



Certificate No. : CC-2042

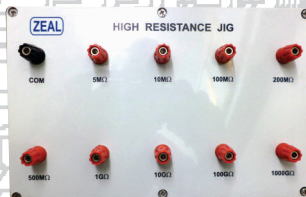
NABL (ISO/IEC 17025 : 2017) accredited Lab

ZEAL

MANUFACTURING AND CALIBRATION
SERVICES PRIVATE LIMITED

(An ISO 9001 : 2015 Company)

MANUFACTURERS OF TEST & MEASURING INSTRUMENTS.



www.zealmfg.com

ZMCS012020 - 2.2 Ver.

Company profile :

Zeal is an ISO 9001:2015 certified company 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, Mechanical & Thermal.

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.



Director's profile :

Our company has been engaged in manufacturing of Electronic Test and Measuring Instruments from past 29 years. 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 28 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 Limited Customer List :

- | | | |
|-----------------------------------|---|--|
| • BOSCH Ltd. | • Rishabh Instruments Pvt. Ltd. | • Institute for Design of Electrical Measuring Instruments (IDEMI) |
| • L & T Ltd. | • Automatic Electric Ltd. | • The Automotive Research Association of India (ARAI) |
| • Whirlpool of India Ltd. | • Secure Meters Ltd. | • Airport Authority of India |
| • Siemens Ltd. | • Nippen Electrical Instrument Co. | • Air India |
| • Honeywell Automation India Ltd. | • Radix Electro Systems Pvt. Ltd. | • College of Engineering, Pune |
| • Vertiv Energy Pvt. Ltd. | • Central Power Research Center of India (CPRI) | • IIT Bombay |
| • LG Ltd. | • Electronic Regional Test Lab (ERTL) | • IIT Kharagpur |
| • Bharat Electronics Ltd. | • Electronics Test & Development Center (ETDC) | |
| • Bharat Heavy Electricals Ltd. | | |
| • Hindustan Aeronautics Ltd. | | |

Multi Function Calibrator (5½ digit)



Make: ZEAL

Model: ZMMFC5.5

Input Power: 230 V AC @ 50 Hz

DC Voltage Ranges: 200mV, 2V, 20V, 200V, 1000V

AC Voltage (45 Hz to 1000 Hz) Ranges: 200mV, 2V, 20V, 200V, 1000V

DC Current Ranges: 2mA, 20mA, 200mA, 2A, 10A

AC Current(45 Hz to 1000Hz) Ranges: 2mA, 20mA, 200mA, 2A, 10A

Accuracy: DC V: 0.10%, AC V: 0.15%,

DC Current : 0.10%, AC Current : 0.15%

(Accuracies specified at 25 deg C, RH <70%,
basic accuracy ± 10 digits for DC parameters
& basic accuracy ± 15 digits for AC
parameters.

Basic accuracies of AC parameters defined
at 60Hz for all other frequencies : 0.35%)

Features:

- Overload and short circuit protection
- Pure Sine wave with variable frequency
- Setting by Decade switches for V/A in 5½ digit MFC
- Frequency setting by potentiometer
- Parameter and range selection by inbuilt micro controller based unit and relays. Bar of LEDs to indicate parameter and range.
- Separate output ports for V (Hi), mA (Hi), 10A(Hi) and com

Accessory: X 100 AC/DC current coil for
clamp on meter calibration up to 1000A

Note: Current beyond 10A is also available.

Tachometer Calibrator (Non contact)



Make: ZEAL

Model: ZMDTC

Input power: 230V $\pm$ 10% AC, 50Hz

Ranges: 100, 1000, 10000, 100000 RPM

Total Settable range: 10 RPM to 1 lac RPM

No. of digits: 6 digits for each range

Accuracy: 0.05% $\pm$ 5 digit

Optical Pulse by high bright white LED

Other output: 5 V pulse

4½ AC/DC MULTIFUNCTION SITE CALIBRATOR



Technical Specification:

