



Network Analyzers

MPR-53 / EPM-07



General

Power and Energy Measuring for all Series

MPR-53 / EPM-07 series measure many parameters of an electric network.

More than 50 parameters are displayed.

EPM-07 : Network Analyzer

EPM-07S : Network Analyzer with RS-485 (MODBUS)

MPR-53 : Network Analyzer with THD measurement

MPR-53S : Network Analyzer with THD measurement and RS-485 (MODBUS)

MPR-53CS : Network Analyzer with THD measurement, RS-485, Pulse Counter, Digital Hour Counter, Alarm Contact

IEC 61000-6-2, IEC 61000-6-4, IEC 61010-1

PRODUCT SELECTION TABLE

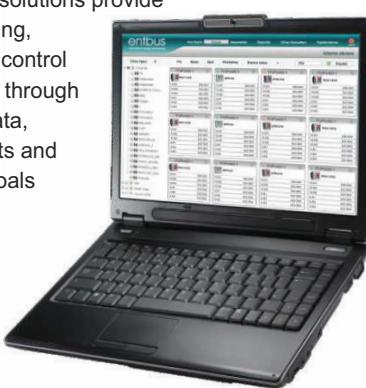
Product Code	% THDI	% THDV	Neutral Current	Digital Input	Energy Pulse Output	Dual Energy Meter	6 Different Energy Calculation Methods	/5A	CT-25 (120A)	Alarm Contact	Digital Hour Counter	Pulse Counter	RS-485 Comm.	Pcs/Caron
EPM-07-96			●	●	●	●	●	●						12
EPM-07-DIN			●	●	●	●	●	●						12
EPM-07S-96			●	●	●	●	●	●					●	12
EPM-07S-DIN			●	●	●	●	●	●				●		12
MPR-53-96	●	●	●	●	●	●	●	●						12
MPR-53-DIN	●	●	●	●	●	●	●	●						12
MPR-53S-DIN	●	●	●	●	●	●	●	●				●		12
MPR-53CS-DIN	●	●	●	●	●	●	●	●		●	●	●	●	12
MPR-53S-96	●	●	●	●	●	●	●	●				●		12
MPR-53CS-96	●	●	●	●	●	●	●	●		●	●	●	●	12
MPR-53S-DIN-CT25	●	●	●	●	●	●	●	●	○			●		12
EPM-07S-DIN-CT25	●	●	●	●	●	●	●	●	○			●		12

○ Min. Order Quantity is 200 devices.

Remote Monitoring Software:

Remote monitoring software solutions developed by ENTES enable the user to monitor energy usage and quality in real-time by reading values that are measured by devices via Modbus.

Thereby; this software solutions provide extensive energy tracking, data storage, optimum control of energy consumption through analysing the stored data, decreasing energy costs and attaining sustainable goals for energy systems.



MPR-53S-DIN-CT25

CT-25

CT-25 is a Current Transformer, which is used together with MPR-53S-DIN-CT25 model. It is a unique solution, which replaces conventional type CTs up to 120A. For CT-25, please refer to page 60.

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MEASURED PARAMETERS

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

EPM-07 / 07S



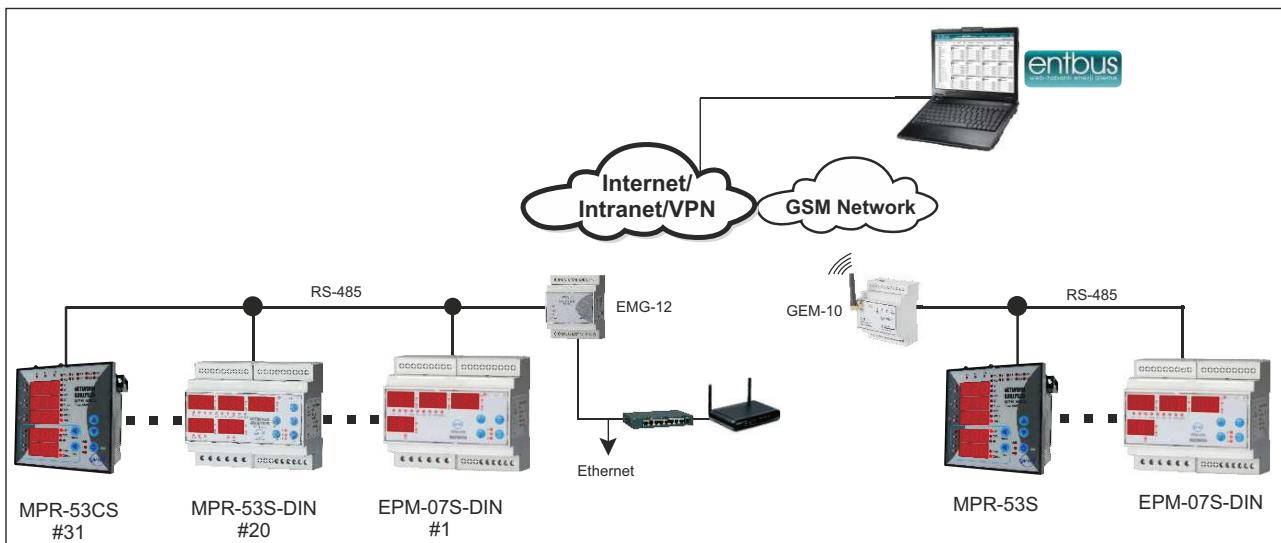
Total Harmonic Distortion for Voltage (%THD V)	Total Harmonic Distortion for Current (%THD I)
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MPR-53 / MPR-53S



