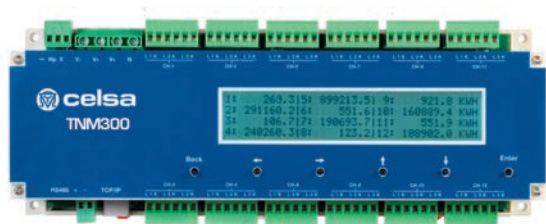


UNIVERSAL MEASURING INSTRUMENTS

TNM300



TNM300 Energy meter & Electrical powermeter

TNM300 energy powermeter is a compact, multi functional, multi channel, three\single-phase powermeter, especially designed to meet the stringent needs of power and energy measurement in any electrical installation for 36ch..

TNM300 includes history data logging and supports standard communication protocols BACnet and Modbus with simple integration into building management systems over RS485 or Ethernet TCP.

An indispensable tool for the building engineer, it aids efficient use of electricity by showing power factor, max. and min demand an current in neutral line.

Order Information

Description		Article Nr.
TNM300	5/1A	70200 -0300
TNM300-R	0.333V	70200 -0301

Technical Data

Power requirements	90 ∞ 250 VAC 110 ∞ 280 VDC 60/ 50 Hz 11 VA
Dimensions (HxWxD)	110 x 229 x 65 mm
Shipping weight	1.25 Kg.
Environmental	Operation: -20 ∞ 70°C Storage: -20 ∞ 70°C Humidity: 0 ∞ 95 RH% non-condensing
Front panel protection	IP33

Communication

RS-485 port	Up to 115200 bauds Modbus RTU and BACnet
Ethernet (TCP/IP)	Modbus and BACnet + Web browser capability

Input and output rating

Accuracy	Active energy 0.2% Reactive energy 0.2%
Voltage	Line-Line: 0 ∞ 970 VAC RMS Line-Neutral: 0 ∞ 560 (calculated) VAC RMS Maximum: 1000V RMS continuous Burden: < 0.06 VA
Current	Rated: 0 - 1A or 0 - 5 A, up to 63 Amp Overload: 50A RMS continuous Withstand: 100A for 1 minute Burden < 0.05 VA
Display	High resolution color LCD display 320 x 234 pixels
Maximum input voltage	1000V
Maximum input current	6A
Digital inputs	Optional - Up to 36 by replacing a current transformer card with a digital input card

Measurement and Display values

Measurement Parameter	Display range in direct connection (scaling factor 1)	Measuring range in direct connection (scaling factor 1)	Display range
Current	0.001 - 8.5 A	0.001 - 8.5 A	0.001 - 99999 KA
Neutral current	0.001 - 8.5 A	0.001 - 8.5 A	0.001 - 99999 KA
Voltage L-N	0.000 - 970 V	0.000 - 970 V	0.001 - 99999 KV
Voltage L-L	0.000 - 560 V	0.000 - 560 V	0.001 - 99999 KV
Frequency (Hz)	45.001 - 65.001 Hz	45.001 - 65.001 Hz	45.001 - 65.001 Hz
Active power total/phase			0.000 W - 99999 MV
Reactive power total/phase			0.000 VAR - 99999 MVAR
Apparent power total/phase			0.000 VA - 99999 MVA
Power factor (cap./ ind)	-1.0000 ÷ 1.0000	-1.0000 ÷ 1.0000	-1.0000 ÷ 1.0000
Active energy total/phase			0.001 WH - 9999999 MWH
Reactive energy total/phase			0.001 VARH - 9999999 MVARH
Apparent energy total/phase			0.001 VAH - 9999999 MVAH
Harmonic THD V/I			0.000 - 100%
Partial Harmonic V/I			0.000 - 100%
Operating hour meter			99999-HH:MM:SS

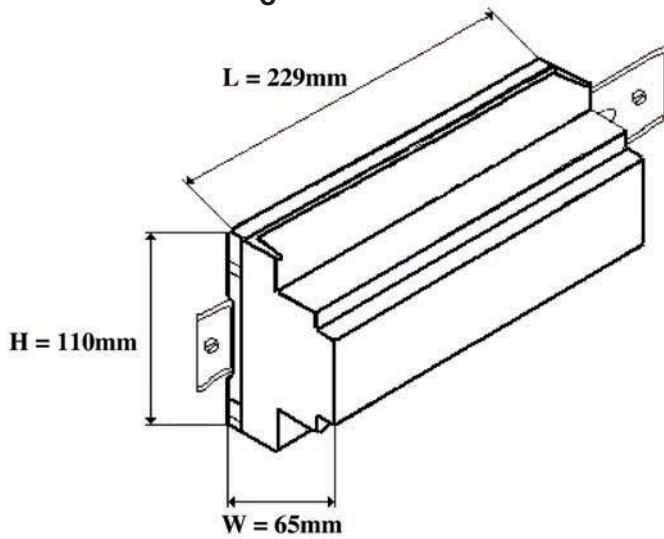
Standards:

