



PREMIER Product Range

PREMIER is a comprehensive and smart metering solution for industrial & commercial metering. Premier build on full four quadrants metering platform with support of multitariff, maximum demand recording, data storage and advance communication options ideally suitable for use in HV, MV and LV CT metering applications.

PREMIER

PREMIER is a smart metering solution for CT and CT/VT applications and provides a single metering platform for accuracy from class 1.0 through to class 0.5s. Available with up to 4 outputs and 3 inputs, load survey storage options for more than 450 parameter days of data including time of use and maximum demand recording. Premier meter equipped with all basic functionality along with high accuracy and support of communication ports. Premier is an ideal solution for utility energy measurement and electrical panel builders for energy metering application.



The Premier offers:

- Full four quadrant metering
 - Main energy registers selection based on metering application
 - User configurable tariff definitions
 - Time of day and Maximum demand registers support
 - Load survey data storage and survey integration periods of 15, 30 or 60 minutes
 - Maximum demand integration periods of 5, 15, 30 or 60 minutes
 - Up to 4 user configurable pulse outputs
 - Up to 3 user configurable pulse inputs
 - Up to 19.2 kB baud RS232C modem port under the terminal cover
 - IEC1107 optical communication port
 - Large user friendly LCD display with parameter identification
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Premier Technical Specification

Electrical Build options available for:
CT Connected 230V/240V phase to neutral, 3 element 3 phase 4 wire.

CT/VT Connected 100/110V phase to phase, 2 element 3 phase 3 wire

CT/VT Connected 57.7/63.5V phase to neutral, 3 elements 3 phase 4 wire.
Additional configurations available on request.

Current

I_N 1A, 5A
I_{max} 1.2 A, 2A, 6A, 10A, 15A
Additional configurations available on request

Burden

Current Circuit ALL MODEL TYPES
Voltage Circuit As per standard

Metrological IEC 62052-11, IEC 62053-21,22. Class 1.0s, 0.5s.

Mechanical

ALL MODEL TYPES
Dimensions W.176 X H.250 X D.77 mm
Enclosure Material Engineering Plastic
Degree of Protection IP51
Flame Retardation UL 94 V0
Weight (approx.) 1.6 kg +/- 0.2 kg

Mains Frequency 50 Hz +/- 5 %

Data Retention 10 years minimum (Unpowered)

Display

Format LCD display

Clock & Calendar

Normal Power Source Mains supply
RTC Backup Source Lithium battery
Battery Life (typical) 10 years
Min Shelf Life (typical) 3 years

Activity Indicator

Format High intensity red LED for testing

Meter Constant Constant depends on meter scaling values (i.e. CT and VT ratios)

Electromagnetic Compatibility

The product meets IEC 62052-11, IEC 62053-21,22 standard requirements from the effects of electrostatic discharge, electromagnetic fields, fast transients bursts and high radio frequency fields.

Environmental*

Operating Temperature -10°C to +45°C
Storage Temperature -25°C to +70°C
Operating Humidity Up to 95% non-condensing
* Requirements for specific countries available on request.

Terminals

Two screws per conductor.
Suitable for cable sizes from 2.5mm² to 5.0 mm²

Pulsed Inputs and Outputs

PREMIER can be supplied in various hardware builds with up to 7 input/output channels, for example:

4 outputs, 0 inputs
4 outputs, 3 inputs

The firmware and tariff determine the exact functionality of inputs and outputs. The hardware-build determines which inputs and outputs are physically provided.

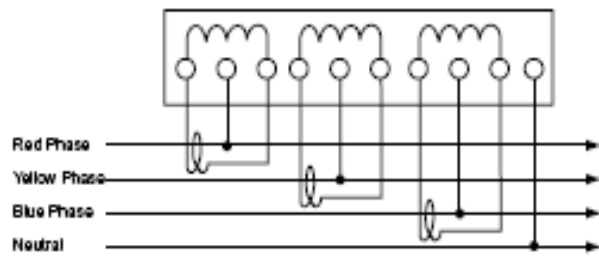
Pulsed Outputs

Up to four outputs can be used to indicate energy consumption, active rate, change of rate, end of demand period, or to indicate that a particular rate is active.

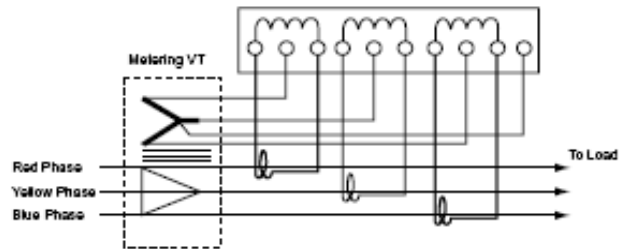
Communications

Local Interrogation ports IEC 1107 optical port
Remote Interrogation Optically isolated RS232 port under the terminal cover
Port
Baud Rate 1200- 19200 Baud

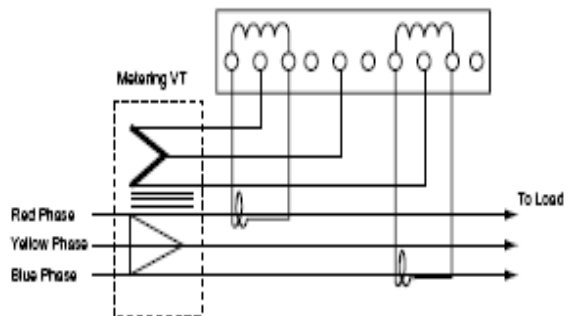
Wiring Diagram



Wiring Configuration for P3T 3 Phase 4 wire CT connected 230V/240 V.

