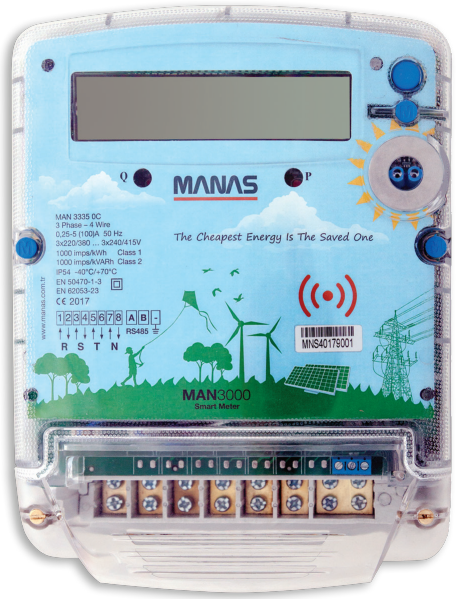
MANAS
Innovation For Future

ELECTRICITY



MAN3000

New Generation Three Phase Electricity Meter

The efficient use of energy resources and accurate energy delivery from producer to the customer are becoming critical issues due to constantly growing and changing electricity market's needs and demands. MAN3000 Three Phase Electricity Meter fully meets the operational needs of distribution companies with its modular design, advanced smart meter features and bi-directional energy measurement capability.

The device precisely measures not only the energy consumed but also the energy returned to the grid, making it an ideal solution for renewable energy producers and application requiring bi-directional energy flow. It increases grid efficiency with advaced measurement accuracy, remote monitoring and management capabilities. Thanks to its flexible structure, it adapts to different application scenarios, optimizes investment costs and contributes to long-term bussiness continuity.

MAN3000 is not just a meter; it is a strategic tool in the digital transformation of your network.

Main Advantages:

- High measurement accuracy and reliability
- Bi-directional energy measurement (consumption and production)
- Easy integration with its modular structure
- Advanced Smart Meter functions
- Remote reading and control support
- Detection and prevention for energy losses

Smart Measurement

MAN3000 electricity meter measures energy in two ways (import-export), as consumption and production. By virtue of its wide measurement range, it performs at high level and the most accurate measurement.

Tariff

MAN3000 meter supports the multi-tariff applications based on the internal real time clock.

- 8 time period for one day profile
- 4 day profile
- 4 week profile
- 4 season
- 10 special day profile

Memory

Past 24 months data can be kept by MAN3000, data is read through optical part or RS485 even there is no power. Historical data allows to follow customer's consumptions on to create reports of the consumption.

Demand Measurement

It performs maximum demand measurement with its adjustable demand period as 5, 10, 15, 30 and 60 minutes.

Real Time Clock

Temperature compensated real time clock prevents time shifts caused by ambient temperature. This ensures correct timing for tariffs. Summer/Winter time shifts are done automatically.

Load Profile

It registers the load profiles up to 2 channels into its memory. Load profile periods can be adjusted as 15 minutes, 30 minutes or 1 hour.

Outage Information

It keeps the outage information which is less than 2 minutes, in its memory with date and time.

Easy Installation

Can be easily installed on meter panels owned to available dimensions without renewing the measuring part.

Prepayment System

There are versions designed for prepayment system applications with internal relay control and contactless card. This system allows utilities to easily manage energy supply and accounting.

Quality Data

With load profile records, power quality provides data which is necessary to determine network characteristic. Current, Voltage and Frequency measurements allow to obtain data which is valuable for the utility. Voltage drops, voltage rises, daily maximum and minimum voltage measurements provides data for network analysis.

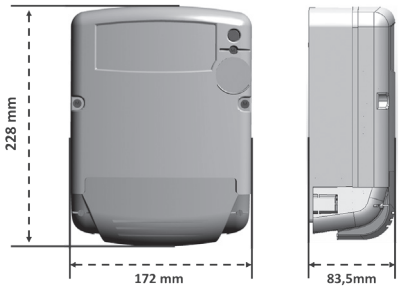
Communication

It basically communicates with IEC 62056-21 standard by virtue of Optic Interface. Optional RS232, RS485 ports easily integrate with remote reading and meter management systems. Electrical pulse and relay control outputs allow controlling various items in the system through meter.

Technical Specifications

Connection Type	3 Phase - 4 Wires
Current	5(100) A or x5(10) A (X5 meter)
Voltage	3 x 220/380 V or 3 x 240/415 V
Frequency	50 Hz ± %5
Accuracy Class	Active Class B, Reactive Class 2
Tariff	Up to 4 tariffs
Protection Class	IP54
Operating Temperature	-40°C / ~70°C
Communication	Optical Interface (IEC 62056-21), RS485 (Optional)
Standarts	EN 50470-1, EN 50470-3, IEC 62053-23
Dimensions	172mm x 228mm x 83,5mm

Demand Measurement, Main Cover and Terminal Cover Open Warnings, Automatic Summer/Winter Time Shifts



GSM/GPRS Meters (with the external modem)

Provide all below functions remotely;

- Short & Long Readout
- Load Profile Reading
- Defining and Reading Package
- Setting and / or Changing Time
- Changing Tariff and/or Tariff Structure
- Automated Baud Rate Definition
- Loading Credit Into Meter
- Import/Export Measurement Mode Switching
- Circuit Breaker Open/Close Operations
- Relay Open/Close Operations
- Monitoring Tamper Attempts
- Monitoring Meter Status
- Monitoring Modem Status
- Adding New Information Into Modem
- Adding New Information Into Meter
- Read Firmware Version of Modem
- Update Modem Firmware.

MANAS reserves the right to make changes to the catalog content without prior notice.

Manas Enerji Yönetimi Sanayi ve Ticaret A.Ş.
ASO. 1. Organize Sanayi Bölgesi Anadolu Caddesi No:25 SİNCAN/ANKARA/TÜRKİYE

mail: info@manas.com.tr / export@manas.com.tr