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PRODUCT CATALOG

Smart Energy Solutions

Efficient/Energy-saving/Low-carbon

HANGZHOU ANTIN POWER TECHNOLOGY CO., LTD.

www.china-antin.com

Our core values

Customer-oriented, innovative, focused, progressive, and collaborative

Corporate Vision

Make energy use greener,
more efficient, and smarter

Corporate Philosophy

Quality first, service first

About us

Committed to providing customers with efficient, energy-saving, and low-carbon smart energy solutions

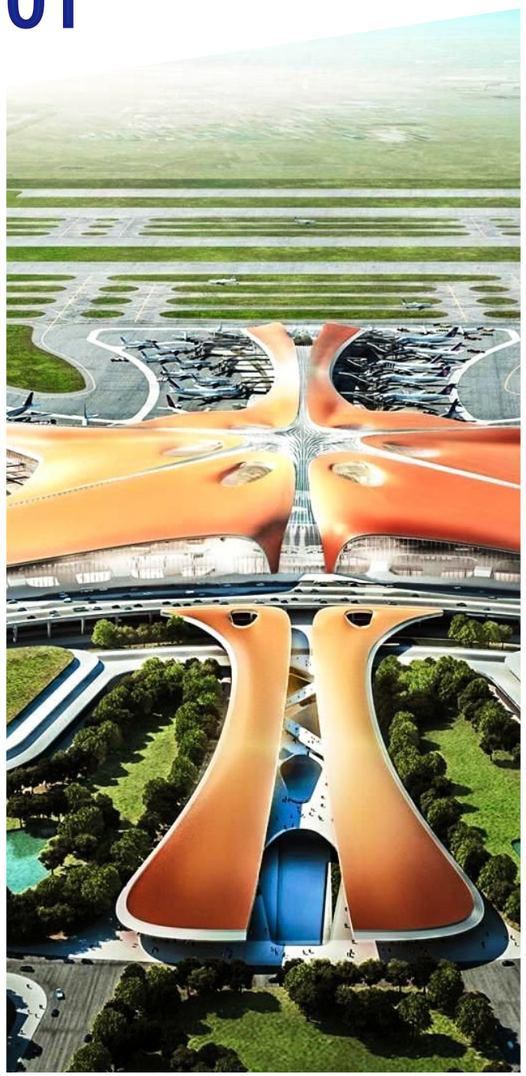
Hangzhou Antin Power Technology Co., Ltd is located in Hangzhou, China, known as the "Silicon Valley of Paradise". Establishment in 2013.
Antin Power is one of the leading manufacturers and suppliers of electricity meters and energy measurement solution to help worldwide customers visualize all energy usage and improve productivity and energy efficiency.
Over the years, Antin Power has developed a wide range of products including din rail energy meter, multi-function energy meter, prepaid energy meter, panel meters, etc., which could be widely used in the applications like energy management and monitoring system, sub-billing system, electrical SCADA system etc.

Antin is highly focused on the R&D of new technology and products for electricity measurement and monitoring. Our professional and experienced teams constantly help us stay ahead of the competition. By working with well-established universities and institutions, we are able to offer many cutting-edge technologies for the industry. Antin is also renowned for its customer service, helping our customers to solve their problems in the field of electrical measurement and monitoring is our ultimate goal.

Antin Power has been awarded "High-tech Enterprise" with dozens of patented technologies on both software and hardware. Meanwhile, Antin is also an ISO9001-certified and SGS-audited company that strictly follows ISO 9001 Quality management system.

Beijing Daxing International

01

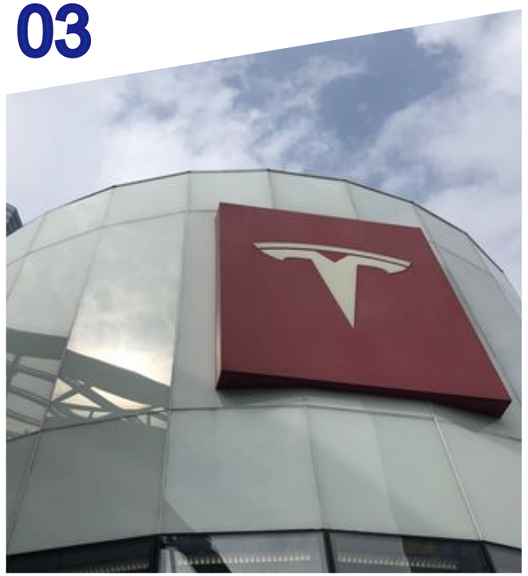


02

Research and development project of Electric Vehicle Charging Post, Institute of Automotive Research, Tsinghua University