- IEC 62053-22
- IEC 62053-23
- IEC 62052-11
- EN 55022, Class A, Amendments A1; A2
- EN 55024, Amendments A1; A2
- EN 61000-3-2, Class A
- EN 61000-3-3, Amendment A1
- IEC 61000-4-2
- IEC 61000-4-3
- IEC 61000-4-4
- IEC 61000-4-5
- IEC 61000-4-6
- IEC 61000-4-11

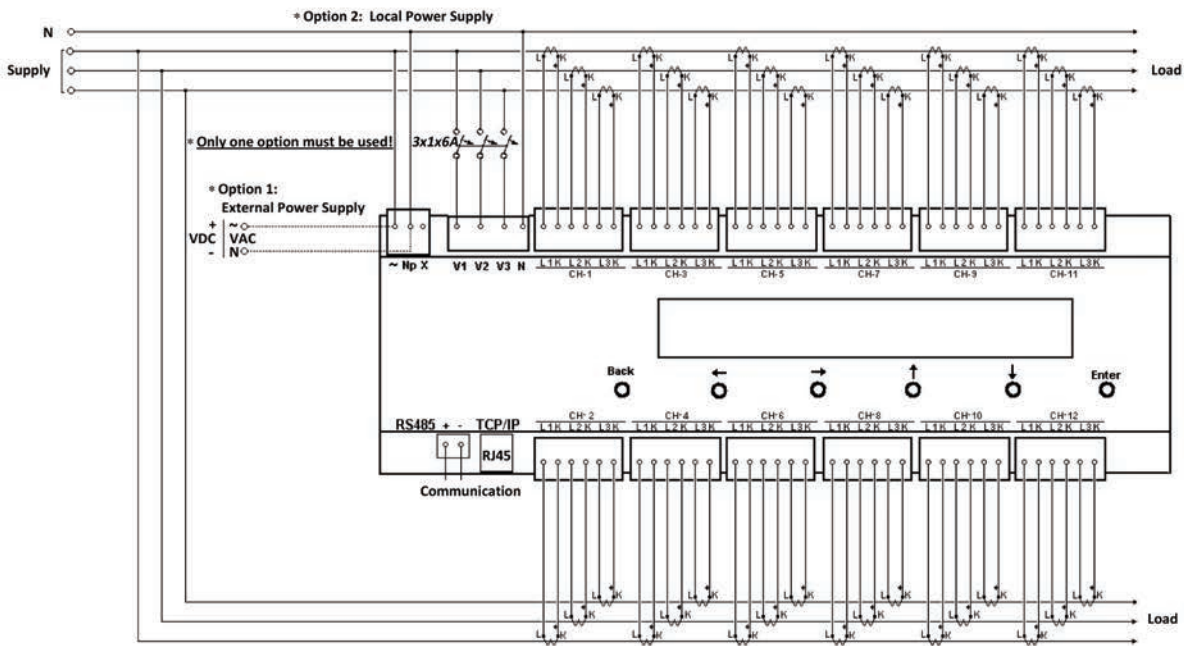
UNIVERSAL MEASURING INSTRUMENTS

TNM35

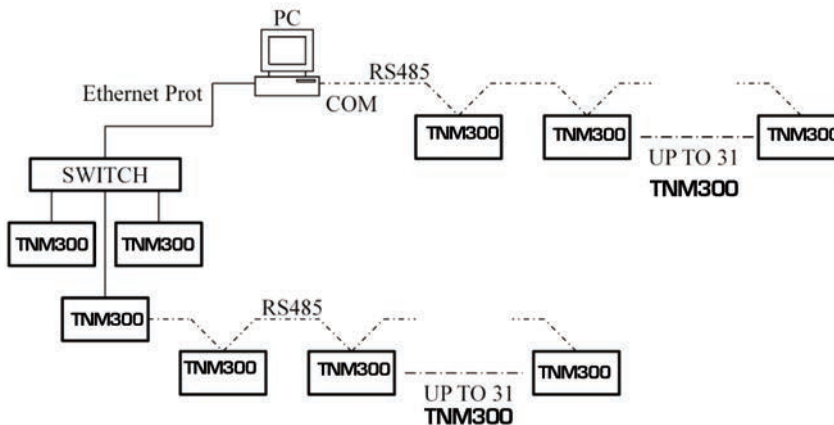
Mechanical mounting:



Wiring diagram example:



Communication diagram example:



— TCP/IP ETHERNET (Shielded & Grounded)

- - - - RS485 (Shielded & Grounded)