



MPA - Single & 3-Phase MID Power Analyzer

# Capture. Assign. Control.

## Precise Energy Cost Assignment

Administrators & Owners of shopping centres, airports, hotels, office complexes, data centres and other commercial properties all face the same challenge. How can energy efficiency be increased whilst at the same time assigning the costs to all of the tenants in a fair and precise manner?

Both objectives can be achieved using the MPA MID Power Analyzers.

The assignment of the energy consumption to the individual tenants or consumption points can be made significantly easier through comprehensive acquisition. Sources of energy wastage can also be quickly identified, undesired energy consumption can be reduced and the energy efficiency in the building increased.

## Areas of application

The MPA devices are primarily used for the recording of effective energy and reactive energy. They can be connected to various types of meters, including single-phase and three-phase meters, and provide a wide range of data for analysis. The MPA devices can be used for a variety of applications, including energy monitoring, energy management, and energy billing. They can be used to monitor energy consumption in real-time, identify areas of energy wastage, and provide detailed reports on energy usage. The MPA devices can also be used to manage energy consumption, by setting limits and alerts, and by controlling energy-consuming devices. Finally, the MPA devices can be used for energy billing, by providing accurate data on energy consumption for individual tenants or consumption points.

Using the Modbus RTU protocol, the MPA devices can be connected on the RS485 Modbus Network, in conjunction with the Master/Gateway devices UMG 96RM-E, UMG 604, UMG 605, UMG 509, UMG 512 and ProData2. The UMG Master device provides a seamless connection point to the buildings Ethernet network.

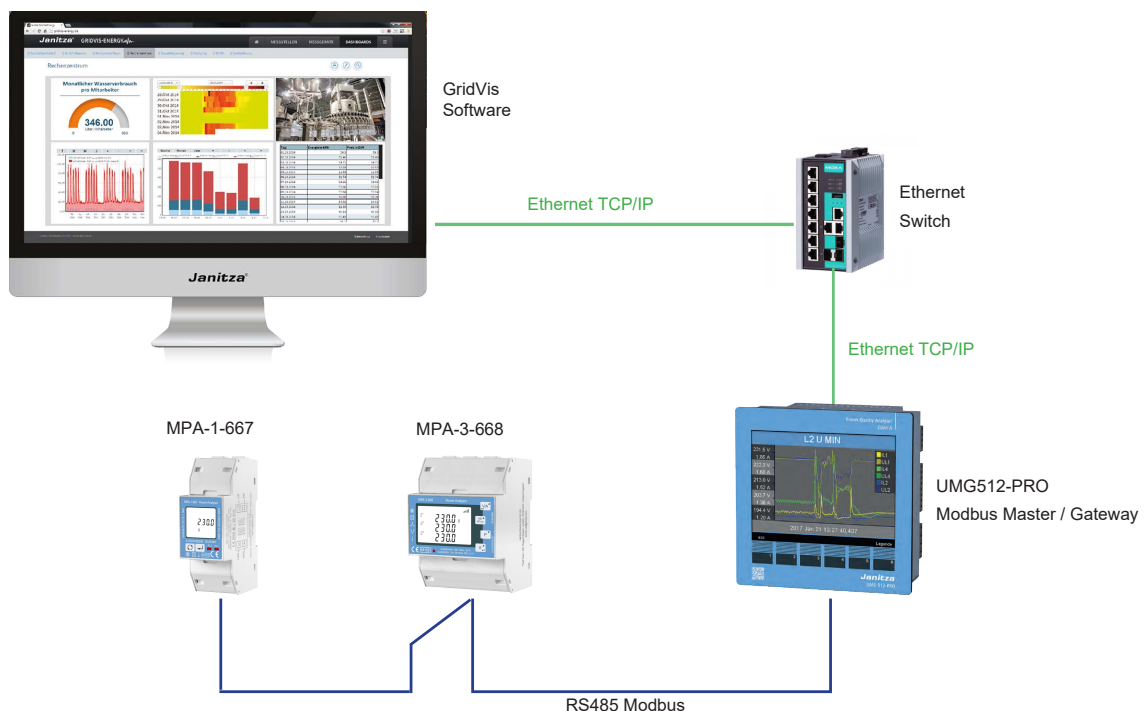
## Network Connection

The MPA MID Power Analyzers are designed for 1-phase 3-phase systems. The current inputs are designed for either direct connection or measurement via a 1A / 5A current transformer. The MPA is also suitable for connection to MV Networks, using suitable voltage transformers.

