

Features

- Digital input/output, analog output and relay measurement options with modular I/O structure
- 96 x 96 x 45 mm compact design
- 3,5" segment LCD screen
- 16 MB memory
- Current & voltage unbalanced measurement
- Detailed measurement up to 51 harmonics
- 256 event log
- Sag / Swell measurement
- IP54 protection class

RS PRO Network Analyzers

RS Stock No.: 0360702



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

The MPR-4 Series panel type network analyzers are compact solutions, designed for detailed measurement and analysis of electrical parameters, with dimensions of 96 x 96 x 45 mm. Operating within a voltage range of 50-270 VAC/DC, these devices offer up to 16 MB of internal memory and a modular structure for flexible I/O solutions, making them adaptable for various applications.

Real-time monitoring is possible via the large LCD screen, and the communication features of the MPR-4 Series allow for easy monitoring of energy measurements from a centralized location.

These attributes make the MPR-4 Series ideal for efficient energy management.

General Specifications

Protection Class	Terminal: IP20, Front: IP51 (IP54 optional)
Operating Voltage	50-270 VAC/DC
Operating Frequency	50/60 Hz
Power Consumption	< 5 VA (< 10 VA with module)
Internal Memory Size	16 MB
LOG Record	YES
Event Record	YES
Interface / Protocol	RS-485 / MODBUS RTU
Transfer Rate (bps)	2400-115200
Display Type	3,5" LCD
Mounting Type	Flush mount
Connection Terminals	Screw terminal with socket
Operating Temperature (Min to Max)	-10C°...+70C°
Storage Temperature (Min to Max)	-20C°...+80C°
Overvoltage Category	III
Pollution Degree	II
Maximum Ambient Humidity	90%

Measurement Specifications

Voltage	
Measurement Range	5-300 VAC (L-N), 5-480 VAC (L-L)
Measurement Range with Voltage Transformer	5 V - 999,9 kV
Neutral - Ground Voltage (PE-N)	2-300 VAC
Accuracy	2-300 VAC
Input Impedance	0,5% $\pm$ 1 Digit
Burden	> 1 M
Current	
Nominal Current	In: 5A / 1A
Minimum Current	5 mA
Measurement Range	50 mA - 5,5 A
Measurement Range with Current Transformer	50 mA - 10.000 A
Accuracy	0,5% $\pm$ 1 Digit
Burden	0,5 VA
Overload Current	1,2 x In
Short Time Overload (1 sec)	10 x In
Power / Energy	
Active Power	0 - 1 GW ; 1% $\pm$ 1 Digit
Reactive Power	0 - 1 GVar ; 2% $\pm$ 1 Digit
Apparent Power	0 - 1 GVA ; 1% $\pm$ 1 Digit
Power Factor	$\pm$ 1.00 ; Accuracy $\pm$ 0,02
Active Energy	0 - 99 999 999 kWh or MWh; Accuracy 1% (Class 1)
Reactive Energy	0 - 99 999 999 kVarh or MVarh; Accuracy 2% (Class 2)
Apparent Energy	0 - 99 999 999 kVAh or MVAh; Accuracy 1%
Total Harmonic Distortion	L - L Voltage (THD-U%); L - N Voltage (THD-V%); Current (THD-I%)
Individual Harmonics	2-51 Voltage (V) and Current (I)
Voltage and Current Unbalances	YES
Sag & Swell	records as event
Demand Period	1,5,10,15,20,30,60 min
Frequency	45-65 Hz
Sampling Rate per Period	128

Input & Outputs (with module)

Digital Input	
Pulse Width	40 - 500 ms
Digital Output	
Energy Pulse Output	Active energy (1 kWh/pulse - 50 MWh/pulse)
Pulse Width / Duty	0,25A
Switching Current	20 - 1000 ms
Switching Voltage	Max 50 mA
Relay Output	
Relay Output	5 - 24 VDC, max 30 VDC
Analog Output	
Current Output	2 NO, 250 VAC / 5 A
Voltage Output	0 - 20 mA, 4 - 20 mA, 0 - 24 mA
Accuracy	0.5%

Dimensions

Dimensions	96mm x 96mm x 45mm
Width	45mm
Length	96mm
Height	96mm

Standards

EN 61557-12, EN 61326-1, EN 61000-6-2, EN 61000-6-4, EN 62053, EN 60068, EN 61010

I/O Module Selection

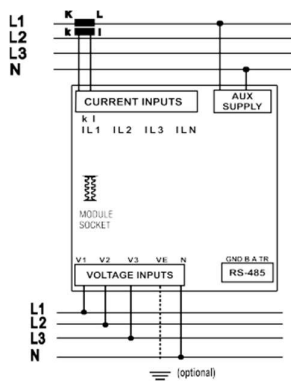
I/O Module Selection Table
MM-102 (2 Digital Output, 5-24 VDC)
MM-120 (2 Digital Input, 5-24 VDC)
MM-122 (2 Digital Inputs + 2 Digital Outputs, 5-24 VDC)

MPR-4 Series Network Analyzers can be customized by installing I/O modules based on project requirements.

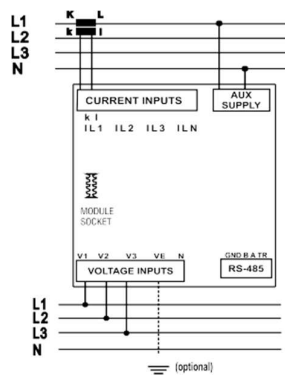


Connection Diagrams

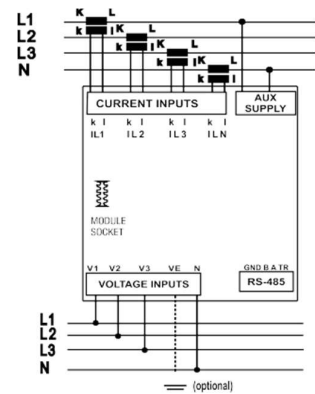
3P4W BALANCED



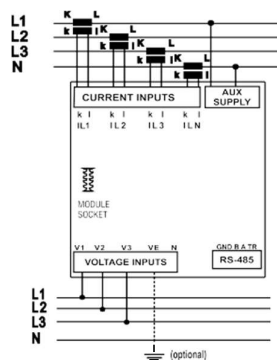
3P3W BALANCED



3P4W



3P3W



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