Make	: ZEAL
Model	: ZMSMFC4.5
Input Power	: 230V, 50 Hz
Operating Temperature	: 15°C to 45°C
DC Voltage Ranges	: 200mV, 2V, 20V, 200V, 1000V
AC Voltage Ranges	: 200mV, 2V, 20V, 200V, 1000V (45Hz to 1kHz)
DC Current Ranges	: 2mA, 20mA, 200mA, 2A, 10A
AC Current Ranges	: 2mA, 20mA, 200mA, 2A, 10A (45Hz to 1kHz)
Frequency	: 45 Hz to 1 kHz
Fixed Resistance	: 1 Ω, 10 Ω, 100 Ω, 1kΩ, 10kΩ, 100 kΩ, 1MΩ, 10MΩ, 100MΩ
Fixed Inductance	: 10 μH, 100 μH, 1 mH, 10 mH, 100 mH.
Fixed Capacitance	: 1 nF, 10 nF, 100 nF, 1 μF, 10 μF
RPM (Non Contact Type)	: 60,000 RPM Non Contact Type
V/A Selection	: By Toggle Switch
Range Selection	: By Rotary Switch
Setting	: V/A setting by multiturn coarse & fine potentiometers, Frequency by potentiometer
Accuracy (@ 15°C to 30°C, RH <70%)	
DC Voltage & Current	: ±0.2% of Rdg ±5 Dgt.
AC Voltage & C urrent	: ±0.3% of Rdg ±10 Dgt, Frequency: 0.1Hz
Resistance	: ±0.25%, Capacitance/Inductance: ±5%
RPM (Non Contact Type)	: ±0.1% ±5 Dgt
Accessories	: X 100 AC/DC Current Coil for clamp on meters calibration up to 1000A

Three Phase Power / Energy Meter Calibrator



TECHNICAL SPECIFICATION

Make: ZEAL

Model: ZM3ØPEMC

Input: 230 Volt AC

Output Voltage Ranges: 0 to 300 V (L-N) or
0 to 520 Phase to Phase

Output Current Ranges: 0 to 6 A per phase

Mode: 3 Phase, 4 Wire & Single Phase

Output ports: VR, VY, VB, N & IR (Hi, Lo),
IY (Hi, Lo), IB (Hi, Lo)

PF Range: 0.1 lag to Unity to 0.1 lead

Compliance: 20 VA, at FS on V ranges,

Compliance: 30 VA, at FS on A channels

Frequency: 45 to 60 Hz

With programmable timer counter to keep
output ON for fix duration. Duration
programmable in minute.

Setting: Voltage, current, frequency by
potentiometer.

Power Factor by push button keys,
timer by thumb wheel switches

Metering:

Digital AC Voltmeter, Digital AC Ammeter ,
Universal meter to indicate PF, W, VA, VAR
of each phase. Also average of all phases,
WHr Programmable current display to
accommodate any CT ratio

Accuracy: Class 0.15

Sinusoidal Outputs: THD 1.5%

Protections : Overload and Short circuit

Note : 3Ø 3 Wire can be customized as per
customer requirement

AC DC High Voltage Measurement Probe



Make : ZEAL
Model : ZMHVP-AC/DC 1
Range : 0 - 100 kV AC & DC
Attenuation Ratio : 1kV : 100mV
Input Impedance : > 200 MΩ
Accuracy :
 DC kV: Up to 40 kV: $\pm 2\%$,
 Above 40 kV add $\pm 0.05\%$ Per kV.
 AC kV: Up to 40 kV: $\pm 2.5\%$,
 Above 40 kV add $\pm 0.08\%$ Per kV.
Frequency : 50Hz.

Make : ZEAL
Model : ZMHVP-AC/DC
Range : 0 - 50 kV AC & DC
Attenuation Ratio : 1kV : 100mV
Input Impedance : > 200 MΩ
Accuracy :
 DC kV: Up to 40 kV: $\pm 1\%$,
 Above 50 kV add $\pm 0.08\%$ Per kV.
 AC kV: Up to 40 kV: $\pm 1.5\%$,
 Above 50 kV add $\pm 0.12\%$ Per kV.
Frequency : 50Hz.

mV/mA/RTD Calibrator



Make: ZEAL

Model : ZMPCB

Technical Specification (Mains operated)

INPUT POWER DIGITAL METER :

230 V $\pm$ 10% AC single phase (4½dgt)LED

DC Current source Range : 0 to 20mA

Accuracy : 0.1 % $\pm$ 3 digits

DC Voltage source Range : 0 to 200 mV

Accuracy : 0.1 % $\pm$ 3 digits RTD(fix 10 positions)

