battery	:	9V / Battery type 6F22 or equivalent
Visual Indication	:	High Bright LEDs flashing
Audible Indication	:	Buzzer beeps Loudly

ENVIRONMENTAL SPECIFICATIONS :

Recommended Operating

Temperature Range	:	5°C to 50°C
Humidity	:	<85% RH non-condensing
Storage Temperature	:	10°C to 60°C, <85% RH non-condensing Range

UNIVERSAL LINK:

Material	:	Glass Filled Nylon
Length	:	95mm Approximate

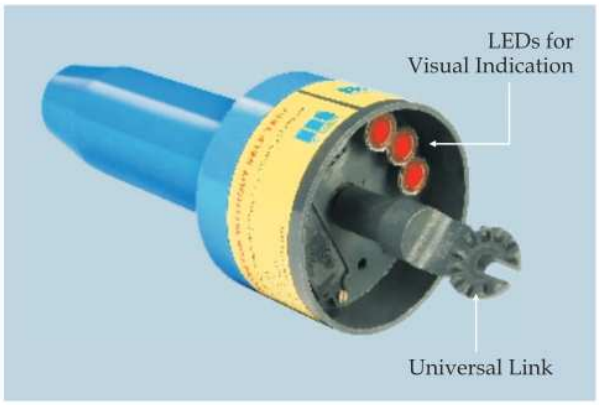
INSULATED STICK :

Material	:	Fibre Glass (Sturdy & Rugged)
Length	:	Telescopic Extendable length 3 mtrs. for 33 KV & 5 mtrs. for 132 KV & above.

PHYSICAL SPECIFICATIONS :

Length	:	245mm Approx.
Diameter	:	105mm Approx.
Weight	:	Approx. 2.5Kg.including Telescopic Insulated Stick.

▲ Non Contact Type Probe.



Sturdy & Rugged telescopic extendable fibre glass rod with carrying bag.

DBS/PC/HV-09/Rev-02

MOTWANE
EMPOWERING MEASUREMENT

HV

HV Test Set

The Motwane make HV Test Set is used to verify the quality of insulation between any electrical equipment's current-carrying components and its insulation or enclosure. This is done by applying a high voltage (much higher than the normal working voltage of the equipment) to the insulation of the equipment and measuring the resulting leakage current flowing through its insulation.

Features

- Continuously variable out put from zero to full voltage.
- Digital Meters for output voltage and tripping current measurement.
- LED indications for HT and mains indication.
- Electronic fast acting over current tripping device for overload protections.
- Zero interlocking for safety.
- The out put voltmeter is with memory effect i.e even after HT supply trips off due to the failure of equipment under test ,the voltmeter continues to show the voltage at which test piece has failed.
- In built time interval meter for tripping time measurement.
- Natural air cooling or oil cooling facility for loading transformers.

Applications

- Electrical Equipments like Motors, Transformers, Generators, Switch Gears testing.
- Cable testing
- Domestic appliance testing.
- Power utilities substations.

Standard Models & Specifications

Model	Voltage	Current Capacity	Output Voltage Range	Burden Capacity	Input Supply	Display - KV meter & Current	Meter Accuracy	Timer	Duty Cycle	Mode of Operation	Cooling	Portable Unit
MOTHVT - 5/100AC	5 KV AC	100mA	0 - 5 KV	500VA	230 Volts AC 50 Hz	3 ½ Digit LED Display	± 1.5% of reading	with trip circuit NC - C - NO	15 Minutes ON & 10 Minutes OFF	Manual	Air Cooled	Single Unit
MOTHVT - 5/100DC	5 KV DC											
MOTHVT - 5/100AC-DC	5 KV AC - DC											
MOTHVT - 10/100AC	10 KV AC		0 -10 KV	1000VA								
MOTHVT - 10/100DC	10 KV DC											
MOTHVT - 10/100AC-DC	10 KV AC - DC											
MOTHVT - 15/100AC	15 KV AC		0 - 15 KV	1500VA								
MOTHVT - 15/100DC	15 KV DC											
MOTHVT - 20/100AC	20 KV AC		0-20 KV	2000VA						Motorized		
MOTHVT - 30/100AC	20 KV AC						± 2 % of reading					
MOTHVT - 40/100AC	40 KV AC		0-40 KV	4000VA		Analog Display						Two Unit
MOTHVT - 40/50DC	40 KV DC	50 mA		2000VA								
MOTHVT - 50/100AC	50 KV AC	100mA	0-50 KV	5000VA							Oil Cooled	
MOTHVT - 50/100DC	50 KV DC											
MOTHVT - 50/100AC-DC	50 KV AC-DC											

*Note: Customization as per customer requirement

Warranty

Standard one year warranty against any manufacturing defects.

