



ZEAL MANUFACTURING AND CALIBRATION SERVICES PVT. LTD.

An ISO 9001 : 2015 Certified Company

NABL (ISO/IEC 17025:2017) Accredited Lab



Manufacturers & Exporters of Electro-technical Calibration Standards & Test Equipments



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ZMCS202411-R1



VISION

To be a globally recognized corporation that provides best electronic test and measuring solutions developed by best in class people.



MISSION

To achieve our vision through fairness, business ethics, global reach, technological expertise, building long term relationship with all our associates, customers, partners and employees.



QUALITY POLICY

We are committed to Design, Manufacture, Supply, Sale and render services of Electronics Testing and Measuring Instruments. We will meet or exceed customer's expectations by complying with necessary norms, statutory and regulatory requirements. We will review our QMS for continual improvement by considering context of the organization and applicable requirements of the interested parties.

About Us

“ Zeal Manufacturing and Calibration Services Private Limited” an ISO 9001:2015 certified company established in the year 1996 is engaged in manufacturing & export of Electronics Test & Measuring Instruments, Calibration Standards for Electro Technical Parameters.

Our product range includes Calibrators, Power Sources, Panel Meters, and Testers. Our range of testing equipment have been appreciated by our clients for their features such as Reliability, Precision and Accuracy. Hence, these equipments are being used in various industry segments such as Power Electronics, Heavy Electrical Engineering, Control Panel Manufacturers, Components Manufacturers etc. Our products are also being used in R&D Organization and Educational institutes.

Calibration standards are popular amongst Calibration & Testing Laboratories, Digital / Analog Meter Manufacturers.

Zeal offer Calibration Services (As per NABL ISO/IEC 17025 : 2017) for Electronic Test and Measuring Instruments .

Director's profile:



Our company has been engaged in manufacturing of Electronic Test and Measuring Instruments since 1996. We have been supported by our Director, Mr. Vikas B. Rathod who has completed B. E. Electronics from SGGGS College of Engineering & Technology, Nanded. He has wide experience of more than 35 years in our field.

Experience of the Director:

- ▶ Worked with Electronics Test and Development Center (ETDC), Pune (India), which is established by STQC Directorate Govt. of India, from 1990 to 1996 as head of Testing, Calibration and Maintenance department.
- ▶ Worked as a skilled service engineer of all types & brands of Electronics Test and measuring instruments during initial days of Zeal as the company started with zero.
- ▶ Now responsible for R & D, Marketing and Calibration departments.

OUR CUSTOMERS

Major Customers (India):

Bharat Heavy Electrical Ltd (BHEL).	Tata Consultancy Services (TCS)
Hindustan Aeronautics Ltd (HAL).	L & T Ltd.
Bharat Electronics Ltd (BEL)	Schneider Electric Co.
Dept. of Military Affairs	Automatic Electric Co.
Indian Railways	Secure Meters Ltd.
Airport Authority of India	Siemens Ltd.
Defence Research and Development Organisation (DRDO)	Rishabh Instruments Ltd.
Bhabha Atomic Research Centre (BARC)	Nippen Electric Instruments Co.
Central Power Research Institute (CPRI)	Radix Electro Systems Pvt. Ltd.
Indian Space Research Organisation (ISRO)	Multispan Control Instruments Pvt. Ltd.
National Physical Laboratory - Council of Scientific & Industrial Research (NPL-CSIR)	Elins Switch Board Pvt. Ltd.
	Elcom International Pvt. Ltd.
Automotive Research Association of India (ARAI)	Elmex Controls Pvt. Ltd.
Electronics Regional Test Laboratory (ERTL)	Jost's Engineering Company Ltd.
Electronics Test and Development Centre (ETDC)	Jindal Steel & Power Ltd.
Institute For Design Of Electrical Measuring Instruments (IDEMI)	Suzlon Energy Ltd.
Indian Institute of Tropical Meteorology (IITM)	Bosch Ltd.
Indian Institute of Science Education and Research (IISER)	Godrej & Boyce Mfg. Co. Ltd.
Indian Institute of Technology (IIT)	Vertiv Energy Pvt. Ltd.
International Institute of Information Technology (IIIT)	Stanley Black N Decker (I) Pvt. Ltd.
Indian Institute of Space Science and Technology (IIST)	Mahindra CIE Automation Ltd.
SRM Institute of Science & Technology	Kirloskar Technology Pvt. Ltd.
University of Pune	Hi Physix Laboratory (I) Pvt. Ltd.
College of Engineering Pune	Polycab Wires Pvt. Ltd.
SVERY College	Minda Industries Ltd.
Tata Institute of Fundamental Research	Autometers Alliance Ltd.
Birla Institute of Technology & Science	Indian Institute of Science (IISc), Bangalore

Major Customers (Export):

The Meters Shop, USA (North America)	Lidin Co. Vietnam (Asia)
Precision Instrument Correction INC, USA (North America)	The Viet Nam Technical Company Ltd. Vietnam (Asia)
Grupo De Metrologia Clam Sa Da CV, Mexico (North America)	CIDET, Colombia (Asia)
Potencia Industrial SA DE CV. Mexico (North America)	Hanel Elektronik, Turkey (Asia)
Simetric Servicios Integralescia Ltda. Ecuador(South America)	Star Trading Co. Ltd. Marshal Islands (Asia)
PT Multi Instrumentasi Mandiri, Indonesia (Asia)	Miracle International Technology Co. Ltd. Bangkok (Asia)
RICI Mohammad Abdullah Al Azzaz Co. Ltd. KSA (Asia)	Ayoon Sohar Electric. Oman (Asia)
Universal Inspection Co. Ltd. KSA (Asia)	PT. Asia Rep. Indonesia (Asia)
Accuver Calibration Laboratory Co. LLC, UAE (Asia)	Phoenix Calibration Weights & Metrology, UAE (Asia)
Three Lions Trading Co. WLL Bahrain (Asia)	TechnoServ, England (Europe)
Al Hamad Trading & Contracting WLL. Qatar (Asia)	Poltrade Technologies, Poland (Europe)
OTS Pvt. Ltd. Bangladesh (Asia)	Gustav Klauke GmbH, Germany (Europe)
Primesouth Lbenon, S.A.L. (Asia)	Elma TT, Slovenia (Europe)
Jupiter Metrology Lab, Malaysia (Asia)	Amotech Africa, Kenya (Africa)

5½ DIGIT MULTI FUNCTION CALIBRATOR



Patent No. 460128



Features:

- Pure Sine wave with Variable Frequency
- Input supply Under Voltage and Over Voltage Protection
- Overload and Short circuit Protection
- Frequency setting by Potentiometer
- Separate Output ports for V(Hi), mA(Hi), 10A(Hi) & Com
- Setting by Decade switches for V/A in 5½ digit
- Bar of LEDs to indicate parameter and range
- Parameter and range selection by inbuilt micro controller based unit and relays
- **Accessory:** X 100 AC / DC current coil for clamp on meter calibration up to 1000A
- **Note:** Current beyond 10A is also available

Technical Specifications:

