Network Analysers

MPR-53 / EPM-07

General

Power and Energy Measuring for all Series

MPR-53 / EPM-07 series measures many parameters of an electric network. More than 50 parameters are displayed.

EPM-07 : Network Analyser.
EPM-07S : Network Analyser with RS-485 (MODBUS).
MPR-53 : Network Analyser with THD measurement.
MPR-53S : Network Analyser with THD measurement and RS-485 (MODBUS).
MPR-53CS : Network Analyser 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

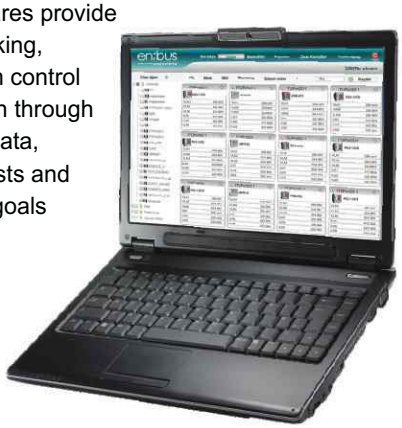
Product Code	% THD I	% THD V	Neutral Current	Digital Input	Energy Pulse Output	Dual Energy Meter	6 Different Energy Calculation Methods	.../5A	CT-25 (120A)	Alarm Contact	Digital Hour Counter	Pulse Counter	RS-485 Comm.	Pcs/Carton
EPM-07-96			●	●	●	●	●	●						12
EPM-07-DIN			●	●	●	●	●	●						12
EPM-07S-96			●	●	●	●	●	●					●	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 200pcs/device.

Remote Monitoring Softwares:

Remote monitoring softwares 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; these softwares 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.

Network Analysers

MPR-53 / EPM-07

MEASURED PARAMETERS

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

EPM-07 / 07S

+

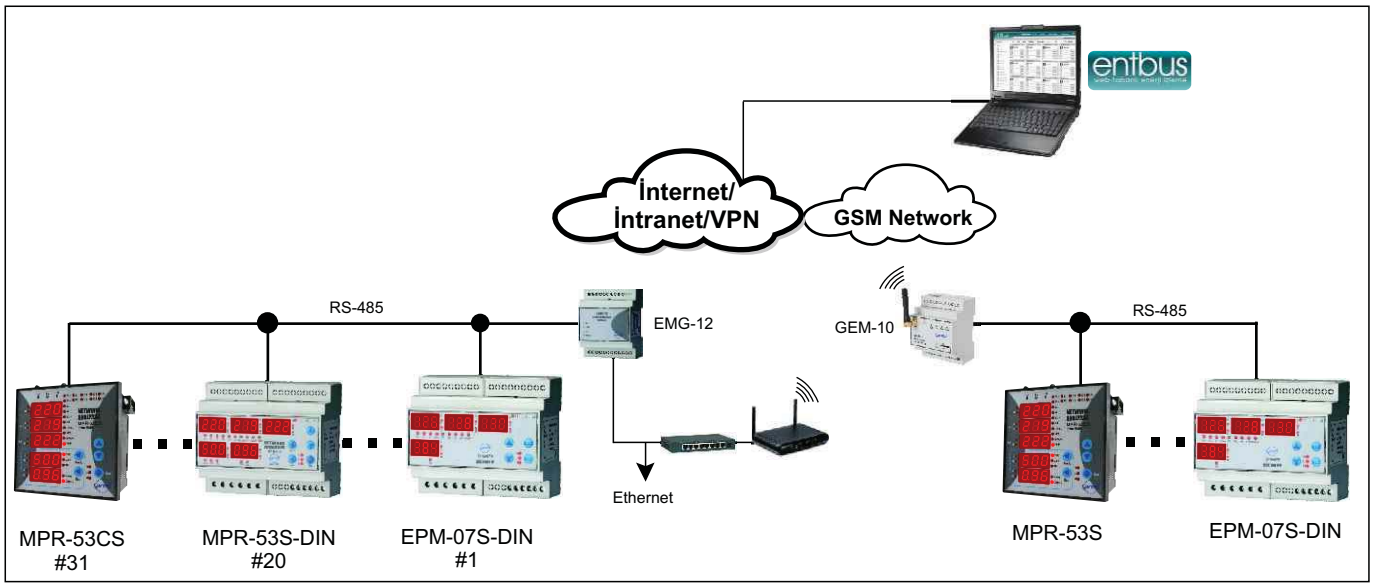
Total Harmonic Distortion for Voltage (%THD V)	Total Harmonic Distortion for Current (%THD I)

