

TRINITY ENERGY SYSTEMS PVT LTD

"Change makers in Intelligent Power Quality Management"



Digital Meter



Smart APFC
Management



Prepaid Meter
Management



Power Quality
Solutions



Energy Management



IoT Gateways

UP COMING
2022

Get with TRINITY EV Charging Solutions across Home, Office, Mall, Hotels, Retail Outlets and Places of public access.

- ☑ Fast and safe charging
- ☑ Enhanced Safety Systems
- ☑ Energy Efficiency
- ☑ Customizability/Branding
- ☑ Generate revenue
- ☑ Save money — and the environment

TRINITY EV BATTERY CHARGERS



ENERGY MANAGEMENT & POWER QUALITY SOLUTIONS

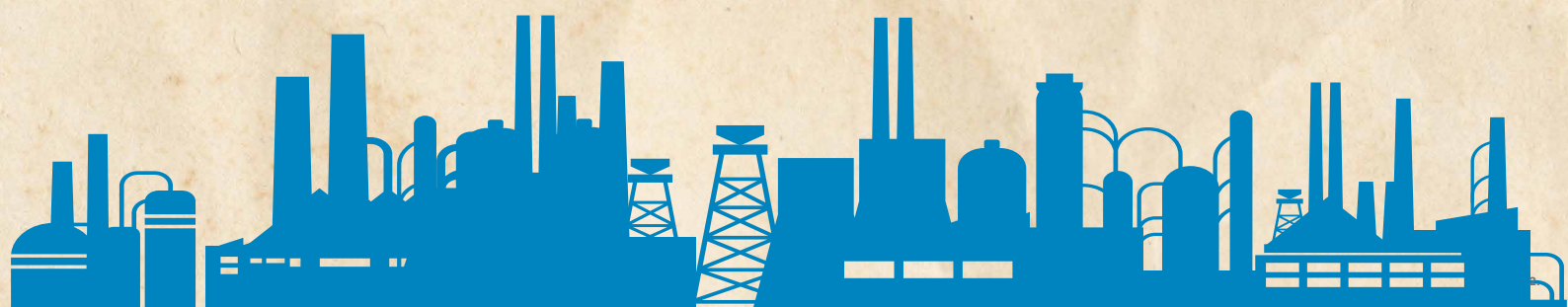


www.trinityenergy.co.in

TRINITY
MAKING ENERGY MATTER

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ABOUT US

Trinity Energy Systems Pvt Ltd. was founded in 1993, with the aim of being an indigenous Provider of STATE OF ART equipment in power factor and power/energy management. The company area is spread 20,000 sqft in Vadodara. The company has grown from strength to strength, and consistently focuses on product development to keep a space with the changing market requirements.

OBJECTIVES:

- To provide efficient and cost-effective solutions in power quality improvement.
- To disseminate the knowledge gained on a continuous basis, and attempt to raise the existing standards in the field.
- To stress on independent research and continuous product improvement.
- To Stay at the forefront of technology in all areas of activity.

Our Key strength is speed of new development to suit the changing market needs. We also believe in providing the best product at the lowest possible price, through sustained effort.

ACHIEVEMENTS

- More than 250,000 installations across the country and abroad.
- Thousands of satisfied customers across all segments Viz Industry, Real Estate, Hospitals and growth.
- Wide and technically competent PAN India dealer network.
- Sales and service network at all important locations in the country.

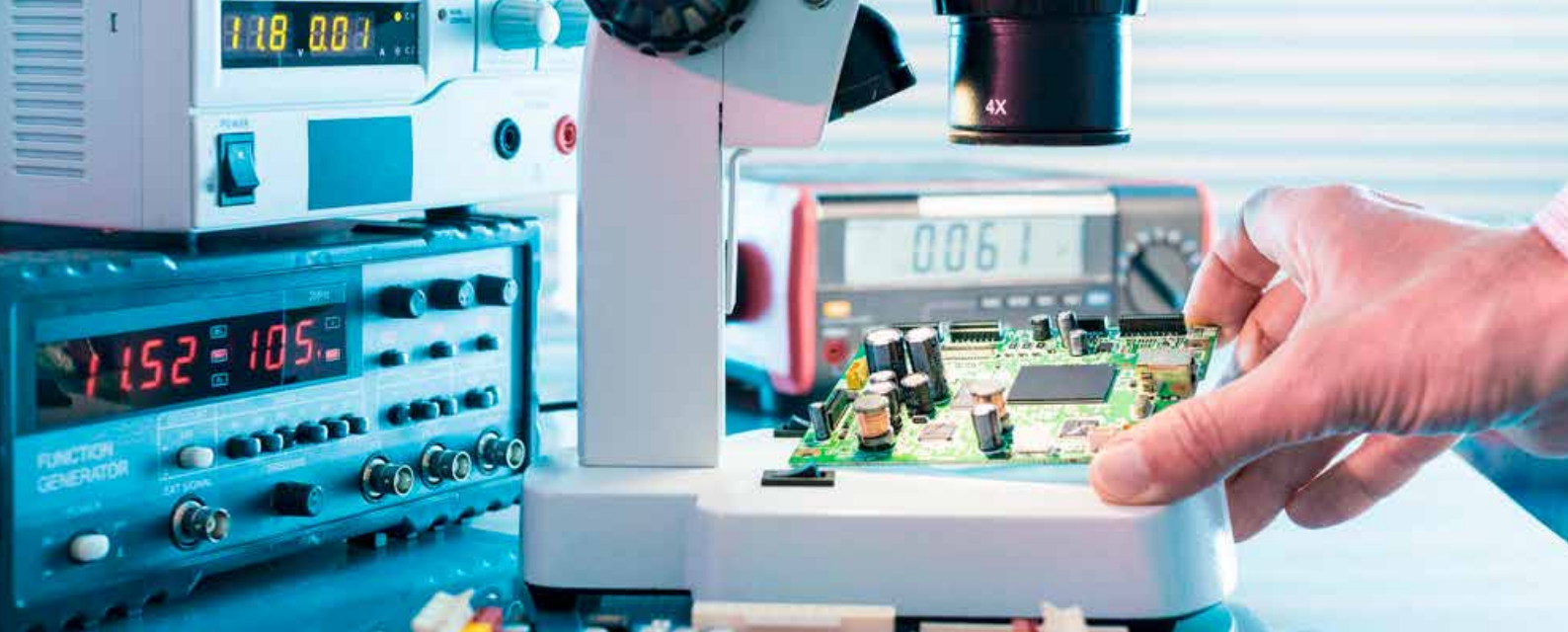
PRINCIPLES

- We support the development of each other's potential and encourage employee advancement and growth.
- We work in a collaborative fashion with our customers and suppliers and develop solid relationships based upon mutual respect and trust.
- We value partnerships and encourage new ideas for advancing your business.
- We conduct business with fairness and integrity.