Model	ZMMFC 5.5		
Input Power Supply	230 V AC, ±5 % @ 50 Hz.		
Input Protection	Calibrator is Protected by I/P OV (Over Voltage) & I/P UV (Under Voltage)		
DC Voltage Ranges	200mV, 2V, 20V, 200V, 1000V		
AC Voltage (45Hz to 1kHz) Ranges	200mV, 2V, 20V, 200V, 1000V		
DC Current Ranges	2mA, 20mA, 200mA, 2000mA, 10A		
AC Current (45Hz to 1kHz) Ranges	2mA, 20mA, 200mA, 2000mA, 10A		
Frequency Range	45Hz to 1kHz		
Accuracy @ 20°C to 28°C, RH <75%	AC Voltage: 0.15% ± 15 Dgt	DC Voltage: 0.10% ± 5 Dgt	Frequency: ± 0.1 Hz
	AC Current: 0.15% ± 15 Dgt	DC Current: 0.10% ± 5 Dgt	
Operating Temperature	15°C to 50°C		
Power OFF Storage Temperature	10°C to 70°C		
Earth to Neutral	Less than 1 V AC		
Drift due to ageing	50 PPM per year.		
Short term stability of the set value	350 PPM		
Display	5½ Digit 7 segment red LED display for Voltage & Current		
	4 Digit 7 segment red LED display for Frequency		
Selection of AC/DC Parameters	By up and down keys and bar of LED to indicate selected parameter		
Selection of Ranges	By up and down keys and bar of LED to indicate selected range		
Setting of Voltage & Current	By decade switch		
Setting of Frequency	By multi turn coarse and fine potentiometer		
Frequency Range Selection	By Toggle switch for Normal Mode : 50Hz to 1kHz & Filter Mode : 45 Hz to 60 Hz		
Selection of Mode	By Toggle switch for Normal Mode and Over Burden (x 100 Coil mode)		
Dimension & Weight	550mm(W) X 550mm(D) X 170mm(H)		25kg Approx.

5½ DIGIT MULTI FUNCTION CALIBRATOR



Features:

- Pure Sine wave with Variable Frequency
- Input supply Under Voltage and Over Voltage Protection
- Overload and Short circuit Protection
- Frequency setting by Potentiometer
- Separate Output ports for V(Hi), mA(Hi), 10A(Hi) & Com
- Setting by Decade switches for V/A in 5½ digit
- Parameter and range selection by inbuilt micro controller based unit and relays
- Bar of LEDs to indicate parameter and range
- Separate Output ports for Resistance, Inductance and Capacitance
- Calibration of Non-Contact type Tachometer through optical output upto 60,000RPM
- **Accessory:** X 100 AC / DC current coil for clamp on meter calibration up to 1000A.
- **Note:** Current beyond 10A is also available.

Technical Specifications:

Model	ZMMFC 5.5.2		
Input Power Supply	230 V AC, ±5 % @ 50 Hz.		
Input Protection	Calibrator is Protected by I/P OV (Over Voltage) & I/P UV (Under Voltage)		
DC Voltage Ranges	200mV, 2V, 20V, 200V, 1000V		
AC Voltage (45Hz to 1kHz) Ranges	200mV, 2V, 20V, 200V, 1000V		
DC Current Ranges	2mA, 20mA, 200mA, 2000mA, 10A		
AC Current (45Hz to 1kHz) Ranges	2mA, 20mA, 200mA, 2000mA, 10A		
Frequency Range	45Hz to 1kHz		
Fixed Resistance	1Ω, 10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ, 1MΩ, 10MΩ, 100MΩ		
Fixed Inductance	10μH, 100μH, 1mH, 10mH, 100mH		
Fixed Capacitance	1nF, 10nF, 100nF, 1μF, 10μF		
RPM (Non Contact Type)	60,000 RPM		
Display	5½ Digit 7 segment red LED display for Voltage & Current		
	4 Digit 7 segment red LED display for Frequency		
Accuracy @ 15°C to 28°C, RH <75%	AC Voltage & Current : ± 0.15% ± 15 Dgt	DC Voltage & Current : ± 0.1% ± 5 Dgt	
	Frequency: ± 0.1 Hz	Inductance: ±1.5%	Capacitance: ±1.5% Resistance: 0.25%
	RPM (Non Contact Type): ±0.1%, ±5 digit		
Selection of AC/DC Parameters	By Up and Down keys and bar of LED to indicate selected parameter		
Selection of Ranges	By Up and Down keys and bar of LED to indicate selected parameter		
Selection of Resistor / L / C	By Toggle switch		
Selection of Voltage & Current	By decade switch		
Setting of Frequency	By multi turn potentiometer		
Frequency Range Selection	By Toggle switch for Normal Mode : 50Hz to 1kHz & Filter Mode : 45 Hz to 60 Hz		
Operating Temperature	15°C to 50°C	Power OFF Storage Temperature	5°C to 70°C
Required Earth to Neutral	Less than 1V AC	Drift due to ageing	50PPM per year
Short term stability of the set value	350PPM	Temperature Coefficient/°C above 28°C	±0.01% per °C
Dimension & Weight	600mm(W) X 550mm(D) X 170mm(H)		29kg Approx.

4½ AC/DC MULTI FUNCTION SITE CALIBRATOR



Features:

- It is protected from output short circuit and overload
- Pure Sine wave with variable frequency
- Setting by coarse & fine multi turn potentiometers for V/A
- Frequency setting by potentiometer
- Selection of AC/DC parameter by toggle switch
- Selection of ranges by rotary switch
- Separate output ports used for V (Hi), mA (Hi), A(Hi) and Com
- Separate output ports for Resistance / Inductance / Capacitance
- Accessory : X 100 AC/DC current coil for clamp on meter calibration up to 1000 AC / DC

Technical Specifications:

Model	ZMSMFC 4.5		
Input Power Supply	230 V AC, $\pm 5\%$ @ 50 Hz.		
Input Protection	Calibrator is Protected by I/P OV (Over Voltage) & I/P UV (Under Voltage)		
DC Voltage Ranges	200mV, 2V, 20V, 200V, 1000V		
AC Voltage (45Hz to 1kHz) Ranges	200mV, 2V, 20V, 200V, 1000V		
DC Current Ranges	2mA, 20mA, 200mA, 2A, 10A		
AC Current (45Hz to 1kHz) Ranges	2mA, 20mA, 200mA, 2A, 10A		
Frequency	45Hz to 1kHz		
Fixed Resistance	1 Ω , 10 Ω , 100 Ω , 1k Ω , 10k Ω , 100k Ω , 1M Ω , 10M Ω , 100M Ω		
Fixed Inductance	10 μ H, 100 μ H, 1mH, 10mH, 100mH		
Fixed Capacitance	1nF, 10nF, 100nF, 1 μ F, 10 μ F		
RPM (Non Contact Type)	60,000 RPM		
Display	4½ Digit 7 segment red LED display for Voltage & Current 4 Digit 7 segment red LED display for Frequency		
Accuracy @ 15°C to 28°C, RH <75%	AC Voltage: 0.3% \pm 10 Dgt	DC Voltage: 0.2% \pm 5 Dgt	Frequency: \pm 0.1 Hz
	AC Current: 0.3% \pm 10 Dgt	DC Current: 0.2% \pm 5 Dgt	
	Resistance: \pm 0.5%	Capacitance: \pm 5%	Inductance: \pm 5%
	RPM (Non Contact Type): \pm 0.1%, \pm 5 digit		
Selection of AC/DC Parameters	By Toggle switch		
Selection of Resistor / L / C	By Toggle switch		
Selection of Ranges	By rotary selector switch		
Setting of Frequency	By multi turn potentiometer		
Operating Temperature	10°C to 40°C		
Power OFF Storage Temperature	5°C to 70°C		
Dimension & Weight	400mm(W) X 400mm(D) X 170mm(H)	20kg Approx.	

