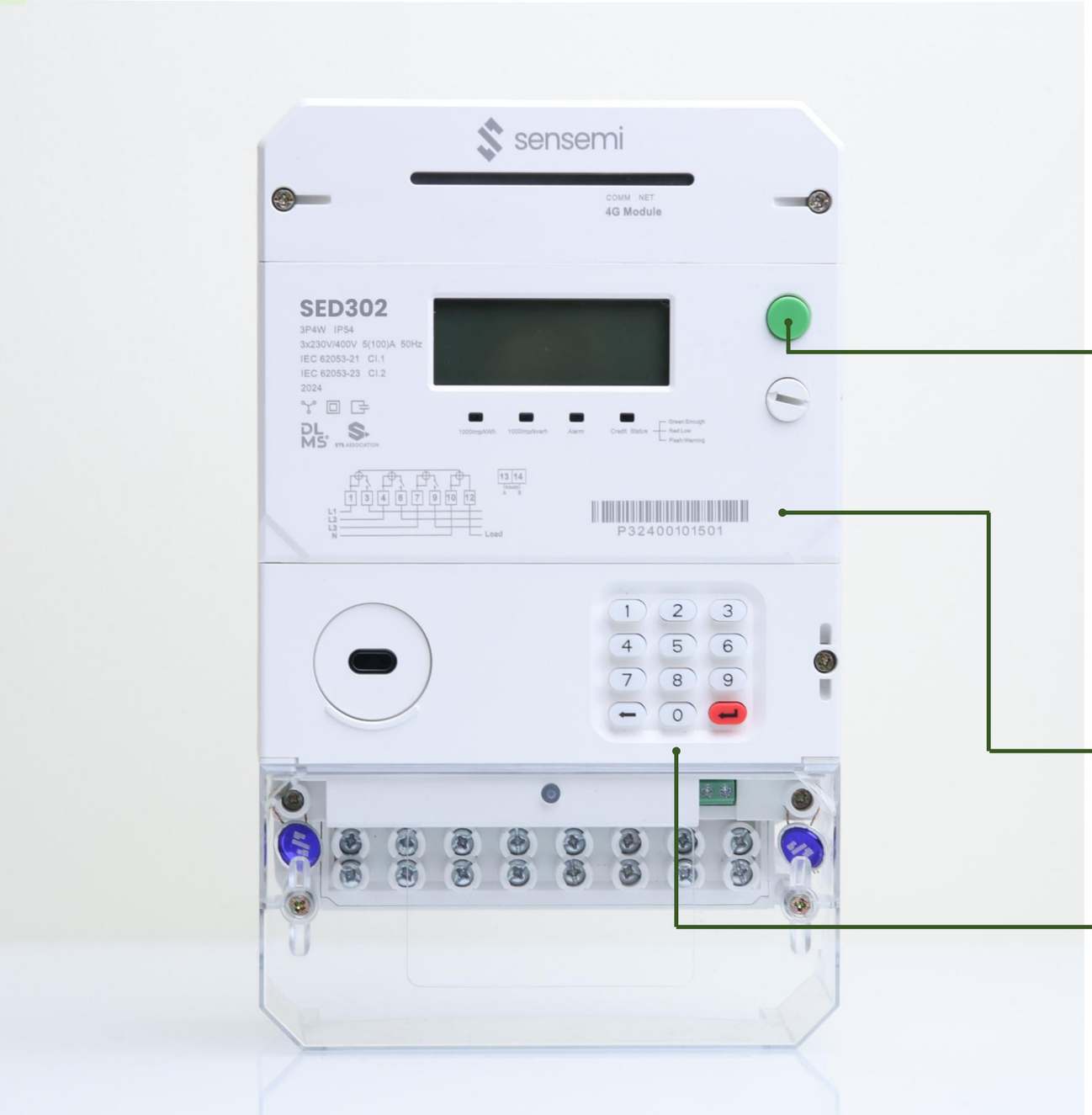
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SED302

THREE PHASE
SMART ELECTRICITY METER



PRODUCT OVERVIEW

The **SED302** Smart Electricity Meter is a three-phase meter designed for versatile communication and advanced energy monitoring. It supports up to three modules simultaneously, including two communication modules and one input module, enabling seamless integration with smart grid systems.

FRONT VIEW DESCRIPTION:

DISPLAY

The meter features an LCD display with 8 characters and up to 2 decimal points, providing real-time information on energy consumption, voltage, and current. The backlight is white for easy readability.

DATA QUERY BUTTON

Compliant display and demand button are available to allow users to interact with the meter, query data, and navigate menus. Additionally, sound feedback is provided when buttons are pressed.

