



CAMBRIDGE INSTRUMENTS & ENGG. CO.

Product Catalogue

2026 – 27

Electrical & electronic measuring and testing instruments –
insulation & earth testers, digital meters, high-voltage, oil &
relay test sets.



THE COMPANY

Six decades of measurement you can trust.

Cambridge Instruments & Engg. Co. has manufactured electrical and electronic measuring & testing instruments in Howrah since 1963. From hand-driven meggers to programmable relay and high-voltage test sets, every instrument is designed, built and calibrated in-house — and carried under the registered **CIE**® mark.

We supply utilities, railways, defence, industry and laboratories across India, and build to specific customer requirements on request.

ESTABLISHED 1963	IN SERVICE 60+ yrs
MANUFACTURE In-house	WARRANTY 12 months

THE RANGE

- 01 **Analog Insulation Testers** CIE/444 · 666 · 555 · 888
- 02 **Motorised Insulation Testers** CIE/777 · 777 HM · /MR
- 03 **Digital Insulation Testers** DIT-2500 · 5000 · 5005
- 04 **Earth & Micro-Ohm Meters** CIE/222M · DET-2000 · MR-253A
- 05 **Multimeters & Clamp Meters** DM 321T · 235 · DCM TR
- 06 **HV Test Set & Phase Sequence** CIE/5050A · PSI-1 · PSI-2
- 07 **Oil Test Sets** CIE/7000 Series
- 08 **Relay Test Sets** RTS-5 · 5A · 33

INSULATION TESTERS · HAND-DRIVEN

Analog Insulation Testers

Section 01 / 08

Hand-driven generator meggers — the field-proven CIE standard. Wide-arc, direct-reading scale, no batteries to charge, rated 100 V to 10 kV.

<p>VOLTAGE RANGE</p> <p>100 V – 10 kV</p>	<p>INSULATION</p> <p>up to 1,00,000 MΩ</p>	<p>BODIES</p> <p>Metal · Wood · Bakelite</p>
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CIE/444

PRESSURE DIE-CAST METAL BODY

- Hand-driven generator type
- Test voltages 100 V to 5 kV
- Insulation up to 1,00,000 MΩ
- Earth · Guard · Line terminals
- Dual-voltage & continuity options
- Rugged pressure die-cast housing



CIE/666

SEASONED WOODEN BODY

- Hand-driven generator type
- Full range 100 V to 10 kV
- Insulation up to 1,00,000 MΩ
- Classic seasoned-hardwood case
- Earth · Guard · Line terminals
- Preferred for HV insulation work



CIE/555

MOULDED BAKELITE BODY

- Economical hand-driven megger
- 100 / 250 / 500 / 1000 V
- Insulation up to 500 MΩ
- Light, compact moulded body
- Earth & Line terminals
- Everyday maintenance checks

ALSO AVAILABLE

CIE/888 — compact metal body · 500 V / 0–100 MΩ and 1000 V / 0–200 MΩ · single-hand pocket-format field tester, supplied with Earth & Line terminals.

NOTE Multirange variants — CIE/444/MR (metal) and CIE/666/MR (wooden) — add a selectable multi-voltage series with a built-in continuity range in one instrument.

INSULATION TESTERS • MOTORISED

Motorised Insulation Testers

Section 02 / 08

The CIE/777 family pairs a built-in motorised generator with optional hand-crank drive — delivering steady, fatigue-free high voltage for sustained insulation testing.


COMMON TO THE RANGE

- Built-in motorised generator — steady, repeatable output
- Rated 500 V to 10 kV; insulation up to 1,00,000 MΩ
- Supplied with one pair of high-voltage testing leads
- Timer function and carrying case available on request

MODEL	DRIVE	VOLTAGE	SCALE	DISTINCTION
CIE/777	Motorised	500 V – 10 kV	Single	Steady motor output for sustained testing
CIE/777 HM	Motor + hand	500 V – 10 kV	Single	Operates with or without mains supply
CIE/777/MR	Motorised	up to 5 kV	Dual – inner / outer	Multirange — standard + extended range
CIE/777 HM/MR	Motor + hand	up to 5 kV	Dual – inner / outer	Multirange, also runs without mains

DIGITAL · INSULATION RESISTANCE

Digital Insulation Testers

Section 03 / 08

Microcontroller-based, rechargeable testers with direct digital read-out – auto-ranging, fast and repeatable insulation measurement.



DIT-5000

UP TO 5000 V · 200 GΩ · FLAGSHIP

The flagship digital tester – four test voltages to 5 kV and insulation resistance to 200 GΩ.

- Four test voltages to 5 kV
- Large backlit LCD, auto-ranging
- Data hold; stable read-out
- Insulation resistance to 200 GΩ
- High-voltage warning indicator
- Rechargeable operation

For HV cables, rotating machines and transformers.



DIT-2500

UP TO 2500 V · 50 GΩ

- Five test voltages to 2500 V
- Insulation resistance to 50 GΩ
- DAR & PI with auto timer
- Voltage & continuity ranges
- Digital LCD with data hold
- Rechargeable operation



DIT-5005

PORTABLE · PUSH-TEST

- Single push-test operation
- 500 V & 1000 V test voltages
- Up to 1000 / 2000 MΩ
- Direct digital read-out
- Earth & Line terminals
- Rechargeable, charge LED

EARTH RESISTANCE & MICRO-OHM

Earth & Micro-Ohm Meters

Section 04 / 08

Ground-resistance and soil-resistivity testing, plus precision low-resistance (micro-ohm) measurement of joints, windings and contacts.



CIE/222M

ANALOG EARTH TESTER · HAND-DRIVEN

Hand-driven generator earth tester — three-terminal for earth resistance, four-terminal for soil resistivity.