3Ø POWER / ENERGY METER CALIBRATOR



Features:

- 4½ digit Panel Meters to indicate set Current & Voltage
- Power Analyzer meter to indicate V, A, VA, VAR, W, Whr, VARhr, Vahr, PF and Hz
- Current & Voltage setting by Coarse and Fine multi-turn potentiometers
- Frequency setting by multi-turn potentiometer
- Power Factor setting by up / down Push Buttons
- Current output through BS-15 terminals
- Voltage output through BS-15 terminals
- Output ON / OFF & Timer ON / OFF through toggle switch
- Output Mode (1 Phase / 3 Phase) selection by toggle switch

Technical Specifications:

Model	ZM3ØPEMC	
Input Power Supply	230 V AC @ 50 Hz.	
Output Voltage Range	0 to 300 V (L-N)	
Output Current Range	0 to 6 A	
Output Mode	1 Phase / 3 Phase 4 wire	
Output Ports	Vr, Vy, Vb - N, Ir (Hi, Lo), Iy (Hi, Lo), Ib (Hi, Lo)	
PF Range	0 (Lag) to Unity to 0 (Lead)	
Compliance	20 VA at FS on Voltage ranges & 30 VA at FS on Current range	
Frequency	45 to 60 Hz	
Timer	To keep output ON for fix duration. Duration programmable in second	
Timer Range	0 to 999 seconds	
Setting	1) By coarse and fine set of potentiometers to set Voltage and Current 2) By push buttons for Power Factor 3) By potentiometer for frequency	
Metering	Digital AC Voltmeter, Digital AC Ammeter to indicate set voltage and current Additional power analyzer meter to indicate phase to phase voltage, phase to neutral voltage, current of each phase, power factor, frequency, VA, VAR, W, VAHr, VARhr, Whr. Programmable current display to accommodate any C.T	
Accuracy	Voltage & Current: 0.15%	PF: ±1 Dgt
	Power & Energy: 0.15%	Timer: 0.05%
Sinusoidal Outputs	THD 1.5%	
Temperature	Operating Temp. : 10° C to 40° C	Storage Temp. : 5° C to 70° C
Protections	Overload and short circuit	
Dimensions & Weight	550mm(W) X 560mm(D) X 200mm(H)	40kg Approx.

Note: 3 Phase 3 wire & compliance can be customized as per requirement.

CONTACT-NON CONTACT TYPE TACHOMETER CALIBRATOR

Features:

- 20 x 4 LCD Display.
- RPM setting by Numeric Keypad.
- Power ON/OFF by Toggle switch.
- Contact and Non Contact Type RPM



Technical Specifications:

Model	ZMC-NTC	
Input Power Supply	230 V AC @ 50 Hz	
Ranges	10 to 500 RPM Contact Type	10 to 500 RPM Non Contact Type
	500 to 5000 RPM Contact Type	500 to 5000 RPM Non Contact Type
	5000 to 100000 RPM Non Contact Type	
Display Resolution (Contact Type)	0.01 for 10 to 500 RPM Contact Type	0.1 for 500 to 5000 RPM Contact Type
Display Resolution (Non Contact Type)	0.01 for 10 to 500 RPM Non Contact Type	0.1 for 500 to 5000 RPM Non Contact Type
	1 for 5000 to 100000 RPM	
Display	20 x 4 LCD Display	
Display Accuracy	0.05% ± 2 digit	
Stability of Speed	0.1% of reading (With or Without Contact Load)	
Control	Power ON/OFF by Toggle switch	
	RPM setting by 16 keys Numeric Keypad	
Dimensions	500mm(W) X 250mm(D) X 250mm(H)	22 Kg Approx.

DC LOW CURRENT SOURCE



Features:

- Battery operated 9V DC Rechargeable Battery.
- 4½ digit LCD display.
- Power ON / OFF by rocker switch
- Current setting by potentiometer.
- Charging mode selection by toggle switch.

Technical Specifications:

Model	ZMLCS	
Input Power	Rechargeable 9V Batteries 2 nos.	
Output Range	0 to 25 nA	
Setting	By multi turn potentiometer	
Accuracy	1.5% of reading ± 5digit	
Dimensions	90mm(W) X 44mm(D) X 170mm(H)	0.5 kg Approx.

AC / DC HIGH VOLTAGE MEASUREMENT PROBE



ZM100kHVP



ZM40kHVP

Features:

ZM100kHVP:

- Measures both AC and DC Voltages with digital multi-meter.
- Lightweight & rugged
- A separate test clip for the ground connection is provided.
- Available with carrying case.

ZM40kHVP:

- Measures both AC and DC Voltages with digital multi- meter.
- Lightweight & rugged
- A separate test clip for the ground connection is provided.

Technical Specifications:

Model	ZM100kHVP	ZM40kHVP
Range	0 to 100 kV AC / DC	0 to 40 kV AC / DC
Attenuation Ratio	1kV : 100mV	1kV : 100mV
Input Impedance	> 220 MΩ	> 220 MΩ
Frequency	50Hz to 60Hz	50Hz to 60Hz
Accuracy	For DC up to 40 kV : ±2%, above 40 kV add ±0.02% per kV	For DC up to 20 kV : ±1%, above 20 kV add ±0.05% per kV
	For AC up to 40 kV : ±2.5%, above 40 kV add ±0.05% per kV	For AC up to 20 kV : ±1.5%, above 20 kV add ±0.1% per kV
Probe Length	Part1: 652mm + Part2 : 623mm + HV Corona ball : 133mm = Total length: 1408mm	705mm(Length)
Probe Mounting Box	Dimension: 200mm(W) x 200mm(D) x 100mm(H)	—
Weight	Mounting Box + Probe: 3kg Approx.	0.5 kg Approx.
	With carrying case: 12kg. Approx	

mV / mA / RTD CALIBRATOR (Battery Operated)

Features:

- 4½ digit LCD display.
- mV, mA & RTD setting by potentiometers.
- Separate output ports for mV, mA & RTD.
- Parameter selection by rotary switch.
- Source & Sink mode.



Technical Specifications:

Model	ZMPCB	
Input Power Supply	9V DC Batteries (2 Nos.)	
DC Current Source / Measure Range	0 to 25mA DC	
DC Voltage Source / Measure Range	0 to 200mV DC	
RTD Source Range	-100°C to 400°C	
Accuracy	0.1% ±3 digits for current, voltage and for RTD	
Protection	Over Load & Short Circuit	
Dimensions & Weight	90mm(W) X 44mm(D) X 170mm(H)	0.5 kg Approx.

mV / mA / RTD CALIBRATOR (Mains Operated)



Features:

- Overload and short circuit protection.
- 4½ digit 7 segment LED display.
- mV & mA setting by potentiometer.
- Separate output ports for mV, mA & RTD.
- Temperature selection by rotary switch.