OPTICAL COMMUNICATION INTERFACE

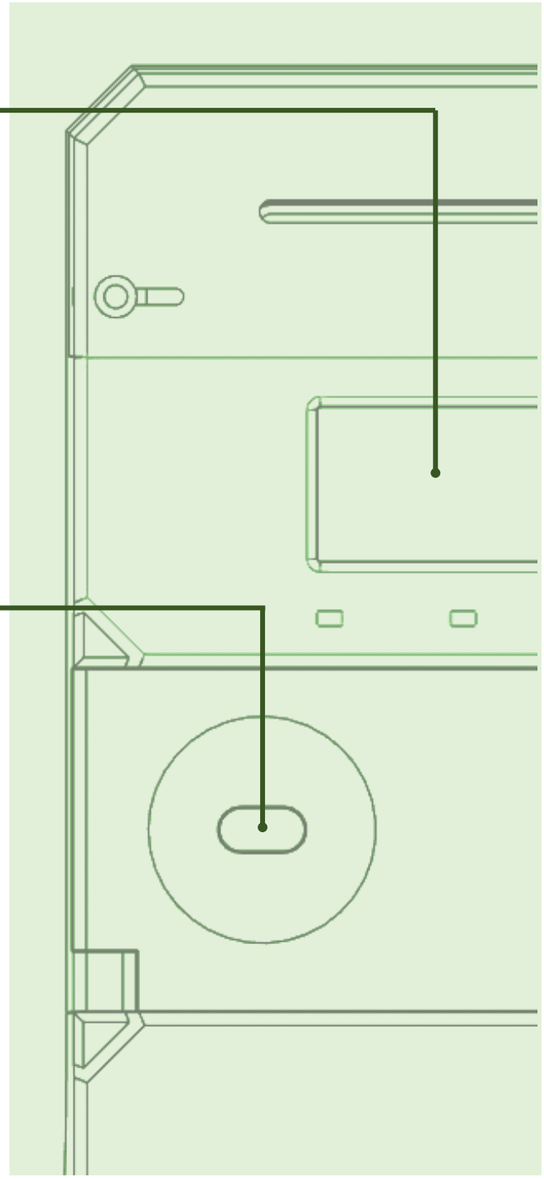
An optical communication interface is present for data exchange. This interface might be used for data reading , configuration and firmware upgrade.

METER INFORMATION

Essential information, such as the serial number and model details, is provided on the front and module covers, aiding identification and usage.

STS KEYPAD

The meter includes a keypad used for querying data information and recharge.



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MAJOR APPLICATION

Remote Communication and Control:

Equipped with RS485 and wireless communication (CAT.1+2G) with a short antenna, it supports two-way communication, enhancing control and data collection capabilities.

DLMS/COSEM Protocol Compliance

The meter complies with DLMS/COSEM standards, ensuring compatibility and interoperability with other smart metering systems.

Load Profiles and Billing:

It records load profiles at 15-minute intervals for up to 100 days and supports monthly billing data storage for 12 months, providing detailed consumption records. Billing is reset automatically at the beginning of each month, with configurable settings.

Real-Time Clock Unit:

The meter has a real-time clock unit with an accuracy of less than 0.5 seconds per day, maintaining precise time for billing and event logging.



Hardware and Structure

Power and Backup:

A supercapacitor supports the "last gasp" function for sending final data during power outages, and internal/external batteries provide reliable backup power.

Cover and Terminal Materials:

The meter housing, including the cover, terminal cover, and terminal block, is made of polycarbonate (PC), with a white color for the main body and a transparent terminal cover. The terminal materials are copper, with nickel coating, and zinc-coated iron screws to ensure durability.

Dust and Water Protection:

The meter is rated with IP54 protection, providing resistance against dust and water, ensuring durability in various environmental conditions.

Sealing and Tamper Protection

The meter is equipped with multiple seal positions (top cover, terminal cover, module covers, MD button) to prevent tampering. The sealing material is aluminum caps by default

The Three Phase (SED302) Smart Electricity Meter offers advanced measurement, billing, and communication features for efficient energy usage, monitoring, and management, making it suitable for modern energy infrastructures.

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BASIC PARAMETER

Accuracy	Active	IEC Class 1
	Reactive	IEC Class 2
Structure	Structure Type	BS
	Wiring connection	L1L1L2L2L3L3NN(3P4W)
Voltage	Nominal voltage Un	3*230/400V-3P4W
	Operating range	0.6Un--1.2Un
Current	Basic current I b	5A
	Max current Imax	100A
	Active I start	0.4%Ib(IEC Class1 Direct)
	Reactive I start	0.5%Ib(IEC Class 2 Direct)
Frequency	Nominal frequency Fn	50Hz
	Operating range	50Hz±5%
Meter constant	Active (imp/kWh)	1000
	Reactive (imp/kVarh)	1000

OUTPUT UNITS

Display	Type	LCD
	Value display character number	8
	Max decimal	2
	Backlight	White
LED	Active pulse	Red
	Reactive pulse	Red
	Alarm	Red
	Credit(2 color)	Red&Green
Latch Relay	Pole number	3 Pole
	Maximum Switching Current	120A
Beep		Comply

COMMUNICATION

Local communication	RS485		Comply
	Optical port(with iron)		Comply
AMI communication	Wireless	Module type	CAT.1+2G
		Antenna	Short
UIU communication	PLC		/

REFERENCE STANDARD

IEC	IEC 62053-21 IEC 62053-23 IEC 62052-11
Protocol	DLMS/COSEM

CONNECTION DIAGRAM