TRINITY BRINGS YOU,

- *Products with multiple communication technologies like RS485, GSM, Ethernet, Wi-fi, USB, etc.*
- *Products which are accurate and cost effective.*
- *Wide Range of feature rich products which are easy to use.*



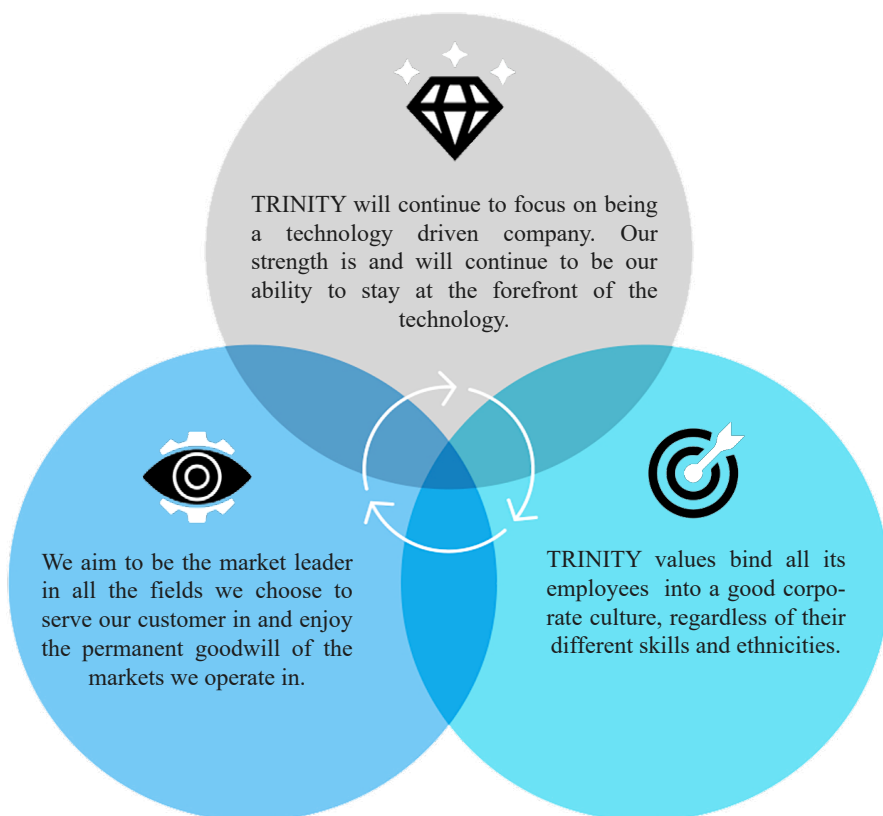


GROWTH BY INNOVATION

TRINITY places a great deal of emphasis on Research & Development. The engineering and product development teams are constantly refining existing products and preparing new ones to bring to market. Engineers and technicians working in our R & D facilities have access to state-of-the-art equipment including 3-Phase Load Source (Energy Meter Test Bench), Class 0.02 accuracy Reference Standards and latest firmware development tools.

To create innovative products, the company uses the extensive working knowledge of power and energy measurement techniques, developed in-house over the years and combines that with the latest communication technologies. We thus have the technical knowledge to create metering products with SUB ports, bluetooth and other wireless connectivity, Ethernet ports supporting TCP/IP, direct pen drive interface, GPRS & RS485 Modbus protocol.

TRINITY Hardware and Software engineers ensure that our products are designed to the best possible specifications using the latest available platforms.



Commitment,

TRINITY is committed to product research and development to ensure that our products keep up with the ongoing advancements in metering technology.



QUALITY in everything we do



All TRINITY ENERGY SYSTEMS products pass through demanding quality standards before reaching to the end users. We are known for our innovative quality engineering and we are best customer support. Our customers get leading quality solutions along with assured and localized, on time service support.

We are ISO 9001-2015, certified all the products. Our dedicated customer supportive team ensures that any request or enquiry is responded to within 24 hours or less, providing highest levels of customer service that will surely beat your prospects.



BASIC METER SMART ENERGY METER MULTIFUNCTION METER



BASIC PANEL METER



ME2V1

Single Phase Digital Volt Meter

(One Phase Volt Meter, Class 1.0 & 0.5) Volts (25-500VAC) of One Phase on 0.56" Seven Segment LED.



ME2A1

Single Phase Digital Ammeter

(One Phase Amp Meter, Class 1.0 & 0.5) Amps (0-5000A AC) of One Phase on 0.56" Seven Segment LED.



ME2V3

Three Phase Digital Volt Meter

(Three Phase Volt Meter, Class 1.0 & 0.5) Volts (25-500VAC) of Three Phase on 0.56" Seven Segment LED.



ME2A3

Three Phase Digital Ammeter

(One Phase Amp Meter, Class 1.0 & 0.5) Amps (0-5000A AC) of Three Phase on 0.56" Seven Segment LED



PF300

Power Factor Meter

(Three Phase Meter, Class 1.0 & 0.5) Hz (45-55Hz) On 0.4" Seven Segment LED

SMART ENERGY METER



ENTITY

KWH/KVAH/KVARH Energy Meter

- Class 1.0 & 0.5.
- Basic ENTITY (KWH only).
- ENTITY RS 485.
- ENTITY (KWH,KVAH) 16x1 LCD.
- ENTITY KWH,KVARH, 60 Amp.



INFINITY

KW/KWH/KVAH Dual Source Energy Meter

- Class 1.0 & 0.5.
- Dual Kwh(EB & DG) + RS485, 16 x 1 LCD.
- Whole Current (0-60A).

MULTIFUNCTION METER



VAF

Volt, Amp, Frequency Meter

- Class 1.0 & 0.5.
- Multiparameter Monitoring.
- Measurement of all important Electrical Parameters.
- All parameters with default accuracy class 1.0s.
- Compact 96x96x55 mm DIN enclosure.



TINY PRO6

V(L-L), V(L-N), V, A, PF, Hz, On Hour, Run Hour, KW and KWh or KVA & KVAh

- Class 1.0 & 0.5.
- Basic Model on 0.4".
- Seven Segment LED of 4x3 lines.
- LED indication for Imp/Exp KWH, D, RX/TX.
- Compact 96 x 96 x 55 mm DIN enclosure.
- Micro-controller based.
- True RMS.
- Dual Source Measurement (Optional).
- TINYPRO 6 RS485 Three Phase, Whole Current (0-60A).



NF29

Volt, Amp, KWH, KVAH, KVARH, PF, Hz, System & Phase wise KW; KVA; KVAR.

- Class 1.0 & 0.5.
- Micro-controller based.
- Displays with customized LCD.
- Compact 96x96x55 mm DIN enclosure.
- THD, Voltage & Current available (optional).



EMPOWER PLUS

V(L-L), V(L-N), Amp, Hz, PF, KW, KVA,KVAR, KWH,KVAH, KVARH & VTHD/ITHD

- Class 1.0 & 0.5.
- Event Logs.
- On Hours & Run Hour.
- Phase Angle.
- Unbalance % for Voltage & Current.
- Power Interruption records (LED Display).
- Compact 96x96 DIN enclosure.
- RS485 port for connection to SCADA/EMS.

V(L-L), V(L-N), Amp, Hz, PF, KW, KVA, KVAR, KWH, KVAH, KVARH & VTHD/ITHD

- Class 1.0 & 0.5.
- Volts L-N, Volts L-L(Phasewise).
- Current (Phasewise).
- Power: KW, KVA, KVAR (Total).
- Power Factor; (System & Phase Wise).
- Frequency.
- Energy: KWh, KVAh, KVarh, (Total).
- Max. Demand Active or Apparent.
- Power, (KW or KVA) Demand - Sliding.
- RS485 port for Communication EMS/PLC/ SCADA(Optional).
- Alarm on: Avg. V, Avg. A, PF, KVA, KW, KVAR, Demand.
- Size: 96 X 96 X 55 mm.
- 128 X 64 backlit graphical LC display (Optional).
- Dual source measurement (EB & DG) option available.