Technical Specifications:

Model	ZMPCM	
Input Power Supply	230 V AC, ±10 % @ 50 Hz.	
DC Current Source Range	0 to 20mA DC	
DC Voltage Source Range	0 to 200mV	
Accuracy	0.1% ±3 digits for current & voltage and 0.1% for RTD	
RTD Range (Fixed)	-50°C, -25°C, 0°C, 25°C, 50°C, 75°C, 100°C, 200°C, 300°C, 400°C	
Protection	Over Load & Short Circuit	
Dimensions & Weight	250mm(W) X 200mm(D) X 150mm(H)	5kg Approx.

DECADE RESISTANCE BOX

Features:

- Resistance range from 1Ω to 1111.111111 MΩ
- High accuracy
- Excellent stability
- Setting by Rotary switch
- Outputs on Ø 4mm safety terminals



Technical Specifications:

Model	ZMDRB	
Decades	1Ω, 10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ, 1MΩ, 10MΩ, 100MΩ.	
Residual Resistance	< 60 mΩ for 1 year, after 1 year add 5 mΩ per year, Max residual resistance: 60 mΩ	
Stability	100 PPM (10 Ω to 10 MΩ)	
Operating Temperature	10° C to 40° C	
Storage Temperature	5° C to 70° C	
Drift due to ageing	50 PPM	
Accuracy	Range	Accuracy: @ 20° to 28°C, RH <75%
	X 1 Ω	± 0.2%
	X 10 Ω to X 10 MΩ	± 0.1%
	X 100 MΩ	± 0.5%
Dimension & Weight	470mm(W) X 100mm(D) X 80mm(H)	2kg. Approx.

PRECISION DECADE RESISTANCE BOX



Features:

- Resistance range from 1mΩ to 1.11111 kΩ
- High accuracy
- Excellent stability
- Setting by Rotary switch
- Outputs on Ø 4mm safety terminals

Technical Specifications:

Model	ZMPDRB	
Decades	1 mΩ, 10 mΩ, 100 mΩ, 1 Ω, 10 Ω, 100 Ω	
Residual Resistance	< 18 mΩ for 1 year, after 1 year add 2mΩ per year, Max residual resistance: 18mΩ	
Operating Temperature	10° C to 40° C	
Storage Temperature	10° C to 70° C	
Drift due to ageing	50 PPM	
Short-term stability	100 PPM	
Accuracy	Range	Accuracy: @ 20° to 28°C, RH <70%
	X 1 mΩ	± 2.5%
	X 10 mΩ	± 1.5%
	X 100 mΩ	± 0.5%
	X 1 Ω	± 0.2%
	X 10 Ω & X 100 Ω	± 0.1%
Dimension & Weight	420mm(W) X 130mm(D) X 120mm(H)	2.5kg. Approx.

DECADE CAPACITANCE BOX

Features:

- Capacitance range from 1nF to 111.111uF
- High accuracy
- Excellent stability
- Outputs on Ø 4mm safety terminals
- Setting by Rotary switch.



Technical Specifications:

Model	ZMDCB	
Decades	1 nF, 10 nF, 100 nF, 1 µF, 10 µF.	
Zero Capacitance	< 20 pF for 1 Year, After 1 Year add 2 pF per year, Maximum Zero Capacitance: 20pF	
Accuracy	± 1.0 % @ 1kHz for all decades @ 25°C ± 2°C, RH: 30 to 75%	
Operating Temperature	10° C to 40° C	
Storage Temperature	10° C to 70° C	
Drift due to ageing	100 PPM / year	
Temperature drift	0.01% / °C	
Short Term Stability set value	300 PPM	
Dimension & Weight	360mm(W) X 100mm(D) X 80mm(H)	2kg Approx.

DECADE INDUCTANCE BOX



Features:

- Inductance range from 10µH to 11.11111H.
- High accuracy.
- Excellent stability.
- Outputs on Ø 4mm safety terminals.
- Setting by Rotary switch.

Technical Specifications:

Model	ZMDIB	
Decades	10 µH, 100 µH, 1 mH, 10 mH, 100 mH, 1 H	
Zero Inductance	< 2 mH for 1 Year, After 1 year add 0.1 mH per year, Maximum Zero Inductance: 2 mH	
Accuracy	± 1.0 % @ 1kHz for all decades, @ 25°C ± 2°C, RH: 30 to 75%	
Operating Temperature	10° C to 40° C	
Storage Temperature	10° C to 70° C	
Drift due to ageing	100 PPM / year	
Temperature drift	0.01% / °C	
Short Term Stability set value	300 PPM	
Dimension Weight	410mm(W) X 100mm(D) X 80mm(H)	2kg Approx.

4 WIRE LOW RESISTANCE STANDARDS

Features:

- Fixed Resistance
- High accuracy.
- Excellent stability.
- Outputs on \varnothing 4mm safety terminals.



Technical Specifications:

Model	ZMLRJ	
Fixed Resistor	10 $\mu\Omega$, 50 $\mu\Omega$, 100 $\mu\Omega$, 1 m Ω , 10 m Ω , 100 m Ω , 1 Ω	
Maximum Test current	For 10 $\mu\Omega$, 50 $\mu\Omega$: 20 A	For 100 $\mu\Omega$, 1 m Ω : 10 A
	For 10 m Ω , 100 m Ω : 1 A	For 1 Ω : 100 mA
Accuracy	Resistance	Accuracy: @ 20° to 28°C, RH <70%
	10 $\mu\Omega$, 50 $\mu\Omega$	\pm 0.25%
	100 $\mu\Omega$, 1m Ω ,10m Ω ,100m Ω , 1000m Ω	\pm 0.1%
Dimension & Weight	420mm(W) X 160mm(D) X 90mm(H)	5kg. Approx

HIGH RESISTANCE JIG



Features:

- Fixed Resistance
- High accuracy.
- Excellent stability.
- Outputs on \varnothing 4mm safety terminals.

Technical Specifications:

Model	ZM1kHRJ	ZM5kHRJ
Fixed Resistor	1 G Ω , 2 G Ω , 5 G Ω , 7 G Ω , 10 G Ω , 50 G Ω , 100 G Ω	5 M Ω , 10 M Ω , 100 M Ω , 200 M Ω , 500 M Ω , 1 G Ω , 10 G Ω ,100 G Ω , 500 G Ω , 1000 G Ω .
Maximum Test Voltage	1000V DC	5000V DC
Accuracy	1 G Ω to 100 G Ω : 2%	5 M Ω to 10 G Ω : 2%
		100 G Ω to 1000 G Ω : 5%
Operating Temperature	20° C to 25° C , RH < 55%	20° C to 25° C , RH < 55%
Storage Temperature	15° C to 50° C	15° C to 50° C
Dimension	250mm(W) X 160mm(D) X 90mm (H)	300mm(W) X 250mm(D) X 90mm (H)
Weight	0.6kg Approx.	0.7kg Approx.

Note: Test Voltage upto 10000V can be customized as per requirement.

TIME INTERVAL METER



Features:

- Two line LCD display
- START & STOP by push button for calibration of stopwatch.
- START & STOP mode selection by rotary switch.
- RESET by push button.

