WACHENDORFF
Prozesstechnik GmbH & Co. KG

Multifunction measuring device TNM300

- Energy meter
- 12 channels / 36 conductors
- Graphical display
- WebServer
- Top hat rail mounting
- Sampling rate 1600 /s
- Supported current ranges 0.1 A, 1 A, 5 A, 0.333 V
- Determination of harmonics

https://www.wachendorff-prozesstechnik.de/en/TNM300

Description

The TNM300 is a universal multifunctional meter with 12 channels, each with three phases. By using one TNM300 energy and power meter, the use of 11 additional energy meters or multifunctional meters can be saved, making the working environment clearer and space-saving, as the TNM300 energy and power meter covers the capacity of 12 energy meters or multifunctional meters. It has an RS485 and TCP/IP interface with the BACnet and Modbus protocols. The meter can be operated and configured via the TCP/IP interface using a web browser. An indispensable aid for any energy management system for displaying the minimum and maximum values, as well as the active and reactive power and all important measured variables.

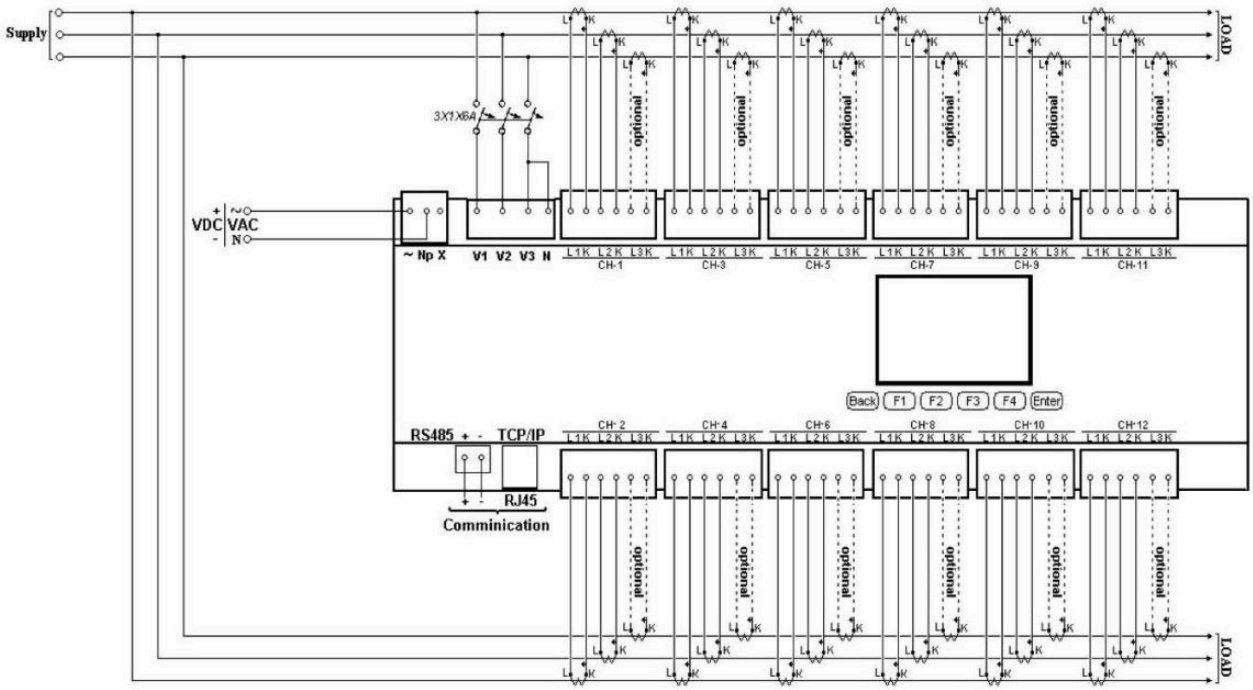
Product details

Protocols / Interfaces	BACnet MS/TP and TCP/IP, Modbus RS485 and TCP/IP
Supply voltage	90 to 250 VAC, 50 / 60 Hz, 110 to 280 VDC
Dimensions (W x H x D)	300 mm x 110 mm x 65 mm
Weight	1250 g
Power consumption	11 VA
Accuracy	Active power 0.2 %, reactive power 0.2 %
IP protection class	IP20
Operating temperature range	-20 °C to 70 °C
Storage temperature range	-20 °C to 70 °C
Application range relative humidity	0 % to 95 % RH
Sampling rate	1600
Number of channels / conductors	12 / 36, 12 / 48
Harmonics	32
Measurement type	Transducer measurement
Supported converters	0.333 V, 1 A, 5 A
Current measurement	0.1 A to 6 A
Measurement current - overload (RMS constant)	50 A
Current measurement - short-term (for 1 minute)	100 A
Measurement current - load	< 0.05 VA
Neutral current measurement	Not possible
