

Energy Analyzers and Meters



NPM270BX - NPM270BX-ETH Series
Panel Type Energy Analyzers

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DIN Rail and Panel Type Energy Meters

Energy meters are devices that provide perfect readability with a white backlit LCD display, and are used for single-phase and three-phase energy measurements in residential and utility applications.

These devices measure and display various important electrical parameters, and also offer a communication port for remote reading and monitoring.

The bidirectional energy measurement feature makes them an ideal option for solar energy measurements as well.

Additionally, models with LoRa communication capability are available, as well as prepaid or generator tariff options.

Application Areas

- Shopping Malls
- Marinas
- Residences
- Airports
- Factories
- Holiday Resorts
- Prisons
- EV Charging Stations

Advantages

- Class 0.5 and Class 1 applications

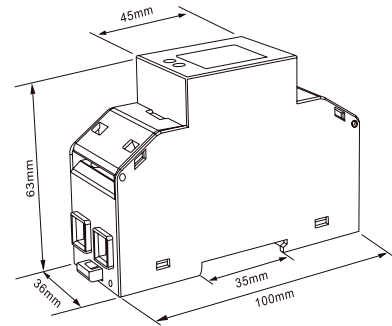
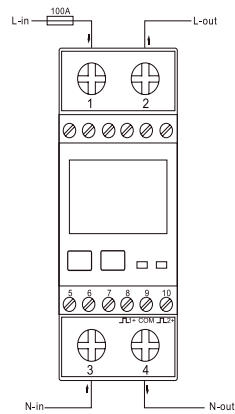
- Competitive pricing
- Compatibility with all software via Modbus RTU protocol
- Measurement capacity up to 100 Amps
- Bidirectional measurement capability
- Smaller footprint compared to competitors
- High measurement accuracy classes
- Wide measurement range
- Billing of high-cost liquid fuels with generator tariff option
- Advantage of collecting payments from prepaid subscribers
- DIN rail mounting (35mm)
- Wide range of solutions: direct connection and current transformer models
- RS485 (Modbus) or wireless data transmission (LoRaWAN communication)
- Savings on cabling and labor costs
- Fewer failure points due to wireless feature
- Convertible to modular or panel type solutions (only with additional equipment for NDM70 series)
- Advantage of collecting payments from subscribers and prepaid collection
- Compatibility with direct connection and CT models with a wide range of solutions
- White backlit LCD display
- Scroll settings display feature
- Support for AMR (Automatic Meter Reading) and SCADA systems
- Multifunctional measurement
- Easy payment collection (prepaid type)



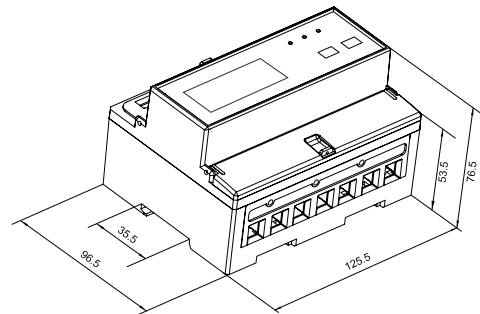
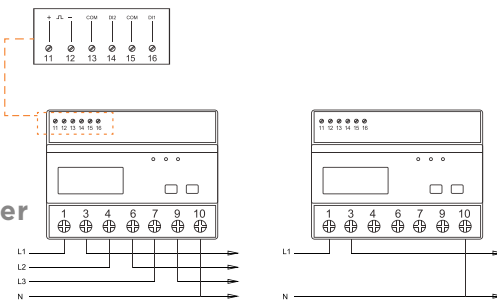
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Wiring Diagram – Dimensions for DIN Rail and Panel Type Energy Meters

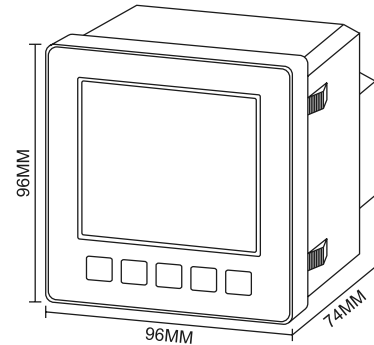
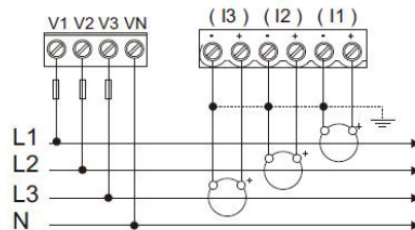
NDM30 - NDM30 Lora
DIN Rail Type Single-Phase Electricity Meter