Installation is implemented via DIN rail or the MPA-3-669 can be switchboard door mounted using the additional panel mount adapter. All MPA devices can be lead-sealed to prevent unauthorised tampering.

## Capturing and recording

All MPA devices save the meter energy readings to non-volatile memory. The meter energy reading cannot be reset in the MID version.



# MPA-1-667DI

## MID Power Analyzer

### Single Phase, 100A Direct Measurement

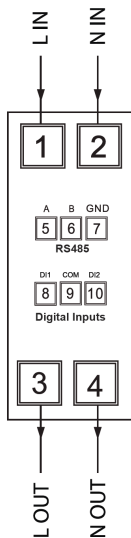
#### Single Phase Energy & Power Analyzer (1 + N)

- Direct connection up to 100A
- Digital Backlit Display
- RS-485 (Modbus RTU) Communication
- Width, 2 DIN modules
- Tested and approved per MID and IEC
- Digital Inputs x2, for Breaker Status Alarming

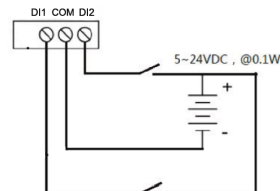


Voltage	Precision class	Outputs	Communication	Type	Part No.
176 to 276V AC	Class B (kWh) EC Directive 2004/22/EC	2 x Digital Inputs	RS-485 (Modbus RTU)	MPA-1-667 DI	14.01.375

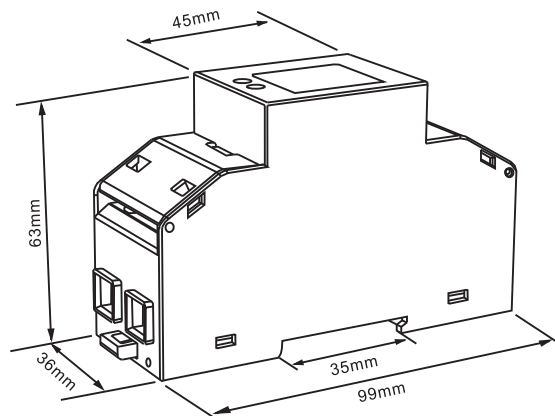
Main Wiring Diagram



Digital Input Wiring



Dimensions



## MPA-3-668DI

### MID Power Analyzer

### Three Phase, 100A Direct Measurement

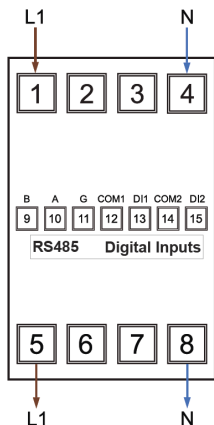
#### Three Phase Energy & Power Analyzer (3 + N)

- Direct connection up to 100 A
- Digital Backlit Display
- RS-485 (Modbus RTU) Communication
- Width, 4 DIN modules
- Tested and approved per MID, IEC & UL
- Digital Inputs x2, for Breaker Status Alarming

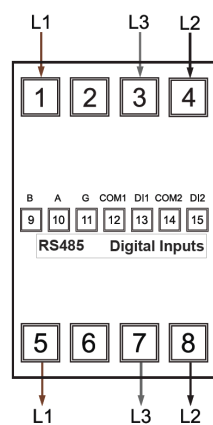


Voltage	Precision class	Inputs	Communication	Type	Part No.
176 to 276V AC	Class B (kWh) EC Directive 2004/22/EC	2 Digital Inputs	RS-485 (Modbus RTU)	MPA-3-668 DI	14.01.374