Voltage measurement L-L	0.1 to 950 V
Voltage measurement L-N	0 to 550 V
Measurement voltage L-N - maximum (RMS constant)	1000 V
Measurement voltage L-N - load	< 0,06 V
Frequency measurement	45 to 65 Hz
Power factor measurement (cap./ind.)	-1 + 1
Current display range	0.0010 A to 99999 kA
Display range neutral current	Not possible
Display range voltage L-L	0.10000 V to 999999 kV
Display range voltage L-N	0.10000 V to 999999 kV
Display range Frequency	45.001 to 65.001 Hz
Display range Power factor (cap./ind.)	-1 + 1
Display range active power total/phase	0.10000000 W to 999999999 MW
Display range reactive power total/phase	0.10000000 VAR to 999999999 MVAR
Display range Apparent power total/phase	0.10000000 VA to 999999999 MVA
Display range active energy total/phase	0.100000 WH to 9999999 MWH
Display range Reactive energy total/phase	0.100000 VARH to 9999999 MVARH
Display area Apparent work total/phase	0.100000 VAH to 9999999 MVAH
Display range Total harmonic distortion V/I	Not possible
Display range Partial harmonic distortion V/I	Not possible
Functions	Alarm memory, alarms, data logging, easy-to-use menus, built-in tariff counter, graphical display of harmonics, multilingualism, minimum/maximum determination, fast trend displays, waveform display
Normative standards	EN 55022, class A, supplements A1; A2 EN 55024, supplements A1; A2 EN 61000-3-2, class A, EN 61000-3-3, supplements A1 EN 61000-4-2 EN 61000-4-3, EN 61000-4-4 EN 61000-4-5 EN 61000-4-6, EN 61000-4-11 IEC 62052-11 IEC 62053-22, IEC 62053-23

Scope of delivery	Multifunction measuring device
Manufacturer	Celsa Messgeräte GmbH

Drawings

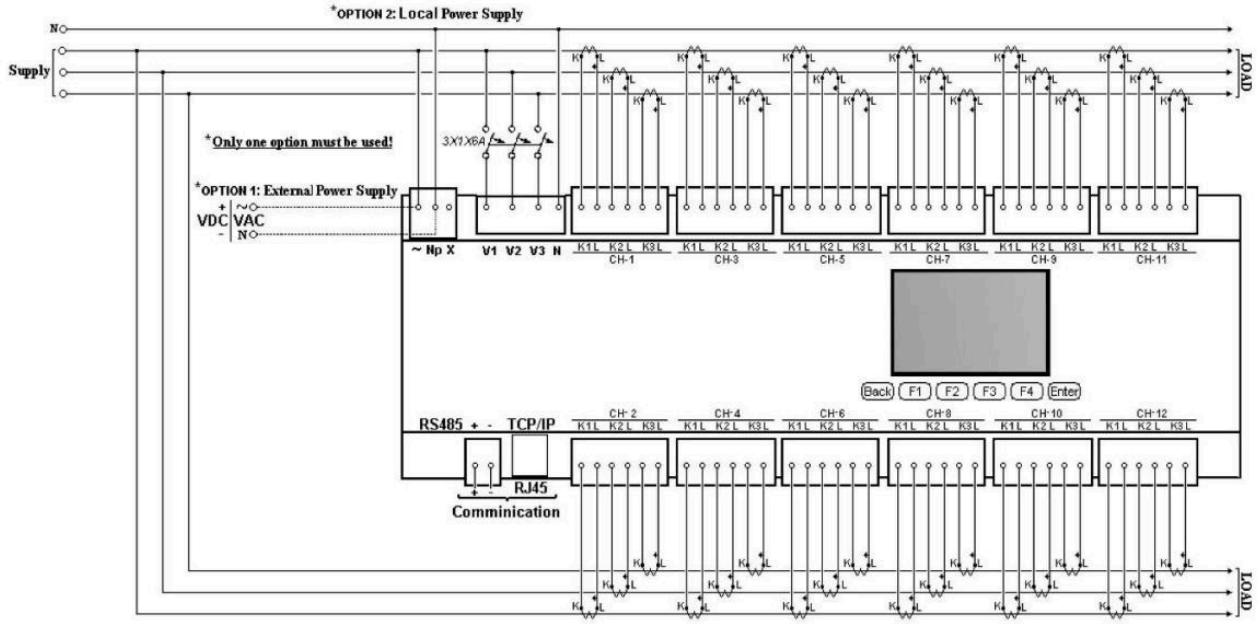
Wiring in delta / four-wire with neutral conductor



Verdrahtung in Dreieck / Vierleiter mit Neutralleiter

Drawings

Wiring in star / without neutral conductor



Verdrahtung in Stern / Ohne Neutralleiter

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