

# SOLUTIONS FOR **TARIFF METER.**



# ABOUT US

Lauritz Knudsen Electrical & Automation, formerly known as L&T Switchgear, is a leading player in the electrical industry owing to its 70+ years of strong legacy and commitment to the nation's growth. The brand is dedicated to providing a wide range of electrical and automation products and solutions to vital sectors of the economy, including industries, utilities, infrastructure, buildings, and agriculture. Our extensive portfolio includes low-voltage and medium-voltage switchgear, automation solutions, tailored software, and services.

With manufacturing operations in Ahmednagar, Vadodara, and Coimbatore, we adhere to global standards of excellence. Our operations are supported by well-equipped, in-house design and development centers, as well as tooling facilities, ensuring precision in manufacturing.

We proudly operate six Switchgear Training Centers (STCs) across Pune, Lucknow, Coonoor, Vadodara, Delhi, and Kolkata. These centers offer tailor-made classroom courses and lab learning experiences for technicians, customers, engineers, professionals, and students.

With a deep national presence and one of the largest electrical distribution networks, comprising over 1500 partners across the country, we are committed to driving excellence and delivering superior products and solutions that power India's growth journey.

# Residential Metering



## 1 Ph Whole Current Energy Meter I EM101+

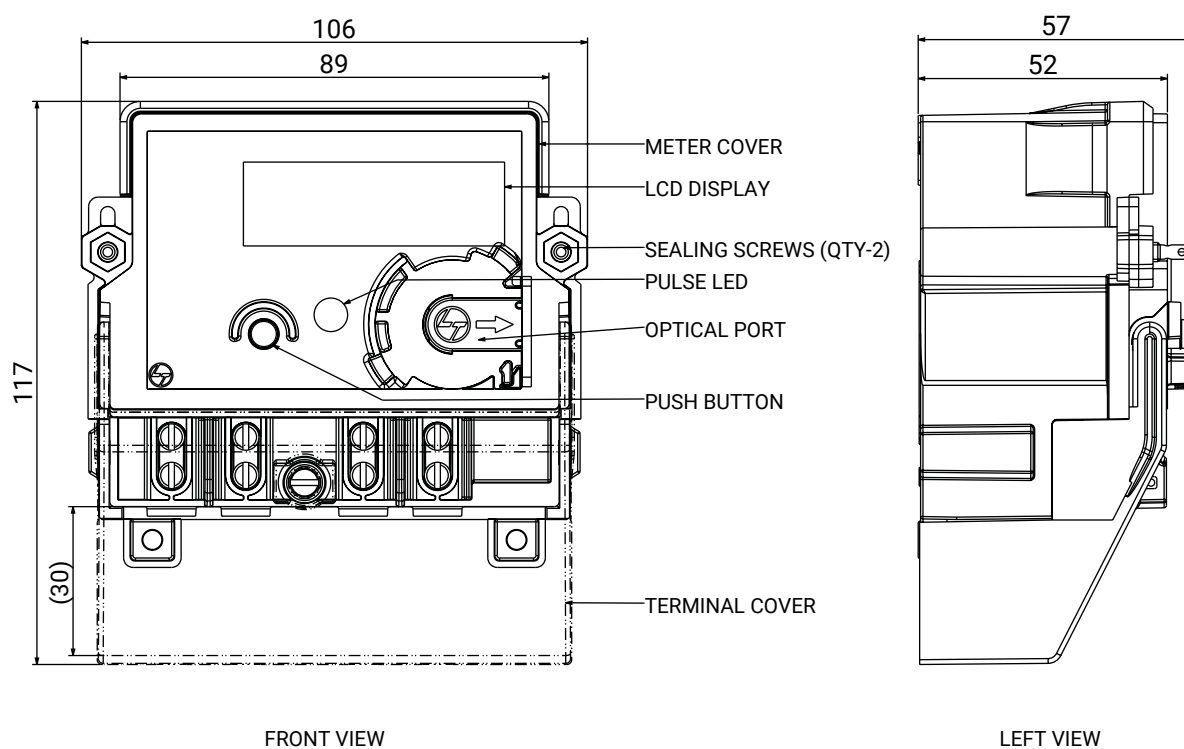
- › Class 1 accuracy as per IS and IEC standards
- › Indication for power on, current reversal and ELT
- › Reset backups
- › High surge withstand capability
- › Load Survey (Interval Data)
- › Anti-tamper features
- › Optical port/ RS 232 port



## Specifications

Connection	1 Phase 2 Wire
Standards Applicable	IS 13779, IS 15959, CBIP 325 IEC 62052-11 IEC 62053-21
Accuracy Class	Cl 1.0
Rated Voltage	230V / 240V (P-N)
Voltage Variation	-40% to +20%
Current Rating	5-30 A, 10-60 A
Starting Current	0.2% of basic current
Accuracy up to	120% of maximum current
Frequency	50Hz
Frequency Variation	-5% to +5%
Power Consumption	As per IS 13779
Operating Temperature	-10°C to +55°C
Ingress Protection	IP 51
Supported parameters (As per customer requirement)	
Instantaneous	Voltage, Phase and neutral currents, PF, Active power and apparent power, Frequency
Energy Measurement	4 quadrant measurement of kWh and kVAh

Maximum Demand	kW and kVA along with date and time
Time of Day	Up to 8 registers, profiles and seasons
Display LCD	6-digit backlit display
Display mode	Auto scroll, push button and high resolution modes
LED	Pulse LED for kWh
Other Features	Day wise energies, Load survey profile Tariff wise energies Display and data reading in absence of power Tamper detection Bi-directional energy recording available
Data security	Multi-level password for data reading and programming
Communication	Electrically isolated optical port as per IEC62056-21
Optional communication	RS 232
Protocol supported	DLMS
Tamper	Ultrasonic welding available
proofing provision	(optional)