-50,-25,0,25,50,75,100,200,300,400°C

DIMENSIONS : (250 x 200 x 150) mm

WEIGHT : 1.25 kg Approx

ACCURACY OF RTD SOURCE 0.1% OF SET TEMPERATURE

Make: ZEAL

Model : ZMPCB

Technical

Specification

(Battery operated)

INPUT POWER :

9V x 2

Batteries 100mAh,
with charger

DIGITAL METER

(4½dgt)LED

DC Current source

Range : 0 to 20mA

Accuracy : 0.1 % $\pm$ 3 digits

DC Voltage source Range : 0 to 200 mV

Accuracy : 0.1 % $\pm$ 3 digits

RTD(fix 10 positions)

0,25,50,75,100,150, 200, 300, 400°C

DIMENSIONS : (170 x 90 x 44) mm

WEIGHT : 0.5 kg

ACCURACY OF RTD SOURCE 0.1% OF SET TEMPERATURE



DC Low Current Source



Make: ZEAL

Model: ZMLCS

Input Power: Battery operated, 9V x 2

Output Ranges: 0 to 25.00 nA

Output Setting : By Multi Turn Potentiometer

Display: 4½ Digit LCD

Accuracy: 0.75% rdg $\pm$ 10 dgt

Decade Resistance Box



Make: ZEAL, Model : ZMDRB

Technical Specifications:

Decades of 1Ω , 10Ω , 100Ω ,

$1k \Omega$, $10k \Omega$, $100k \Omega$,

$1M \Omega$, $10M \Omega$, $100M \Omega$,

Total resistance range:

Minimum 1Ω to $1111.11111M\Omega$

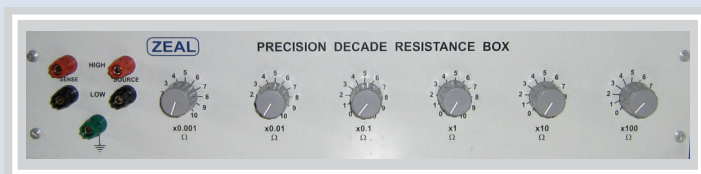
Accuracy:

0.2% for decade of 1Ω

0.1% for decades of 100Ω , $1k\Omega$, $10k\Omega$, $100k\Omega$, $1M\Omega$ & $10M\Omega$

0.5% for decade of $100M\Omega$

Precision Decade Resistance Box



Technical Specifications:

Make: ZEAL

Model : ZMPDRB

Decade of $1 m \Omega$, $10 m \Omega$, $100 m \Omega$,

1Ω , 10Ω , 100Ω

Resistance Range: $1m \Omega$ to $1.11111 k \Omega$,

DECADE POSITIONS WITH ACCURACY

$\pm 5\%$ for 0.001Ω ,

$\pm 2.5\%$ for 0.01Ω ,

$\pm 1.5\%$ for 0.1Ω

$\pm 0.5\%$ for 1Ω ,

$\pm 0.1 \%$ for 10Ω ,

$\pm 0.1\%$ for 100Ω

Residual Resistance $< 10m \Omega$

Decade Capacitance Box



Make: ZEAL,

Model: ZMDCB

Technical Specifications:

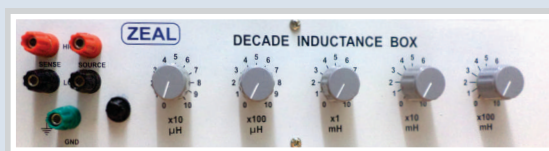
Decades of 10 pF, 100 pF, 0.001 μF,
0.01 μF, 0.1 μF, 1 μF

Total Capacitance range:

Minimum 10 pF **to** 11.1111μF

Accuracy: 1%

Decade Inductance Box



Make: ZEAL, **Model:** ZMDIB

Technical Specifications:

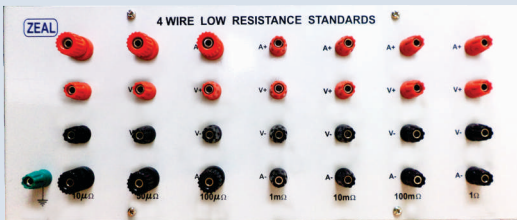
Decades of 10 μH, 100μH, 1mH, 10mH, 100mH

Total Inductance range:

