# **Netico NTPM 110A**



#### **Many Possible Applications**

Energy Management in industrial, office and residential facilities. Remote monitoring of switchboards and low and medium voltage connections. Monitoring of power quality for critical consumers.

### **Embedded Web Server**

Access to the device via Internet browser. Built in Web server enables easy remote control and configuration, as well as monitoring of measured parameters.

#### **Rich Connectivity Support**

10/100Mbps Ethernet or IEEE 802.11b (Wi-Fi) and RS485 as standard features on all models.

## **Supported Power Measurements and Calculations**

Power Grid Frequency; RMS Voltage, RMS Current, Active Power, Reactive Power, Apparent Power and Power Factor of Each Phase; Total Active, Reactive and Apparent Power; Total Power Factor; Phase Missing / Line voltage sag detection and alarm; Total Active Energy; Positive/negative Active and Reactive Energy; Four-quadrant Reactive Energy; Fundamental Active and Reactive Power of Each Phase; Harmonic Active and Reactive Power of Each Phase; Voltage and Current Harmonic Content of Each Phase.

Electrical characteristics		
Power supply	AC	85-265 V AC/ 90-300 V DC
	DC	18-36 V DC, 24 V DC nominal
Power consumption		max 2,5 W
Type of Measurement		1P+N,3P,3P+N
Accuracy Class		0,5 S
Rated Input Current (IB)		5A
		(supported external current transformers with ratio of 1-1000)
Permissible Current Overload		6A continuous
		20A 10S
Starting Current		0,001 IB
Line Frequency Range (configurable)		47-53 Hz(50 Hz nominal)
		57-63Hz(60Hz nominal)
ADC Sampling Rate		3,2 ksps
Measured Voltage (Un)		Up to 300V AC (P-N)
		(supported external transformers with ratio of 1-350)
Permissible Voltage Overload		1,15 Un
Active Power Measurement Precision Class		0,5
Reactive Power Measurement Precision Class		0,5
Power Factor (PF) Precision Class		0,5
Frequency Measurement Precision Class		0,5
Harmonic Component Measurement of Voltage Input (200 series)		2ND-31ST Harmonic
Harmonic Component Measurement of Current Input (200 series)		2ND-31ST Harmonic
Relay outputs (NO)	Rated voltage	250 V AC/30 V DC
	Rated current	3A

Communication			
Interfaces	10/100Mbps Ethernet	Modbus TCP, ICMP Server, DHCP	
	IEEE 802.11b (Wi-Fi)	Client, Lan Discovery, Web server	
	RS 485	Modbus RTU	
Protocols		Modbus TCP	
		Modbus RTU	

Construction and Mechanical properties				
Dimensions		71 x 90 x 58 mm (4 modules)		
Weight		0,3 Kg		
Case	Material	Plastic, PC (UL 94 V-0)		
	Mounting	DIN Rail		
	Protection	<ip 40<="" td=""></ip>		

Ambient conditions		
Operating temperature	-10 to 50 °C	
Relative humidity (non-condensing)	5 to 95 %	
Altitude	2000 m	

#### Safety:

Category III - 300 V AC. / 520 AC. EN-61010-1:2010 Class II double insulation against electric shock Standards:
EN 61000-6-2:2008,

EN 61000-6-2.2006, EN 55011:2011 + A1:2011 (Group1, Class B), EN 61000-4-2:2009, EN 61000-4-3:2008+2008/A1:2009, EN 61000-4-4:2008+2008/A1:2012+2013,

EN 61000-4-5:2008, EN 61000-4-6:2010, EN 61000-4-11:2008