

Power analyzer products

6M
SERIES



Panels for
electrical
distribution



Control panels



Electrical
energy
control



Industrial
robots



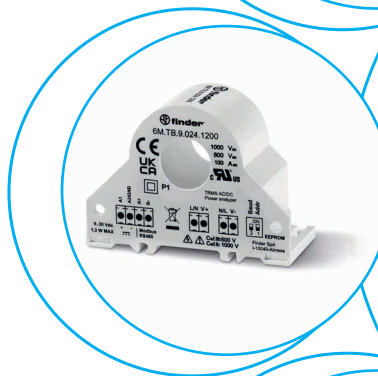
Inverters



Charging
Stations



PV applications



Single phase power monitor with TRMS AC and DC measurement capability

Type 6M.TA.9.024.1200

- 50A - 800 V AC / 1000 V DC

Type 6M.TB.9.024.1200

- 100A - 800 V AC / 1000 V DC

Type 6M.TF.9.024.1200

- 300A - 800 V AC / 400A - 1000 V DC

- Modbus RS485 communication port
- Instantaneous values measured:
V (RMS), A (RMS), PF, kW, kVA, kvar, Hz, THD (I),
Vpk, Ipk, Cosφ
- Bi-directional energy measurement: kWh
- Accuracy Class: 0.5% F.S.
- Available measure register: MSW first, LSW first
or hundredths
- Fully configurable by Modbus RS485 interface
- Conform to EN 61010-1/2010
- 35 mm Rail mounting (rail adaptor included)

For outline drawing see page 6

Specification

		TRMS (AC)/DC	TRMS (AC)/DC	TRMS (AC)/DC
Measurement method				
Nominal current AC/DC	A	50/50	100/100	300/400
Minimum measured current I _{min} AC/DC	A	0.5	0.5	0.5
Maximum measured current I _{pk} AC/DC	A	90	180	450
Current Accuracy class		0.5% F.S.	0.5% F.S.	0.5% F.S.
Voltage Accuracy class		0.5% F.S.	0.5% F.S.	0.5% F.S.
Voltage measurement range for AC system V AC		90...800	90...800	90...800
Voltage measurement range for DC system V DC		90...1000	90...1000	90...1000
Working frequency	Hz	DC or 1...400	DC or 1...400	DC or 1...400
Sampling rate	Hz	11 000	11 000	11 000
Nominal supply voltage	V DC	24	24	24
Operating range	V DC	9...30	9...30	9...30
Max power consumption	W	<1.3	<1.3	<1.3

Technical data Modbus protocol

Bus System		Modbus RS485 RTU	Modbus RS485 RTU	Modbus RS485 RTU
Frame		8, N, 1	8, N, 1	8, N, 1
Max bus length	m	1000	1000	1000
Baud rate	Baud	1200...115 200	1200...115 200	1200...115 200

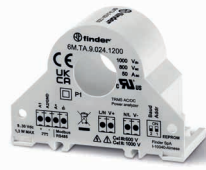
Technical data

Accuracy Class for V, I, W	%	0.5	0.5	0.5
Accuracy Class for kWh	%	1	1	1
Ambient temperature range	°C	-15...+65	-15...+65	-15...+65
Overvoltage category up to 600 V		III	III	III
Overvoltage category up to 1000 V DC		II	II	II
Protection category		IP 20	IP 20	IP 20
Dimensions with mounted connectors (LxHxD)		63 x 46.2 x 41.94		99.25 x 89.1 x 43-41

Approvals (according to type)



NEW 6M.TA.9.024.1200



- 50A - 800 V AC / 1000 V DC
- Modbus RS485 interface

NEW 6M.TB.9.024.1200



- 100A - 800 V AC / 1000 V DC
- Modbus RS485 interface

NEW 6M.TF.9.024.1200



- 300A - 800 V AC /
400A - 1000 V DC
- Modbus RS485 interface

**Modbus TCP/IP to Modbus RS485 gateway
with on board web server interface,
up to 10 clients**

- Ethernet com port: 10/100 Mb/s
- Modbus RTU com port:
RS485 up to 115 200 bit/s
- Insulation between power supply, RS485,
Ethernet: 1500 V
- User interface: 6 LED status indication
- Up to 10 Ethernet clients
- Conform to: EN 61000-6-4/2006 + A1 2011;
EN 64000-6-2/2005; EN 61010-1/2010

NEW 6M.BU.0.024.2200

- Modbus TCP/IP to Modbus
RS485 gateway
- Up to 200 modbus devices
- Up to 10 clients