Technical Specifications:

Model	ZMTIMms	ZMTIMµs
Input Power Supply	230 V AC, ±10 % @ 50 Hz.	230 V AC, ±10 % @ 50 Hz.
Measurement Range	0 ms to 1000 Hr	0 µs to 9999 Seconds
Display	16X2 Dot Matrix LCD Hour (999 hr), Min (59 min), Second (59 sec) & Millisecond (999 ms)	16X2 Dot Matrix LCD Second (9999 Sec), Millisecond (999 ms) & Microsecond(999µs)
Count on display	999 59 59 999 Hr min sec ms	9999 999 999 Sec ms µs
Resolution	1 ms	10 µs
Mode of Operation 1	For START Pulse 1) Apply DC Voltage (Up to 24VDC Max.) 2) Remove Voltage 3) Closure of Contact 4) Open of Contact	For START Pulse 1) Apply DC Voltage (Up to 24VDC Max.) 2) Remove Voltage 3) Closure of Contact 4) Open of Contact
Mode of Operation 2	For STOP Pulse 1) Apply DC Voltage (Up to 24VDC Max.) 2) Remove Voltage 3) Closure of Contact 4) Open of Contact	For STOP Pulse 1) Apply DC Voltage (Up to 24VDC Max.) 2) Remove Voltage 3) Closure of Contact 4) Open of Contact
Measurement Accuracy	For 999 ms ± 0.05% ± 10 Digit, above 999ms ± 0.01%	For 999 µs ± 0.05% ± 5 Digit, above 999µs ± 0.01%
Operating Temperature	10°C to 40°C	10°C to 40°C
Storage Temperature	5°C to 70°C	5°C to 70°C
Protection	Start & Stop pulses are isolated from each other.	Start & Stop pulses are isolated from each other.
Dimensions	250mm(W) X 200mm(D) X 180mm(H)	250mm(W) X 200mm(D) X 180mm(H)
Weight	5 kg Approx.	5 kg Approx.

TIME / EVENT CALIBRATOR



Features:

- Programming by Keypad
- 20 x 4 LCD display
- Reset by Push button
- TTL output for Time & Event mode
- Power ON/OFF by Rocker switch

Technical Specifications:

Series	ZMTEC
Input Power Supply	230 V AC , $\pm 10\%$ @ 50 Hz
Time Range	0.1ms to 99Hrs
Operating Mode	1. Event Mode 2. Time Mode 3. Oscilloscope Mode
Accuracy	0.05%
Resolution of Time	0.1ms
Event Range	0 to 9999
Oscilloscope Accuracy	500 μ s to 50 s
Programming	By 16 keys keypad
Display	20 X 4 LCD
Operating Temperature	10° C to 45° C
Storage Temperature	5° C to 55° C
Dimension	200mm (W) X 200mm (D) X 200mm (H)
Weight	3 Kg. Approx.

VARIABLE VOLTAGE / VARIABLE FREQUENCY SOURCE



Features:

- Voltage set by Coarse & Fine multi-turn potentiometers.
- Frequency setting by multi-turn potentiometer.
- Digital meters or Universal meters to indicate set Voltage & Current
- 4 digit meters to indicate Frequency

Technical Specifications:

	ZMVFVS (Single Phase)	ZMVFVS (Three Phase)
Model	ZMVFVS	ZMVFVS
Input Power Supply	230 V AC , ±10 % @ 50 Hz	415 V AC , ±10 % @ 50 Hz
Output Voltage Range	30 to 300 V	50 to 440 V Phase to Phase
Output Current	10 A (or as per customer's requirement)	
Frequency Range	45 to 60 Hz	
Total Harmonic	1.5% for Precision Voltage and current source 3.5% for Power Source	
Stability	0.1% (After Warm-up)	
Meters	3½ or 4½ digit 7 segment display for Voltage 4 digit 7 segment display for Frequency	
Accuracy	1.5% ±5 digits for Voltage, ± 0.2 Hz for Frequency	
Controls	Voltage setting by Coarse & Fine multi turn potentiometers Frequency setting by multi turn potentiometer	
Protection	Over load & Short Circuit	

Note: Output Compliance can be customized per customer requirement.

HIGH FREQUENCY STUNNER



Features:

- Voltage & Frequency setting by Coarse & Fine multi-turn potentiometers.
- 3½ digit meters to indicate Voltage, Frequency & Current.
- Power & Output ON / OFF by Toggle switch.
- LEDs to indicate to Trip Output ON mode.

Model	ZMHFS	
Input Power Supply	230 V AC , ±10 % , 50 Hz	
Output Voltage Range	0 to 100 V DC	
Max Current	0.8A (with overload protection)	
Compliance	80 VA at FS	
Output Frequency Range	500 to 2000Hz	
Display	3½ Digit 7 segment LED display for Voltage, Frequency & Current	
Resolution	Voltmeter: 0.1 V Ammeter: 0.001 A Frequency : 1 Hz.	
Accuracy	Voltage: 1.5% ±10 digits Current: 1% ±3 digits Frequency : ±2 digit	
Controls	Voltage & Frequency setting by Coarse & Fine multi-turn potentiometers Power ON / OFF by toggle switch Output ON / OFF by toggle switch	
Protection	Against Short Circuit & Over Load.	
Dimensions & Weight	345mm(W) X 380mm(D) X 160mm(H)	12kg Approx.

DC REGULATED POWER SUPPLY



Features:

- Protection against overload & short circuit by CC mode
- Separate meters for voltage and current
- Set Voltage & Current by coarse & fine potentiometers
- LEDs to indicate the modes of operation CC & CV

Technical Specifications:

Series	ZMPS
Input Power Supply	230 V AC , ±10 % @ 50 Hz Single Phase or 415 V AC , ±10 % @ 50 Three Phase
Load Regulation	Better than ± 0.1%
Line Regulation	Better than ± 0.1%
Ripple & Noise	Better than ± 0.1% rms
Accuracy	± 0.5% , ± 2 digit
Display	3½ digit 7 segment red LED display for Voltage 3½ digit 7 segment red LED display for Current
Controls	Voltage and Current setting by coarse & fine potentiometer Power ON/OFF switch
Protection	Protection against overload & short circuit by CC mode

Models:

Model	Voltage & Current Range	Dimensions in 'mm' (W x D x H)	Model	Voltage & Current Range	Dimensions in 'mm' (W x D x H)
ZMPS5-5	5V, 5A	250 x 200 x 150	ZMPS60-10	60V, 10A	300 x 300 x 150
ZMPS5-10	5V, 10A	250 x 200 x 150	ZMPS60-15	60V, 15A	400 x 400 x 180
ZMPS15-2	15V, 2A	250 x 200 x 150	ZMPS60-20	60V, 20A	400 x 450 x 180
ZMPS15-5	15V, 5A	250 x 200 x 150	ZMPS60-30	60V, 30A	500 x 500 x 210
ZMPS15-10	15V, 10A	250 x 200 x 150	ZMPS60-40	60V, 40A	530 x 150 x 170
ZMPS30-1	30V, 1A	250 x 230 x 150	ZMPS100-2	100V, 2A	320 x 450 x 150
ZMPS30-2	30V, 2A	250 x 230 x 150	ZMPS100-10	100V, 10A	350 x 500 x 200
ZMPS30-5	30V, 5A	250 x 230 x 150	ZMPS100-25	100V, 25A	450 x 600 x 150
ZMPS30-10	30V, 10A	300 x 300 x 150	ZMPS150-2	150V, 2A	300 x 260 x 120
ZMPS30-20	30V, 20A	400 x 450 x 180	ZMPS150-5	150V, 5A	300 x 300 x 150
ZMPS30-30	30V, 30A	400 x 450 x 180	ZMPS150-10	150V, 10A	420 x 420x 210
ZMPS30-100	30V, 100A	530 x 550 x 500	ZMPS150-20	150V, 20A	460 x 550x 400

Note: High Voltage & High Current range can be customized per customer requirement.