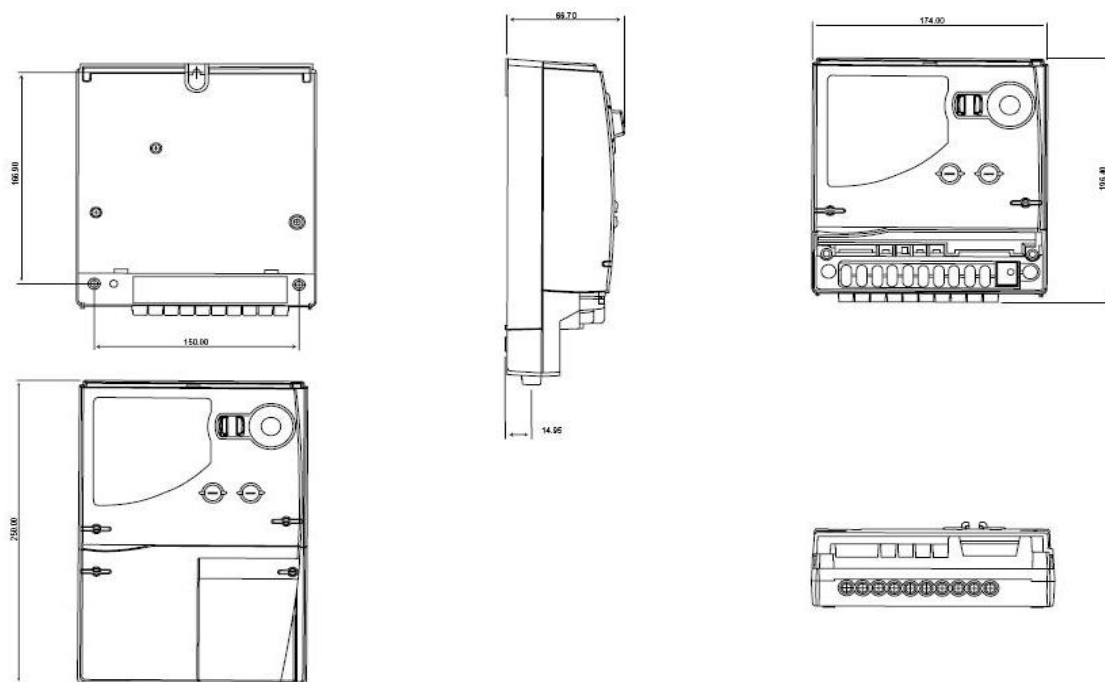


Wiring Configuration for P3M 3 Phase 4 wire CT/VT connected 63.5V/57.7V.



Wiring Configuration for P3V 3 Phase 3 wire CT/VT connected 100V/110V

Dimensions (in mm)



Premier GPRS

The Premier is an advanced metering solution with integrated communication modules for electricity revenue management and advanced metering infrastructure deployment (AMI). The energy meter measures active and reactive energy. As an option, the meter can be equipped with detection for magnetic influence and connector for external load control.

Collection of data

The Premier can be used together with Marathon, a data management system from Cewe Instrument for automatic data collection. The system works well in both smaller and larger applications.

The system is managed via the web and does not need any installation of software at the local computer. It is easy to make reports of data collection status, monthly and hourly values.

The Premier is supported by other systems as well, like ELIN (POWEL), Rejlers and CeweCetrics from Cewe Instrument. For other systems there is a software development kit available, so that others can easily implement the Premier into their system.

Communication



The Premier has a module for communication via GPRS. The meter can be delivered with a SIM card and a fixed IP address.

The connection to the data management system and the GPRS net are done automatically as soon as the meter and the modem are powered up.

Detection of magnetic influence

The Premier meter can be equipped with a module for detection of to high influence of magnetic fields. The meter registers time and duration of the occurrence. When the meter is affected, it can registers energy for full load.

The terminal cover can also be ordered with transparent plastic so that the connections are visible, without removing the terminal cover seal.

Functions

Tariffs

8 tariff registers

Event detection & logging support

- Missing voltage
- Over Current
- Current reversal
- **Detection of Magnetic tamper. (option)**

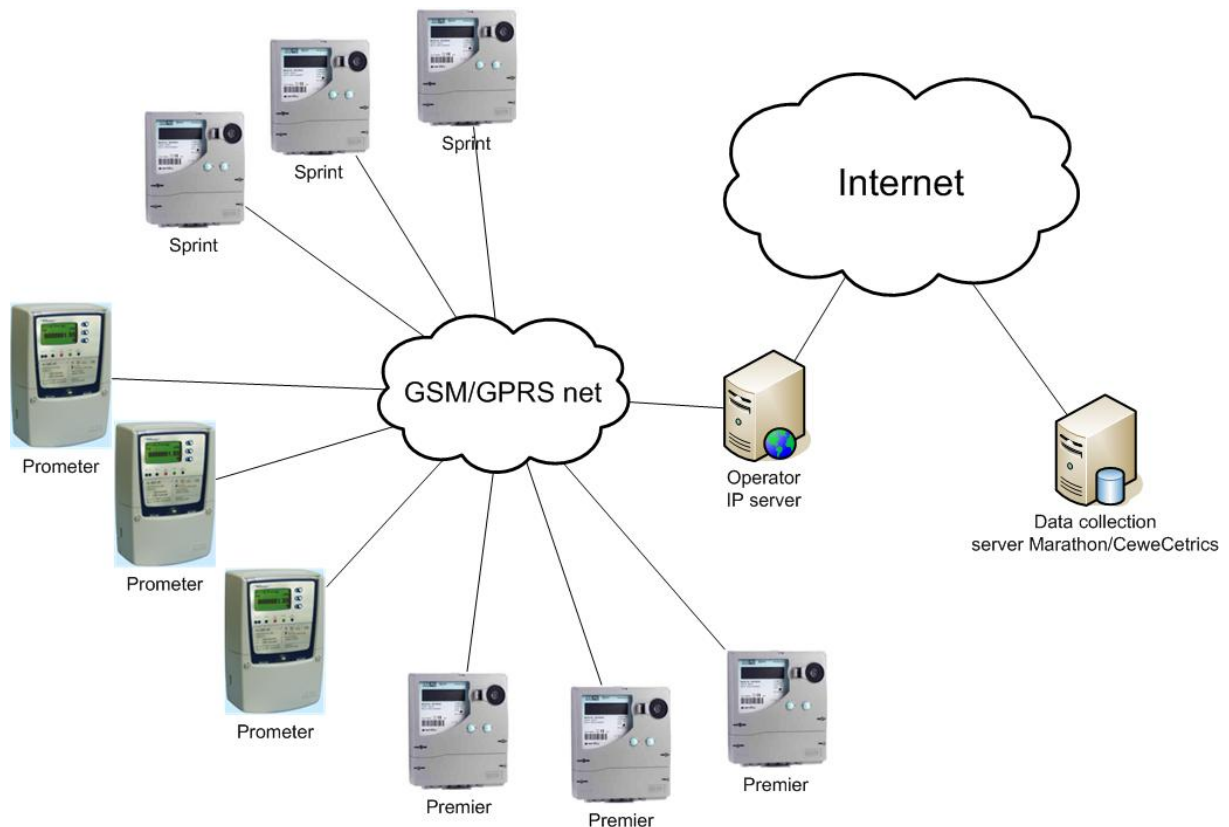
Logging memory

Logging period: 15, 30 and 60 minutes
Logging of active and reactive energy.

Display

The display always shows active energy. The user can easily browse the display to show reactive energy, current, voltage, actual time and date and GPRS signal strength.

System overview



The meters connect automatically to the GSM/GPRS net, just like an ordinary mobile phone. The data collection software downloads data from the meters by connecting via a VPN to the GPRS modem.

Meter

Article	Description
Premier 0.5s	Energy meter, class 0.5s, 3-phase/4-wire, GPRS-module 3 x 230/400V, 5A, 50Hz
Premier 1	Energy meter, class 1, 3-phase/4-wire, GPRS-module 3 x 230/400V, 5A, 50Hz

Accessories

Article	Description
Detection of tamper	Magnetic influence detector
Transparent cover	Transparent cover



Technical data

Accuracy class

Class 0.5s and class 1

Measuring Voltage (U_N)

3 x 230/400V (class 1)

Burden <1.0 VA/phase

Measuring current (I_N)

Current I_N 5 A

Range 0,1 – 120% av I_N

Burden <0,5 VA

Frequency

Frequency 50 Hz +/- 5 %

Outputs

One (1) voltage free output for energy pulses
230 VAC @100 mA

Communication

GPRS-communication

Temperature range

Working range -40°C – +70°C

Storage range -40°C – +80°C

Surge Withstanding

12 kV as per SP 1618

Mechanical

Protection cl. IP 51

Material Engineering plastic, UL 94 V0

Dimensions 175 x 250 x 77 mm (WxHxD)

Weight approx. 1,6 kg

Display

Type Large LCD display

Size 75 x 17 mm



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