Minimum 10 μH **to** 1.1111H

Accuracy: 1%

4Wire Low Resistance Standards



Technical Specification:

Make: ZEAL, **Model:** ZMLRJ

4 wire Low Resistance standards

Fixed resistors: $10\mu\Omega$, $50\mu\Omega$, $100\mu\Omega$, $1m\Omega$, $10m\Omega$, $100m\Omega$, $1000m\Omega$

Maximum Test currents: For $10\mu\Omega$, $50\mu\Omega$: 20 A

For $100\mu\Omega$ to $1m\Omega$: 10 A For $10m\Omega$, $100m\Omega$: 1A

For $1000m\Omega$: 100mA

Accuracy: 0.25% for $10\mu\Omega$, $50\mu\Omega$, 0.1% for $100\mu\Omega$, $1m\Omega$, $10m\Omega$, $100m\Omega$, $1000m\Omega$

High Resistance Jig



Technical Specification:

Make: ZEAL

Model: ZMHRJ

Description:

Ranges: $5M\Omega$, $10M\Omega$, $100M\Omega$, $200M\Omega$, $500M\Omega$, $1G\Omega$, $10G\Omega$, $100G\Omega$, $1000G\Omega$

Max DC Test Voltage: 5000V DC

Accuracy: $5M\Omega$ to $10G\Omega$: 2%

$100G\Omega$ to $1000G\Omega$: 5%

Time Interval Meter



Technical Specifications:

Make: Zeal

Model: ZMTIMmS

Power: 230V AC, $\pm 10\%$, 50 Hz

Test conditions :

For both START and STOP (By Selector Switches)

1. Apply DC voltage (upto 24V Max)
2. Remove Voltage
3. Closure of contact
4. Opening of contact

Display :

1. Display - 16x2 LCD display
2. With Hour (999 hr) Min (59 min) Sec (59 sec) Milliseconds (999 ms)
3. Count on display - 999 59 59 999
 Hr Min Sec ms

Reset facility

Resolution - 1 ms

Accuracy - For 999 mS : 0.05% +5 Digit.

Above 999 mS : 0.01%

Time Base Output : 12 MHz

Time Interval Meter



Technical Specifications:

Make: Zeal

Model: ZMTIM μ S

Power: 230V AC, $\pm 10\%$, 50 Hz

Test conditions :

For both START and STOP (By Selector Switches)

1. Apply DC voltage (upto 24V Max)
2. Remove Voltage
3. Closure of contact
4. Opening of contact

Display :

1. Display - 16x2 LCD display
2. With Seconds (9999 Sec) Milli Seconds (999 mS) Micro Seconds(999 μ S)
3. Count on display - 9999 999 999
 Sec mS μ S

Reset facility

Resolution - 1 μ S

Accuracy - For 999 μ S : 0.05% +5 Digit.

Above 999 μ S : 0.01%

Time Base Output : 12 MHz

Contact - Non Contact Type Tachometer Calibrator



Contact Type Tachometer Calibrator

Make: ZEAL Model: ZMC-NTC

Range 1: 10 to 500 RPM Contact type

Range 2: 10 to 500 RPM Non-Contact type

Range 3: 100 to 5000 RPM Contact type

Range 4: 5000 to 100000 RPM Non contact type optical reflection

No. of digits on display: 6 digits

Accuracy: $0.05\% \pm 2$ dgt

Stability of speed: $0.05\% \pm 2$ dgt (with or without contact load)

Speed setting by Coarse & Fine multiturn potentiometer

AC / DC High Current Source



TECHNICAL SPECIFICATION

Make: ZEAL

Model : ZMVFVFS

Output Voltage Range : 0 to 440 V

Single Phase or 3 Phase(for Voltage Source)

Output Current Source:0 to 1000 A

(for Current Source)

Make: ZEAL

Model: ZMHCS

Power: 230V AC , single phase

Range: 0 to 1000.0 A

Resolution: 0.1A

Accuracy: DC A: 0.1%± 15 digits

AC A: 0.5%± 15 digits

Note : High Current upto 5000A with variable frequency can be customized as per requirement

Variable Voltage / Variable Frequency Source

Output Wattage :12 kVA

Frequency Range:40 to 1000 Hz

Total Harmonic :Less than 1.25% for
Distortion Precision Voltage and
Current Source.