For outline drawing see page 6

Protocol type

Modbus TCP/IP to Modbus RS485 gateway

Nominal supply voltage	V AC/DC	24/24
Operating range	V AC/DC	19...28/10...40
Max power consumption	W	<1.5

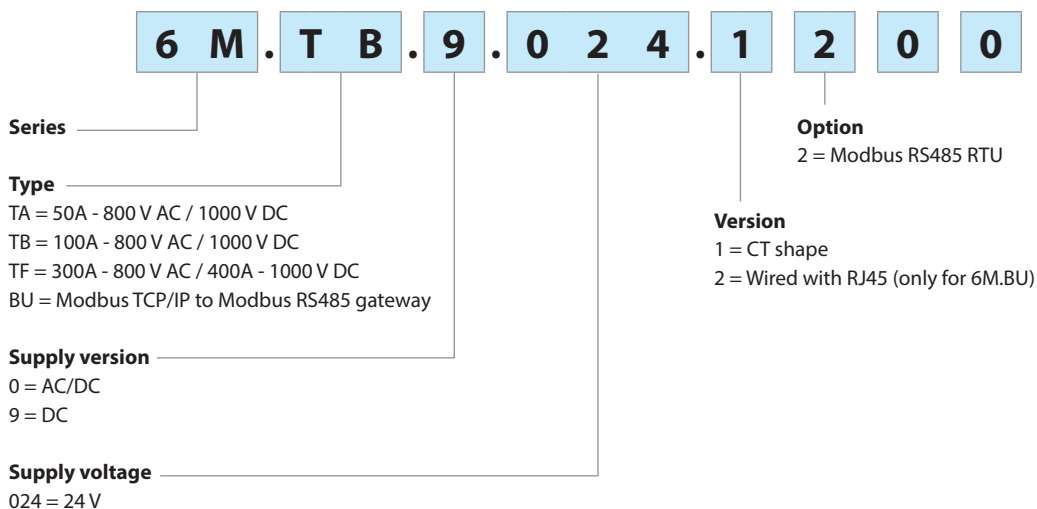
Communication port specification

Ethernet com port	Mb/s	10-100 Mb/s (Max 10 Client)
RS485 RTU com port	Baud	1200 - 115 200 (Max 200 slave)
Ambient temperature range	°C	-20...+60

Approvals (according to type)

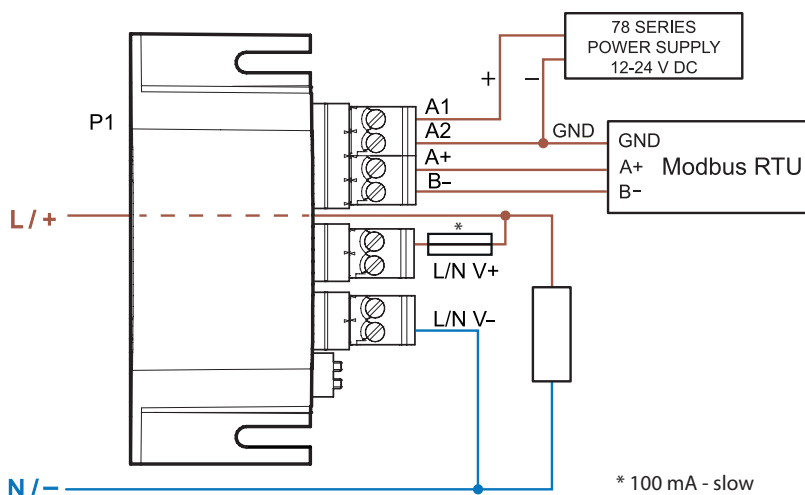
Ordering information

Example: 6M series, 1ph power monitor up to 100 A, ModbusRS485 com port, 0.5% accuracy with 35 mm rail adaptor for mounting.