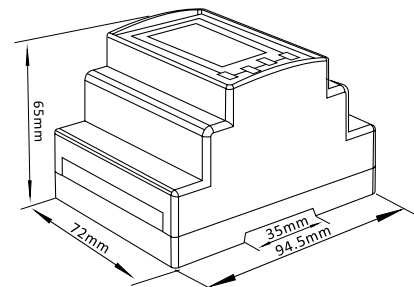
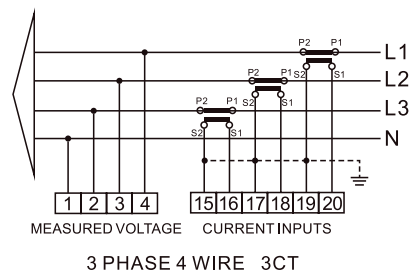
NDM50
NDM50 Lora
DIN Rail Type Three-Phase Electricity Meter



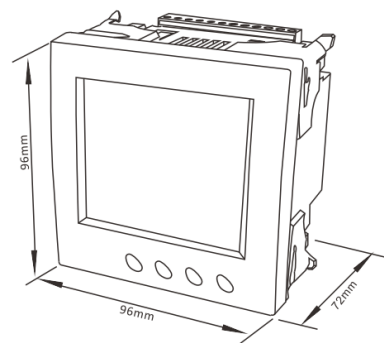
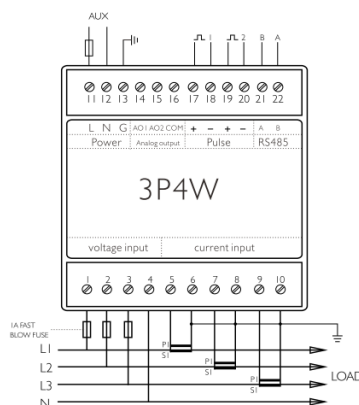
NPM270BX
NPM270BX-ETH
Series Panel Type
Energy Analyzers



NDM70
NDM70 Lora
DIN Rail Type Three-Phase Electricity Meter



NPM290-5G
NPM290-5J Series
Panel Type Energy
Analyzers



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NPM270BX - NPM270BX-ETH Series Panel Type Energy Analyzers

	MODEL	
Standards	NPM270BX	NPM270BX-ETH
IEC62053-21	✓	-
IEC62053-22	-	✓
IEC 62053-23	✓	✓
IEC61557-12	-	✓
EN50470-1/3	-	✓
IEC61000-3-2	-	✓
IEC61000-4-2,3,4,5,6,8,11	-	✓
EN55011 Class A	-	✓
EN61326-1:2013	✓	✓
EN61326-2-3:2013	✓	✓
EN 61010_1:2010+A1:2019	✓	✓
EN 61010-2-30-2010	✓	✓
Specifications		
Nominal voltage	3x230/400V	3x230/400V
Operating voltage	65-275V AC / 80-380V DC	85-275V AC / 120-380V DC
Base current	5A	5mA-6A
Overcurrent resistance	20 I _{max} for 0.5s	Continuous 8A 120A 0.5 Second
Operational frequency range	45-65Hz	45-65Hz
Internal power consumption	< 2W/10VA	< 7VA/3.5W
Display	LCD	LCD
Maximum reading	8 digits, up to 9999999.9 kWh	8 digits, up to 9999999.9 kWh
Accuracy		
Voltage	0,5%	0,2%
Current	0,5%	0,2%
Frequency	0,2%	1,0%
Power factor	1,0%	1,0%
Active power	1,0%	0,5%
Active energy	1,0%	0,5%
Reactive energy	2,0%	2,0%
Performance criteria		
Relative humidity	<95% (non-condensing)	<95% (non-condensing)
Operating temperature	-25°C to +55°C	-25°C to +55°C
Storage temperature	-40°C to +70°C	-40°C to +70°C
Installation category	-	CAT III
Mechanical environment	-	M1
Protection against dust and water ingress	IP51	IP51
Protection class	-	Class II
Communication		
Interface standard and protocol	Modbus RTU (RS485)	Modbus RTU (RS485) and Ethernet
Type	2-wire half duplex	2-wire half duplex
Baud rate	2400,4800, 9600, 19200, 38400bps	2400bps-38400bps
Address	1 to 247	1 to 247
Parity	None (default), Odd, Even	None (default), Single, Dual
Stop bit	1 or 2	1 or 2
Communication distance	Max 1000 m	Max 1000m



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