BLIND MULTIFUNCTION METER

Measures phase wise Voltage, Amps, PF, Power as well as System Power, Energy, Frequency.

- Supports only 3P4W installation.
- BMM take three voltage input & 3 Amps inputs for measurement.
- RS485 port with Modbus-RTU protocol.
- BMM provides pulse on led (1000 Pulse/KWh) as well as on isolated opto coupler.

POWER PRO

LOAD MANAGER DATA LOGGER MAXIMUM DEMAND CONTROLLER

LOAD MANAGER



SLM PRO



XPert LITE



XPert PRO



XPert PLUS

- Class 0.2/RS485.
- 4 digits x 3 rows bright 7-Segment display.
- Compact 96x96 DIN Enclosure.
- Computed Neutral Current.
- Harmonic measurement: All six waveforms up to 30 order, even and odd.
- Event logging of Sags, Swells and Interruptions as per IEC 61000-4-30.
- Shows all three types of Power Factors – True, Displacement and Distortion.

- Compact 96x96x55 mm.
- Graphical Display 128x64.
- Accuracy: Class 1.0 & Class 0.5 (Optional).
- Dual Source Measurement (Optional).
- Histogram & Tabular display of Harmonic content.
- Wave shape display for all voltages & currents.
- Two Relays - individually programmable for Alarm/ Trip (Optional).
- Odd Harmonics up to 15th of individual Voltage and Current waveforms including THD.
- RS485 port for Communication EMS/ PLC/ SCADA (Optional).

- Compact 96x96x55 mm.
- Graphical Display 128x64.
- Accuracy: Class 1.0 & Class 0.5 (Optional).
- Dual Source Measurement (Optional).
- Histogram & Tabular display of Harmonic content.
- Wave shape display for all voltages & currents.
- Two Relays - individually programmable for Alarm/ Trip (Optional).
- Odd Harmonics up to 15th of individual Voltage and Current waveforms including THD.
- RS485 port for Communication EMS/ PLC/ SCADA (Optional).

- Class 0.5s accuracy.
- Graphical Display 128x64.
- Compact 96x96 DIN Enclosure.
- Computed Neutral Current.
- Histogram & Tabular display of Harmonic content.
- Wave shape display for all voltage and currents.
- Two Relays-individually programmable for Alarm/Trip.
- Measurement of all three types of Power Factors – True, Displacement and Distortion.
- Harmonic measurement: All six waveforms upto 30th order, even and odd, including THD.

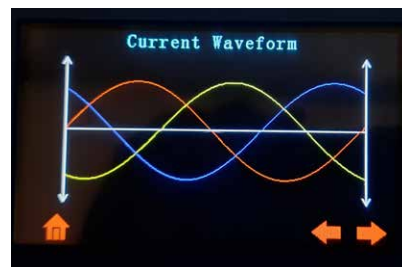
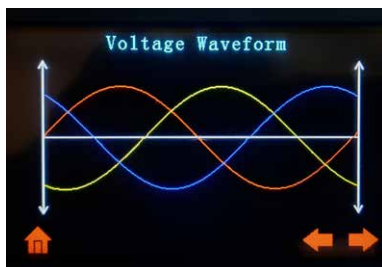
DATA LOGGER & DEMAND CONTROLLER



GOBLIN PLUS

- All readings are true RMS measurements.
- 480 x 272 (RGB) smart TFT display (Touch).
- Site selectable 1A or 5A CT secondary & Neutral CT secondary.
- CT Primary, PT Primary and PT Secondary are site selectable.
- Three phase current, Phase to Neutral and Phase to Phase Voltages.
- Measurement of all System Energy Parameters for both EB (Import, Export) and DG.
- Measurement of all individual Power parameter as well as System parameter.
- Measure Net Energy for the all system Energy Parameters.
- Measurement of system PF including individual PF in three phases at lead and lag side.
- Phase Wise Distortion and Displacement PF.
- Demand Measurement: Fixed or Sling for KW, KVA, KVAR and IAVG.
- Individual Harmonics up to 30th for voltage and current.
- Voltage and current THD.
- Measures Neutral current.
- Voltage Phase Angle (Angle between Vr - Vy, Vy - Vb and Vr - Vb).
- Current Phase Angle (Angle between Ir - Iy, Iy - Ib and Ir - Ib).
- Phase Angle between Voltage and Current (Vr - Ir, Vy - Iy and Vb - Ib)
- Voltages unbalance percentage (%VR, %VY, %VB).
- Current unbalance percentage (%IR, %IY, %IB).
- ON Hour and Run Hour (Import, Export, DG).
- Interruption Date and Time for 180 Events.
- Sag and Swell Value, Date and Time for 180 Events.
- Min - Max Data with Date and Time.
- Real Time - Date and Time.
- Energy Pulse Output on the LED.
- RS-485 port for connection to SCADA/EMS.
- RS-485 RX/TX LED.

SCREENSHOTS:



VR - HARMONICS [%]					
3rd	1.1	13th	4.6	23rd	0.0
5th	0.9	15th	5.9	25th	0.0
7th	2.4	17th	0.0	27th	0.0
9th	1.5	19th	0.0	29th	0.0
11th	3.5	21st	0.0		

POWER FACTOR CORRECTION RELAYS



(8,15,16 STAGE)

ACCUVAR

- Bigger display 128x64 LCD
- Bigger P.F. value display
- 1% sensing in FIFO & S FIFO mode
- Lead PF setting in FIFO & S FIFO
- Auto Correction of CT polarity
- Auto phase sequence correction voltage
- Auto sensing without capacitor CT
- HT/LT and CT/PT selection.
- Up to 15th ODD harmonics and THD



(6,8,12,16 STAGE)

APFCR

- Single CT type - LCD display - Size: 144x144x55mm.
- Volts L-N, Amps, Power Factor, Capacitor-Bank PF/FIFO/SFIFO.
- VAR option site selectable.
- Also available in Fast Switching Model, VTHD & ITHD.
- Built-In display of Volts, Amps and PF. Low Stage (4, 6) can be site selected in higher stage model like 8-stage or 12-stage or 16-stage.



(6,8,12,16 STAGE)

PFC1729

- Single CT type - LED display - Size: 144x144x55mm.
- Stage wise LED Indication.
- Auto/Manual Mode Selection.
- Normal/Fast Switching Control Option.
- Switch On/Off banks manually in manual model only.
- Bright 7 segment LED display.
- Alarm/Trip Indication for under/over compensation and under/over voltage.



(6,8 STAGE)

NEWTON+

- Single CT type LCD display - Size: 96x96mm.
- Volts, Current, Capacitor Current, Power Factor, VTHD, ITHD, SFIFO, FIFO as well as VAR mode option site selectable.
- Manual mode is available in Programming.
- Also available in Fast Switching Model.
- Bigger PF value display.
- 1% sensing in FIFO & S FIFO mode.
- Lead PF setting in FIFO & S FIFO.
- Auto Correction of CT polarity.
- Auto phase sequence correction voltage.
- Auto sensing without capacitor CT.
- HT/LT and CT/PT selection.



IVC3P

- Three CT type - LCD display - Size: 96x96mm.
- Volts L-N, Current of all three phases, Power Factor, Capacitor
- Current, Cap. Bank KVAR.
- Three Phase calculation of KVAR employed.
- SFIFO, FIFO as well as VAR mode provided.
- Measure V, A, PF, KW, KVA, KVAR, THD.
- Optimum utilization of distribution transformer by reducing reactive component to near zero.