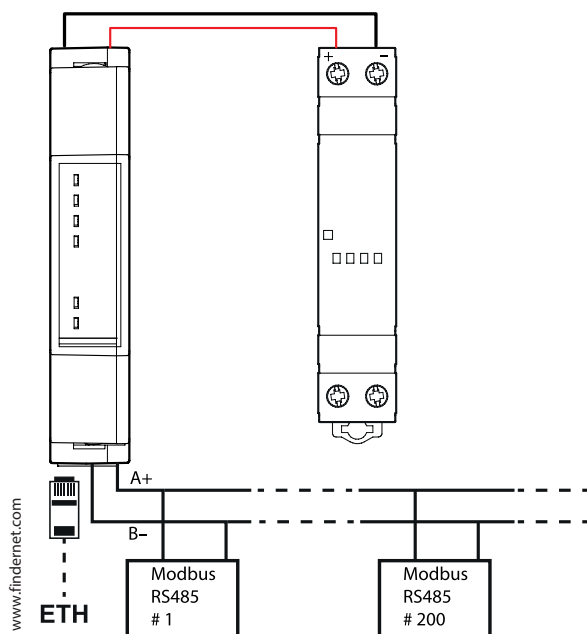


Wiring diagrams

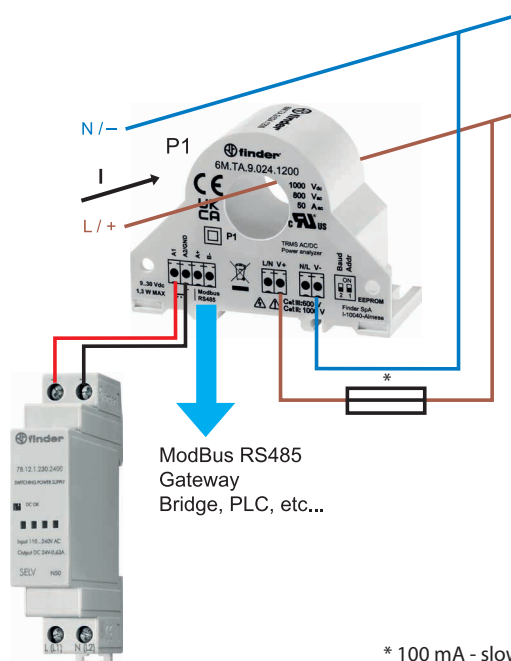
Type 6M.TA, 6M.TB and 6M.TF



Type 6M.BU with 78.12

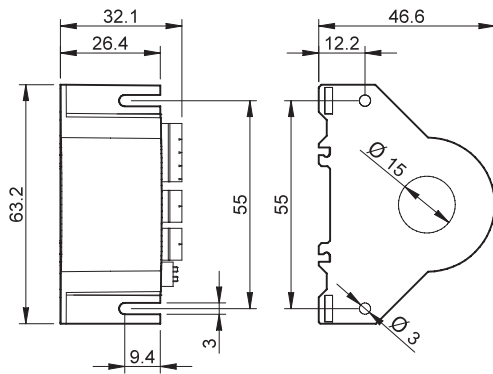


Type 6M.TX with 78.12

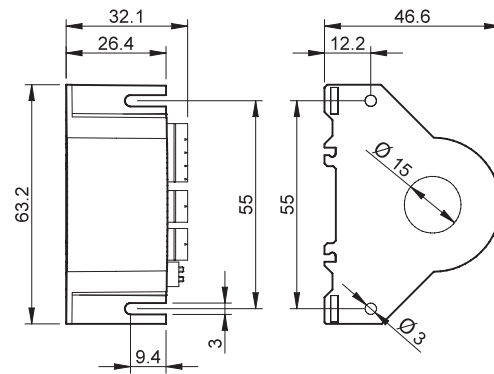


Outline drawings

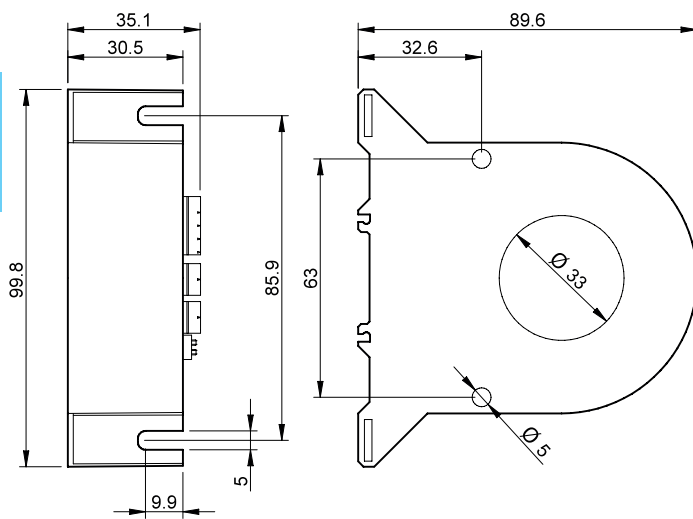
Type 6M.TA



Type 6M.TB



Type 6M.TF



Type 6M.BU