# Three Phase Whole Current Trivector Energy Meter ER300P

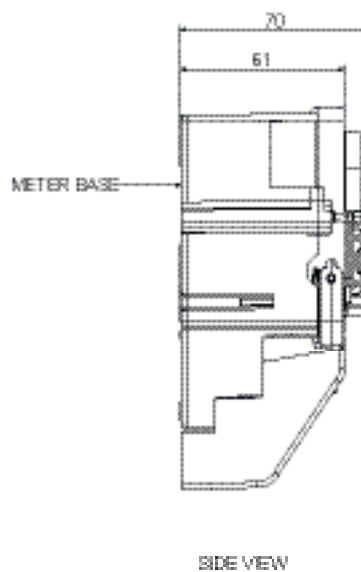
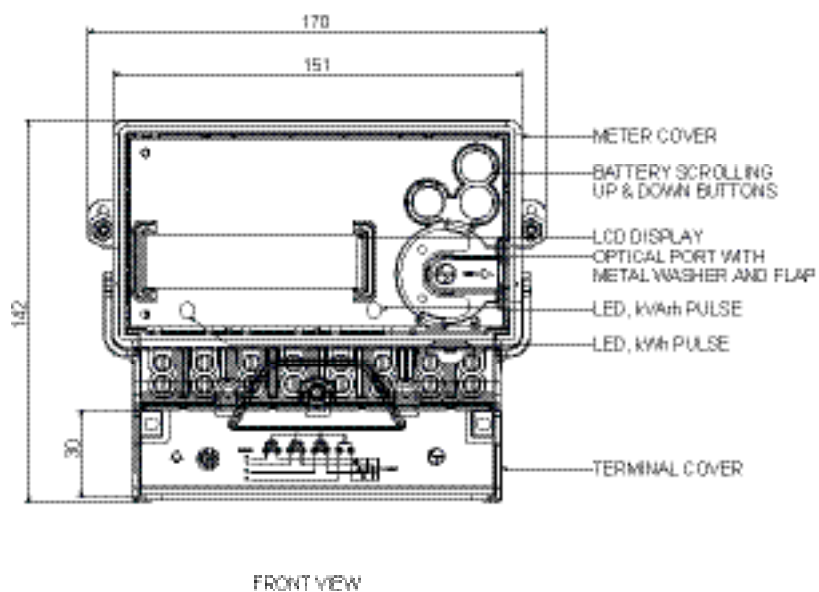
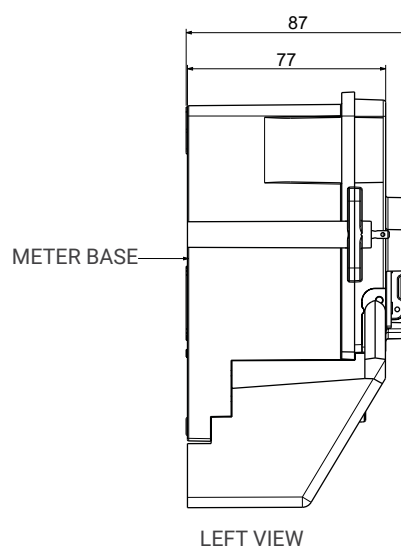
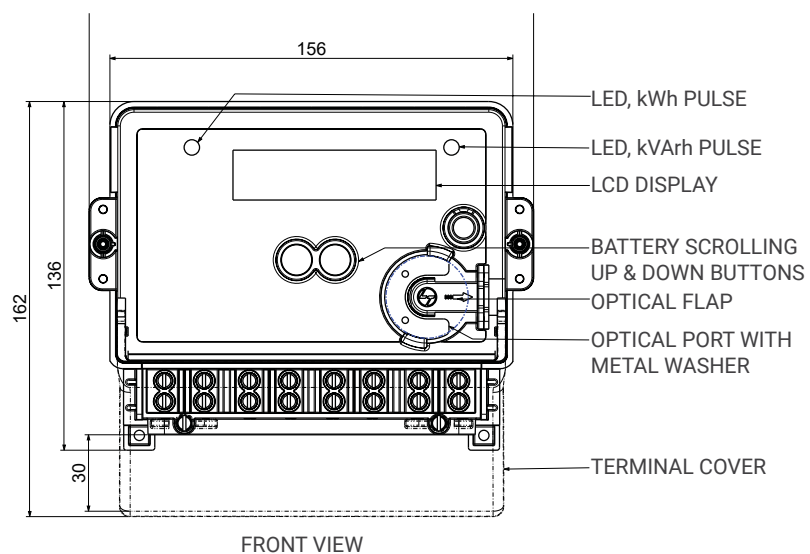
- › Class 1.0 accuracy as per relevant IS and IEC Standards
- › Bidirectional Energy recording
- › Load Survey (Interval Data)

- › Anti-tamper features
- › Self-diagnostic capability
- › Optical port / RS 232 / RS 485

## Specifications

Connection	3 Phase 4 Wire
Standards Applicable	IS 13779 IS 15959 CBIP 325 IEC 62052-11 IEC 62053-21
Accuracy Class	Cl 1.0
Rated Voltage	3 x 230V / 3 x 240V (P-N)
Voltage Variation	-40% to +20%
Current Rating	5-30 A 10-40 A 10-60 A 20-100 A
Starting Current	0.2% of basic current
Accuracy up to	120% of maximum current
Frequency	50Hz
Frequency Variation	-5% to +5%
Power Consumption	As per IS 13779
Operating Temperature	-10°C to +55°C
Ingress Protection	IP 51
Supported parameters (As per customer requirement)	
Instantaneous	Phase wise Voltages and Currents, System PF, Active, reactive and apparent power Frequency Phase sequence
Energy Measurement	4 quadrant measurement of kWh, kVAh, and kVAh
Maximum Demand	kW and kVA along with date and time
Time of Day	Up to 8 registers, profiles and seasons

Display	
LCD	8 digit backlit display
Display mode	Auto scroll, push button and high resolution modes
LED	Pulse LEDs for kWh and kVAh
Other Features	Day wise energies Load survey profile Tariff wise energies Display and data reading in absence of power Tamper detection Bi-directional energy recording available
Data security	Multi-level password for data reading and programming
Communication	Electrically isolated optical port as per IEC62056-21
Optional communication Interface	RS 232 / RS 485
Protocol supported	DLMS on Optical, RS 232 & MODBUS on RS 485 port
Tamper proofing provision	Ultrasonic welding available (optional)