3.5% for Power sources

Stability:0.1% (After Warm-up)

Digital Meters:4½digit Voltage/Current,
4 digit Frequency

Protection:Overload and short circuit

Line / Load Regulation:0.25 % for
(230 +/- 10 %)

Dual DC Regulated Power Supply

Model	Voltage & Current range
ZM2PS302	30V, 2A
ZM2PS305	30V, 5A
ZM2PS3010	30V, 10A
ZM2PS3020	30V, 20A

TYPICAL TECHNICAL SPECIFICATION

Make: ZEAL

Model : ZM2PS 30-02

Output Voltage Range : 0 to 30 V (Dual)

Output Current : 0 to 2 Amp.

Load Regulation : 0.1 %

(From No Load to Full Load)

Line Regulation : 0.1 %

(For Input 230 VAC $\pm 10\%$)

Ripple : 0.1% Vrms Max.

(With /Without Load)

Output Stability : 0.1 % (After warm-up of 20 minute)

Digital Meter : DC Voltage & Current



Accuracy : For Voltage : 0.5 %

For Current: 0.5 %

Protection : Overload & Short circuit

Operating Temp. : 0 to 50° C

Input Power : 230 V $\pm 10\%$, 50 Hz.

Requirement

FEATURES:

* Power supplies of High Voltage upto 2kV @ 0.5A and high current upto 1000A @ 10 V are available

* Above 100 W power supplies have triac based preregulator.

Electronic Load Tester

Make: ZEAL

Model: ZMEL

TYPICAL TECHNICAL SPECIFICATIONS:

• Typical Load Range: 0 - 20 A (settable by multi turn potentiometer)*

• Load Current Regulation: $\pm 0.05\%$ (for a change of battery voltage from no load voltage to end voltage level)

• Line Regulation: $\pm 0.05\%$ (for $\pm 10\%$ change in mains supply)

• Power Requirement: 230 V AC $\pm 10\%$ 50Hz

• Metering: 3 Digit Voltage, Amp meter to

indicate battery voltage and current

• Timer

Totaliser(Optional)

• Press to set end voltage for battery discharging application



Parameter	Range	Resolution	Accuracy
DC Volt	20 V	0.01V	0.5% rdg ± 2 digits
DC Current	20 A	0.01A	0.5% rdg ± 2 digits

Note : Loads of high current are also available.

Ground / Earth Continuity Tester

TECHNICAL SPECIFICATIONS:

Make: ZEAL

Model: ZMGCT

- Power: 230V AC, $\pm 10\%$, 50 Hz
- Resistance Measurement Range: 0 to 200 milli Ohm
- Test Current: $30A \pm 1\%$ AC
- Open Circuit Voltage: 8V AC
- Current Waveform: Sinusoidal
- Acceptable setting: By press to set switch and potentiometer, using digital milli Ohm meter
- Programmable Timer: 1 to 60 sec
- Metering: $3\frac{1}{2}$ digit Digital V, A and milli Ohm meter
- Indication Accuracy: V: 1.5% of reading, A: 1.5% of reading, m Ω : 1.5% of reading ± 5 dgt



- Accuracy of trip resistance: $\pm 2\text{ m}\Omega$
- Indications: Trip, Test On, Test Off
- Output test current through high current wire and Earth pin of 3 pin socket
- Accessory: High Current Crocodile wire / Test Probe
- **Method of measurement:** Passing a constant AC current (30A) and measuring a voltage drop across the resistance to be measured

Digital Panel Meters



Sr.No.	Description	Accuracy	Size
01	3 1/2 Digital DC Voltmeter	(0.5 % rdg + 1 dgt)	48 x 96 x 90
02	3 1/2 Digital DC Ammeter	(0.5 % rdg + 1 dgt)	48 x 96 x 90
03	3 1/2 Digital AC Voltmeter	(0.75 % rdg + 1 dgt)	48 x 96 x 90
04	3 1/2 Digital AC Ammeter	(0.75 % rdg + 1 dgt)	48 x 96 x 90
05	3 1/2 Digital AC True RMS Voltmeter	(0.75 % rdg + 1 dgt)	48 x 96 x 90
06	3 1/2 Digital AC True RMS Ammeter	(0.75 % rdg + 1 dgt)	48 x 96 x 90
07	3 Digit Line Frequency Meter	1 dgt	48 x 96 x 70
08	4 Digit Line Frequency Meter	1 dgt	48 x 96 x 70
09	RPM Indicator	1 dgt	48 x 96 x 70