DUAL OUTPUT DC REGULATED POWER SUPPLY



Features:

- Protection against overload & short circuit by CC mode
- Separate meters for voltage and current
- Set Voltage & Current by coarse & fine potentiometers
- LEDs to indicate the modes of operation CC & CV
- Two identical Output Channels

Technical Specifications:

Series	ZM2PS
Input Power Supply	230V AC $\pm 10\%$, 50Hz
Load Regulation	$\pm 0.1\%$
Line Regulation	$\pm 0.1\%$
Ripple & Noise	$\pm 0.1\%$ rms
Accuracy	$\pm 0.5\%$, ± 3 digit
Display	3½ digit 7 segment red LED display for Voltage output 3½ digit 7 segment red LED display for Current output
Controls	Voltage and Current setting by coarse & fine potentiometer Power ON/OFF switch
Protection	Protection against overload & short circuit by CC mode

Models:

Model	Voltage & Current Range	Dimensions in 'mm' (W x D x H)
ZM2PS30-2	30V, 2A	400 x 250 x 200
ZM2PS30-5	30V, 5A	400 x 250 x 200
ZM2PS30-10	30V, 10A	420 x 450 x 200
ZM2PS30-15	30V, 15A	420 x 450 x 200
ZM2PS30-20	30V, 20A	510 x 630 x 200
ZM2PS50-30	50V, 30A	550 x 530 x 450
ZM2PS100-25	100V, 25A	500 x 515 x 500

Note: High Voltage & High Current range can be customized per customer requirement.

ELECTRONIC LOAD

Features:

- Load control by Coarse and Fine potentiometers
- LEDs to indicate Load ON & Constant Load (CL)
- Pair of Heavy duty connector (Red & Black)
- Time Totalizer (Optional)
- Press to set end voltage for battery discharging applications (Optional).



Technical Specifications:

Model	ZMEL
Input Power Supply	230 V AC, $\pm 10\%$, 50 Hz
Range	0 to 20V DC 0 to 20A
Display	3½ digit 7 segment red LED display for Voltage ($\pm 0.5\%$) 3½ digit 7 segment red LED display for Current ($\pm 0.5\%$)
Accuracy	Load Control $\pm 0.1\%$ from 3V to 20V.

Note: High Current & Voltage can be customized per customer requirement.

GROUND CONTINUITY TESTER



Features:

- Test ON / OFF by toggle switch.
- Test Pass & Fail indication on front panel.
- 3½ digital meter for milli ohm ($m\Omega$), Ammeter (A), Voltmeter (V) indication.
- Timer to set test duration.
- Test ON by Toggle switch.

Technical Specifications:

Model	ZMGCT
Input Power Supply	230 V AC, $\pm 10\%$, 50 Hz
Resistance Measurement Range	0 to 200 milli Ohm
Test Current	30 A AC
Open circuit voltage	6V, AC
Current Waveform	Sinusoidal
$m\Omega$ Acceptable setting	By press to set Switch & Potentiometer, using digital milli Ohm meter
Programmable Timer	1 to 60 sec
Metering	3 ½ digit Digital V, A and milli Ohm meter
Accuracy	V: 1.5% of reading A: 1.5% of reading $m\Omega$: 1.5% of redg. ± 5 digit
Accuracy of trip resistance	$\pm 10 m\Omega$
Indications	Test ON, Test Pass & Test Fail
Accessory	Mains Cord
Method of measurement	Passing a constant AC Current (30A) and measuring a voltage drop across the resistance to be measured.
Dimensions & Weight	480mm(W) x 350mm(D) x 250mm(H) 30 kg Approx.

DIGITAL VARIAC

Features:

- Output protection by fuse on front panel.
- 3½ digit meter for Voltage & Current.
- Output through binding posts and 3 pin socket.
- Voltage variation by knob of variac.
- Power ON / OFF by toggle switch.



Technical Specifications:

Model	ZMDV	
Input Power Supply	240 V AC, 50 Hz	
Range	Voltage: 270V AC	
	Current: 2A , 5A , 10 A , 15 A , 20 A, 25A, 30A	
Display	3½ digit LED display for Voltage	
	3½ digit LED display for Current	
Accuracy	±1.5% for V & A	
Dimension & Weight	300mm(W) X 260mm(D) X 140mm(H)	13kg Approx.

INSULATION RESISTANCE TESTER



Features:

- Test ON / OFF by toggle switch.
- 3½ digital meter for Voltage indication.
- 3½ digital meter for Mega ohm (MΩ) indication.
- Test port at front panel.

Technical Specifications:

Model	ZMIRT	ZMIRT-5kV
Input Power Supply	230 V AC, ±10 %, 50 Hz	230 V AC, ±10 %, 50 Hz
Test Voltage	1000 VDC (Fixed) @ 200 MΩ	0.50kV to 5.00kV DC (Regulated), Ripple < 0.1% rms
Accuracy	M Ω: 1.5% of FS ± 2 digit	G Ω: 2.5% of FS ± 3 digit
		V: 1.0% of reading ± 5 digit @ 200MΩ
Resistance Measurement Range	2000 MΩ	200 MΩ to 2 TΩ
Metering	3½ digit LED display for Resistance	3½ digit LED display for Voltage
		3½ digit LED display for Resistance
Control	Power ON/OFF & Output ON/OFF by Toggle switch	Test Voltage setting by coarse and fine potentiometers
Dimension	250mm(W) X 200mm(D) X 150mm(H)	300mm(W) X 300mm(D) X 250mm(H)
Weight	5kg Approx.	15kg Approx.

HIGH VOLTAGE BREAKDOWN TESTER



Features:

- Voltage variation by knob of variac.
- Audio / Visual alarm when HV ON & OFF.
- 3½ digit meter for Test Voltage (kV) indication.
- 3½ digit meter for Leakage Current (mA) indication.
- Timer to set Test duration.
- Timer ON / OFF by Toggle switch.
- Trip Current setting by Press to set switch & Potentiometer.
- Input Fuse protection.
- Test ON / OFF by Toggle switch.

Technical Specifications:

Series	ZMHVT
Input Power Supply	230 V AC, 50 Hz
Display	3½ Digit 7 segment Red LED display for Test Voltage 3½ Digit 7 segment Red LED display for Leakage Current
Accuracy	±2 % of reading ± 3 digit for kV ±1.5 % reading ± 2 digit for mA
Timer (Programmable) Range	0 to 999 second with Timer ON/OFF switch.
Indications	TRIP, HV ON, HV OFF

Models:

Model		Range	Model		Range
AC	DC		AC	DC	
ZMHV5A-10	ZMHV5D-10	5kV / 10mA	ZMHV20A-20	ZMHV20D-20	20kV / 20mA
ZMHV5A-20	ZMHV5D-20	5kV / 20mA	ZMHV20A-30	ZMHV20D-30	20kV / 30mA
ZMHV5A-30	ZMHV5D-30	5kV / 30mA	ZMHV20A-50	ZMHV20D-50	20kV / 50mA
ZMHV5A-50	ZMHV5D-50	5kV / 50mA	ZMHV20A-100	ZMHV20D-100	20kV / 100mA
ZMHV5A-100	ZMHV5D-100	5kV / 100mA	ZMHV20A-500	ZMHV20D-500	20kV / 500mA
ZMHV5A-500	ZMHV5D-500	5kV / 500mA	ZMHV30A-20	ZMHV30D-20	30kV / 20mA
ZMHV10A-20	ZMHV10D-20	10kV / 20mA	ZMHV30A-30	ZMHV30D-30	30kV / 30mA
ZMHV10A-30	ZMHV10D-30	10kV / 30mA	ZMHV30A-50	ZMHV30D-50	30kV / 50mA
ZMHV10A-50	ZMHV10D-50	10kV / 50mA	ZMHV30A-100	ZMHV30D-100	30kV / 100mA
ZMHV10A-100	ZMHV10D-100	10kV / 100mA	ZMHV30A-500	ZMHV30D-500	30kV / 500mA
ZMHV10A-500	ZMHV10D-500	10kV / 500mA	ZMHV100A-100	ZMHV100D-100	100kV / 100mA

Note: High Test Voltage & High Leakage Current range can be customized as per customer requirement.