# COMMERCIAL & INDUSTRIAL, DT METERING



**Three Phase LTCT Meter I ER300P**

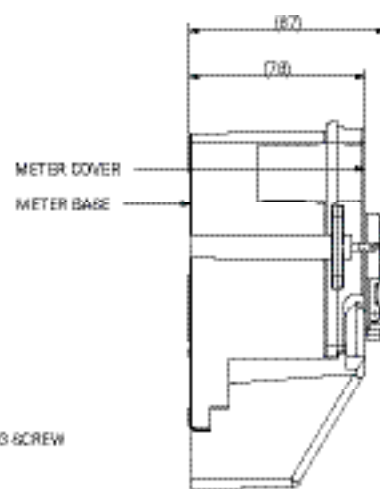
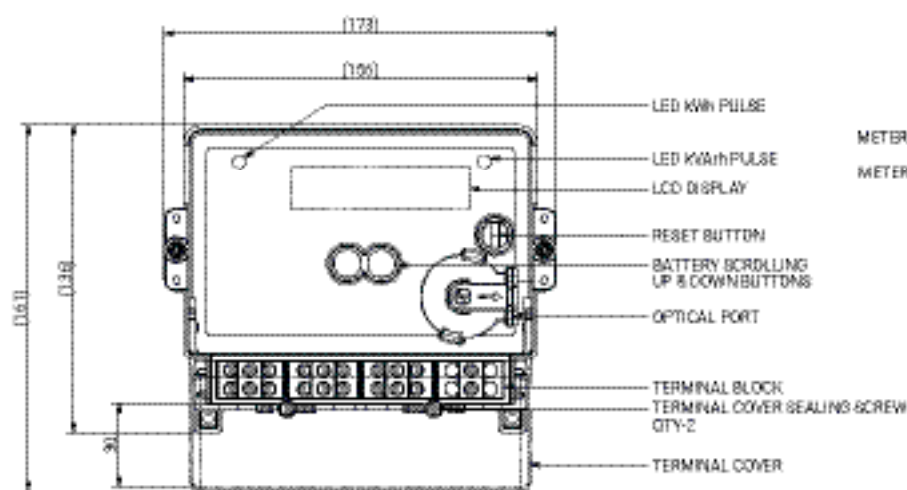
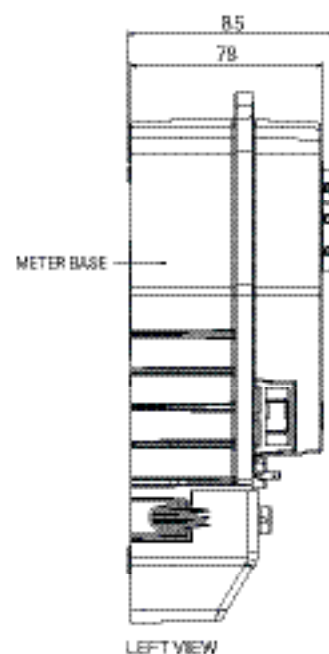
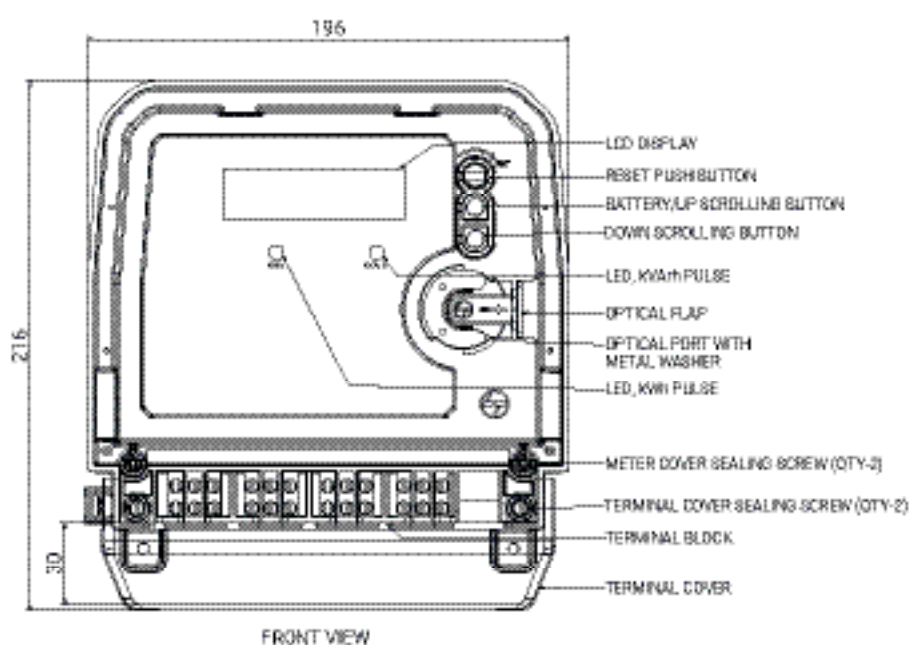
- › Class 0.Ss as per relevant IS and IEC Standards
- › 3 Phase 4 Wire
- › 4 Quadrant Measurement
- › Anti-tamper features
- › Self-diagnostic capability
- › Bidirectional Energy recording
- › Load Survey (Interval Data) features
- › Optical port/ RS 232 / RS 485



## Specifications

<b>Connection</b>	3 Phase 4 Wire
<b>Standards Applicable</b>	IS14697, IS15959 IEC 62052-11 IEC 62053-22 CBIP 325
<b>Accuracy Class</b>	Cl 0.55
<b>Rated Voltage</b>	3 x 240V (P-N)
<b>Voltage Variation</b>	-40% to +20%
<b>Current Rating</b>	-/5A
<b>Starting Current</b>	0.1% of basic current
<b>Accuracy up to</b>	200% of basic current
<b>Frequency</b>	50Hz
<b>Frequency Variation</b>	-5% to +5%
<b>Power Consumption</b>	As per IS 14697
<b>Operating Temperature</b>	-10°C to +55°C
<b>Ingress Protection</b>	IP 51
<b>Supported parameters (As per customer requirement)</b>	
<b>Instantaneous</b>	Phase wise voltages and currents, system PF, active power, reactive power and apparent power Frequency Phase sequence Total harmonic distortion
<b>Energy Measurement</b>	4 quadrant measurement of kWh, kVAh, and kVAh
<b>Maximum Demand</b>	kW and kVA along with date and time
<b>Time of Day</b>	Up to 8 registers, profiles and seasons

<b>Display</b>	
<b>LCD</b>	8 digit backlit display Auto scroll, push button and high resolution modes
<b>LED</b>	Pulse LEDs for kWh and kVAh
<b>Other Features</b>	Day wise energies Load survey profile Tariff wise energies Display and data reading in absence of power Tamper detection Bi-directional energy recording available
<b>Data security Communication</b>	Multi-level password for data reading and programming Electrically isolated optical port as per IEC62056-21
<b>Optional communication</b>	RS 232 / RS 485
<b>Protocol supported</b>	DLMS / MODBUS
<b>Tamper</b>	Customer specific Ultrasonic
<b>proofing provision</b>	welding available (optional) (optional)



GENERAL TOLERANCE  $\pm 3\text{MM}$   
INDICATIVE DRAWING



# THREE PHASE HTCT MULTI-PORT METER ER300P



- › Class 0.2S as per relevant IS and IEC Standards
- › 3 Phase 4 Wire
- › 4 Quadrant Measurement
- › Anti-tamper features