MPR-53 / MPR-53S

+

Digital Hourmeters	Digital Pulse (Count)

MPR-53CS



Network Analysers

MPR-53 / EPM-07

SPECIFICATIONS

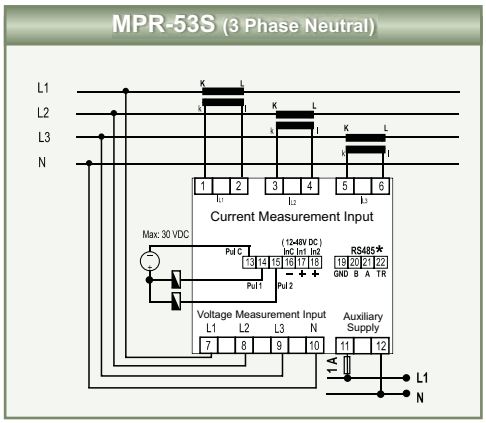
	EPM-07	EPM-07S	MPR-53S	MPR-53CS	MPR-53
ENCLOSURE					
Dimensions	96x96mm PR19, DIN6 PK26				
Degree of Protection	IP40 Front Panel,IP54 Optional				
Weight	0,6kg/pcs; carton:12 pcs				
Display	Red LED; height 10mm				
MEASUREMENTS					
Voltage					
Measurement Range	10-300V AC (L-N),10-500VAC (L-L)				
Measurement Range with Transformer	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 with Transformer	50mA-10.000A Tranformer 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 kontak 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 period, 80msec width				
COMMUNICATION					
Communication Interface/Protocol	-	MODBUS RTU(RS-485)			-
Parity	-	no, odd, even			-
Adress	-	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)				

Network Analysers

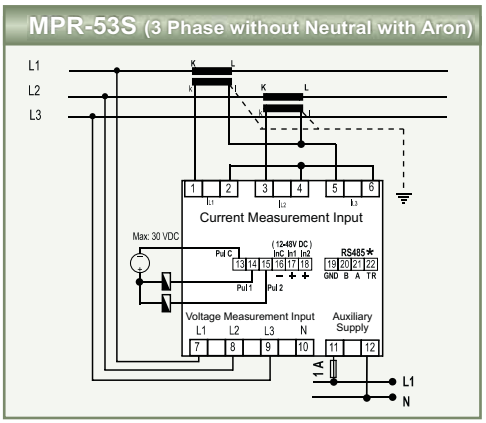
MPR-53 / EPM-07S

Connection Diagram (PR19- 96x96mm)

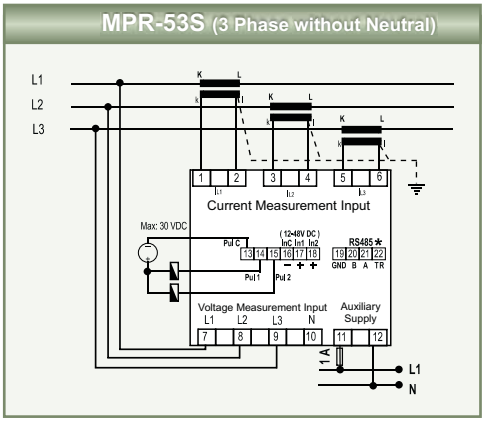
MPR-53S (3 Phase Neutral)



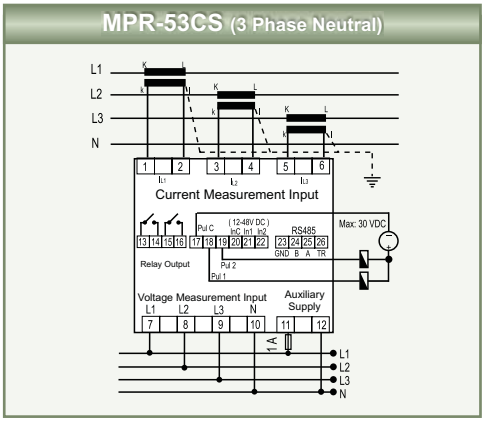
MPR-53S (3 Phase without Neutral with Aron)



