5CTD

Multifunction three phase meters for industrial and commercial customers

PRIME ALLIANCE

5CTD

✓ **NEW 5CTD-E2F model**
✓ **Direct & semi-indirect**
✓ **RS-232/RS-485 remote access through a modem**
✓ **PLC PRIME service node**
✓ **Enhanced anti-tampering protection system**

5CTD industrial smart meters provide robust automated meter reading solutions for distribution companies.

They integrate energy measurement, load profile and Time of Use (TOU) features.

Local and remote communication capabilities enable complete meter operation. This includes data reading, configuration setting changes, date synchronization and operation of the built in breaker in the directly connected meters.

Direct & semi-indirect industrial smart meters using DLMS/COSEM application data.

5CTD industrial meters have been designed for direct connection in voltage and current, 3x127-230/400 V_{CA}; 0.5-10 (80) A, semi-indirect (direct in voltage, indirect in current …/5A).

They include an RS-232 or RS-485 2 wires port to remotely access the meter through a modem and a PLC PRIME service node.

Making the Smart Grid Real

Flexibility:
designed to fit your needs

Once the smart meter model is selected, a set of configurable parameters makes the 5CTD meter the solution for a wide variety of situations. Along with ZIV's meter management software, the user can tune the 5CTD meter to completely suit each measurement environment: programmable CT and VT values, load profile integration period, TOU characteristics, synchronization schema, and many more.

5CTD smart meters can be operated using DLMS/COSEM application data. It can be adapted to different companion standards.

Key Features

- Instantaneous measurement of V, A and PF per phase, as well as instantaneous network frequency.
- Load profile recording. 6 energy values (imported and exported active energy and reactive in the 4 quadrants) either total or by the corresponding tariff.
- Versatile Time of Use (TOU) module, providing up to 3 complete and independent contracts, each with an independent tariff configuration, 6 tariff periods per day, 10 types of ordinary days, 12 types of special days, 12 seasons, and up to 30 special days.
- Maximum Demand Recording (MDR) for each of the programmed tariffs.
- Time synchronization.
- Event and alarm recording with a broad set of manageable events.
- Power Quality recording. Voltage variations outside the established thresholds and long term voltage interruptions.
- Breaking and reconnection elements for remote switching operations, power control and demand side management (for three phase direct meters).
- Automatic contract end of billing periods.
- Self-diagnostics and monitoring.
- Enhanced anti-tampering protection system.

Technical Information

	3-Phase direct	3-Phase semi-indirect
Active energy accuracy	Class B (EN 50470-3) / Class 1 (IEC 62053-21)	
Reactive energy accuracy	Class 2 (IEC 62053-23)	
Verification test constant	1000 pulses / kWh (kvarh)	4000 pulses / kWh (kvarh)
Current reference value (max current)	3 x 10 A (80A)	3 x 5 A (10A)
Starting current	40 mA	10 mA
Power absorbed by the current circuit (Iref)	< 0.2 VA	< 0.1 VA
Voltage rated values	3 x 127 - 230/400 V_{AC}	3 x 57.7 - 230/400 V_{AC}
Consumption	< 2W / 13 VA (EN 62053-61)	
Specified operating range	-25°C to +70°C	
Power free output (depending on the model)	280 V_{AC} / 0.5 A_{AC}Max	
Built-in breaker nominal values (number of operations)	80A / 250V_{AC} (10^6)	Power free output to send it to an external breaking relay
Optical port	According to IEC 62056-21	
RS-232 or RS-485 serial port	RJ11 connector	
Supply to external modem	Optional	
PLC service node	Built-in	
Dimensions	293 x 165 x 66 mm	