Digital Hourmeters	Digital Pulse (Counter)
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MPR-53CS



Network Analyzers

MPR-53 / EPM-07

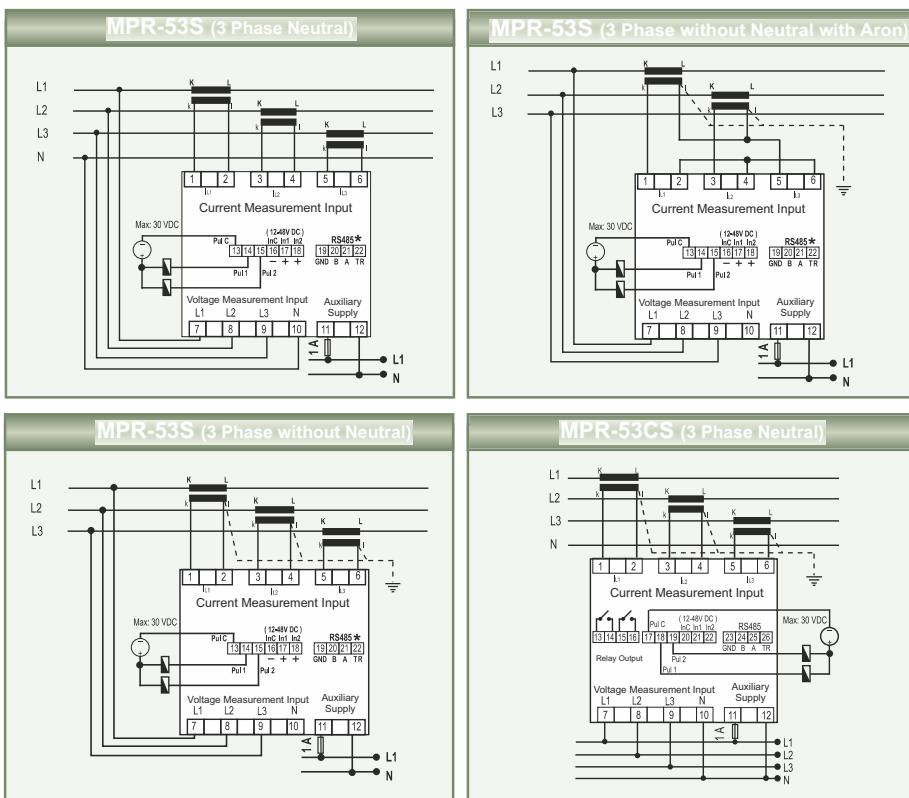
SPECIFICATIONS

	EPM-07	EPM-07S	MPR-53S	MPR-53CS	MPR-53
ENCLOSURE					
Dimensions		96x96mm	PR19, DIN6	PK26	
Degree of Protection		IP40 Front Panel, IP54 Optional			
Weight		0,6kg/pcs; carton: 12 pcs			
Display		Red LED; height 10mm			
MEASUREMENTS					
Voltage					
Measurement Range	10-300V AC (L-N), 10-500VAC (L-L)				
Measurement Range VT	10-300V(L-N) direct, 10-200kV, Voltage transformer ratio: 0.1-4000.0 programmable				
Accuracy	1%±1 digit [(10%-110%)xFull scale]				
Input Impedance	1.8 MΩ				
Burden (Input Load)	<0.5 VA				
Current					
Nominal Current	In: 5,5A				
Minimum Current	50mA				
Measurement Range	50mA-5,5A Accuracy: 1%±1 digit [(10%-110%)xFull scale]				
Measurement Range VT	50mA-10.000A Transformer ratio: 1-2000 programmable				
Burden	<1 VA				
Over Load Current	1,2 In				
Power/Energy					
Active Power	0-215 MW Accuracy: 1%±1 digit [(10%-110%)xFull scale]				
Reactive Power	0-215 MVar Accuracy: 1%±1 digit [(10%-110%)xFull scale]				
Apparent Power	0-215 MVA Accuracy: 1%±1 digit [(10%-110%)xFull scale]				
Power Factor	4 quadrant				
Active Energy	0-99 999 999 999,9 kWh				
Reactive Energy	0-99 999 999 999,9 kVArh				
Demand/Demand Time	1-60 minute				
Frequency	45-65 Hz				
SUPPLY					
Operating Voltage	110VAC/230VAC	±% 10 or 45-265V AC/DC			
Operating Frequency		45-65 Hz			
Power Consumption		<4VA			
INPUT/OUTPUT/SETTINGS					
Digital Input		2 pcs			
Digital Input Pulse Width		20msec.			
Digital Input Operating Voltage		12...48VAC/DC			
Digital Timer	3 hourmeters HH HH HH HH.HH, total hours (non-resettable), run hours (resettable), setpoint hours (resettable). (for MPR-53CS)				
Delay Time	Delay on and delay off 0-999,9 sec (for MPR-53CS)				
Contact Output	2NO contact 5A; 1250VA (for MPR 53 CS)				
Energy Pulse Output	NPN transistor				
Switching Current	Max. 50 mA				
Switching Voltage	5..24VDC Max. 30V DC				
Pulse Duration	100msec pulse period, 80msec pulse width				
COMMUNICATION					
Communication Interface/Protocol	-	MODBUS RTU(RS-485)			-
Parity	-	no, odd, even			-
Address	-	1_247			-
Transfer Speed	-	2400-38400 bps			-
AMBIENT CONDITIONS					
Ambient Temperature		-5 / +55°C			
Over Voltage Category		III			
Pollution Degree		II			
STANDARDS					
Security Standards		EN 61010-1			
EMC Standards		EN 61000-6-2, EN 61000-6-4			
Mechanical Endurance		EN 60529			
CONNECTIONS					
Mounting	Flush mounting with rear terminal (PR 19) / Rail mounting (PK 26)				
Connection Terminals	screwed terminal with socket				
Connection Types	3 phase neutral, 3 phase, 3 phase (Aron)				

