

## genus single phase energy meter

# Genus Energy Meter User Manual

Model: Genus Single Phase Energy Meter

Brand: Generic

## 1. INTRODUCTION

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The Genus Energy Meter is a compact, lightweight, and intelligent single-phase energy meter engineered for both small commercial and domestic environments. It offers high accuracy with a Class 1 rating and is available in various current range variants. This meter is equipped with robust revenue protection features and advanced data storage and communication capabilities, making it a reliable solution for energy measurement.

### Key Features:

- Microcontroller-based digital technology for precise measurements.
- Meter class accuracy of 1.0%, maintaining metrological characteristics under diverse field conditions (0.5 to -0.5 accuracy).
- Reliable working and metering even in harsh electrical and environmental conditions.
- Break-to-open design for enhanced security.
- Various communication options for data retrieval and integration.

## 2. WHAT'S IN THE BOX

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Upon unboxing your Genus Energy Meter, please ensure all the following components are present:

- Genus Single Phase Energy Meter Unit
- Energy Meter Test Certificate

## 3. PRODUCT OVERVIEW

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**Figure 3.1: Genus Single Phase Energy Meter**

This image displays the Genus Single Phase Energy Meter, highlighting its key features and specifications printed on the front panel. The meter is manufactured by Genus Power Infrastructures Ltd., Jaipur (India). It is identified as Type 01B, designed for 5-30A current, and operates on 240 Vac, 50 Hz. It is a Class 1 (CL-1) meter with a guaranteed performance of 1 year (G.P. 01 Year). The display indicates it is a 1 Phase, 2 Wire, ac Static kWh Meter with a pulse rate of 3200 imp/kWh. The specific unit shown has a Serial No. R8643831 and was manufactured in December 2023 (12/23).

## 4. INSTALLATION AND SETUP

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Installation of the Genus Energy Meter should ideally be performed by a qualified electrician or technician to ensure safety and proper functionality. Adhere to all local electrical codes and regulations.

### 4.1 Safety Precautions

- Always disconnect power before installation or maintenance.
- Ensure proper grounding.
- Do not open the meter casing unless authorized; it has a break-to-open design.
- Protect the meter from direct sunlight, moisture, and extreme temperatures.

### 4.2 Mounting

Mount the meter vertically on a stable, non-vibrating surface, away from strong magnetic fields. Ensure adequate ventilation around the meter.

### 4.3 Wiring

The Genus Energy Meter is designed for 1 Phase, 2 Wire AC static kWh metering. Connect the incoming and outgoing phase and neutral wires to the designated terminals as per the wiring diagram provided on the meter or in the accompanying installation guide. Ensure all connections are secure and tight to prevent loose contacts and overheating.

## 5. OPERATION

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### 5.1 Powering On

Once correctly installed and wired, restore power to the circuit. The meter's display should illuminate, indicating it is powered on and beginning to measure energy consumption.

### 5.2 Reading the Display

The digital display on the Genus Energy Meter typically cycles through various parameters. The primary reading is the cumulative energy consumption in kilowatt-hours (kWh). Other parameters may include instantaneous voltage, current, power factor, and frequency, depending on the meter's configuration.

- **kWh:** Total energy consumed.
- **imp/kWh:** Indicates the number of pulses per kilowatt-hour (e.g., 3200 imp/kWh means 3200 pulses for every 1 kWh consumed). This is useful for calibration and testing.

## 6. MAINTENANCE

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The Genus Energy Meter is designed for long-term, maintenance-free operation. However, following these general guidelines can help ensure its longevity:

- Keep the meter clean and free from dust. Use a soft, dry cloth for cleaning.
- Do not use abrasive cleaners or solvents.
- Ensure the meter is not exposed to excessive moisture or direct water spray.
- There are no user-serviceable parts inside the meter. Any repairs or internal inspections should only be conducted by authorized personnel.

## 7. TROUBLESHOOTING

If you encounter issues with your Genus Energy Meter, refer to the following common problems and their potential solutions:

Problem	Possible Cause	Solution
No display/Meter not powering on	No power supply; Loose wiring; Internal fault.	Check circuit breaker/fuse. Verify wiring connections. If problem persists, contact qualified technician.
Incorrect readings	Improper wiring; External interference; Meter fault.	Verify wiring against diagram. Ensure no strong magnetic fields nearby. If readings are consistently inaccurate, contact support.
Meter not registering consumption	No load connected; Wiring error; Meter fault.	Ensure appliances are drawing power. Recheck wiring. If still no registration, seek professional assistance.

## 8. TECHNICAL SPECIFICATIONS

Specification	Detail
Brand	Generic
Manufacturer	Genus Power Infrastructure
Model Number / Item Part Number	genus single phase energy meter
ASIN	B0CPPQSTL3
Meter Type	Single Phase, 2 Wire, AC Static kWh Meter
Current Range	5-30A
Voltage	240 Vac
Frequency	50 Hz
Accuracy Class	1.0 (CL-1)
Impulse Rate	3200 imp/kWh
Included Components	Energy meter, Test certificate
Net Quantity	1.00 Piece
Date First Available	24 November 2023

## 9. TEST CERTIFICATE


 <b>Genus Power Infrastructures Ltd</b> <b>Test Certificate</b> <b>1P,2W,5-30A,240V,,50Hz, Cl.-1.0</b> As Per IS:13779 <b>Meter Serial No. : R8643831</b> <b>Date: 04/12/2023</b> <i>No Load Ok, HV Test Ok, IR Test OK, Starting Current Ok</i>	
<b>Load Points</b>	<b>% Error</b>
U1 = 240 I1 = 600%Ib PF = 1	0.12 %
U1 = 240 I1 = 600%Ib PF = 0.5	-0.03 %
U1 = 240 I1 = 100%Ib PF = 1	0.10 %
U1 = 240 I1 = 100%Ib PF = 0.5	0.02%
U1 = 240 I1 = 100%Ib PF = 0.8	0.01%
U1 = 240 I1 = 10%Ib PF = 0.5	0.06%
U1 = 240 I1 = 5%Ib PF = 1	0.06 %
<b>Testing Incharge:- Rajiv Tiwari</b> <b>U1=Applied Voltage,I1=% Of Basic Current</b> <b>This is System Generated report</b>	

Figure 9.1: Genus Energy Meter Test Certificate

This image displays the official Test Certificate for the Genus Energy Meter, issued by Genus Power Infrastructures Ltd. The certificate confirms the meter's compliance with IS:13779 standards for a 1P, 2W, 5-30A, 240V, 50Hz, Cl.-1.0 meter. The Meter Serial No. R8643831 is verified, and the test date is 04/12/2023. The certificate confirms successful completion of No Load, HV, IR, and Starting Current tests. A table detailing percentage error at various load points (U1=Applied Voltage, I1=% Of Basic Current) is provided, demonstrating the meter's accuracy across different operating conditions. This report is system-generated and signed by Testing Incharge, Rajiv Tiwari.

## 10. WARRANTY AND SUPPORT

The Genus Energy Meter comes with a Guaranteed Performance (G.P.) of 01 Year from the date of manufacture, as indicated on the product label. This warranty covers manufacturing defects and ensures the meter's performance under normal operating conditions.

For technical support, warranty claims, or any inquiries regarding your Genus Energy Meter, please contact the seller or the manufacturer, Genus Power Infrastructure, through their official support channels. Please have your meter's serial number (e.g., R8643831) and purchase details ready when contacting support.