(8,15 STAGE)

RTVC3P

- Volts L-N, current of all three phases, power factor, active & apparent energy capacitor current, cap.bank KVAR.
- Optimum utilization of distribution transformer by reducing reactive component to near zero.
- Three Phase calculation of KVAR employed.
- SFIFO, FIFO as well as VAR mode provided.
- Fast Switching for Thyristor.

AUTO MAINS FAILURE RELAY



uAMF

- Size: 96x96mm.
- Displays voltage, frequency and current.
- 16x2 backlit LC Display.
- CT Ratio field programmable.
- 12 LEDs for different indications.
- Three digital inputs.
- DG maintenance warning.
- Low battery warning.
- Generator over current alarm.

- Generator trial fail alarm.
- DG fault alarm.
- DG test mode.
- Over volt indication.
- Under volt indication.
- Automatic contactor control.
- Displays generator (DG) run hour and maintenance hour.
- Suitable for both 12V and 24V battery systems.
- Wide input (6-36VDC) DC-DC converter power supply.

PORTABLE POWER QUALITY ANALYZER



FEATURES:

- Touch Screen TFT display with all visual data.
- Rugged usage and data transfer on USB.
- Energy audits and forecasting.
- Load balancing & load profiling.
- Power factor surveys.
- Power quality investigations.
- Billing verification.
- Harmonic surveys & analysis for filter design.
- Non volatile memory to store maximum records.
- Plug and play device with suitable CT/PT.
- Harmonic analysis and mitigation solutions.
- Data retrieval through USB port.

COMPREHENSIVE MEASUREMENT:

- All readings are True RMS measurements.
- Fast, real-time cycle by cycle measurements, at 160 samples/cycle.
- Four quadrant readings (Power Factor).
- Min.Max Values.
- KVA and KW Demands.
- Phase wise Displacement, Distortion & Total Power Factor.
- Interruption and Sag/Swell events as per IEC61000-4-30.

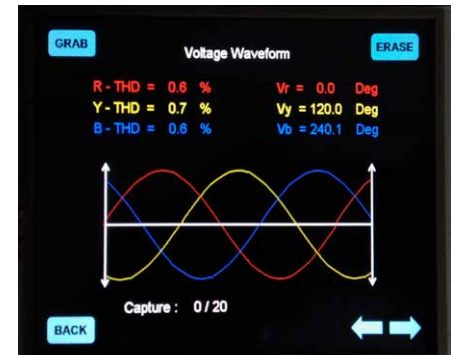
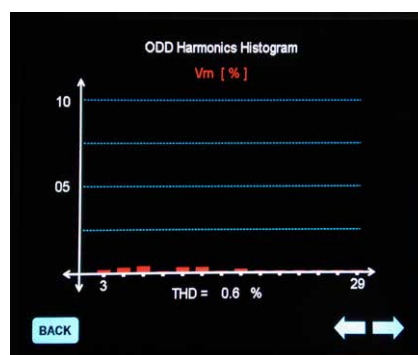


SCREENSHOTS:

INSTALLATION : 3P4W
Date : 03 / 06 / 2020 Time : 17 : 33 : 39

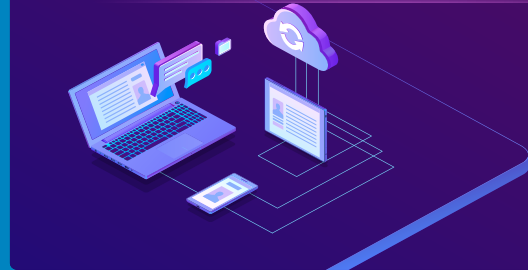
3P4W	R - Phase	Y - Phase	B - Phase	Unit
VOLTS	240.1	240.0	240.0	V
AMPS	299.9	300.0	299.9	A
W	57.63	57.52	57.45	K
VAR	42.95	43.18	43.18	K
VA	71.96	71.96	71.95	K
PF	0.802	0.800	0.799	
PF-DSP	0.801	0.800	0.799	
PF-DST	1.000	1.000	1.000	

Buttons: BACK, LEFT, RIGHT



IOT GATEWAY

- BLACK BOX
- EMS BOX



BLACK BOX

BlackBox communicates with web server with HTTP/HTTPS protocol using GSM technology to display all channels data and its load status on server. User can set each load to Force ON or Force OFF or As Scheduled. Schedule can be set for Interval based ON/OFF, time based ON/OFF and no schedule. There are total 18 digital inputs. First 16 digital inputs can be used to assign with RL-1 or RL-2 or both for Alarm/Hooter output.

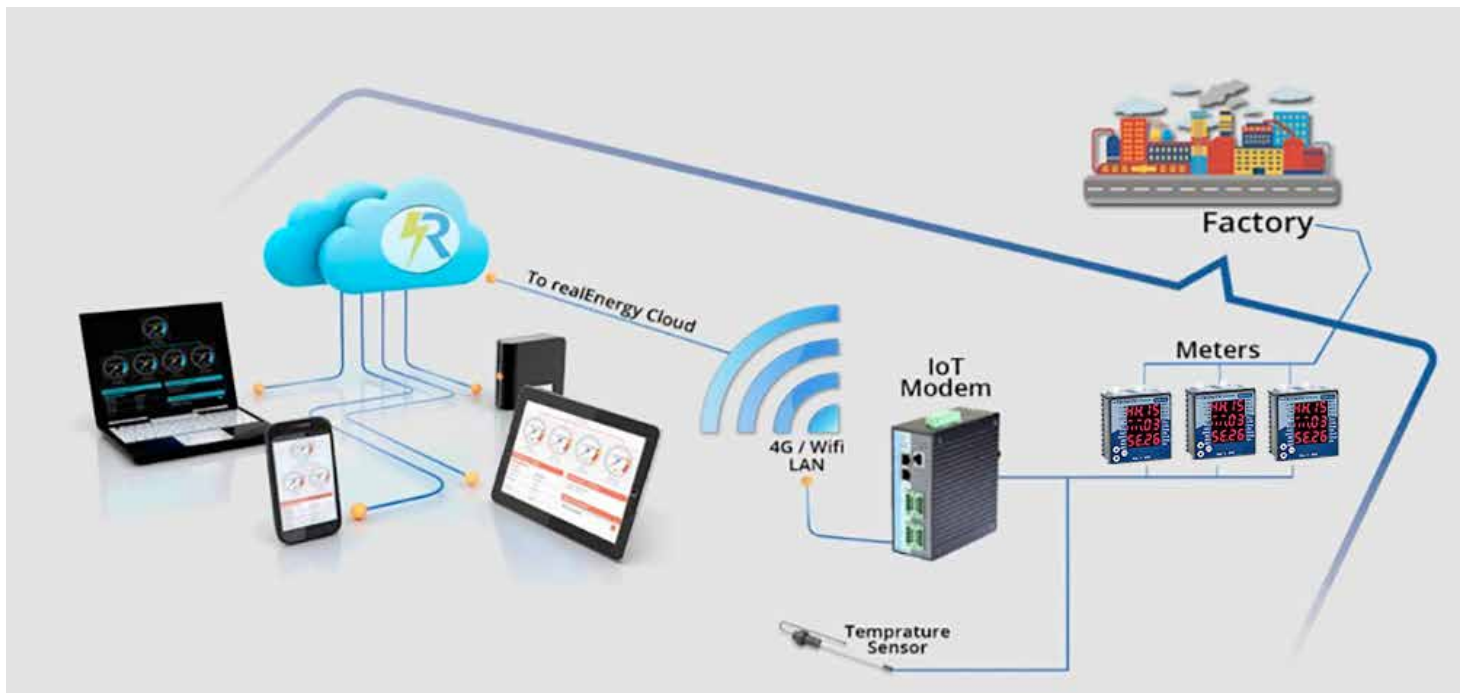


Measures Volt, Amp, KW, KVA, PF, KWh, KVAh for six individual single phase loads.