AC / DC HIGH VOLTAGE BREAKDOWN TESTER



Features:

- Voltage variation by knob of variac.
- Audio / Visual alarm when HV ON & OFF.
- 3½ digit meter for Test Voltage (kV) indication.
- 3½ digit meter for Leakage Current (mA) indication.
- Trip current setting by press to set switch & potentiometer.
- Input Fuse protection.
- Timer to set Test duration.
- Timer ON / OFF by toggle switch.
- AC / DC selection by toggle switch.
- Separate output ports of AC & DC kV.
- Test ON / OFF by toggle switch.

Technical Specifications:

Series	ZMHVAD
Input Power Supply	230 V AC, 50 Hz
Display	3½ Digit 7 segment red LED display for Test Voltage 3½ Digit 7 segment red LED display for Leakage Current
Accuracy	±2 % of reading ± 3 dgt for kV ±1.5 % reading ± 2 dgt of for mA
Timer (Programmable) Range	0 to 999 second with timer ON/OFF switch.
Indications	HV ON, HV OFF, TEST PASS, TEST FAIL

Models:

Model	Range	Model	Range
ZMHV5A5D-10	5kV / 10mA	ZMHV20A20D-20	20kV / 20mA
ZMHV5A5D-20	5kV / 20mA	ZMHV20A20D-30	20kV / 30mA
ZMHV5A5D-30	5kV / 30mA	ZMHV20A20D-50	20kV / 50mA
ZMHV5A5D-50	5kV / 50mA	ZMHV20A20D-100	20kV / 100mA
ZMHV5A5D-100	5kV / 100mA	ZMHV20A20D-500	20kV / 500mA
ZMHV5A5D-500	5kV / 500mA	ZMHV30A30D-20	30kV / 20mA
ZMHV10A10D-20	10kV / 20mA	ZMHV30A30D-30	30kV / 30mA
ZMHV10A10D-30	10kV / 30mA	ZMHV30A30D-50	30kV / 50mA
ZMHV10A10D-50	10kV / 50mA	ZMHV30A30D-100	30kV / 100mA
ZMHV10A10D-100	10kV / 100mA	ZMHV50A50D-02	50kV / 2mA
ZMHV10A10D-500	10kV / 500mA	ZMHV100A100D-02	100kV / 2mA

Note: High Test Voltage & High Leakage Current range can be customized as per customer requirement.

PROGRAMMABLE HIGH VOLTAGE BREAKDOWN TESTER



Features:

- Audio / Visual alarm when HV ON & OFF
- Emergency OFF Switch
- Input Fuse protection
- RS232 Communication
- Automatic Test report generation
- 16 key operating keypad for AC/DC mode selection, Test Voltage, Leakage Current setting & Set rise time, Steady time, fall time, delay time & number of cycle with test data storage generation
- User friendly PC software interface

Technical Specifications:

Series	ZMPHVT
Input Power Supply	230 V AC, 50 Hz
Display	20 x 4 LCD display to indicate Output conditions
Accuracy	$\pm 1\%$ FS ± 3 digit for kV $\pm 1.5\%$ reading ± 2 digit for mA
PC Interface	Rs232 communication
Indications	TEST PASS, TEST FAIL, HV ON, HV OFF

Models:

Model			Range
AC	DC	AC/DC	
ZMHV5A-30	ZMHV5D-30	ZMHV5A5D-30	5kV / 30mA
ZMHV5A-50	ZMHV5D-50	ZMHV5A5D-50	5kV / 50mA
ZMHV5A-100	ZMHV5D-100	ZMHV5A5D-100	5kV / 100mA
ZMHV5A-500	ZMHV5D-500	ZMHV5A5D-500	5kV / 500mA
ZMHV10A-30	ZMHV10D-30	ZMHV10A10D-30	10kV / 30mA
ZMHV10A-50	ZMHV10D-50	ZMHV10A10D-50	10kV / 50mA
ZMHV10A-100	ZMHV10D-100	ZMHV10A10D-100	10kV / 100mA
ZMHV10A-500	ZMHV10D-500	ZMHV10A10D-500	10kV / 500mA
ZMHV20A-20	ZMHV20D-20	ZMHV20A20D-20	20kV / 20mA
ZMHV20A-30	ZMHV20D-30	ZMHV20A20D-30	20kV / 30mA
ZMHV20A-50	ZMHV20D-50	ZMHV20A20D-50	20kV / 50mA
ZMHV30A-20	ZMHV30D-20	ZMHV30A30D-20	30kV / 20mA

Note: High Test Voltage & High Leakage Current range can be customized as per customer requirement.

3 PHASE SECONDARY INJECTION KIT



Features:

- 4½ digit meters to indicate set Current, Voltage & Universal meter
- Current & Voltage setting by Coarse and Fine multi-turn potentiometers
- Frequency setting by multi-turn potentiometer
- Power Factor setting by up & down Push Buttons
- Current Channel output ports (CT1, CT2 & CT3)
- Voltage Channel output ports (L1, L2, L3 & N)
- Output & Timer ON / OFF selection through toggle switch
- Power ON/OFF by MCB

Technical Specifications:

Model	ZM3ØSIK
Input Power Supply	230 V AC, ±5 % @ 50 Hz.
Output Voltage Range	0 to 300 V (L-N) or 0 to 520 phase to phase
Output Current Range	0 to 6 A and 0 to 50A per phase continuous
Output Mode	3 Phase, 4 Wire
Output ports	L1, L2, L3 & N, CT1 (Hi, Lo), CT2 (Hi, Lo), CT3 (Hi, Lo).
PF Range	0 (Lag) to Unity to 0 (Lead)
Compliance	20 VA at FS on Voltage ranges, 30VA at FS on 6A ranges and 250 VA at FS on 50A current ranges
Frequency	45 to 60 Hz
Setting	By Coarse and Fine potentiometers to set Voltage and Current. By push button keys for Power Factor. By potentiometer for frequency. Current range selection by toggle switch
Metering	Digital AC Voltmeter, Digital AC Ammeter, Universal meter to indicate PF, W, VA, VAR of each phase. Also average of all phase, Whr Programmable current display to accommodate any CT ratio.
Accuracy	Class 0.2
Sinusoidal Outputs	THD 1.5%
Protections	Overload and Short circuit
Dimensions & Weight	550mm(W) X 650mm(D) X 450mm(H) 88 kg Approx.

