NETWORK ANALYSER

MPR-50 / MPR-52S / MPR-60S / MPR-63

MPR-63

Modbus / Ethernet Gateway

General

- **MPR-50** : Network Analyser.
- **MPR-52S-10** : Network Analyser with THD measurement, RS-485 (MODBUS) and Alarm Contact.
- **MPR-60S**: Network Analyser with THD measurement, RS-485 (MODBUS), Alarm Contact and 1MB Memory.
- **MPR-63**: Network Analyser with THD, up to 31th Harmonics measurement, RS-485 (MODBUS), Alarm Contact and 1MB Memory.
- IEC 61000-6-2, IEC 61000-6-4, IEC 61010-1

Modbus · Memory · Analogue Output · Max. Demand · Harmonics · Digital Input · Alarm Contact

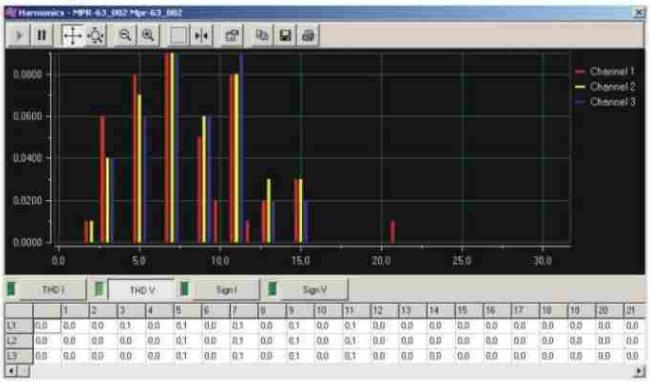
Product Code	% THD I, THD V	2-31th Harmonics	I neutral	Alarm Contact	Digital Input	Energy Pulse Output	RS-485 Comm.	0(2)-10V	0(4)-20mA	Memory	Real Time Clock	LCD Display	Pcs / Carton
MPR-50			●									●	8
MPR-52S-10	●		●	●	●		●					●	8
MPR-60S	●		●	●		●	●			●	●	●	8
MPR-60S-10	●		●	●	●		●			●	●	●	8
MPR-60S-20	●		●	●	●		●	●		●	●	●	8
MPR-60S-21	●		●	●		●	●	●		●	●	●	8
MPR-60S-40	●		●	●	●		●		●	●	●	●	8
MPR-60S-41	●		●	●		●	●		●	●	●	●	8
MPR-63	●	●	●	●		●	●			●	●	●	8
MPR-63-10	●	●	●	●	●		●			●	●	●	8
MPR-63-20	●	●	●	●	●		●	●		●	●	●	8
MPR-63-21	●	●	●	●		●	●	●		●	●	●	8
MPR-63-40	●	●	●	●	●		●		●	●	●	●	8
MPR-63-41	●	●	●	●		●	●		●	●	●	●	8

PC Interface Software (MPR-SW) :
MPR-SW is a graphic based software, which enables remote monitoring via internet or intranet.

Please refer to page 20 for MPR-SW Software.

Front Panel View

Table View



Harmonics View (for MPR-63)

Phase - Neutral Voltages (V_{LN})	Neutral Current	Active Power (P)	Active Energy - Import (kWh)
Phase - Phase Voltages (V_{LL})	Total Current (ΣI)	Reactive Power (Q)	Active Energy - Export (kWh)
Average Phase - Neutral Voltage	Power Factor (P.F)	Apparent Power (S)	Reactive Energy - Capacitive (kVArh)
Average Phase - Phase Voltage	Cosφ	Total Active Power (ΣP)	Reactive Energy - Inductive (kVArh)
Max. Demand	Frequency (Hz)	Total Reactive Power (ΣQ)	
Phase Currents (I)	Max / Min. Values	Total Apparent Power (ΣS)	

Measured Parameters (MPR-50)

+

Total Harmonic Distortion for Voltage (THD V %)	Total Harmonic Distortion for Current (THD I %)

