

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

- 50 A - 800 V AC / 1000 V DC

Type 6M.TB.9.024.1200

- 100 A - 800 V AC / 1000 V DC

Type 6M.TF.9.024.1200

- 300 A - 800 V AC / 400 A - 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)

6M.Tx
Box clamp



For outline drawing see page 6

6M.TA.9.024.1200



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

6M.TB.9.024.1200



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

6M.TF.9.024.1200



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

Specification				
Measurement method		TRMS (AC)/DC	TRMS (AC)/DC	TRMS (AC)/DC
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)		  		

Bridge Modbus TCP/IP (Server Ethernet 10/100) to Modbus RS485 RTU 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

6M.BU.0.024.2200
Box clamp


6M.BU.0.024.2200

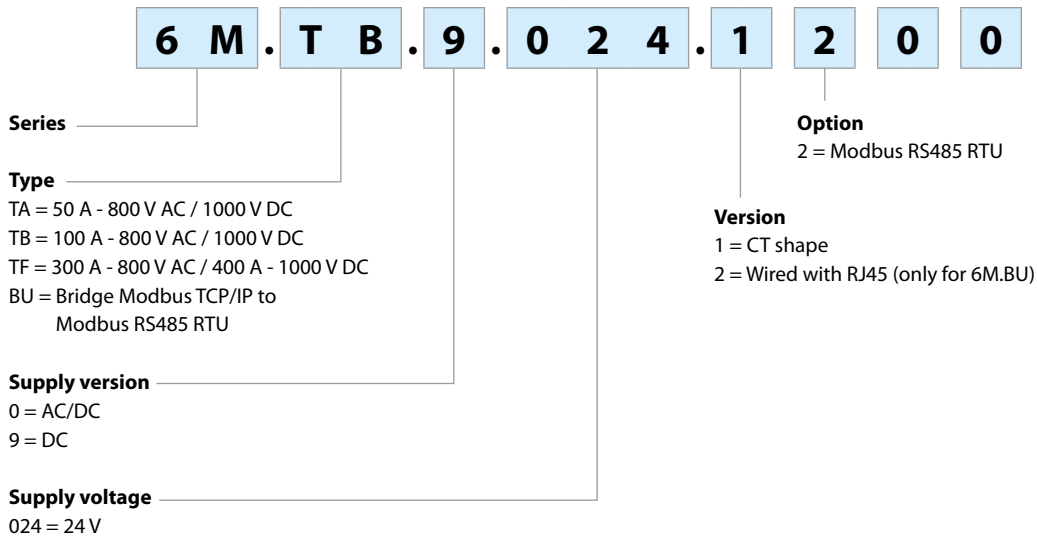

- Bridge Modbus TCP/IP to Modbus RS485 RTU
- Up to 200 modbus devices
- Up to 10 clients

For outline drawing see page 6

Protocol type		
Bridge Modbus TCP/IP to Modbus RS485 RTU		—
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)		 