1PHASE SECONDARY INJECTION KIT



Features:

- POWER ON-OFF by MCB.
- Set voltage & current by knob of variac.
- Toggle switch to Select Current / Voltage.
- Toggle switch to Select AC/DC.
- Press START push button to start test.
- Rotary switch to select Current ranges (1A, 2A, 5A, 10A).
- Rotary switch to select Voltage ranges (50V, 110V & 250V).
- Separate O/P Ports for Current Ranges & Voltage Ranges.

Technical Specifications:

Model	ZM1ØSIK	
Input Power Supply	230 V AC, ±5 % @ 50 Hz.	
Current Range	0 to 1A, 2A, 5A, 10A, 20A @ 10 V Compliance	
	0 to 50A, 100A, 200A @ 2 V Compliance	
Current Range	0 to 250 V AC @ 2A Compliance	
	0 to 270 V DC @ 1A Compliance	
	Fixed Voltages: 50 VAC & 110 VAC @ 2A Compliance	
Digital Timer Range	Auto	
Metering	3½ Digital Meter for AC / DC Voltage	
	3½ Digital Meter for AC Current	
Accuracy	2 %, ±10 digits	
Dimensions & Weight	440mm(W) X 295mm(D) X 280mm(H)	40 kg Approx.

AC & DC HIGH CURRENT SOURCE



Technical Specifications:

Model	ZMHCS-AC	ZMHCS-DC
Input Power Supply	230 V AC , ±10 % @ 50 Hz Single Phase or 415 V AC , ±10 % @ 50 Three Phase	230 V AC , ±10 % @ 50 Hz Single Phase or 415 V AC , ±10 % @ 50 Three Phase
Current Range	0 to 10A, 0 to 50A, 0 to 100A, 0 to 500A, 0 to 1000A, 0 to 2000A, 0 to 5000A	0 to 10A, 0 to 50A, 0 to 100A, 0 to 500A, 0 to 1000A, 0 to 2000A, 0 to 5000A
Metering	3½ or 4½ digit 7 segment LED display for Current	3½ or 4½ digit 7 segment LED display for Current
	4 digit 7 segment LED display for Frequency	—
Controls	By Coarse & Fine multi turn potentiometer for Current & Frequency setting	By Coarse & Fine multi turn potentiometer for Current
Resolution (As per Current Ranges)	0.001A, 0.01A, 0.1A & 1A	0.001A, 0.01A, 0.1A & 1A
Protection	Over load & Short Circuit	Over load & Short Circuit

Note: Current Range & Compliance can be customized as per requirement.

OUR OTHER INSTRUMENTS

1. DIGITAL UPS, STABILIZER, GENSET SCANNER



Sr. No.	Parameter	Range	Accuracy	Revolution
01	AC Voltage	0 to 1000V AC	0.75% rdg + 1 dgt	1 Volt
02	AC Current	As per CT ratio	0.75% rdg + 1 dgt	0.1 Amp.
03	Frequency	45 to 65 Hz	+ 2 dgt	0.1 Hz
04	DC Voltage	0 to 1000V DC	0.75% rdg + 1 dgt	1 Volt
05	DC Current	As per shunt ratio	0.75% rdg + 1 dgt	0.1 Amp.

Dimension : 96mm (W) X 96mm (H) X 50mm (D)

2. DIGITAL PANEL METERS



Sr. No.	Parameter	Accuracy	Dimensions (WxH xD)
01	3½ Digit DC Voltmeter	0.5% rdg + 1 dgt	96 x 96 x 90
02	3½ Digit DC Ammeter	0.5% rdg + 1 dgt	48 x 96 x 90
03	3½ Digit AC Voltmeter	0.75% rdg + 1 dgt	48 x 96 x 90
04	3½ Digit AC Ammeter	0.75% rdg + 1 dgt	48 x 96 x 90
05	3½ Digit AC True RMS Voltmeter	0.75% rdg + 1 dgt	48 x 96 x 90
06	3 Digit Line Frequency meter	1 dgt	48 x 96 x 70
07	4 Digit Line Frequency meter	1 dgt	48 x 96 x 70
08	RPM Indicator	1 dgt	48 x 96 x 70

Note: Also available 4½ digit meter in (48 x 96 x 120) mm dimension.

3. LINEAR TRANSMITTER SIMULATOR



Model	ZMLTS
Input Power Supply	24V DC ± 10%
DC Current Range	4 to 20mA (with Percentage selector switch) 0% = 4mA, 25% = 8mA, 50% = 12mA, 75% = 16mA, 100% = 20mA
Accuracy	0.15%

4. DIGITAL LOW RESISTANCE METER



Model	ZMDRM
Input Power Supply	230 V AC, ±10 %, 50 Hz
Measuring Range	0 to 200Ω
Test Current	100mA
Open Circuit Voltage	20mV
Display	3½ Digit 7 segment red LED display
Accuracy	0.15%

4. DIODE TESTER



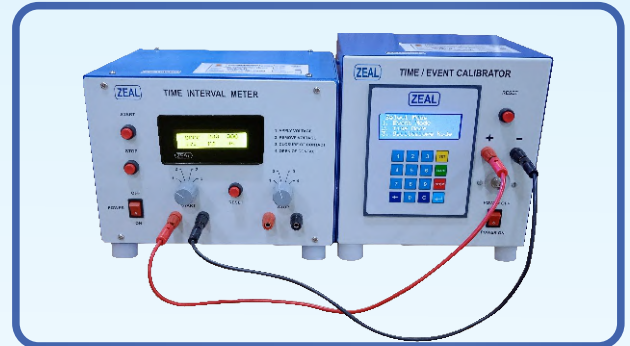
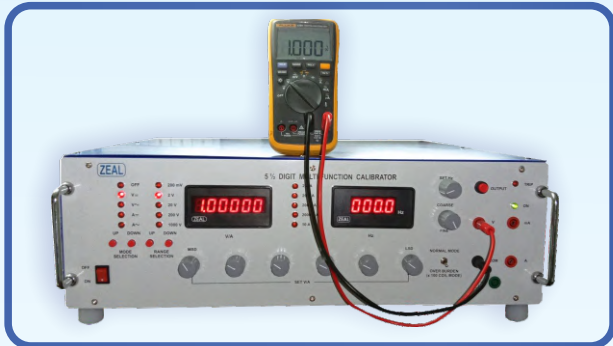
Model	ZMDT
Input Power Supply	230 V AC, ±10 %, 50 Hz
Diode Reverse Breakdown Voltage	100 to 1000V
Leakage Current	2µA / 5µA by Selection Switch
Open Circuit Voltage	20mV
Display	3½ Digit 7 segment red LED display
Accuracy	±1.5 % ± 3 digit
Dimension	240mm(W) X 200mm(D) X 150mm(H)



**ZEAL MANUFACTURING AND
CALIBRATION SERVICES PVT. LTD.**



CC - 3385



Calibration Parameters (Measure / Source) :

- Micro Volt to kilo Volt AC / DC.
- Micro Ampere to kilo Ampere AC / DC.
- kW, kWhr, PF, kVA, kVar, kVAhr, kVAhrh, Harmonics.
- Milli Hertz to Mega Hertz, Time, Period.
- Micro Henry to Henry.
- Pico Farad to Milli Farad.
- Micro Ohm to Tera Ohm.
- Temperature Simulation.