MOTWANE
EMPOWERING MEASUREMENT

OTS

Oil Test Set

The Motwane make Oil Test Set is a single unit compact equipment to measure the di-electric strength of insulating oils of transformers and circuit breakers.

The most important function of insulating oil is to provide electrical Insulation under high electrical potential . The dielectric strength of insulating oil is a measure of the oil's ability to withstand electrical stress without failure. Any significant reduction in the dielectric strength will indicate that the oil is no longer able to perform this vital function, leading to failure of equipment.

Features

- Oil Test Set is suitable for conducting oil breakdown test as outlined in IS 6792 :1992.
- Continuously variable out put voltages.
- A Linear scaled A.C. rectifier Voltmeter marked kV to measure output voltage.
- The out put voltmeter is with memory effect i.e show the voltage at which test piece has failed, after HT supply trips off due to the failure of equipment under test.
- Test Cup with cover is made of Methyle Methacrylate (ACRYLIC) having oil between 300 and 500 ml, with adjustable and removable mushroom head and ground to adjust the Electrode gap distance.
- Motorized cum Manual operation.

Applications

Oil Dielectric strength testing for transformer & switchgear manufacturers, Oil filtering units, electrical repairs & maintenance shops and power substations.

Standard Models & Specifications

Model -	OTS - 60	OTS - 80	OTS - 100
Oil Break down Test Kit	60 KV	80 KV	100 KV
Current Ranges	0 - 60 KV	0 - 80 KV	0 - 100 KV
Input Supply	230 Volts 50Hz		
Display	Analog Display		
Meter Accuracy	± 1.5% of reading		
Breakdown	with trip circuit		
Interlocking & Safety	• Low/High level interlocking for drive motor. • H.T. Chamber door interlocking. • Earth open interlocking. • Reverse interlock.		
Operation	Manual & Motorized Operation		
Protaction	Adeaquate Protection by FUSES against overheating and quick acting D.C. relay to isolate the H.T.		
Test Cup	Test Cup with cover is made of Methyle Methacrylate (ACRYLIC) having oil between 300 and 500ml, with adjustable and removable mushroom head and ground to adjust the Electrode gap distance.		
Standard	IS 6792 : 1992		
Accessories	1. Acrylic test cup with adjustable and removable mashroom head 2. Mains supply cord 3. GO & NOGO gauges 4. Operation Manual 5. Calibration Certificate		
Optional	Stirrer		

Warranty :

- Standard one year warranty against any manufacturing defects.

MOTWANE
EMPOWERING MEASUREMENT

PIK

Primary Current Injection Kit

The Motwane make Primary Current Injection Kit (Mot-PIK) is well suited to check the operation of all the components in a circuit breaker including Current Transformer, current sensors, relays and tripping unit performance of circuit breakers.

Features

- Compact equipment for ease of operation.
- Designed to offer continuously variable output current.
- Built in Digital timer for measuring tripping time.
- Digital meter of Accuracy class 0.5% or better and with LED display for input voltage & output current display.
- Equipped with adequate MCB against overload protection

Applications

Testing of Circuit Breakers, Bus Bars, CTs, Relays, MCBs, MCCBs etc by manufacturer as a well as during commissioning of protection systems and after major repairs and component replacement in power substations.

Technical Specification

- Input power Supply : 230 Volts ± 10 %, 50HZ AC
- Output Test Current : Refer Table no.1
- Burden (Capacity) : Refer Table no.1
- Mode of Operation : Manual or Motorized.
- Protections and Safety:
    1. Overload Protection by MCB
    2. HRC fuse protection for control circuit.
    3. Zero start interlocking.
- Indications : Bright LED Indicators for Input and Output Indication.
- Cooling: Air/Oil Cooling.