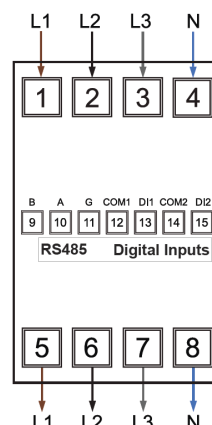
Single-Phase 2-Wire



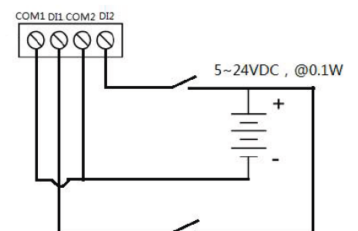
Three-Phase 3-Wire



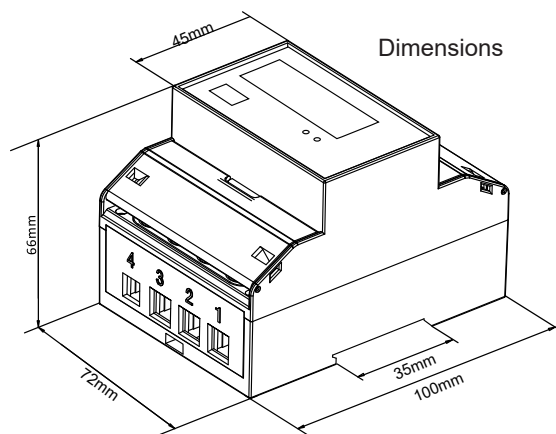
Three-Phase 4-Wire



Digital Input Wiring



Dimensions



# MPA-3-669DI

## MID Power Analyzer

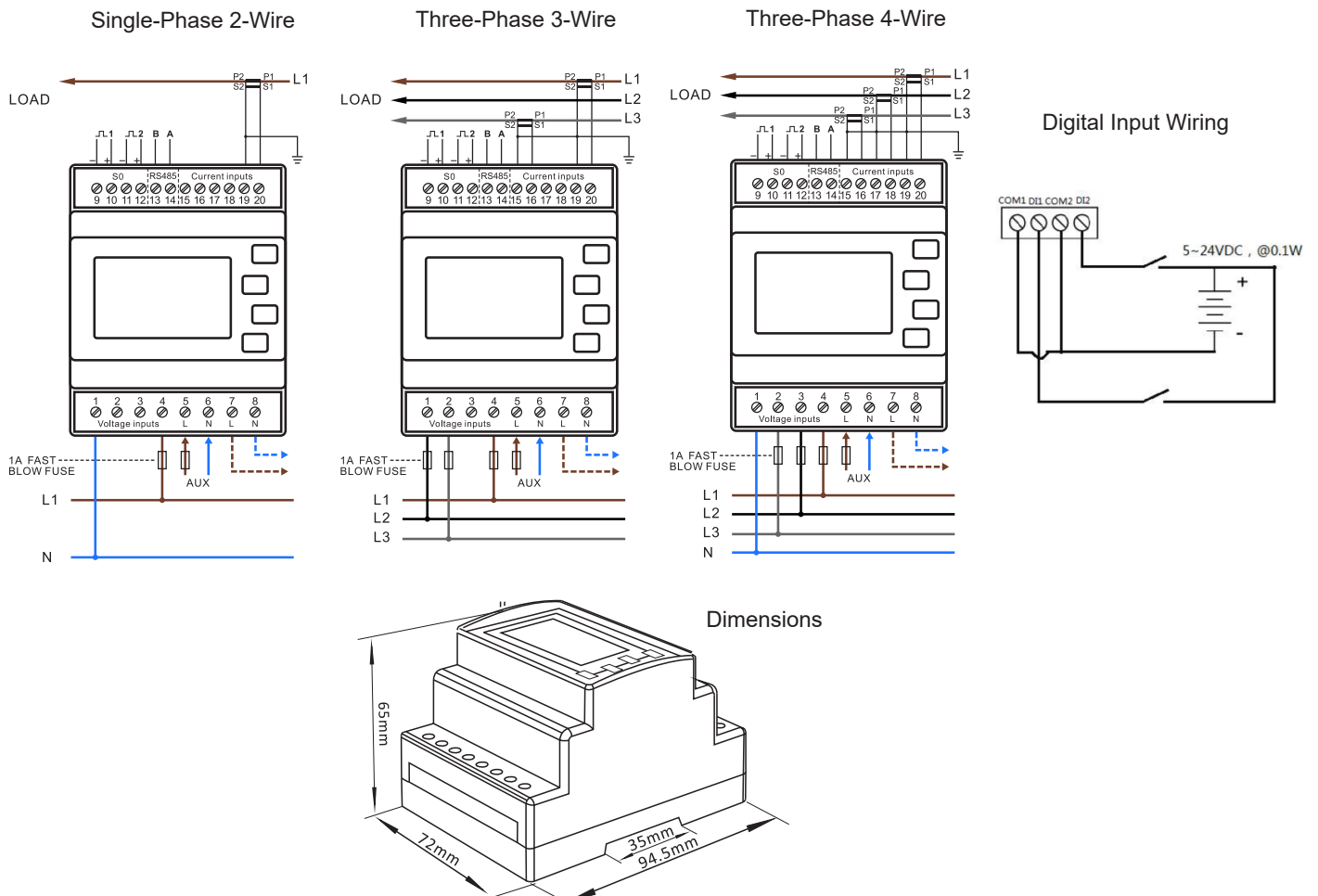
### Three Phase, CT Measurement, 1A / 5A