Also available 4 1/2 digit meter size (48x96x120)mm

Also All meters are available in Size 96 X 96 mm

Digital UPS, Stabilizer, Genset Scanner

Specifications :

Parameter	Range	Accuracy	Revolution
AC Voltage	0 to 450 V AC	(0.75 % rdg + 1 dgt)	1 Volt
AC Current	As Per CT ratio	(0.75 % rdg + 1 dgt)	0.1 Amp.
Frequency	45 to 65 Hz	(+ 2 dgt)	0.1 Hz
DC Voltage	0 to 500 V DC	(0.75 % rdg + 1 dgt)	1 volt
DC Current	As per shunt ratio	(0.75 % rdg + 1 dgt)	0.1 Amp.

Dimension : (96 x 96 x 50) mm

Panel Cutout : (92 x 92) mm

Power : + 5 V , Com. , - 5 V

Operating: Ambient to 65o C

Temp. Features

- Electrical Isolation between all parameters
- Parameter Selection by Push Button Select Switch & bar of LEDs
- Gain, Offset setting for all parameters are accessible.



Digital Variac

TECHNICAL SPECIFICATION

Make: ZEAL

Model: ZMDV

Digital Meter :

For Voltage and Current

Output Range : 300 V AC

Voltage Accuracy : 1.5 %

Current Range :

2.0 Amp AC, 5.0 Amp. AC,

10 Amp AC, 20 Amp AC

Accuracy : 1.5 %



Insulation Resistance Testers (Mains Operated)



TECHNICAL SPECIFICATION

Make: ZEAL

Model: ZMIRT

Insulation Resistance Tester

Power: 230V AC, $\pm 10\%$, 50 Hz

Test Voltage: 0.50 kV to 5.00 kV DC

(Regulated), Ripple $< 0.1\%$ rms

Test Voltage setting by coarse and fine potentiometers



Resistance measurement Ranges: 0-2.00 G Ω ,

20.00 G Ω Range selection by toggle switch

Metering: 3 $\frac{1}{2}$ digit Digital V and Resistance meter

Accuracy: V: 1.0% of reading ± 5 dgt @ 100M Ω ,

G Ω : 1.5% of FS ± 3 dgt

Protection: against short circuit.

Accessory: Banana to crocodile (Fully insulated)Hi, Lo & Guard

Linear Transmitter Simulator

TECHNICAL SPECIFICATIONS:

Make: ZEAL

Model : ZMLTS

Technical Specifications:

Input power: 24 V $\pm 10\%$ DC

DC Current Range: 4 to 20mA (with percentage selector switch)

0%= 4mA, 25%= 8mA, 50%= 12mA, 75%= 16mA, 100%= 20mA

Accuracy of settings: 0.15 %



Note: High voltage & High Current can be customized as per customer requirement

AC High Voltage Breakdown Tester

AC HV TESTER			
Model	Range	Model	Range
ZMHV5A-10	5kV/10mA	ZMHV20A-20	20kV/20mA
ZMHV5A-20	5kV/20mA	ZMHV20A-30	20kV/30mA
ZMHV5A-30	5kV/30mA	ZMHV20A-50	20kV/50mA
ZMHV5A-50	5kV/50mA	ZMHV20A-100	20kV/100mA
ZMHV5A-100	5kV/100mA	ZMHV20A-500	20kV/500mA
ZMHV5A-500	5kV/500mA	ZMHV30A-20	30kV/20mA
ZMHV10A-20	10kV/20mA	ZMHV30A-30	30kV/30mA
ZMHV10A-30	10kV/30mA	ZMHV30A-50	30kV/50mA
ZMHV10A-50	10kV/50mA	ZMHV30A-100	30kV/100mA
ZMHV10A-100	10kV/100mA	ZMHV30A-500	30kV/500mA
ZMHV10A-500	10kV/500mA	ZMHV100A-100	100kV/100mA



Technical Specifications:

AC High Voltage Breakdown Tester

Make : Zeal

Model : ZMHV

Power: 230V AC $\pm 10\%$, 50 Hz

Trip Current setting: by press to set switch & potentiometer, using digital mA meter

Timer (programmable): 0 to 999 second with timer ON/OFF switch.