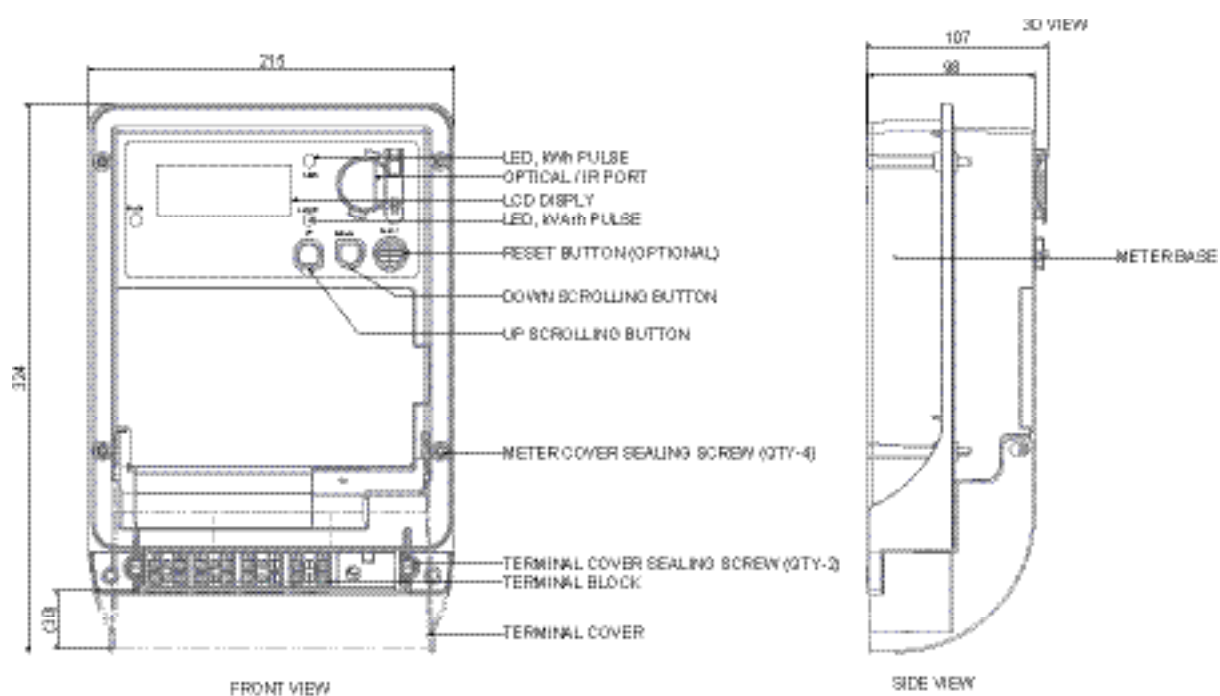


- › Self-diagnostic capability
- › Bidirectional Energy recording
- › Load Survey (Interval Data) features
- › Optical port / RS 232 / RS 485 / TCP/IP communication port

## Specifications

Connection	3 Phase 4 Wire
Standards Applicable	IS 14697 IS 15959 IEC 62052-11 IEC 62053-22 CBIP 325
Accuracy Class	CI 0.2S
Rated Voltage	3 x 63.5V (P-N)
Voltage Variation	-40% to +20%
Current Rating	-/1A -/5A
Starting Current	0.1% of basic current Accuracy up to
Frequency Variation	200% of basic current
Frequency	50Hz
Frequency Variation	-5% to +5%
Power Consumption	As per IS 14697
Operating Temperature	-10°C to +55°C
Ingress Protection	IP 51
Supported parameters (As per customer requirement)	
Instantaneous	Phase wise voltages and currents, system PF, active power, reactive power and apparent power Frequency Phase sequence Total harmonic distortion
Energy Measurement	4 quadrant measurement of kWh, kVAh, and kVAh
Maximum Demand	kW and kVA along with date and time
Time of Day	Up to 8 registers, profiles and seasons

Display	
LCD	8 digit backlit display
Display mode	Auto scroll, push button and high resolution modes
LED	Pulse LEDs for kWh and kVAh
Other Features	Day wise energies Load survey profile Tariff wise energies Display and data reading in absence of power Tamper detection Bi-directional energy recording available
Data security	Multi-level password for data reading and programming
Communication	Electrically isolated optical port as per IEC62056-21
Optional communication	RS 232 / RS 485 / TCP/IP
Interface	communication port
Protocol supported	DLMS / MODBUS
Tamper proofing	Ultrasonic welding
provision	available (optional)



# GRID/HT METERING



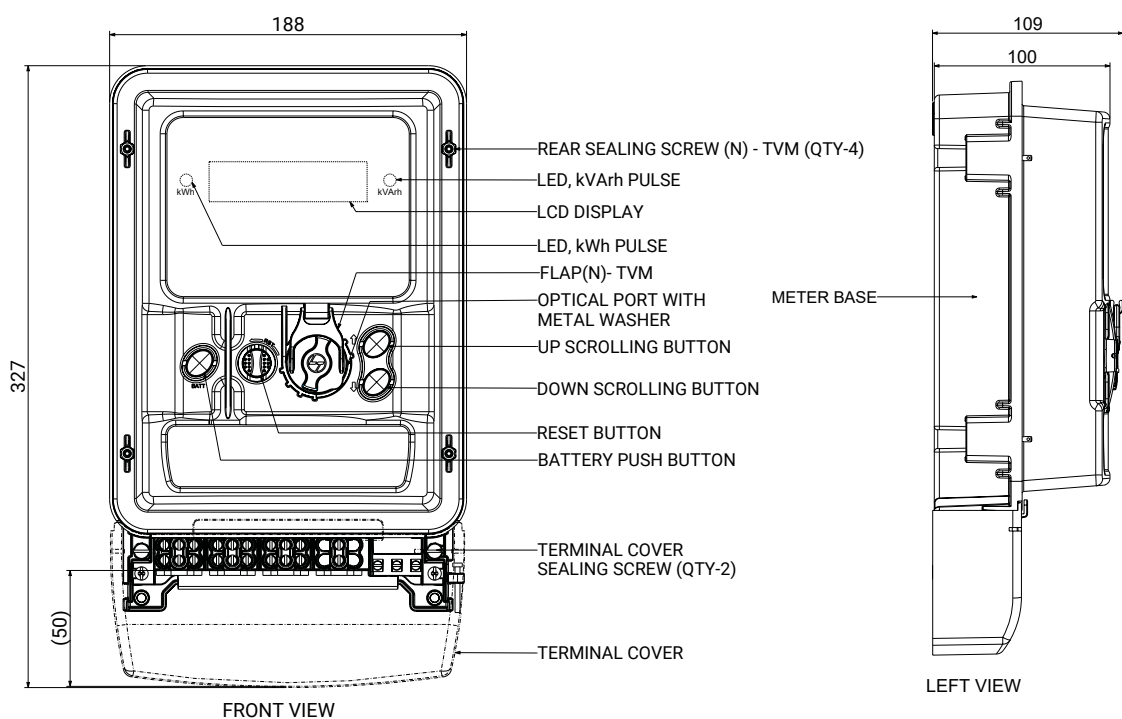
## Three Phase HTCT Meter I ER300P

- › Class 0.5S, 0.2S as per relevant IS and IEC Standards
- › 3 Phase 4 Wire
- › 4 Quadrant Measurement
- › Anti-tamper features
- › Self-diagnostic capability
- › Bidirectional Energy recording
- › Load Survey (Interval Data) features
- › Optical port/ RS 232 / RS 485 (optional)

