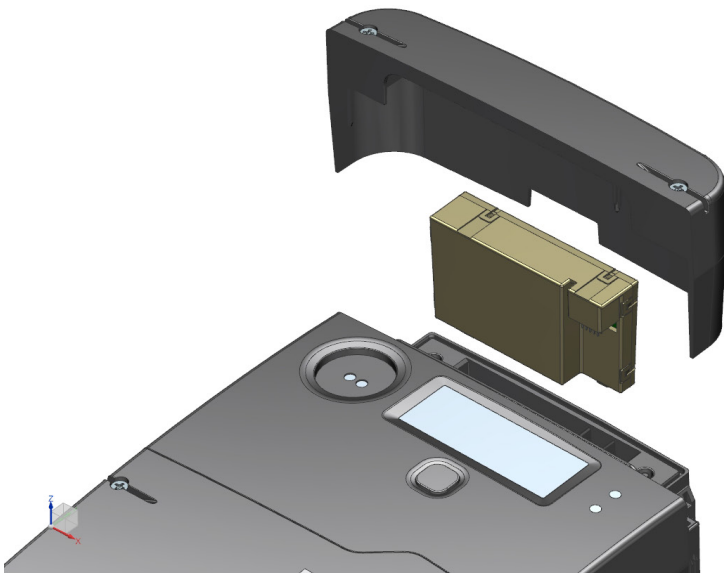


# 5CTB

## Three Phase Smart Meter



## Modular & Bidirectional PLC Smart Meter

- ✓ **5CTB** is a flexible smart meter that incorporates a special sealed holster designed to host a pluggable communication module (e.g. LTE Cat 1).
- ✓ The PLC service node integrated is automatically identified in the PLC network (plug and play).
- ✓ **Direct & VT-CT connected Smart Meters using DLMS/COSEM Application Data.** Data transferred is encrypted using DLMS Security Suite 0.

A modular smart meter that implements ZIV's own technology for PRIME 1.4 or G3-PLC open standards.

It ensures a reliable data transmission, even in the most challenging powerline media conditions: eg. noisy, low impedance lines and the like.

Additionally, it includes a RS-485 port to remotely access the meter through a modem, using RF technology, and another RS-485 port for connecting an In-home Display.



## A Flexible and Modular Meter

- The **5CTB** meter provides robust automated meter reading solutions for distribution companies. It integrates energy measurement, load profile and Time of Use (TOU) features.
- A set of **configurable parameters** make it the right solution for a wide variety of situations.
- It is **programable** via ZIV's meter management software.
- **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.

## Key Features

- Dot matrix display for meter readings and standardized messages/symbols, this information is available even during power off.
- Instantaneous measurement of V, A and PF per phase, as well as instantaneous network frequency and THD.
- Energy registers (active, reactive and apparent) and calculated registers (summation)
- Load profile configurable with 10 possible magnitudes for 90 days with an integration period of 30 minutes.
- Monthly and daily billing data.
- Versatile Time of Use (TOU) module, providing up to 8 rates with 10 rate periods per day, 8 daily profiles, 8 weekly profiles and 8 seasons in a year and up to 420 special days (regular and irregular holidays).
- Average and Maximum and cumulative maximum Demand Recording 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.
- Replaceable battery.
- Self-diagnostics and monitoring.
- Enhanced anti-tampering protection system, including bypass and magnetic field detection.

## Technical Information

	3-Phase Direct	3-Phase VT/CT connected
<b>Active / Reactive energy accuracy</b>	Class 1 (IEC 62053-21) / Class 2 (IEC 62053 23)	Class 0.5S (IEC 62053-22) / Class 1 (IEC 62053 24)
<b>Verification test constant</b>	4000 pulses / kWh or kvarh	4000 pulses / kWh or kvarh
<b>Current reference value (max current)</b>	3 x 10 (100) A	3 x 1.5 A (6A)
<b>Starting current</b>	40 mA (Imax=100 A)	6 mA
<b>Power absorbed by the current circuit (Iref)</b>	< 0.2 VA	< 0.1 VA
<b>Voltage rated values</b>	3 x 133 - 230/400 VAC	3 x 63.5 - 230/400 VAC
<b>Consumption</b>	< 2W / 13 VA (EN 62053-61)	
<b>Specified operating range</b>	-10°C to +75°C	
<b>Power free output (depending on the model)</b>	250 V / 1 A Operating time 50-100ms (for meter without in-built breaker).	250 V / 1 A Operating time 50-100ms 2 additional outputs: 24 Vdc / 12 mA
<b>Built-in breaker nominal values (number of operations)</b>	120A / 250VAC (106) Only for meters up to 100 A of Imax UC2 according to IEC62055-31	Power free output to send it to an external breaking relay
<b>Optical port</b>	According to IEC 62056-21	
<b>Connection to external modem</b>	RS485 (RJ45 with 12Vdc supply)	
<b>IHD serial port</b>	RS485 (RJ45)	
<b>PLC service node</b>	Built-in (G3 or PRIME 1.4)	
<b>Degree of protection</b>	IP54 (according to IEC 60529)	
<b>Dimensions</b>	269mm x 190 mm x 77 mm	