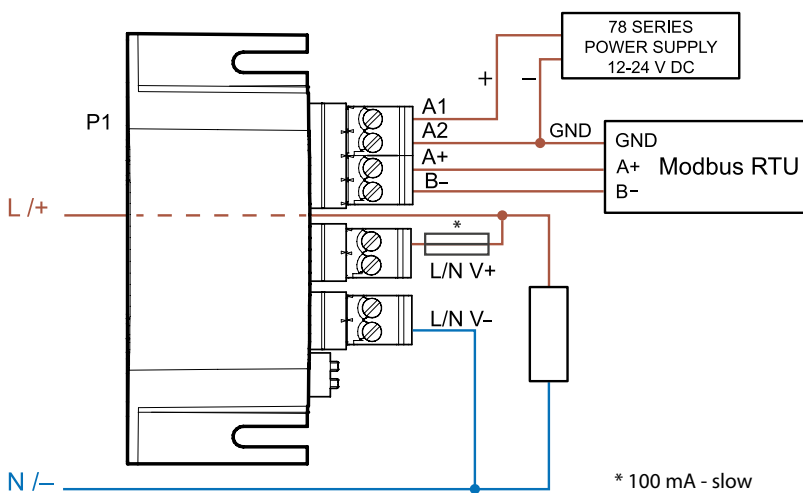
Ordering information

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

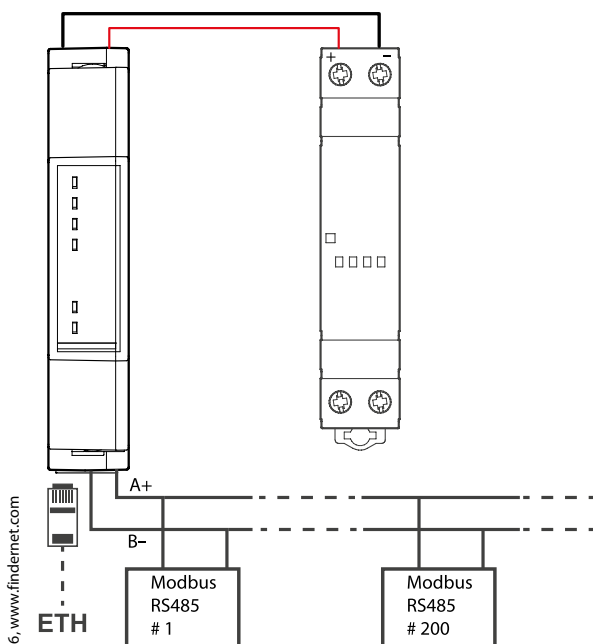


Wiring diagrams

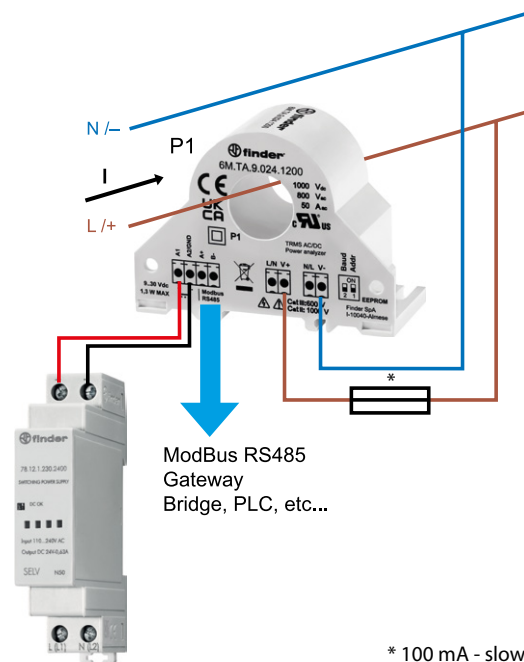
Type 6M.TA, 6M.TB and 6M.TF



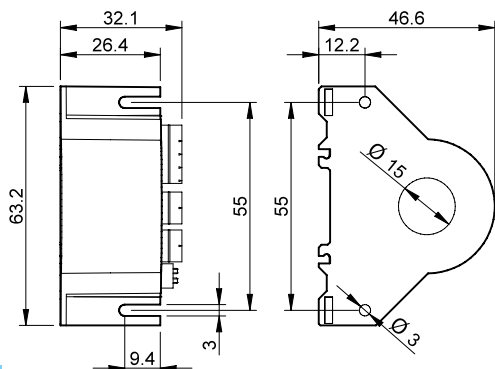
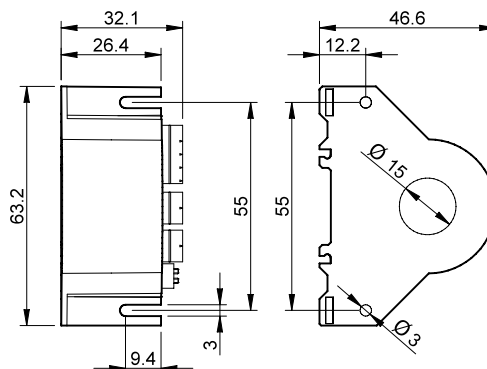
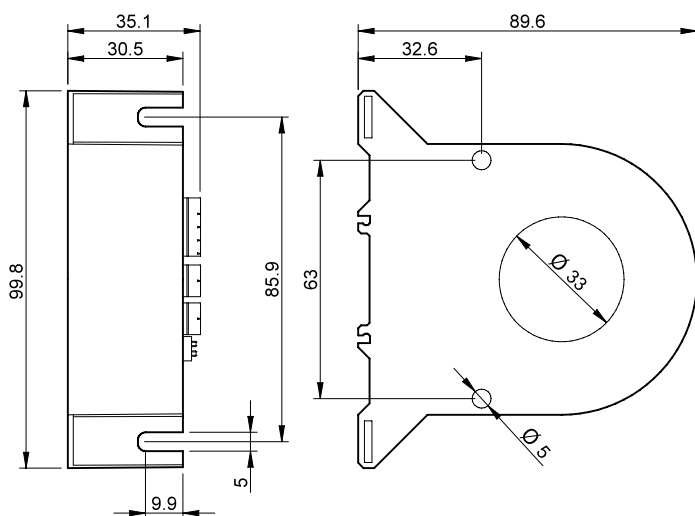
Type 6M.BU with 78.12



Type 6M.TX with 78.12



Outline drawings

Type 6M.TA
Box clampType 6M.TB
Box clampType 6M.TF
Box clampType 6M.BU
Box clamp