## Specifications

Connection	3 Phase 4 Wire
Standards Applicable	IS 14697 IS 15959 IEC 62052-11 IEC 62053-22 CBIP 325
Accuracy Class	CI 0.2S
Rated Voltage	3 x 63.5V (P-N)
Voltage Variation	-40% to +20%
Current Rating	-/1A -/5A
Starting Current	0.1% of basic current Accuracy up to
Accuracy up to	200% of basic current
Frequency	50Hz
Frequency Variation	-5% to +5%
Power Consumption	As per IS 14697
Operating Temperature	-10°C to +55°C
Ingress Protection	IP 51
Supported parameters (As per customer requirement)	
Instantaneous	Phase wise voltages and currents, system PF active power, reactive power and apparent power Frequency Phase sequence Total harmonic distortion
Energy Measurement	4 quadrant measurement of kWh, kVAh, and kVAh
Maximum Demand	4 quadrant measurement of kWh, kVAh, and kVAh

Maximum Demand	kW and kVA along with date and time
Time of Day	Up to 8 registers, profiles and seasons
Display	
LCD	8 digit backlit display
Display mode	Auto scroll, push button and high resolution modes
LED	Pulse LEDs for kWh and kVAh
Other Features	Day wise energies Load survey profile Tariff wise energies Display and data reading in absence of power Tamper detection Bi-directional energy recording available
Data security	Multi-level password for data reading and programming
Communication	Electrically isolated optical port as per IEC62056-21
Optional communication	RS 232 / RS 485
Protocol supported	DLMS / MODBUS
Tamper proofing provision	Ultrasonic welding available (optional)



# SINGLE PHASE SMART METERAURORA

- › Complying to IS 16444 Part 1
- › Full smart functionality
- › Communication options including optical, RF and cellular
- › Load connection/disconnection via relays in phase and neutral

- › Tamper alerts available
- › Data logging for instantaneous parameters, billing parameters and energy backups
- › Event logging with active energy, voltage and current snaps available
- › Power fail/restoration alerts (last gasp/first breath)

## Specifications

<b>Connection</b>	1 Phase 2 Wire
<b>Standards Applicable</b>	IS 16444 Part 1
<b>Accuracy Class</b>	Cl 1.0
<b>Rated Voltage</b>	240V (P-N)
<b>Voltage Variation</b>	-40% to +20%
<b>Current Rating</b>	10-60 A
<b>Starting Current</b>	0.2% of basic current
<b>Accuracy up to</b>	120% of maximum Current
<b>Frequency</b>	50Hz
<b>Frequency Variation</b>	-5% to +5%
<b>Power Consumption</b>	As per IS 16444 Part 1
<b>Operating Temperature</b>	-10°C to +55°C
<b>Ingress Protection</b>	IP 51
<b>Supported parameters (As per customer requirement)</b>	
<b>Instantaneous</b>	<ul style="list-style-type: none"> <li>- Voltage</li> <li>- Phase and neutral current</li> <li>- Power factor</li> <li>- Active power, reactive power and apparent power</li> <li>- Frequency</li> </ul>
<b>Energy Measurement</b>	4 quadrant measurement of kWh, kVArh, and kVAh
<b>Maximum Demand</b>	kW and kVA along with date and time
<b>Time of Day</b>	Up to 4 registers, profiles and seasons
<b>Display</b>	
<b>LCD</b>	8 digit backlit display
<b>LCD Indicators</b>	Indication for relay status and tamper
<b>Display mode</b>	Auto scroll, push button and high resolution modes LED
<b>LCD</b>	Pulse LEDs for kWh

## Smart Features

<b>Alerts</b>	Alert for power on/off, over voltage and over current
<b>Load control</b>	Disconnection provided for: <ul style="list-style-type: none"> <li>- Over-current and overload conditions</li> <li>- Selected tamper</li> <li>- Disconnection signal from utility</li> </ul>
<b>Relay/load switch</b>	Provided in both phase and neutral complying to
<b>IS15884 with UC1</b>	Status available on display and data downloading Connection/disconnection logged as events
<b>Data security</b>	Multi-level password for data reading and programming
<b>Prepayment</b>	Prepaid function as per IS15959 Part 2 (optional)
<b>Communication</b>	
<b>Technology options communication as per IS</b>	Optical port for local 15959 Part 2 <ul style="list-style-type: none"> <li>- RF/cellular communication module with inbuilt/plug-in options</li> </ul>
<b>- RF</b>	<ul style="list-style-type: none"> <li>- NAN communication over 865-867 MHz - Mesh based Low Power Radio (&lt;1W transmitted power)</li> <li>- IPv6 communication</li> <li>- Gateway-based topology</li> </ul>
<b>Cellular</b>	<ul style="list-style-type: none"> <li>- WAN communication</li> <li>- NB-IoT/4G with fallback to 2G modem</li> </ul>