Timer: 0 to 999 second with timer ON/OFF switch

Metering: 3 ½ digits Digital kV and mA meter

Accuracy: kV: 2 % of FS ± 6 dgt, mA: 1.5% of reading ± 2 dgt,

Time: ± 0.5 second

Indications: Trip, HV On, HV Off

Accessory: HV Test Probe



Type	Maximum Test Voltage (kV)	Typical Leakage currents (mA)
AC HV Tester	5, 10, 100	20,30,100,350
DC HV Tester	5, 10, 50	20,30,100,350
AC/DC HV Tester	5, 10, 50	20,100,350

Note: High test voltage & High leakage Current can be customized as per customer requirement

DC High Voltage Breakdown Tester



DC HV Tester Table

Model	Range	Model	Range
ZMHV5D-10	5kV/10mA	ZMHV20D-20	20kV/20mA
ZMHV5D-20	5kV/20mA	ZMHV20D-30	20kV/30mA
ZMHV5D-30	5kV/30mA	ZMHV20D-50	20kV/50mA
ZMHV5D-50	5kV/50mA	ZMHV20D-100	20kV/100mA
ZMHV5D-100	5kV/100mA	ZMHV20D-500	20kV/500mA
ZMHV5D-500	5kV/500mA	ZMHV30D-20	30kV/20mA
ZMHV10D-20	10kV/20mA	ZMHV30D-30	30kV/30mA
ZMHV10D-30	10kV/30mA	ZMHV30D-50	30kV/50mA
ZMHV10D-50	10kV/50mA	ZMHV30D-100	30kV/100mA
ZMHV10D-100	10kV/100mA	ZMHV30D-500	30kV/500mA

Technical Specifications:

DC High Voltage Breakdown Tester

Make : Zeal

Model : ZMHV

Power: 230VAC $\pm 10\%$, 50 Hz

Trip Current setting: by press to set switch & potentiometer, using digital mA meter

Timer (programmable): 0 to 999 second with timer ON/OFF switch.

Timer: 0 to 999 second with timer ON/OFF switch

Metering: 3 ½ digits Digital kV and mA meter

Accuracy: kV: 2 % of FS ± 6 dgt, mA: 1.5% of reading ± 2 dgt,

Time: ± 0.5 second

Indications: Trip, HV On, HV Off

Accessory: HV Test probe

Type	Maximum Test Voltage (kV)	Typical Leakage currents (mA)
AC HV Tester	5, 10, 100	20,30,100,350
DC HV Tester	5, 10, 50	20,30,100,350
AC/DC HV Tester	5, 10, 50	20,100,350

Note: High test voltage & High leakage Current can be customized as per customer requirement

AC / DC High Voltage Breakdown Tester

AC/DC HV TESTER			
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



AC/DC High Voltage Breakdown Tester

Make: Zeal

Model: ZMHV

Power: 230V AC $\pm 10\%$, 50 Hz

(AC / DC Range selection mode)

Trip Current setting: by press to set switch & potentiometer, using digital mA meter

Timer (programmable): 0 to 999 second with timer ON/OFF switch.

Timer: 0 to 999 second with timer ON/OFF switch

Metering: 3 1/2 digits Digital kV and mA meter

Accuracy: kV: 2 % of FS ± 6 dgt, mA: 1.5% of reading ± 2 dgt, Time: ± 0.5 second

Indications: Trip, HV On, HV Off

Accessory: HV Test probe



Type	Maximum Test Voltage (kV)	Typical Leakage currents (mA)
AC HV Tester	5, 10, 100	20,30,100,350
DC HV Tester	5, 10, 50	20,30,100,350
AC/DC HV Tester	5, 10, 50	20,100,350

Note: High test voltage with variable frequency & High leakage Current can be customized as per customer requirement