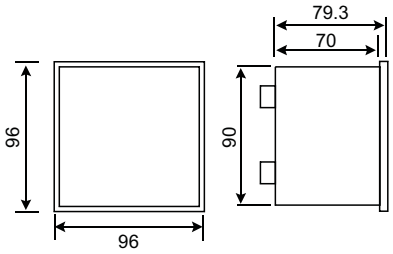
MPR-53S (3 Phase without Neutral)



MPR-53CS (3 Phase Neutral)



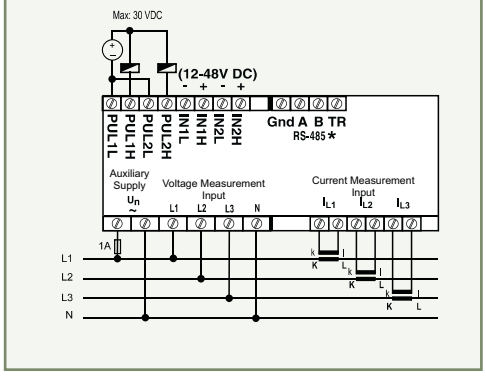
Dimensions



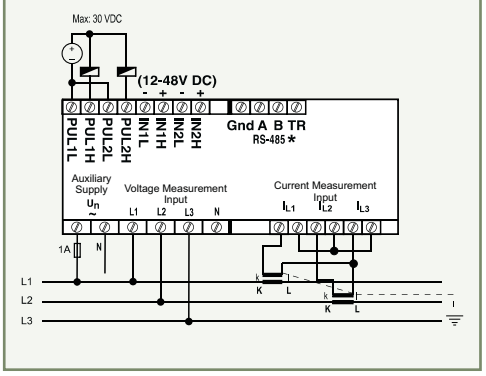
TYPE PR 19

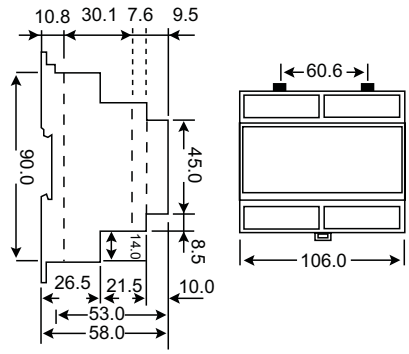
(PK 26 - DIN6)

MPR-53S (3 Phase Neutral)



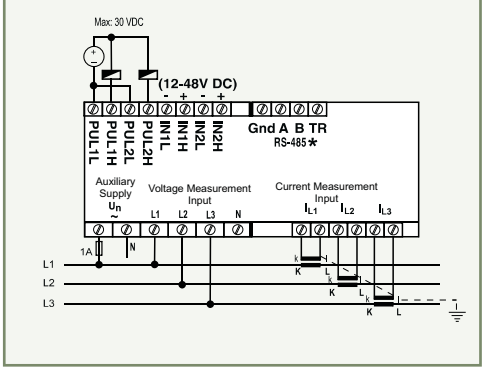
MPR-53S (3 Phase without Neutral with Aron)



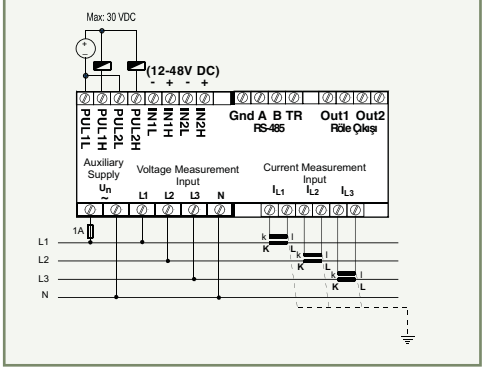


TYPE DIN / PK 26

MPR-53S (3 Phase iwthout Neutral)



MPR-53CS (3 Phase Neutral)



* 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.