# METERS FOR ALL CONSUMER SEGMENTS AND APPLICATIONS



# SINGLE PHASE ENERGY METER



## EM101+

### Salient Features

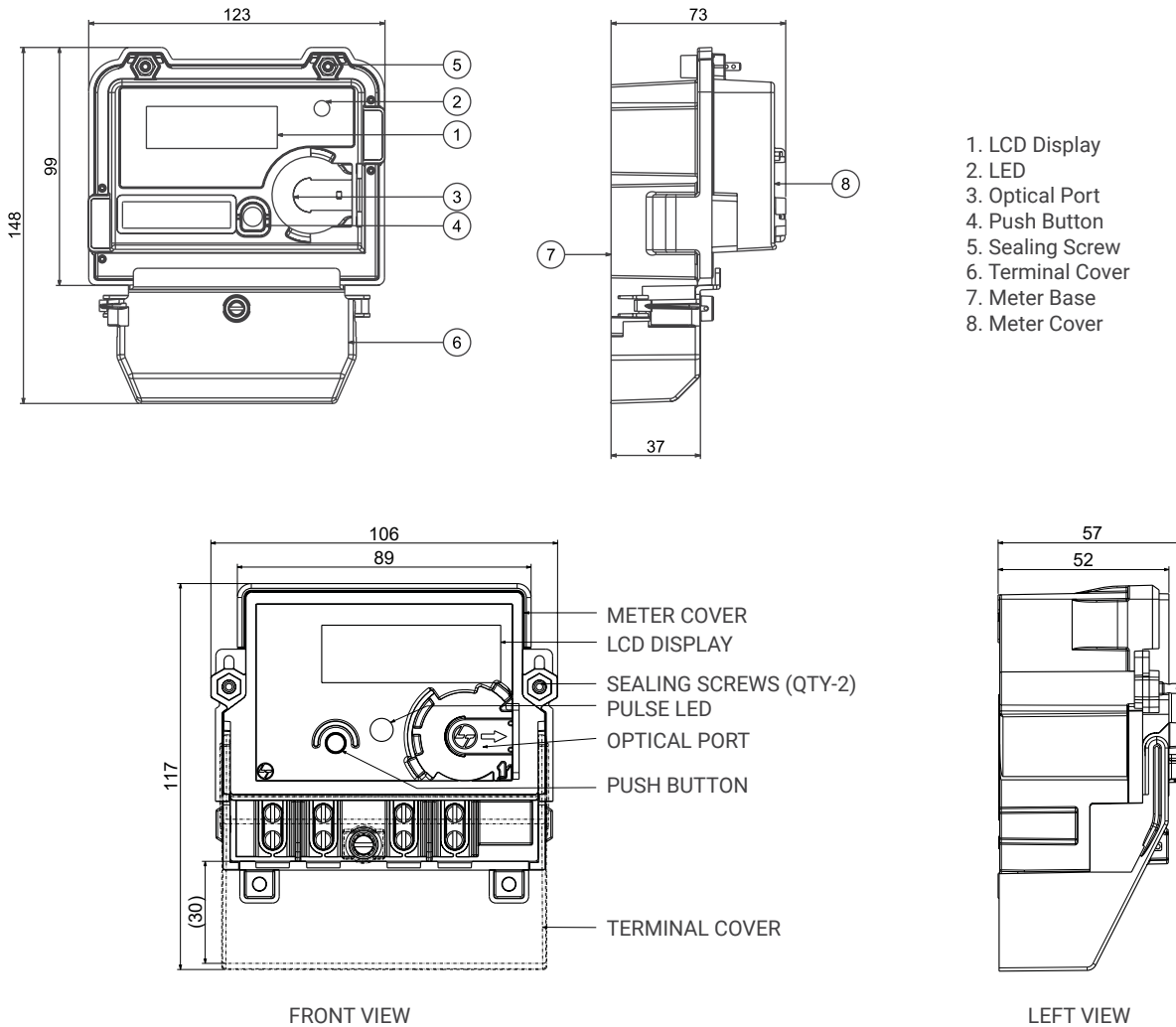
- › Class 1 accuracy as per IS13779
- › Fully static & compact in size with bright LCD display
- › Current rating 5-30A & 10-60A
- › Display consists of auto scrolling, manual scrolling (6+0 digit), battery mode & high resolution mode (2+4 digits)
- › Wide range of communication options - Optical/ RS 232/ DLMS
- › Anti-tamper features
- › Forward energy recording irrespective of current direction
- › High surge withstand capability
- › Load surveys are available for 90 days with voltage, current, PF, KW & KVA
- › Non time based reset backup or billing profile for last 12 months
- › Display and data reading in power OFF condition (with in-built battery model only)
- › Bi-directional energy recording available (Optional- applicable for solar application)
- › Meters are available with suitable hinge type polycarbonate enclosures/boxes (optional)
- › Provisions for meter terminal sealing arrangement to prevent tampers
- › To download NVM data base computer software & optical to USB cables are also available (on request & chargeable basis)

### Technical Specifications

ELECTRICAL	
Connection	1 Phase 2 Wire Whole Current type
Accuracy	Class 1 as per IS13779
Rated voltage	240 V
Voltage variation	+20% to -50%
Current rating	5-30 A, 10-60 A
Starting current	0.2% of basic current
Frequency	50Hz $\pm$ 5%
Power consumption	As per IS13779
STANDARD COMPLIANCE	
Applicable standards	IS13779
ENVIRONMENTAL CONDITIONS	
Operating temperature -	10°C to +55°C
Ingress Protection (IP)	IP51
DISPLAY	
LCD	(6+0) digits backlit display & (2+4) digits high resolutions display.
LED indicators	Pulse LED for kWha

PARAMETERS SUPPORTED (As per customer requirements)	
Maximum Demand (MD)	kW and kVA along with date and demand integration period is 30 min
Instantaneous parameters	Voltage, phase and neutral current, active and apparent powers, power factor, frequency
Time of day tariff	TOD 1 for 00-24Hr
Cumulative parameters	kWh, kVAh energies
OTHER FEATURES	
Tamper proofing provision	1. Top cover open 2. Single wire operation or neutral missing 3. Earth load tamper 4. Current reversal. 5. Magnetic logging.
Communication	Optical IEC1107/ DLMS

## Mechanical Dimensions



**Note:** Actual meter dimensions will depend on meter configuration

## Ordering Informations for Single phase Meter

CAT No	Accuracy Class	Internal Battery	RTC	Additional Port-RS485 Modbus	Rated Voltage (V)	Current Rating (A)	Display Digits (Nos)	Cumulative KWH	MD in KW & KVA	Load Survey	Last 6 Month KWH Value in Display & Last 12 Months in NVM
WM101BC5DDH	Yes	Yes	Yes	No	240	5-30	6+0	Yes	Yes	Yes	Yes
WM101BC5DDHBOX	Yes	Yes	Yes	Yes	240	5-30	6+0	Yes	Yes	Yes	Yes
WM101BC7DDH	Yes	Yes	Yes	No	240	10-60	6+0	Yes	Yes	Yes	Yes
WM101BC7DDHBOX	Yes	Yes	Yes	Yes	240	10-60	6+0	Yes	Yes	Yes	Yes
WM101BC5DL0	NO	NO	Yes	No	240	5-30	6+0	Yes	NO	NO	NO
WM101BC5DL0BOX	NO	NO	Yes	Yes	240	5-30	6+0	Yes	NO	NO	NO
WM101BC7DL0	NO	NO	Yes	No	240	10-60	6+0	Yes	NO	NO	NO
WM101BC7DL0BOX	NO	NO	Yes	Yes	240	10-60	6+0	Yes	NO	NO	NO
WM101BC5DLMSC*	YES	Yes	Yes	No	240	5-30	5+1	Yes	Yes	Yes	Yes

\*With extra RS232 Port for AMR/RMR Support

# TRIVECTOR METER



## ER300 P

### Salient Features

- › Accuracy class 0.2s, 0.5s, 1.0 as per relevant IS standards
- › Suitable for Bi-directional solar/NET metering application (Optional)
- › RS485 modbus available in 10-60A Whole Current meters
- › Configurable multiple tariffs and maximum demand registers
- › Communication via optical / RS 232 / RS 485
- › Anti-tamper features
- › Full four quadrant operation
- › Display and data reading in power OFF condition
- › Factory programmable for unidirectional or Bi-directional
- › Suitable hinge type polycarbonate boxes are available (optional)

