4TGB

Compact Metering DCU with Integrated Cellular Communications

PRIME ALLIANCE®   **G3-PLC** Alliance

A metering data concentrator specifically designed for pole mounted transformers.

Its compact, easy-to-install and ruggedized design makes 4TGB the preferred solution for meter data management systems in dispersed areas with medium or low density of consumers.

4TGB main functions

The 4TGB integrates all functions required by a **Distribution Network Operator (DNO) to manage its smartmeter installed base**.

The 4TGB also includes a **built-in polyphase meter to monitor the LV section of the Distribution transformer**, providing the DNO with valuable information for LV grid supervision and operation.

Making the Smart Grid Real

PLC communications (3 phase)

The 4TGB includes an **internal PLC Base Node** able to create a PLC network topology for communicating with PRIME or G3 PLC smart meters.

Different injection strategies and **three independent reception channels** are the technological basis determining the optimal path to dynamically communicate with smart meters.

Integrated Cellular Communications

The 4TGB integrates **3G/GPRS** quad band cellular communications.

Its **dual SIM** feature allows the DNO to choose the best available cellular network operator with redundancy.

Secure end-to-end communications links can be established with the AMI System (using **IPSec**). Also management connections are secured with **HTTPS an SSH protocols**.

The 4TGB also incorporates either an **omnidirectional** antenna or a **directive** antenna to adapt to different coverage situations.

More than Meter Data Storage

The 4TGB includes an internal non-volatile memory which can store the metering data generated by up to 100 smart meters in 3 months.

Additionally, its **internal low voltage supervision function** can be used to monitor power quality in the LV grid (secondary of the power transformer).

Technical Information

Power supply (between any phase and neutral)	110 – 250 V_{AC}
PLC communications	PLC Base Node
Cellular communications	➢ 3G/GPRS quad band (Europe) ➢ Dual SIM
Enclosure	➢ Reinforced polyester with fiber glass ➢ IK10/IP66
Dimensions	282 x 282 x 144 mm
Mounting options	Wall mount/cinch mount
Operating temperature	-25°C ~ +60°C
Storage temperature	-25°C ~ +70°C
Humidity	< 99% (non-condensing)
Accessories	Pre-manufactured installation cable (2 or 5 meters)