- Hand-driven generator, metal body
- Earth resistance + soil resistivity
- Direct-reading, stray-current immune
- 3-terminal & 4-terminal models
- Ranges 0–1 Ω to 0–10,000 Ω
- Complete with full testing kit

Kit: M.S. spikes (45 cm), flexible-wire spools and hammer in a carrying bag.



DET-2000

DIGITAL EARTH RESISTANCE TESTER

- 4-terminal, rechargeable
- Dual & triple ranges, 0–5 Ω to 2000 Ω
- Single push-test read-out
- Complete with testing kit
- For earthing & lightning protection



MR-253A

DIGITAL MICRO-OHM METER

- 4-terminal Kelvin measurement
- 8 ranges, 0–1999 μΩ to 19.99 kΩ
- 230 V / 50 Hz bench unit
- Joints, windings, shunts & contacts
- Two pairs of test leads supplied

DIGITAL · HAND-HELD METERS

Multimeters & Clamp Meters

Section 05 / 08

True-RMS handheld multimeters and AC / AC-DC clamp meters for field and bench use, with the full set of protection-grade measurement functions.



DM 321T

DIGITAL MULTIMETER · TRUE RMS

- 3½ digit, 1999 counts, True RMS
- DCV to 1000 V · ACV to 750 V
- DC/AC current up to 20 A
- Capacitance, diode & continuity



DM 235

DIGITAL MULTIMETER

- 3½ digit, 1999 counts, LCD
- 1000 V DC · 750 V AC · 20 A AC/DC
- Resistance, capacitance & hFE
- Supplied with protective holster



DCM 2250 TR

AC CLAMP METER · TRUE RMS

- 0–6 / 60 / 600 / 1000 A AC
- Auto-ranging, True RMS
- Voltage, resistance & continuity
- Data hold, auto power-off



DCM 5410 TR

AC/DC CLAMP METER · TRUE RMS

- 0–60 / 600 / 1000 A AC/DC
- Frequency, temperature & capacitance
- True RMS, auto-ranging
- Backlight, data hold, auto power-off

HIGH-VOLTAGE & PHASE TESTING

HV Test Set & Phase Sequence

Section 06 / 08

A.C. high-voltage withstand / flash testing and three-phase sequence verification for wiring, panels and rotating machines.



CIE/5050A

A.C. HIGH VOLTAGE TEST SET

Continuously-variable A.C. high-voltage source for flash and withstand testing, with a zero-start safety interlock.

- Continuously variable 0–3 / 0–5 kV
- Analog kV and mA metering
- Variac control
- Test current 25 mA & 50 mA
- Zero-start interlock & HT lamps
- Cables, bushings & insulators

Supplied with H.V. probe and earth lead.



PSI-1

PHASE SEQUENCE INDICATOR • DISC-ROTATING

- Bakelite body, rotating-disc type
- 100–500 V AC, 25–65 Hz (horizontal)
- Direction window shows R-Y-B order
- Supplied with 3 × 1 m R/Y/B leads & clips
- Complete with carrying case



PSI-2

PHASE SEQUENCE INDICATOR • PANEL

- ABS moulded casing, 96 × 96 mm
- 50–500 V, 25–60 Hz
- 30 s rating @ 500 V, 15 VA burden
- Clear R-Y-B pointer read-out
- Complete with case & testing leads

DIELECTRIC · OIL TEST SETS

Oil Test Sets

Section 07 / 08

CIE/7000 Series – insulating-oil dielectric strength (BDV) testers. Standard test cell with precision electrode gap, in manual and motorised (auto-raise) variants.



CIE/7000 Series

OIL DIELECTRIC STRENGTH (BDV) TESTER

Determines the breakdown voltage of insulating oil to verify dielectric strength – a single-unit set with a precision test cell.

- Output 0–50 kV to 0–120 kV
- Capacity 500 to 1200 VA
- Precision-gap standard test cell
- Manual & motorised auto-raise
- Stores breakdown readings
- Magnetic stirrer option

230 V / 50 Hz single phase · intermittent duty · single-unit housing.

MODEL	OUTPUT VOLTAGE	CAPACITY	AVAILABLE AS
CIE/7050	0–50 kV	500 VA	Manual & motorised
CIE/7060	0–60 kV	600 VA	Manual & motorised
CIE/7070	0–70 kV	700 VA	Manual & motorised
CIE/7080	0–80 kV	800 VA	Manual & motorised
CIE/7090	0–90 kV	900 VA	Manual & motorised
CIE/7100	0–100 kV	1000 VA	Manual & motorised
CIE/7120	0–120 kV	1200 VA	Manual & motorised

PROTECTION · RELAY TEST SETS

Relay Test Sets

Section 08 / 08

Continuously-variable current and voltage sources for testing over-current, earth-fault, directional and distance protective relays.


COMMON TO THE RANGE

- Continuously-variable current & voltage output
- Digital timer with digital current & voltage metering
- Input 230 V, single phase, 50 Hz
- Duty cycle 5 min ON / 10 min OFF

MODEL	PHASE	CAPACITY	CURRENT OUTPUT	VOLTAGE / NOTES
RTS-5	1-phase	400 VA	0–1/2/5/10/20 A; 200 A (30 s)	0–240 V AC @ 1 A; fixed 50 / 110 V
RTS-5A	1-phase	1000 VA	0–200 A (30 s)	0–230 V AC / 0–240 V DC, 240 VA
RTS-33	3-phase	250 VA	0–1/5/10/25/50 A, 3φ	110 V φ-φ; DC 30/110/220 V; phase angle 0–360°



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MADE IN INDIA

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Any range or rating not shown can be manufactured to your specific requirement.
Write to us for quotations, custom builds, calibration and service.

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