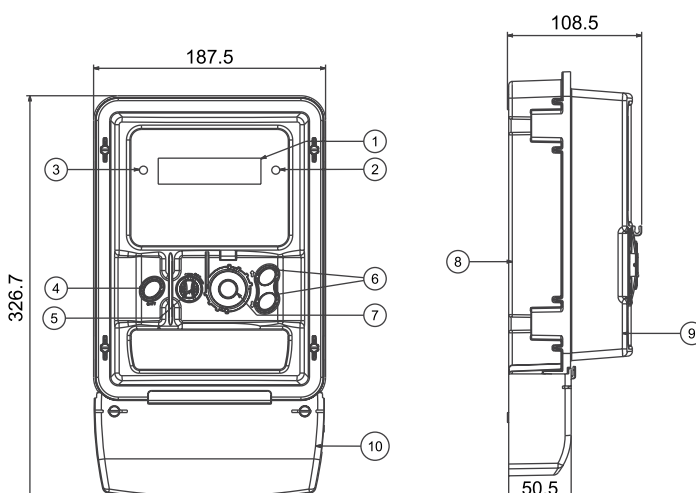


## Technical Specifications

ELECTRICAL	
Connection	Meter is 3P 4W suitable for 3P 4W Wire and 3P 3W system
Accuracy	Class 0.2s/0.5s as per IS14697 Class 1.0 as per IS13779
• Whole current /	240 V (P-N)
Direct Connected	
• CT Operated	
3 Phase 4 Wire	240 V (P-N)
• CT\PT Operated	
3 Phase 4 Wire	63.5 V (P-N)
3 Phase 3 Wire	110 V (P-P)
Voltage variation	
• Whole current /	-40% to +20%
Direct Connected	
CT Operated	-30% to +20%
CT\PT Operated	
Current Rating	
• Whole current /	10-60 A, 20-100 A
Direct Connected	
• CT\VT Operated	
Basic	1A, 5A
Maximum	120 % of basic current (200 % basic current- Optional)
Frequency	50Hz $\pm$ 5%
Power Consumption	As per IS14697 for CT/PT operated As per IS13779 for whole current
STANDARD COMPLIANCE	
Applicable standards	IS13779 for class 1 IS14697 for Class 0.2s/0.5s IS 15959 IEC62053-21, IEC62053-22
ENVIRONMENTAL CONDITIONS	
Operating temperature	-10°C to +55°C
Ingress Protection (IP)	IP51

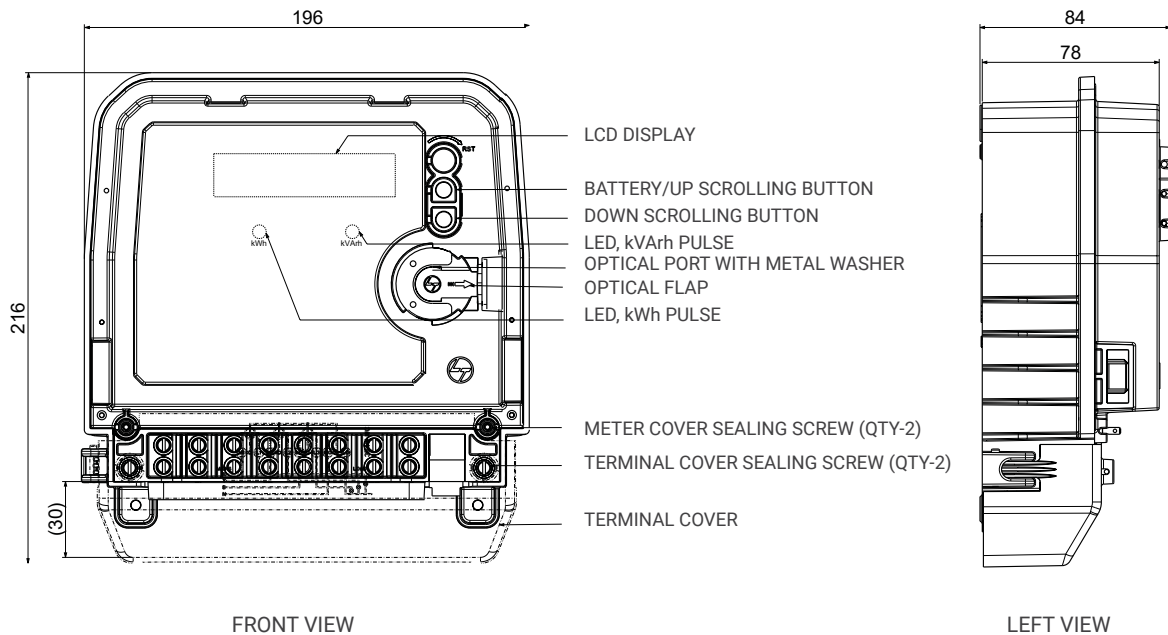
PARAMETERS SUPPORTED (As per customer requirements)	
Maximum Demand (MD)	kW and kVA along with date and time
Instantaneous parameters	Phase wise voltages and currents, active reactive and apparent powers, power factor, frequency
Time of Day Tariff	Up to 8 Registers, profiles and seasons
Energy measurement	4 quadrant measurement of kWh, kVAh, and kVAh
Display	
LCD	8 digit backlit display
Display Mode	Auto scroll, push button and high resolution modes
LED	Pulse LEDs for kWh and kVAh
OTHER FEATURES	
Load survey	kVAh, kWh, kVAh lag, kVAh lead, voltages and currents
Data Security	Multi level password for data reading and programming
Communication	Electrically isolated optical port as per IS15959/ IEC62056-21 (DLMS)
Optional	
Optional communication	RS 232 / RS 485
Protocol supported	DLMS as per IS15959
Tamper Detection (as per	Missing Potential, Voltage related
customer requirements)	tampers, Current related tampers, Low Power Factor, Meter Cover Open, Abnormal Magnetic influence, Wrong phase sequence detection
Tamper proofing provision	Ultrasonic welding available (optional)

## Mechanical Dimensions



1. LCD Display
2. LED kVAh
3. LED kWh
4. Battery Push Button
5. Reset Push Button
6. Up/Down Scroll Push Button
7. Optical Port
8. Meter Base
9. Meter Cover
10. Terminal Cover