- Auxiliary supply 180VAC to 480VAC.
- All metering readings are true RMS.
- Support 16 + 2 potential free digital i/p.
- Isolated battery voltage measurement up to 100VDC.
- Measures Temperature and Humidity.
- Uploads data to cloud software through inbuilt 4G modem. Also supports Ethernet out functionality.

EMS BOX

EMS Solution Architecture



The Value of Energy Management

-  Cutting costs through competitive procurement and Strategically decreasing consumption.
-  Tracking your utility costs to prepare more accurate Budgets and gain greater insight into your operational costs.
-  It helps you to lower energy bills.
-  Productivity through optimization of equipment and Processes.
-  It helps you to increase the life span of the equipment In your facility.
-  It discovers any unaccounted consumption that may Exist at the facility.
-  Profitability through optimization of energy expenditure.

THYRISTOR SWITCHING MODULE

TSM FOR CAPACITOR BANKS



FEATURES:

- Cooling Fan : ON automatically, when switch temperature rises above 60 degree.
- Over Temp. Trip: When temperature exceeds 90 degree due to cooling fan failure.
- Four LED indications : Thy Switch 1 and 2 ON (Current Flow condition), Power ON, Ext. Signal ON.

FEATURES:

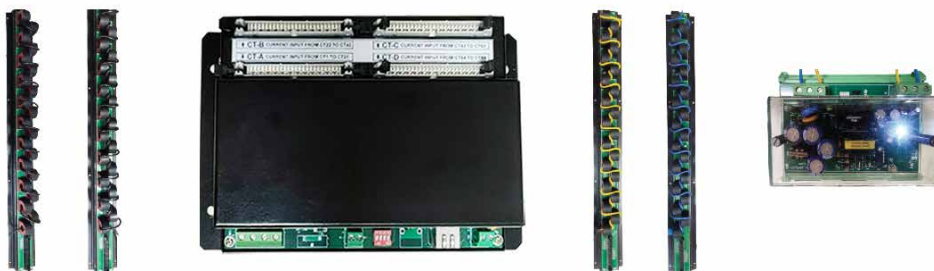
- System Operating Voltage: 380 V to 600 V available.
- Stage KVAR: 5, 10, 12.5, 15, 20, 25, 30, 40, 50, 60 and 100 KVAR.
- Control Supply: 240 V, 415 V +/- 10%, 50 Hz, <10 VA.
- External Trigger Signal: 3 options available: 10 to 24 V DC, 240 VAC, 415 V AC, Potential.
- Free Contact (at a time only one ext. signal is applicable).

DETUNED REACTORS

- Over-current during switching on the capacitor banks.
- Incidental resonance of capacitors along with stray inductance.
- Overload of capacitor banks due to the harmonic resonance.
- Short lifetime of capacitors.
- Unintended triggering of the protective devices.
- Distortion of utility voltage waveforms and problems on voltage sensitive devices.
- Interferences on data transmission systems.
- Unexplainable faults in electronic boards.
- Specially designed bobbins for efficient Cooling.
- Vacuum impregnated reactors for better penetration of varnish.
- Multiple air gaps to avoid flux fringing.
- Mechanically sturdy design to withstand vibrations.
- Thermal switch for over temperature protection.
- Low noise operation.
- Adequate cushion provided to avoid heating due to leakage flux.
- Overheating of the utility transmission cables.



BRANCHED CHAIN POWER MONITOR



- Monitors up to 84 branch circuits with a single BCPM.
- Ideal for installation in both new PDUs and retrofit projects.
- M84L with solid core CTs monitors upto 84 branch circuits using CT strips.
- CT strips are available with 21 CTs per strip, on 20 mm spacings.
- Accurately monitor very low current levels, down to a quarter-Amp.
- Class 1.0 system accuracy for Revenue Grade measurements.
- Solid core CTs are rated to 60A and are mounted on strips to simplify installation.
- M84L supports Modbus-RTU over RS485 and TCP/IP at same time.
- Also supports SNMP V2 over TCP/IP.
- Supports 3P4W and 1P2W installation.
- Voltage and current measurement accuracy is 0.5 % and currents are measured down to 20mA.
- Allowing the concurrent use of an Energy Management System, a Building Management System, an IT system and Data Centers



EARTH LEAKAGE RELAY (ELR) MOTOR PROTECTION DEVICE (MPD)

———— EARTH LEAKAGE RELAY ————



FEATURES:

- Earth Leakage Current Monitoring In 1Ø - 2W, 3Ø-3W And 3Ø-4W System
- Test Mode Available.
- Auto/Manual Tripping Reset Facility.
- Test/Trip Reset Via Front Key.

———— MOTOR PROTECTION DEVICE ————



FEATURES:

- User Selectable Trip Time.
- Auto/Manual Reset Function.
- True RMS Measurement.

PROTECTION AVAILABLE

- Over/Under Voltage
- Over/Under Current
- Over/Under Frequency
- Single Phase Prevention
- Short Circuit Protection
- Unbalance
- Phase Loss Lock
- Rotor Point
- Phase Sequence

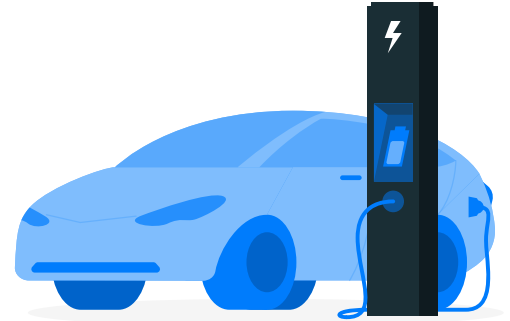
EV BATTERY CHARGERS

UP COMING

2022



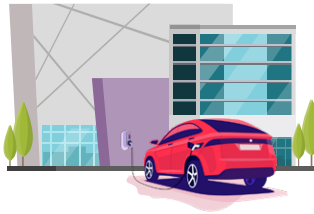
*TRINITY ENERGY SYSTEMS is one the leading players in developing **EV charging ECO System** in India.*



EV Charging Solution for,



FLEET
ORGANIZATION



MALLS &
HOTELS



HOME &
HOUSING SOCIETIES



OFFICES &
WORKPLACES

Get a seamless EV Charging experience.

- ☑ Fast and safe charging
- ☑ Enhanced Safety Systems
- ☑ Energy Efficiency
- ☑ Open Protocol Charging Networks, Scalability And Future-Proof
- ☑ Monitor EV charging events remotely
- ☑ Stabilize the grid
- ☑ Keep up with the changing world
- ☑ Easily manage a number of smart EV charging stations
- ☑ Stay up to date on your business
- ☑ Generate revenue
- ☑ Customizability/Branding
- ☑ Save money — and the environment

ENQUIRY NOW! →



SOLUTIONS & SERVICES

- Harmonic Audit & Thermal Audit
- Smart RTPFC Panel
- Prepaid Meter Management
- Energy Management Solutions
- Static Var Generator (SVG)
- Active Harmonic Filter (AHF)



HARMONIC/THERMAL AUDIT SMART RTPFC PANEL



ENERGY AUDIT

FEATURES:

This is basically for the end user to understand their power quality issues like harmonics, voltage imbalances, current imbalance, excess power drawn, power factor issues, bus bar/cable heating issues etc. Post audit we are able to recommend client the solutions based on this audit data.