DC Regulated Power Supply

Low Wattage

High Wattage

Model	Voltage & Current range	Model	Voltage & Current range
ZMPS24-1	24V/1A	ZMPS30-30	30V/30A
ZMPS24-2	24V/2A	ZMPS30-50	30V/50A
ZMPS24-5	24V/5A	ZMPS30-100	30V/100A
ZMPS24-10	24V/10A	ZMPS60-30	60V/30A
ZMPS24-20	24V/20A	ZMPS60-40	60V/40A
ZMPS30-1	30V/1A	ZMPS60-50	60V/50A
ZMPS30-2	30V/2A	ZMPS100-2	100V/2A
ZMPS30-5	30V/5A	ZMPS100-10	100V/10A
ZMPS30-10	30V/10A	ZMPS100-25	100V/25A
ZMPS30-20	30V/20A	ZMPS150-2	150V/2A
ZMPS60-2	60V/2A	ZMPS150-10	150V/10A
ZMPS60-10	60V/10A	ZMPS200-10	200V/10A
ZMPS60-20	60V/20A	ZMPS200-100	200V/100A

General Specifications:

Input Power: 230 V/415 V $\pm$ 10% AC, 50Hz,

Line & Load Regulation: $\pm$ 0.1% (Low Wattage), $\pm$ 1% (High Wattage)

Meters: Output DC Volt Meter & Ammeter (Digital 3½ digit)

Accuracy: 0.5% $\pm$ 3 digit (Low Wattage), $\pm$ 1% (High Wattage)

Controls: Voltage setting: By course & fine potentiometer.

Power ON / OFF switch

Other Features: Protection against short circuit and overload.



Low Wattage



High Wattage



Low Wattage

Note: High voltage & High Current range can be customized as per customer requirement

Secondary Injection Kit

Three Phase Secondary Injection Kit -

Technical Specifications:-

Make: ZEAL

Model: ZM3ΦSIK

Input : 230 V AC @ 50 Hz.

Output Voltage Range : 0 to 300 V (L-N) per phase or 0 to 520 V Phase to Phase

Output Current Range: Range 1: 0 to 6 A per phase

Range 2: 0 to 50 A per Phase (With Selector Switch)

Output Mode : 3 Phase, 4 Wire & Single Phase.

Output ports : Vr, Vy, Vb - N, Ir (Hi, Lo),
Iy (Hi, Lo), Ib (Hi, Lo).

PF Range : 0.1 (Lag) to Unity to 0.1 (Lead)

Compliance : 20 VA, at FS on Voltage ranges,
30 VA at 6A & 250 VA, at 50 A Current Channels.

Frequency : 45 to 60 Hz

With programmable timer counter to keep output ON for fix duration. Duration programmable in second.

Setting : By coarse and fine set of potentiometer to set Voltage and Current.
By push button keys for Power Factor.



By potentiometer for frequency.

Metering : Digital AC Voltmeter, Digital AC Ammeter to indicate set voltage and current. Additional power analyzer CONZERV EM 6400 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 class : $\pm 0.15\% \pm 10$ Digit for Voltage & Current, $\pm 0.05\%$ PF, $\pm 0.3\%$ for W, $\pm 0.02\%$ timer,

Sinusoidal Outputs : THD 1.5%.

Protections : Overload and Short circuit (Ph-Ph & Ph-N).

Digital Low Resistance Meter

Make: Zeal

Power: 230V AC, 50Hz, $\pm 10\%$

Measurement Range: 0 to 50.0 m Ohm

Test Current: 100 mA

Open circuit voltage: 20 mV

Meter: 3 ½ Digit

Accuracy: $1.5\% \pm 3$ dgt



Diode Tester



Technical Specification:

Make: Zeal, Model: ZMDT

Power : 230 VAC $\pm 10\%$ @ 50Hz.

- Diode Reverse Breakdown Voltage:
Range of Test Voltage: 100 to 1000 V
Acceptable Leakage current fix Ranges: 2 μ A / 5 μ A selectable
Accuracy of test voltage & leakage Indication: $\pm 1.5\% \pm 2$ digit
- Diode Strip Testing:
 1. Continuous strip movement by motor with suitable loading arrangement of diode strip.
 2. Whenever leakage current exceeds, motor movement will come to halt for identifying faulty diode.



Certificate No. : CC-2042

NABL (ISO/IEC 17025 : 2017) accredited Lab



- Micro Volt to kilo Volt AC/DC
- Micro Ampere to kilo Ampere AC/DC
- W, Whr, PF, VA, VAr, VAhr, VArhr.
- Micro Hertz to Mega Hertz, Time, Period.

- Micro Henry to Henry.
- Pico Farad to Micro Farad
- Micro Ohm to Giga Ohm
- RPM