**Note:** Actual meter dimensions will depend on meter configuration



### Ordering information for Trivector Meters, WC & LTCT Meters, Accuracy -1.0 for WC & 0.5s for LTCT

CAT No	Accuracy Class	Internal Battery	RTC	Additional Port-RS485 Modbus	Rated Voltage (V)	Current Rating (A)	Display Digits (Nos)	Cumulative KWH	MD in KW & KVA	Load Survey 40 days for all energy values	CT Ratio need to be provided at the time of ordering
WR300BC7300	1	Yes	Yes	No	415/240	10-60A	6+2	Yes	Yes	Yes	NO
WR300BC73RS485	1	Yes	Yes	Yes	415/240	10-60A	6+2	Yes	Yes	Yes	NO
WR300BC52RS	0.5s	Yes	Yes	Yes	415/240	/5	6+2	Yes	Yes	Yes	Yes

### Ordering information for Trivector Meters-HT CT/PT Operated 0.5s or 0.2s

CAT No	Accuracy Class	Internal Battery	RTC	Additional Port-RS485 Modbus	Rated Voltage (V)	Current Rating (A)	Display Digits (Nos)	Cumulative KWH	MD in KW & KVA	Load Survey 40 days for all energy values	CT Ratio need to be provided at the time of ordering
WR300BB52RS	0.5s	Yes	Yes	Yes	110/63.5	/5	6+2	Yes	Yes	Yes	Yes
WR300BB12RS	0.5s	Yes	Yes	Yes	110/63.5	/1	6+2	Yes	Yes	Yes	Yes
WR300BB51RS	0.2s	Yes	Yes	Yes	110/63.5	/5	6+2	Yes	Yes	Yes	Yes
WR300BB11RS	0.2s	Yes	Yes	Yes	110/63.5	/1	6+2	Yes	Yes	Yes	Yes

# ABT (AVAILABILITY BASED TARIFF) METER



**ER300 P**

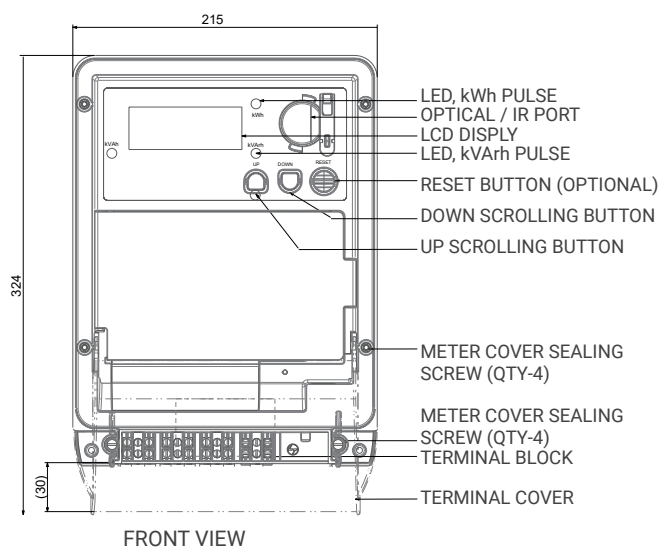
## Salient Features

- › Accuracy class 0.2s as per relevant IS 14697
- › Frequency based energy measurement
- › Suitable for inter-utility or open access consumer billing
- › Store energy values in every 15 mins block along with avg frequency in same interval
- › ABT meters are also available as per PGCIL specs, guidelines & capable of convert data in NPC format (Power Grid's report format)
- › Consider Step frequency 0.01Hz.
- › Communication via optical (IEC1107/DLMS) / RS232 / RS485 (MODBUS/DLMS)-(Optional)
- › Anti-tamper features
- › Display and data reading in power OFF condition
- › Capable of recording Load Survey data & easy download through Base Computer Software
- › Approved in all major utilities across the country

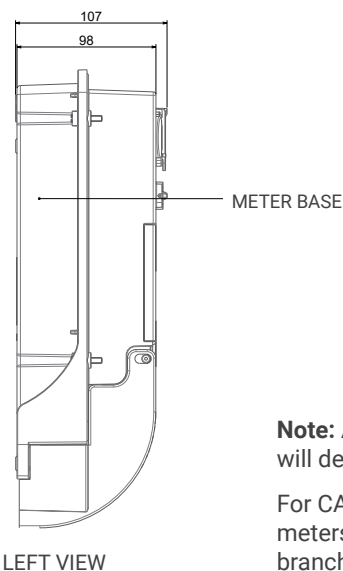
ELECTRICAL	
Connection Accuracy	3 Phase 4 Wire Class 0.2s/0.5s (active/reactive) as per IS14697 or 0.2s/0.2s (active/active).
• CT\PT Operated	
3 Phase 4 Wire	63.5 V (P-N)
3 Phase 3 Wire	110 V (P-P)
Voltage variation	
• Whole current /	-40% to +20%
Direct Connected	
• CT Operated	-30% to +20%
CT/PT operated	
Current Rating	
• CT\VT Operated	
Basic	1A, 5A
Maximum	120 % of basic current (200 % basic current-Optional)
Frequency	50Hz $\pm$ 5%
Power Consumption	As per IS14697 for CT/PT operated
STANDARD COMPLIANCE	
Applicable standards	IS14697 for Class 0.2s/0.5s IS15959 IEC62053-21, IEC62053-22
ENVIRONMENTAL CONDITIONS	
Operating temperature	-10°C to +55°C
Ingress Protection (IP)	IP51

PARAMETERS SUPPORTED (As per customer requirements)	
Maximum Demand (MD)	kW and kVA along with date and time (Optional)
Instantaneous parameters	Phase wise voltages and currents,
	active reactive and apparent powers,
	power factor, frequency
Time of Day Tariff	Up to 8 Registers, profiles and seasons (Optional)
Energy measurement	Frequency based.
Display	
LCD 8 digit backlit display	
Display Mode	Auto scroll, push button and high resolution modes
LED	Pulse LEDs for kWh and kVArh
OTHER FEATURES	
Load survey	kVAh, kWh, kVArh lag, kVArh lead, phase wise voltages and currents
Data Security	Multi level password for data reading and programming
Communication	Electrically isolated optical port as per IS15959/ IEC62056-21 (DLMS, CAT B)
Optional communication interfaces	RS 232 / RS 485 / Ethernet.
Protocol supported	DLMS as per IS15959 and MODBUS (For RS485)
Tamper Detection (as per	Missing Potential, Voltage related
customer requirements)	tampers, Current related tampers, Low Power Factor, Meter Cover Open, Abnormal Magnetic influence, Wrong phase sequence detection
Tamper proofing provision	Ultrasonic welding available.

## Mechanical Dimensions



3D VIEW



**Note:** Actual meter dimensions will depend on meter configuration  
For CAT Nos. details of ABT meters contact with nearest branch offices.

# Electrical Standard Products (ESP) Offices

## HEAD OFFICE

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Product improvement is a continuous process. For the latest information and special application, please contact any of our offices listed here. Product photographs shown for representative purpose only.



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### Customer Interaction Center (CIC)

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