Standard Models & Specifications

		MOTPIK - 200/1	MOTPIK - 500/3	MOTPIK - 800/5	MOTPIK - 1000/5	MOTPIK - 1500/10	MOTPIK - 2000/15
Primary Injection Kit		200 Amp	500 Amp	800 Amp	1000 Amp	1500 Amp	2000 Amp
Current Range		0-100-200A	0-250-500A	0-400-800A	0-500-1000A	0-750-1500A	0-1000-2000A
Output Voltage		100A-10V	250A-12V	400A- 12.5V	500A- 10V	750A-13V	1000A-15V
		200A-5V	500A-6V	800A- 6.25V	1000A-5V	1500A-6.6V	2000A-7.5V
Output Current Resolution		1A	1A	1A	1.5A	1.5A	1.5A
Burden Capacity		1KVA	3KVA	5KVA	5KVA	10KVA	15KVA
Input Supply Voltage		230 V AC 50Hz					
Display		3 ½ Digit LED Display					
Timer Range		0.0001 sec to 9999 sec					
		Accuracy :- ± 0.05%					
Display Accuracy		± 1.5% of rdg. ± 2 digit					
Duty Cycle		10 Min ON & 20 Min OFF At full range current					
Operation		Manual			Motorized		
Timer		With Trip Circuit (NC – C – NO)					
Protection		Adeaquate Proctection by Circuit Breakers, Fuses against overheating and damage					
Transportation		The test set shall be wheel mounted for easy transportation					
Max. Output Current	Cable Length	2X5 Meter	2X5 Meter	2X5 Meter	2X5 Meter	2X7 Meter	2X10 Meter
	Cable Size	50 mm^2	120 mm^2	185 mm^2	240 mm^2	300 mm^2	400 mm^2
Accessories		1. Set of current lead set with Lugs (Both Side) 2. Power Supply cord 3. Test leads set for Relay Test 4. One set of spare fuse 5. Operation manual 6. Wheel mounted transportation 7. Calibration certificate					

*Note: Customization as per customer requirement

MOTWANE
EMPOWERING MEASUREMENT

RTS

Relay Test Set

The Motwane make Relay Test Set (Mot-RTS) is a portable equipment, which is designed to check the operating characteristics of protective devices.

Protective devices such as relays in the system are installed to deal with various fault conditions and its failure to operate correctly can cause serious damage to substations causing plant shutdown or power outgoes resulting in financial losses.

Features

- Single compact unit equipment suitable for field as well as workshop application.
- Offer specified out put current selectable and continuously variable.
- Digital Meter with LED display to measure output currents and voltages
- Built in 1 no Digital Time interval meter having range from 0.0001sec. to 9999 sec.
- Auto cut off facility to cut off output on operation of device under test.
- Housed in powder coated steel cabinet.

Applications

Testing of Electromagnetic relays like Over current, Earth Fault, Over voltage, Under Voltage etc. for assurance of smooth and fault free operations in plants and power substations.

Standard Models & Specifications

Model -	MOTRTS - 10	MOTRTS - 20	MOTRTS - 50	MOTRTS - 100	MOTRTS - 200
Secondary Injection Kit - Single Phase	10 Amps	20 Amps	50 Amps	100 Amps	200 Amps
Current Ranges	0 - 1 - 5 - 10	0 - 1 - 5 - 10 - 20	0 -1 - 5 - 10 - 25 - 50	0 -1 - 5 - 10 - 25 - 50 - 100	0 -1 - 5 - 10 - 25 - 50 - 100 - 200
Output AC Voltage	0 - 270 Volts AC Variable				
Output DC Voltage	0 - 270 Volts DC Variable				
Input Supply	230 Volts 50Hz				
Burden Capacity	200 VA	200 VA	400 VA	600 VA	
Display	3 ½ Digit LED Display				
Meter Accuracy	± 0.5% of reading				
Timer Range	0.0001 - 9999 Sec				
Timer	with trip circuit (NC - C - NO)				
Duty Cycle	20 Minutes ON and 10 Minutes OFF				
Operation	Manual Operation				
Protaction	Adequate Protection by FUSES against overheating and damages				
Portable Unit	The Test Kit shall be wheel mounted for easy transportation				
Accessories	PVC insulated 2.5 mm mm. copper cable 2 X 1.5 mtrs.	PVC insulated 10 sq. mm. copper cable 2 X 1.5 mtrs. Both side lugs		PVC insulated 25 sq. mm. copper cable 2 X 1.5 mtrs. Both side lugs	
	PVC insulated 2.5 sq. mm. copper cable 2 X 4 mtrs. one side banana plug & other side small crocodile clip				
	PVC insulated 1.5 sq. mm. copper cable 4 X 4 mtrs. one side banana plug & other side small crocodile clip				
	PVC insulated 1.5 sq. mm. two core copper cables for input supply.				
	Operation Manual				
	Calibration Certificate				

*Note: Customization as per customer requirement