#### Three Phase Energy & Power Analyzer (3 + N)

- Current Transformer connection, 1A / 5A CT
- Voltage Transformer Settings suitable for MV Installations
- Digital Backlit Display
- RS-485 (Modbus RTU) Communication
- Width, 4 DIN modules
- Tested and approved per MID and IEC
- Digital Inputs x2, for Breaker Status Alarming
- Optional Front Switchboard-Door Mount Kit



Voltage	Precision class	Inputs	Communication	Type	Part No.
176 to 276V AC	Class B (kWh) EC Directive 2004/22/EC	2 x Digital Inputs	RS-485 (Modbus RTU)	MPA-3-669	14.01.373



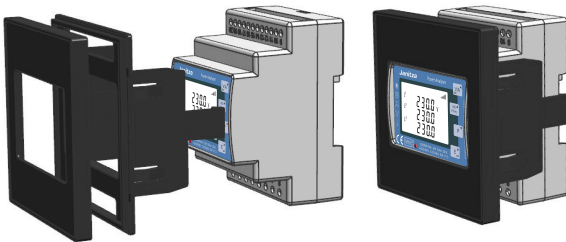
# MID Power Analyzer

## Front Switchboard-Door Mount Kit

### MPA-3-FM96

#### Front Switchboard-Door Mount Kit

- 96x96mm Frame (92x92mm Cut-Out)
- 2-Piece Installation to allow terminal access



Description	Dimensions	Type	Part No.
Front Door Mount Kit to suit MPA-3-669 MID Power Analyzer	96x96mm Frame	MPA-3-FM96	29.01.213

# Data-Logger

## Network Gateway Device

### ProData2

#### Smart, Compact Data-Logger Gateway

- Ethernet TCP/IP
- RS-485 (Modbus RTU) Communication
- Modbus-Ethernet Gateway
- Memory 32 MB
- 15 Digital Inputs (Breaker Status, Pulse Input, Alarms....)
- 3 Digital Outputs (Switchable via Modbus, Weekly Timer, Treshold Value)
- 1 Temperature Measurement Input
- Saving of min-max values (with time stamp)
- 64 Weekly Timers



Aux Voltage	Description	Communication	Type	Part No.
20-250V AC; 20-300V DC	15 x Digital Inputs, 3 x Digital Outputs, 1 x Temperature Input (PT100/1000), Clock, Battery, 32 MB Memory	Ethernet TCP/IP, Master Gateway, RS-485 (Modbus RTU)	ProData2	52.24.011



# GridVis® – Network Visualisation Software



With GridVis®, Janitza offers powerful, user-friendly software to develop energy and power quality monitoring systems. The basic software version GridVis®-Basic, which is supplied together with the measuring devices, is used both to program and configure the Janitza measuring devices, as well as to read out, save, display, process and analyse the measurement data. GridVis® is a comprehensive and scalable software solution for energy suppliers, industrial applications, facility management, the building market and infrastructure projects. GridVis® provides technicians and managers with the required data to identify potential energy savings, reduce energy costs, avoid production shut-downs and optimise utilisation of production resources.

- Intuitive operation
- Configuration of the measurement system and the UMG measurement devices
- Certified ISO 50001 EnMS software
- Automatic or manual readout of measurement data
- Graphical illustration of online and historical measurement data
- Comprehensive alarm management
- User management
- Generic Modbus devices, virtual meters
- Graphic user interface (topological view) for visualising real-time data and messages

- Minimum, average and maximum values can be displayed in a graph
- Statistical evaluation of the measured data
- Comprehensive export functions (e.g. Excel)
- Reports for energy usage and power quality (EN 50160, IEEE 519, EN 61000-2-4) manual or time-controlled with individual schedule
- Saving data in a central database including database management (e.g. MySQL / MS SQL / Derby / Janitza DB)
- Open system architecture and scalability

Various characteristics depend on the version



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Sales partner

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Note: Datasheet is subject to technical alterations without notice