- It helps reduce energy costs in your facility.
- It helps reduce the dependence on foreign energy sources.
- It helps reduce environmental damage and pollution.
- It can increase the security of your energy supply.
- It helps you to lower energy bills.
- It enables you to increase the comfort of those in the facility.
- It helps you to increase the life span of the equipment in your facility.
- It discovers any unaccounted consumption that may exist at the facility.
- With a reduction in production costs and the affordability of your company will be improved.



RTPFC PANEL

FEATURES:

- Thyristorised Capacitor Switching giving total solid state and reliable operation.
- High speed response for VAR correction, selectable from 120 msecs to 1 second.
- Custom built for standard loads as well as highly unbalanced loads.
- Optional GPRS communication for remote monitoring and control.
- Choice of HD-MPP, APP and Gas filled capacitors based on site conditions.
- Appropriate detuned harmonic blocking reactors ensure harmonic protection.
- Delta connected (20 to 1000 kvar)
- Star Connected (Single phase capacitor 20 to 100 kvar)
- Zero crossing Cards used for effective switching over zero crossovers.
- Phase wise power factor correction in star connected RTPFC.
- Best suitable solution for unbalance load, jerking load and non linear/ harmonics polluted loads.





REVENUE GRADE METER PREPAID METER



E1000

- Dual source KWh Meter, whole current measurement upto 60Amps.
- RS-485 Port for connecting to SCADA / EMS.
- Accuracy class 1.0.



E3000

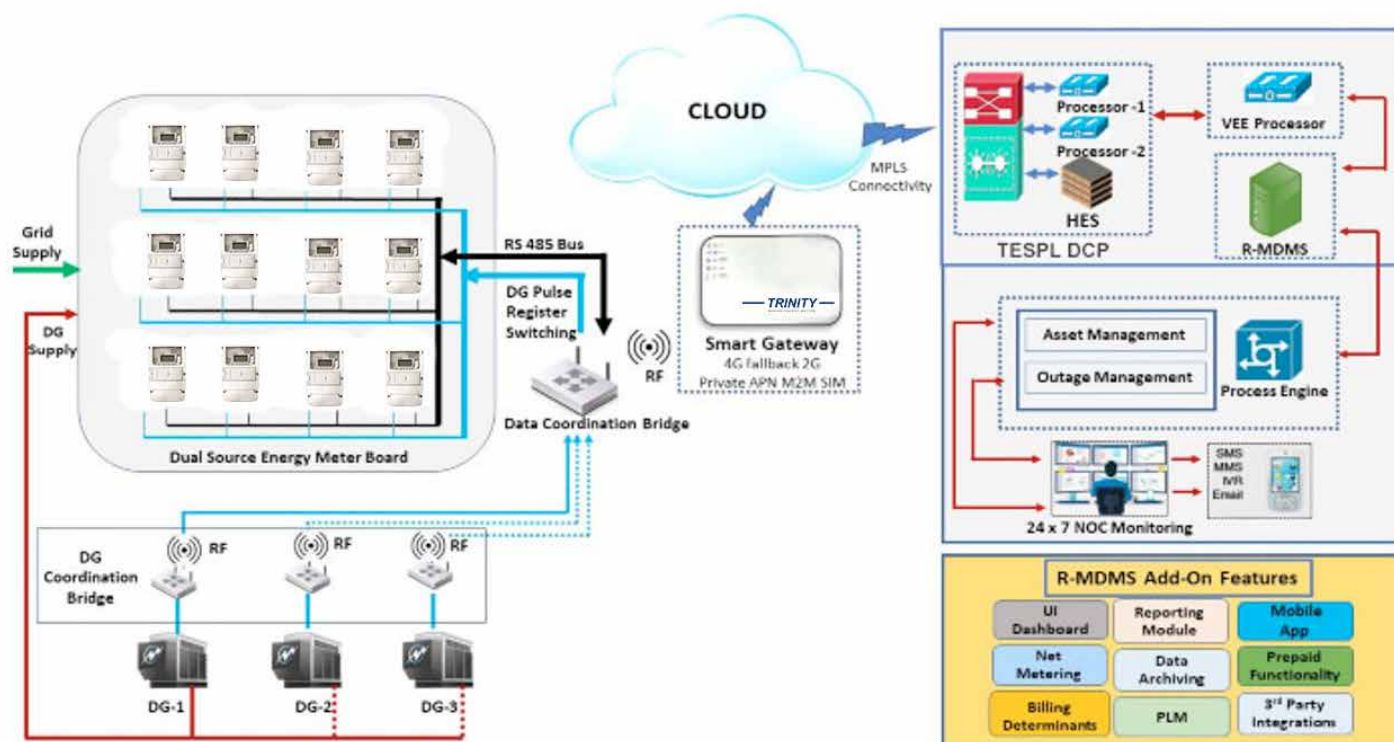
- Dual source KWh meter, whole current measurement upto 60Amps.
- With user programmable current limiting feature(optional).
- Prepaid metering over RS485 link.
- Accuracy class 1.0



E5000

- Revenue grade dual source prepaid KWh meter.
- Wall mounting design.
- Dual source measurement
- Tested as per IS13779
- Class 1.0s accuracy
- Size: 280x173x93 mm
- Current limiting facility.
- Pre-paid metering system using contactless smart cards

PREPAID METER ARCHITECTURE

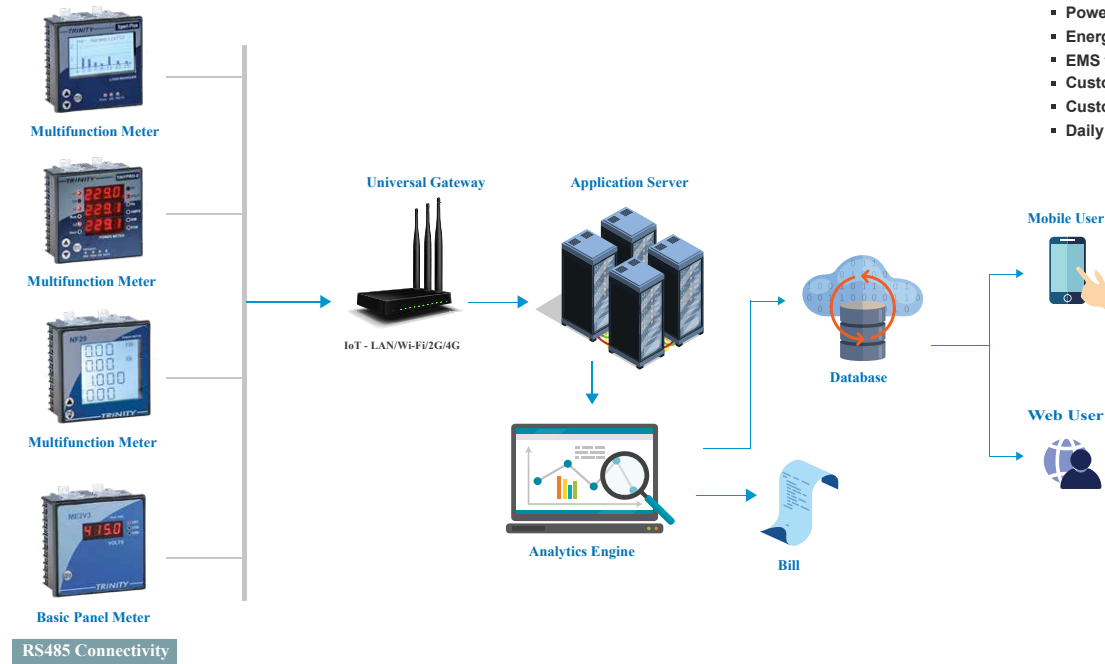




ENERGY MANAGEMENT SOLUTIONS

The most advanced AI based IoT solution for Prepaid & Postpaid Metering applications.