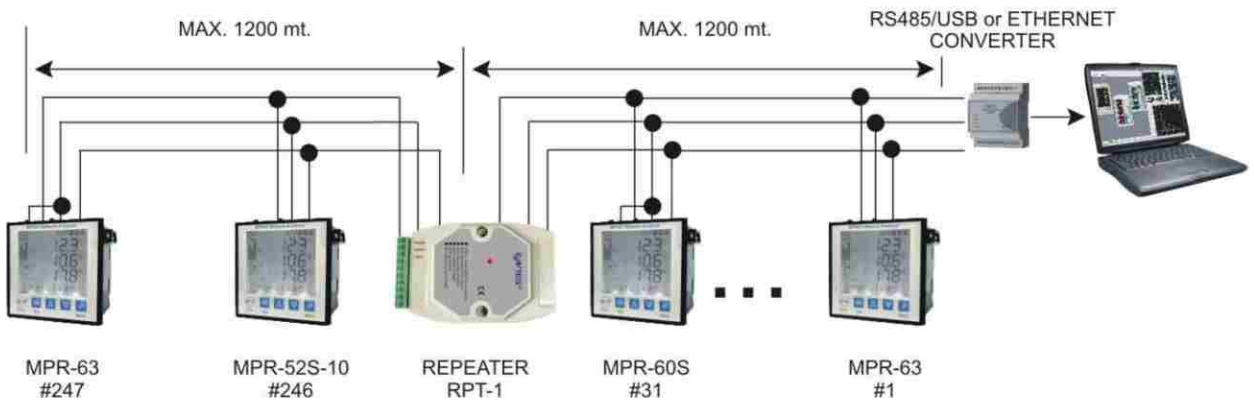
Measured Parameters (MPR-52S-10 / MPR-60S)

+

Individual Harmonics for Voltage - up to 31th	Individual Harmonics for Current - up to 31th

Measured Parameters (MPR-63)