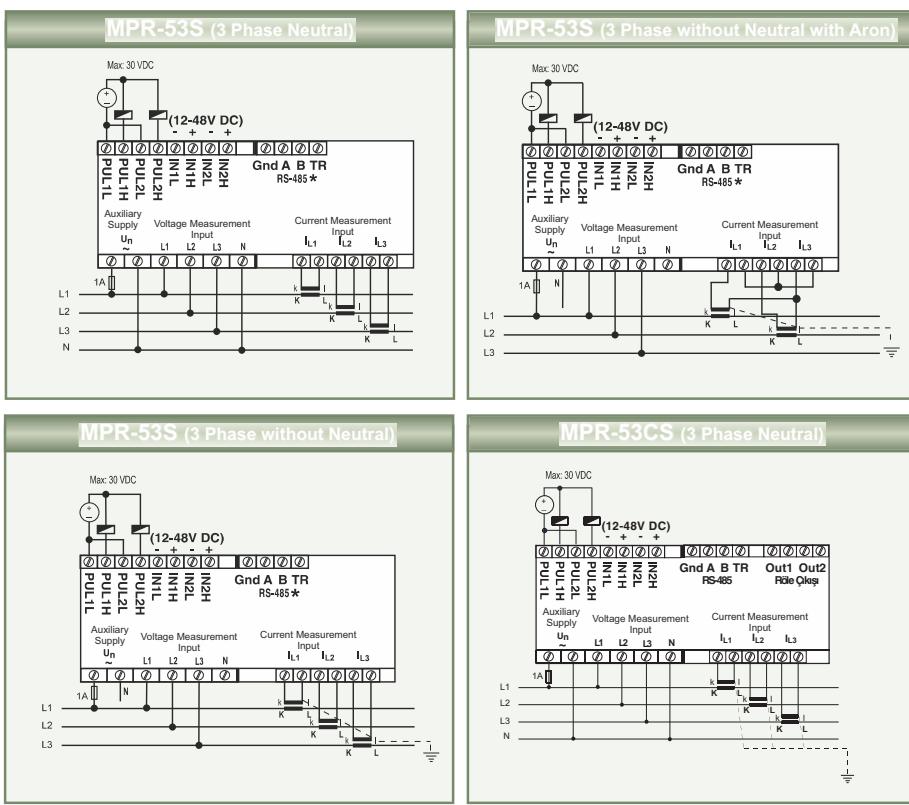
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MPR-53 / EPM-07S

Connection Diagram (PR19- 96x96mm)



(PK 26 - DIN6)

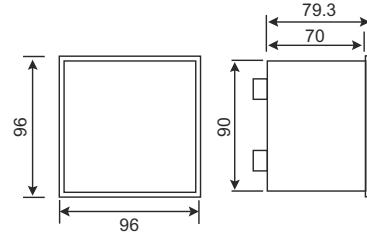


* RS-485 terminals are standard for EPM-07S and MPR-53S

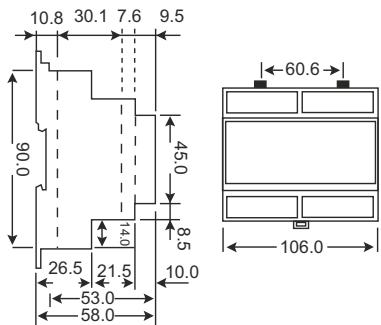
Connection diagrams are given for reference. Please always check the latest user manual given with product or download from www.entes.com.tr.



Dimensions



TYPE PR 19



TYPE DIN / PK 26