

Technology of Measurement...

defined

ABT Meter

CTPT1-24 & CTPT5-24 Series



HPL has designed the CTPT1-24 & CTPT5-24 Series of ABT meters based on extensive metering technology and global metering standards knowledge.

Technical details

- As per IS-14697 & IEC 62053 accuracy Class 0.2 % and 0.5 %
- UV-protected, polycarbonate, IP54 enclosure
- Wide operating ranges:
- Voltage: 46 V to 498 V
- Current rating: -/1A & -/5A,
- Temperature: -40 °C to +55 °C (ambient)
- Energy plus demand for kWh, kVARh, and kVAh
- Four-quadrant metering for export/import
- Up to 8 tariffs per day
- 512 Kb nonvolatile memory
- Easily replaceable battery located on meter top cover with sealing provision.
- 7-segment character LCD with backlight
- Windows-based software
- Optional Read without Power feature ensures the meter can be read when it is not externally powered

Advanced features and functions

- Optional 1 Mb extended memory type model available.
- Up to 12 channels of load profile data
- Up to 12 channels of block profile data
- No auxiliary power supply required.

System-ready meter

- Optical Communication port & RS232/RS484 Port
- 2 pulse output relays on main circuit board
- Optical port available as per IEC standard physical configuration
- Optional Modbus support
- Optional DLMS / COSEM open protocol support

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POWER OF TECHNOLOGY

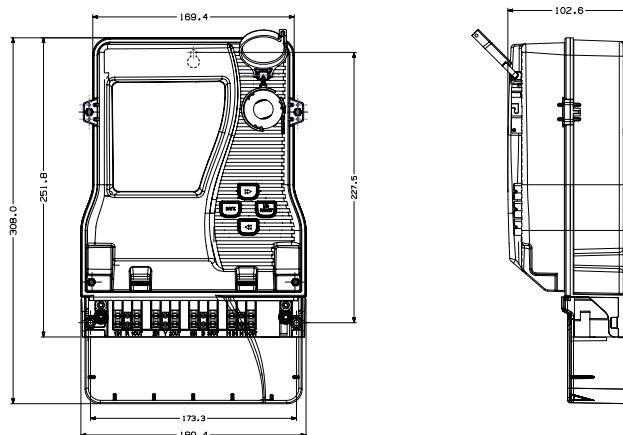
METERING

CTPT1-24 & CTPT5-24 Series of ABT meters are highly accurate, robust meter suitable for advanced commercial, industrial, and substation metering applications, including EnergyAxis® metering points.

Revenue protection

- Main cover
- opening detection
- Site service diagnostics
- Installation and system instrumentation tools that provide instantaneous volts, amps, power factor, phase angles, and more
- History log that records all changes to meter program and meter data
- Multiple level password scheme
- Phase voltage outage recording
- Cumulative demand calculation
- Reverse energy warning and recording
- Write protection feature that disables field reprogramming

Accuracy	Active energy	Reactive energy
	0.2 % (IS14697 / IEC 62053-22) 0.5 % (IS14697 / IEC 62053-22)	2.0 % (IS14697 / IEC 62053-23) Actual accuracy better than 0.5 %
Maximum current	Continuous at 10 A Short Time (0.5 seconds) at 2000 % of maximum meter current	
Current rating	-1A, -5A	
Starting current	1 mA	
Voltage range	58 V to 415 V nominal range	
Frequency	Nominal 50 Hz or 60 Hz \pm 5 %	
Temperature range	-40 °C to +85 °C (inside meter cover); -40 °C to +60 °C (outside)	
Humidity range	0 % to 100 % noncondensing	
Power supply burden	Less than 1 W	
Surge voltage withstand	Test performed	Results
	Fast transient (IEC 61000-4-4)	4 kV
	Impulse voltage test (IEC 60060-1)	10 kV @ 1.2/50 μ s, \geq 450 Ω (8 kV with option boards)
	AC voltage (insulation) test	4 kVrms for 1 minute
Creep 0.000 A (no current)	No more than 1 pulse per quantity, conforming to IEC 62053 requirements	
Internal clock accuracy	Better than 0.5 seconds per day (while powered)	
Communications		
Optical port	9600 bps / 19200 bps Physical components meet IEC 62056-21 or ANSI C12.18	
Optical port protocol	DLMS / COSEM (optional)	



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