247 DEVICES CAN BE CONNECTED SERIALLY BY USING REPEATERS.



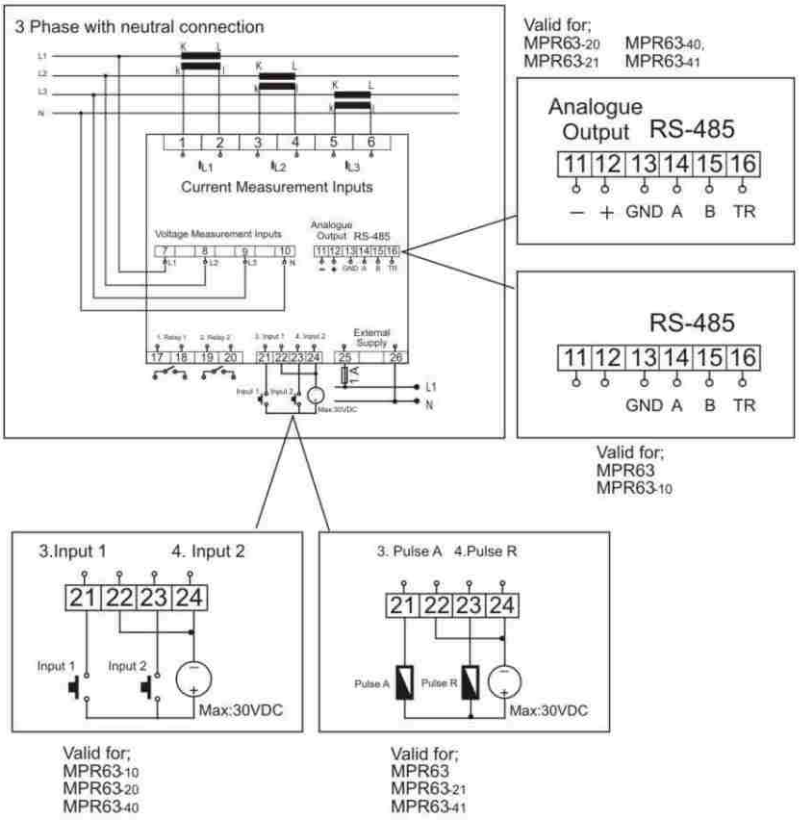
NETWORK ANALYSER

MPR-50 / MPR-52S / MPR-60S / MPR-63

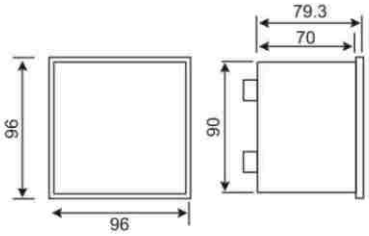
MODEL	MPR50	MPR52S-10	MPR60S	MPR-63
SPECIFICATIONS				
Electrical Parameters				
Harmonic Measurement	-	THD V%, THD I%		2 - 31th separately voltage & current THD V%, THD I%
Operating Voltage	85-265V AC / DC ; 50/60 Hz			
Network Type	3-phase / 4-wire (Star) ; 3-phase / 3-wire (Delta) ; 3-phase / 3-wire (Aron)			
Accuracy				
Voltage	0,5 % ± 2 digit			
Current	0,5 % ± 2 digit			
Frequency	0,1 % ± 2 digit			
Active Power	1 % ± 2 digit			
Reactive Power	2 % ± 2 digit			
Current Transformer Ratio	1...2 000 (programmable)			
Voltage Transformer Ratio	1,0...4 000 (programmable)			
Measurement input				
Voltage	1,0 - 300,0 V AC (P-N), 2,0 - 500,0 V AC (P-P)			
Current	5 mA - 5,5 A			
Measurement Ranges				
Voltage	1,0 - 400,0 kV			
Current	5 mA - 10 000 A			
Frequency	45,0 - 65,0 Hz			
Power	0 - 4 000 M (W, VAr, VA)			
Energy	0 - 99 999 999 kWh, kVArh			
Power Consumption	< 6 VA			
Burden	< 1 VA (Current burden), < 0,5 VA (Voltage burden)			
Demand Time	1-60 min. (Programmable via MPR-SW)			
Communication Interface	-	MODBUS RTU (RS-485)		
Baud Rate / Adress / Parity	-	1 200 - 38 400 bps / 1 - 247 / None, Odd, Even		
Alarm Contact Output	-	**Output 1 / Output 2 :** 2 NO relays , 5A, 1250 VA (resistive)		
Digital Input	-	for MPR-52S-10, MPR6x-10, MPR6x-20	**Output 3 / Output 4 :** 2 Digital Inputs	
Functions	-		Real Time / Latch	
Input Pulse Width	-		50 msec. (Min.)	
Operation Voltage	-		5...24VDC, 30VDC (Max.)	
Energy Pulse Output	-	MPR63, MPR-60S, MPR63-21 / 41, MPR-60S-21 / 41	**Output 3 :** Active Energy Pulse Output (1 kWh...50 MWh / pulse) **Output 4 :** Reactive Energy Pulse Output (1 kVArh...50 MVArh / pulse)	
Switch Period	-		Min. 1 sec. (100...2500 msec. pulse width)	
Operation Current	-		Max. 50 mA	
Operation Voltage	-		5...24V DC, max. 30V DC	
Analogue Output (optional)	(0)4-20mA (MPR6x-40, MPR6x-41) / (0)2-10V (MPR6x-20, MPR6x-21)			
Display		3,6" LCD with Backlight, 12 mm Height		
Data Logging	-	Selectable 28 parameters with Time Stamp (15 000 records)		
Memory	-	1 MB Internal Memory		
Mechanical Parameters				
Equipment Protection	Double Insulation (⧈) Measurement Category III			
Degree of Protection	IP40 (front panel), IP54 (Optional)			
Ambient Operating Temperature	-5°C, +55°C			
Connection / Installation	Terminal / Flush-mounting with rear terminals			
Dimensions	96x96 mm (PR19)			
Weight / each	0,9 kg			
Quantity in 1 package	8 pcs			

Connection Diagram

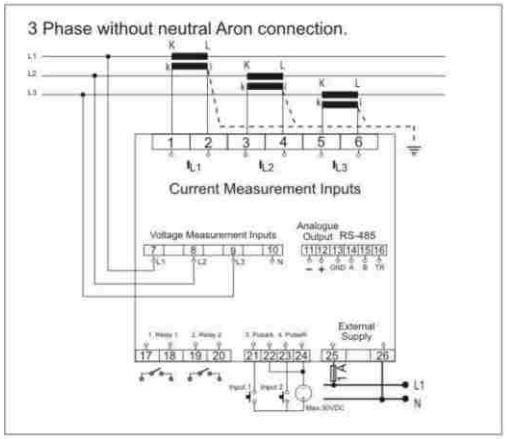
(PR19- 96x96mm)

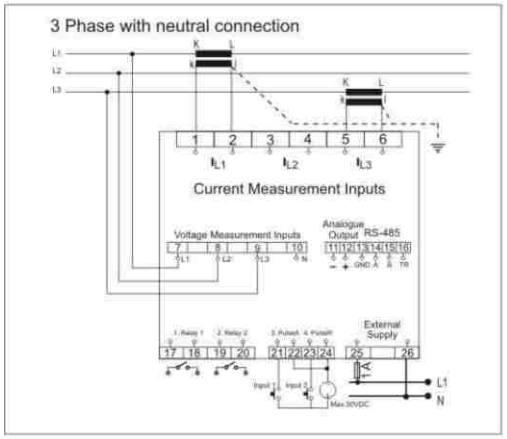


Dimensions



TYPE PR 19





Connection diagrams are given for reference. Please always check the latest user manual given with product or download from www.entes.com.tr.