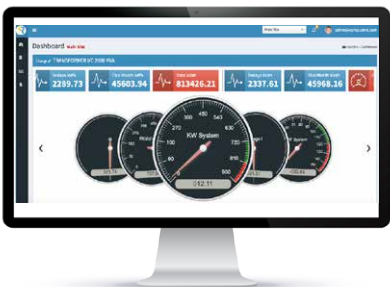
EMS SOLUTION ARCHITECTURE



Energy Management Services

- Power quality study
- Energy audit
- EMS for 24x7 Energy Monitoring of your facility
- Customized report formats
- Customized alerts
- Daily email reports

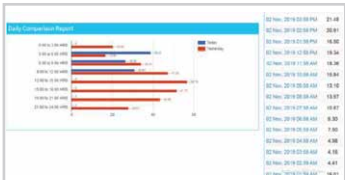
SCREENSHOTS



EMS Dash Board



Unit Consumption



Daily Comparison Report



Data Reports



Hourly wise consumption

STATIC VAR GENERATOR (SVG)

PFC Performance

- PFC performance 0.99
- Compensate capacity - Stage less compensation without over compensation and below compensation with specific system requirements.
- The voltage of grid has little effect on SVG compensation capacity as SVG is like a current source.
- System reactive power changes with full PFC process within 15minutes and maintain it at PF0.99.
- Compensation with capacitive reactive power and inductive reactive power.

50kvar/100kvar
Wall-mounted



50kvar/100kvar
Rack-mounted



200kvar Wall/Rack-mounted



Maintenance Free, safe and Easy to use.

- Can work under high THDu upto 15%
- Advance technology and easy to use with HMI monitor.
- MTBF (Mean Time Between Failures) upto 100,000 hours, helps consumers lower the cost.
- Maintenance free, minimum loss, and no need to replace capacitor bank every time.

Space and Capacity

- To save at least 70% space compared with capacitor bank.

ACTIVE HARMONIC FILTER (AHF)

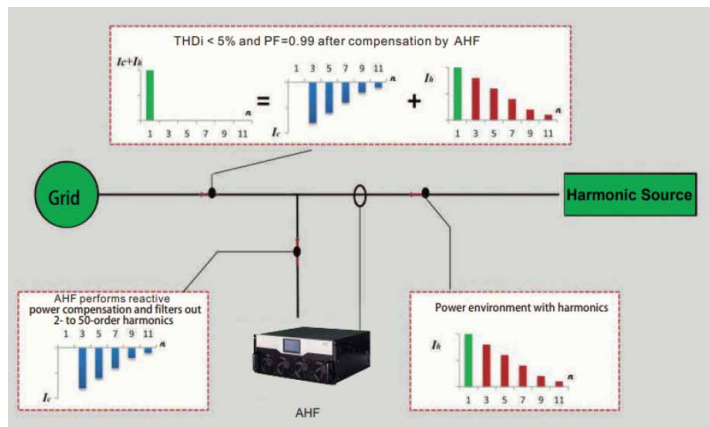
AHF Functions:

Meeting user's requirements:

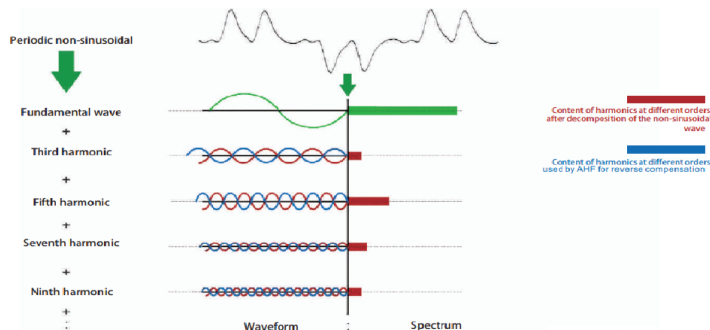
- PF = 0.99 and THDi < 5%
- Compensation for 2- to 50- order harmonics
- Capacitive and inductive reactive power compensation
- Three-phase unbalance compensation



AHF Operating Principle

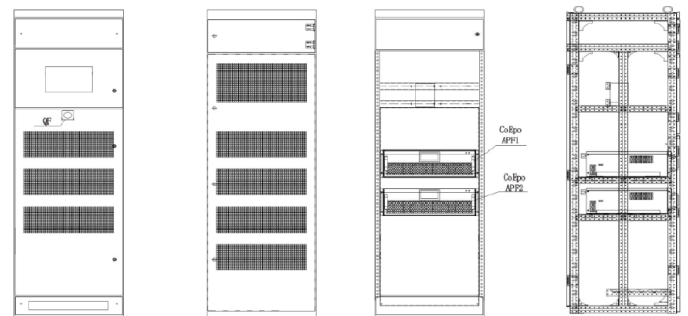


Current at individual harmonic orders superposed onto the fundamental current to form non-sinusoidal waveform.



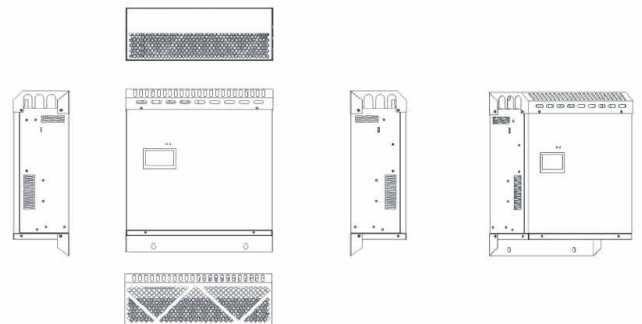
Installation Mode

Support rack mount and wall mount two installation methods



Rack Mount Cabinet

Rack mounted, suitable for centralized treatment and local treatment. The maximum capacity of parallel cabinet is 750A. 7inch LCD touch screen is selected. It can be parallel with various of distribution cabinets, which is convenient for installation.



Rack Mount Cabinet

Wall mount installation is suitable for local treatment and others situations where the installation space is relatively tight. Single APF module wall mounted installation is flexible and convenient.