Tesla Shanghai Factory

03



04

China Academy of Art International Design Art Museum

05

CITIC Tower, Beijing

06

Ningde Nuclear Power Phase II

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ATZ3000 Series

Multi-function Power Analyzer

Overview

The ATZ3000 series Multi-function Power Analyzer has powerful data acquisition and processing functions, with measurement and calculation functions for three-phase voltage, three-phase current, active power, reactive power, power factor, frequency, forward and reverse active/reactive energy, total harmonics of three-phase voltage and current and the content rate of the 2nd to 31st harmonic components, which can greatly reduce system costs, facilitate on-site wiring and improve system reliability.

Model

- ATZ3000 Multi-function Power Analyzer
- ATZ3000E Multi-function Power Analyzer
- ATZ3000S Multi-function Power Analyzer

Features

- Measurement
  - ·Voltage, current, neutral current, frequency, power, power factor; bi-directional active, reactive, apparent power, four-quadrant reactive power, time-of-day power metering; 12-month historical power query available
  - ·Demand calculation: three-phase current and total Freeze function
  - ·Freezing of energy and demand data etc. and recording of the freeze data and time, both frozen and monthly. Time-of-day billing
  - ·2 tariffs and 8 time periods can be set at
- Power quality
  - ·Voltage/current harmonics and total harmonic distortion rate
  - ·Voltage/current unbalance and phase angle
  - ·Three-phase current K-factor
- SOE event logging
  - ·continuously records 100 SOE events with time scale, such as relay actions, parameter settings, power-down messages, etc., with a time r esolution of 1ms.
- Maximum value logging
  - ·records parameters such as voltage, current, power, power factor, frequency, unbalance, total harmonic distortion, K-factor, etc.
- Set value exceeding limits
  - ·9 groups can be recorded to monitor voltage, current, power, harmonic distortion rate, etc. SOE can be generated and relay action triggered.
- Wiring diagnostics
  - ·provides wiring diagnostic functions, mainly including: voltage/current phase loss diagnostics, voltage/current phase sequence diagnostics, three-phase and total active power direction diagnostics, frequency overrun monitoring, CT polarity monitoring.
- Inputs and outputs
  - ·Switching inputs (DI): 4 as standard, for monitoring the status of external passive contacts
  - ·Relay outputs (DO): 2 as standard to cut off loads of 250VAC/5A or 30VDC/5A
  - ·Expansion modules: DI/DO modules, AI/AO modules and communication modules can be expanded
- Communication
  - ·1 RS-485 communication port as standard, can be extended, support Modbus-RTU protocol access. Communication rate up to 3 8400bit/s.

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Electrical insulation properties	
Dielectric strength	2kV Working frequency voltage, 1 min (GB/T 13729)
Insulation resistance	≥100MΩ (GB/T 13729)
Shock voltage	5kV，12/50μs (GB/T 13729)
Mechanical properties	
Vibration Response/Durability	Class Ⅰ (GB/T 11287)
Shock Response/Durability	Class Ⅰ (GB/T 14537)
Crash Response	Class Ⅰ (GB/T 14537)
Overall Dimension	
H×W×D	96mm×96mm×75mm
Cut-out Dimension	91mm×91mm

ATZ2000 Series

Multi-function Power Analyzer

Overview

The ATZ2000 series multi-function power Analyzer are featured in accurate measurement and display of various power parameters: voltage, current, power, frequency, active power, reactive power, forward power, reverse power, power factor, total harmonic distortion, sub-harmonics, maximum demand, etc. in single-phase two-wire, three-phase three-wire, and three-phase four-wire grids. It is suitable for real-time power monitoring systems and is characterized by its multi-functionality, versatility, high stability and long life. The meter is suitable for all kinds of high and low-voltage grids with a maximum current of 9999 A and a maximum voltage of 500000 V. It has an RS485 communication interface for remote communication and is ideal for power and energy monitoring.

Model

- ATZ2000 Multi-function Power Analyzer
- ATZ2000E Multi-function Power Analyzer (ethernet)

Feature

- Cycle sampling not less than 128 points, support telematics, remote control, telemetry
- Compatible with single-phase and three-phase full grid system type access
- Sub-phase and total full power parameter measurement
- Fractional harmonic measurement can reach up to 63 times
- Support RS-485 and Ethernet port communication
- Communication rate up to 38400bps
- