STATIC 3-PHASE WHOLE CURRENT GSM/GPRS ENERGY METER

(DLSM/COSEM COMPLIANT)
VTX-34G

VTX-34G is Electronic Three Phase Four Wire Whole Current GSM/GPRS Energy Meter developed for residential and commercial users. This meter is developed for measurement of Active and Re-active energy and also includes maximum demand and Multi-tariff features. This model upholds advanced Anti- Tempering features and suitable for high power theft areas. current.

These meters comply with the IEC 62053-21 & 62053-23 for Accuracy Class 1.0 for active energy and Class 2.0 for re-active energy measurement.

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Features

- Satisfies IEC 62053-21 & 23, Accuracy Requirements
- Complies to DLSM/COSEM Communication Protocol (Device Language Message Specification/Companion Specification for Energy Metering)
- Built-in relay for remotely disconnection / reconnection as per IEC 62058-31
- Eight digits (6 Digits+2 Decimals) register showing energy consumption (kWh & kvarh).
- Reading Display in case of Power Outage using internal batteries and super capacitor.
- Fulfills IEC 62053-21 & IEC 62053-23
- Active, Reactive Energy & Power Measurement
- Power Factor
    - Instantaneous (by Phase & Average)
    - Monthly Average (by Rate and Total)
- Meter body opened Indication on LCD $OPENEd$
- Identification and Storage of Reverse Energy Flow Event with Date/Time Stamp
- Records Energy Accurately at Low/High Voltage
- Low Battery Indication
- MDI TOD
- Impulse Output Display on LED for kWh
- Impulse Output Display on LED for kvarh
- Running Quadrant Display
- IrDA / Optical Communication Port for Laptop / PC
- Programming of Tariff and Seasons through PC Software
- Phase Indication (A, B, C) and Indication of Load with Blinking Circle Around the Respective Phase on LCD
- Display Off in case of Power Outage to Increase Battery Life. Display can be turned On by pressing Push Buttons.

Security Features

- The meter is protected against any loss of data and functional performance due to any external interference such as influence of CD drive, mobile phones and complies to all relevant IEC/ANSI standards.
- The meter is protected against the influence of strong magnetic field.
- Identification and storage of reverse energy flow event with date and time stamp.
- Each meter has a unique serial number in its memory which can be displayed on the LCD.
- Provides 3 Levels of Access /Security Codes.
- Meter Keeps on Operating with or without Neutral Wire.

Dielectric Strength

Power Frequency	4 KV for One Minute
Impulse Voltage 8 KV:	1.2/50 Micro Sec
Short Time over Current	3000 Amperes for 10 ms
Insulation Resistance	More than 5 Mega Ohms
Creepage Distance	20mm Minimum
DC Magnetic Field	1000 Amp/Turns
AC Magnetic Field	400 Amp/Turns

General/Electrical Specifications

Reference Standards	IEC 62053 -21 & IEC 62053-23
Reference Specifications	DDS – 60 : 2007
Model Number	VTX-34G
Connection Wiring	3-Phase, 4-Wire
Connection Configuration	Direct Connected
Metrology	Four Quadrants
Display	LCD
Display Resolution	6 Digits
Storage of Data	Non-Volatile Memory (EEPROM)
Supported Protocol	IEC 62056-21
Temperature Range	
Specified Operating Range	-25°C to 60°C
Limit Range of Operation	-25°C to 80°C
Limit Range for Storage	-25°C to 80°C
Relative Humidity	Up to 95 %
Operating Voltage	3×230/400V
Basic / Max Current	10 / 100 A
Reference Frequency	50Hz
Accuracy Class	
For Active Energy	Class 1.0
For Reactive Energy	Class 2.0
Meter Constant	
Active & Reactive	1000 imp/ kWh
Starting Current	Less than 40mA
Power Consumption	
Voltage Circuit	Less than 2W, 10 VA
Current Circuit	Less than 4VA (at basic current)

Event Record

More than 28 different types of Events are recorded with Date/Time Stamp:

- Power Outage
- Phase Fail
- Reverse Energy
- Reverse Polarity
- Over Load
- Over Voltage
- Under Voltage
- Low Battery
- Parameters Change
- Time Change
- Resistor Reset

Display of Instantaneous Quantities

Voltages	U_1, U_2, U_3
Current	I_1, I_2, I_3
Phase Indication	A, B, C
Active Power (kW)	kW_1, kW_2, kW_3
Reactive Power	$kvarh_1, kvarh_2, kvarh_3$
Apparent Power	kVA_1, kVA_2, kVA_3
Power Factor	PF_1, PF_2, PF_3
Meter Clock	Date/Time
Tariff Indication	T_1, T_2, T_3, T_4
Frequency	Fr-Hz

Relay for Remote Disconnect & Reconnect

- Meters can be Disconnected/ Reconnected remotely through backend system in case of Non Payment by the consumer or under any predefined condition.
- Meter may Auto Disconnect based on Load Thresholds against different load limits.
- Load Limit, Sanction Load and Time Interval between Disconnect/ Reconnect is programmable remotely through backend system.

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