POWER CAPACITORS



———— CAPACITOR FAMILY ————

■ MPP CAPACITORS (Self Healing Capacitors)

Available Range:

TRICAP ND-R/HD-R (1-25 KVAR)

TRICAP ND-S/HD-S (1-50 KVAR)

Voltage:

415V/440V/480V/525V/690V



■ APP CAPACITORS (Non-Self Healing Capacitors)

Available Range: (5-50 KVAR)

Voltage: 440V, 480V, 525V



■ HT CAPACITORS (High Voltage Capacitors)

Available Range: 50 KVAR to 400 KVAR

Voltage: 440V, 480V, 525V

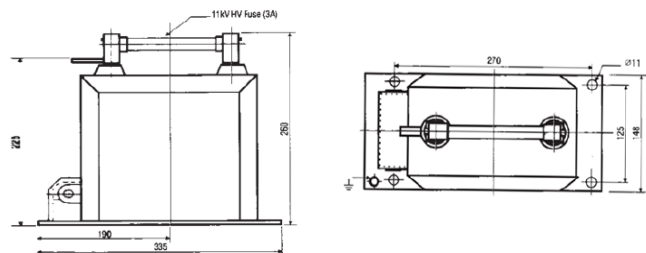




CURRENT & VOLTAGE TRANSFORMERS

High Tension Potential Transformer (PT) Complete With Built in H.V. Fuse

- Epoxy Resin cast insulated, upto two secondary windings.
- Burden, Accuracy class combinations on request.
- Model without fuse in same overall dimension is also available.



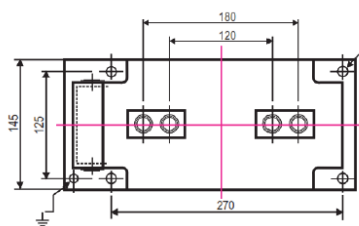
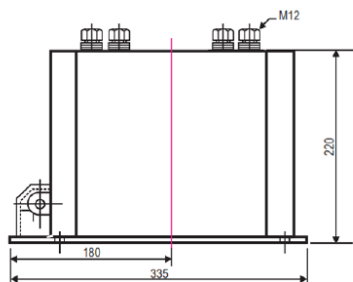
GUN TYPE POTENTIAL TRANSFORMER



SINGLE PHASE FUSE TYPE TRANSFORMER

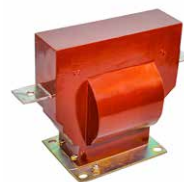


THREE PHASE TRANSFORMER

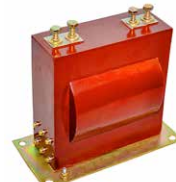


High Tension Current Transformer (CT) Single Phase 11KV

- Epoxy resin cast insulated upto 3 cores.
- The alternative combinations of rated primary current/secondary current 5A or 1A rated short-time thermal current and core data are available on request



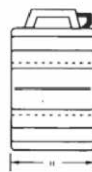
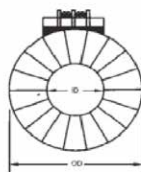
11KV CURRENT TRANSFORMER



DUAL CORE CURRENT TRANSFORMER

LOW TENSION CURRENT TRANSFORMER (CT)

Bar primary Low Tension Tape insulated Current Transformer Type BPL



Wound primary Low Tension Current Transformer



LOW TENSION CURRENT TRANSFORMER

- CT available in standard secondary rating 5A/1A.
- Accuracy class 1.0, 0.5, 0.5s.
- C.T. available in busbar type also.
- Confirming IS: 2705/1992

RESIN CAST CURRENT TRANSFORMER



CERTIFICATES



For any other communication

भारतीय मानक ब्यूरो
Bureau of Indian Standards
The National Standards Body of India

Address: Ahmedabad Branch Office-II-3rd Floor, Navajivan Anant Jayanti Bhawan, Behind Gujarat Vidyapeeth, Off. Ashram Road, Ahmedabad, AHMEDABAD, GUJARAT, 380014

Phone: 079-27540317, 27540318, 27540319, 27540320

Fax: 079-27540636

E-Mail: ahbo-2@bis.gov.in

Web: www.bis.org.in, www.manakonline.in

BUREAU OF INDIAN STANDARDS
Attachment to Licence No. CML-7200160108

CML-No	Name of the Licensee with the Factory Address	Name of the Product	Indian Standard No.
7200160108	TRINITY ENERGY SYSTEMS PRIVATE LIMITED-386, SAVLI GIDC ESTATE, SAVLI-VADODARA HIGHWAY, MANJUSAR, DIST. VADODARA, VADODARA-391775	STATIC WATTHOUR METERS CLASS 1 AND 2-Specification	IS 13779 : 1999

Endorsement No. 2 Dated 12-Nov-2021

Whereas, the licence was valid upto Eighteenth December Two Thousand Twenty One.

Now, consequent upon renewal, the validity of the licence given in schedule of the Licence Dated 17-DEC-2021 has been extended from Eighteenth December Two Thousand Twenty One to Seventeenth December Two Thousand Twenty Two

Other terms and conditions of licence remain same.

Branch Head (Ahmedabad Branch Office-II)

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002, 9 Bahadur Shah Zafar Marg, DELHI, 110002

Contact No: +91 11 23230131, 23233375, 23230402

Fax: +91 11 23234062, 232

Email: info@bis.gov.in

Certificate of Registration

TRINITY
Making Energy Matter

Trinity Energy Systems Private Limited

386, Savli G.I.D.C. Industrial Estate, Near Manjusar, At & PO : Alindra, Taluka: Savli, District : Vadodara - 391 775 Gujarat INDIA

This is to certify that the Quality Management System of above organisation has been assessed and registered by Euro Certifications against the scope of supply and provision of

ISO 9001:2015

Scope: Design, Manufacture, Supply, Installation and Repair of Electronic Power / Energy Meters, Power Factor Controllers and related Products in Switchgear and Electrical Industries

Certificate No. : EC / Q-1019/C1

Initial Cert Date : 18 May 2017

Certificate Date : 18 May 2020

Valid Until : 17 May 2023

EAC Code : 19

Authorized Signatory

This registration is subject to the company maintaining a management system, to the above standard, which will be re-assessed periodically by Euro Certifications.

This is an accredited certificate authorised for use by Accreditation Services for Certifying Bodies (Europe) Limited in accordance with ISO 17021:2015 "Requirements for Bodies providing Audit and Certification of Management Systems".

This certificate is the property of Euro Certifications and must be returned on request. This certificate is only valid when confirmed by data listed in the International Register of Quality Assessed Organisations at www.iso.org

The status of this certificate may be verified at info@eurocertifications.com

#301, Wingo Villa - II, Opposite P. I. Office, Akola Station Road, Vadodara - 390 020 Gujarat INDIA
info@eurocertifications.com | +91 261 223 4202

We have forged strong ties with many National & International Organisations



Confederation of Indian Industry



SOCIETY of
MANUFACTURERS of
ELECTRIC VEHICLES



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	 BASF We create chemistry		 asianpaints
			
			 CABOT creating what matters
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Hotels



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ONE

NATION

ONE

TEAM

—TRINITY—
MAKING ENERGY MATTER

Registered Office & Works:

TRINITY ENERGY SYSTEMS (P) LTD.

📍 386, Savli GIDC Industrial Estate,
Nr. Manjusar, At & Po: Alindra, Tal. Savli,
Dist. Vadodara - 391 775, Gujarat, India.

☎ +91- 922 800 4452/53/54
✉ info@trinityenergy.co.in
🌐 www.trinityenergy.co.in

For Sales/Export Inquiries & Orders:

✉ sales@trinityenergy.co.in

NORTH REGION

☎ +91-97187 02929
👤 YOGESH KUMAR
✉ yogesh.kumar@trinityenergy.co.in

WEST REGION

☎ +91-98256 66831
👤 AJIT PANDYA
✉ ajit.pandya@trinityenergy.co.in

SOUTH REGION

☎ +91 97277 18073
👤 KALLAPPA B.
✉ kallappa@trinityenergy.co.in

EAST REGION

☎ +91-98186 12221
👤 SANDEEP KUMAR
✉ sandeep.kumar@trinityenergy.co.in