

STATIC 3-PHASE WHOLE CURRENT ENERGY METER

R326 with RF



R326 with RF is an advanced static three phase residential and commercial energy meter that has Radio Frequency (RF-433 MHz) communication capability. It's one of a kind product that conforms to various IEC and local utility standards enabling it to be an ideal candidate for a multi-vendor environment. The meter allows automatic downloading of readings through Hand Held Unit (HHU), thus reduces operational cost and offers a transparent and error free system. To resolve energy theft prevalent in local market, R326 with RF is carefully designed with stringent anti-tampering features. To offer highest level of flexibility, it can operate as a standalone product and be integrated with HHU that in turn transfers data to the backend server.

 **MicroTech**
Industries (Pvt) Ltd.

Redefining Technological Horizons

Features

- Fulfills IEC 62053-21 & IEC 62053-23, Accuracy Requirements
- Built in RF Module with 433 MHz Communication Capability
- Active, Reactive Energy & Power Measurement
- Reading Display in Case of Power Outage/Failure
- Power Factor
 - ✓ Instantaneous (by Phase & Average)
 - ✓ Monthly Average (by Rate and Total)
- Identification and Storage of Reverse Energy Flow Event with Date and Time Stamp
- MDI TOD (time of day)
- Records Energy Accurately at Low/High Voltage
- Low Battery Indication
- 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 EMS (Energy Management System)
- Long Life, Clear, Wide and High Contrast Display with Broad Viewing Angle
- Phase Indication (A, B, C) and Indication of Load with Blinking Circle Around the Respective Phase on LCD
- Display Scroll and MDI Reset 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.
- Each meter has a unique serial number in its memory which can be displayed on the LCD.
- Identification and storage of reverse energy flow event with date and time stamp.
- Provides 3 Levels of Access /Security Codes.
- Meter Keeps on Operating with or without Neutral Wire.
- Over and Under Voltage Indication (↑↓)
- Demand Over Load Warning

Billing Record

Monthly reading for last 24 months of 4 tariffs and totals (TL) of the following:

- kWh
- kvarh
- Cumulative MDI(kWh)
- Current Month MDI(kWh)
- Avg. Power Factor(PF)

Event Record

More than 30 different types of Events are available with Date & Time Stamp such as:

- Power Outage
- Phase Fail
- Reverse Energy
- Reverse Polarity
- EMS Login
- Over Load
- Over Voltage
- Under Voltage
- MDI Reset
- Battery Low
- Time Change
- Parameters Change
- Register Reset
- etc.

General Specifications

- Reference Standards IEC 62053 -21 & IEC 62053-23
- Reference Specifications DDS - 60 : 2007
DDS - 91 : 2009
- Model Number R326 with RF
- Connection Wiring 3-Phase, 4-Wire
- Connection Configuration Direct Connected (Whole Current)
- Metrology Four Quadrants
- Display LCD type

- Display Resolution 7 Digits
- Storage of Data Non-Volatile Memory (EEPROM)
- RF Communication Frequency 433MHz
- Supported Protocol IEC 62056-21
- Temperature Range
 - ✓ Specified Operating Range -25°C to 60°C
 - ✓ Limit Range of Operation (Extreme Condition) -25°C to 80°C
 - ✓ Limit Range for Storage & Transportation -25°C to 80°C
- Relative Humidity Up to 95 %

Electrical Specification

- 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 1250 imp. / kWh
- Starting Current Less than 40mA
- Power Consumption
 - ✓ Voltage Circuit Less than 2W, 10 VA
 - ✓ Current Circuit Less than 4VA (at basic current)

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

Electromagnetic Compatibility (EMC)

- Electro Static Discharge IEC 61000 - 4 - 2
- Radio Interference IEC 61000 - 4 - 3
- Fast Transient Burst IEC 61000 - 4 - 4
- Surge Immunity IEC 61000 - 4 - 5

Weight and Dimensions:

- Weight 3.3kg (±5%)
- Dimensions 34 x 23.5 x 9.2(cm)

Instantaneous Quantities Display

- Voltages U_1, U_2, U_3
- Current with Indication of Direction I_1, I_2, I_3 (↔)
- Phase Indication A, B, C
- Load Indication Ⓐ Ⓑ Ⓒ
(Blinking circle around the present phase)
- Active Power (kW) with indication of direction kW₁, kW₂, kW₃ (↔)
- Reactive Power Phase Wise kvarh₁, kvarh₂, kvarh₃
- Apparent Power Phase Wise kVA₁, kVA₂, kVA₃
- Power Factor by Phase PF₁, PF₂, PF₃
- Meter Clock Time, Date
- Tariff Indication T₁, T₂, T₃, T₄
- Frequency Fr- Hz
- Battery Voltage btry-3.65V

Load Profiling

4 channel recording of load profile data with 30 min interval for 90 days, 60 min interval for 180 days and 24 hour interval for 12 years. Load profile data is stored in non-volatile memory (EEPROM).

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BUREAU
VERITAS

ISO 9001:2000 Standards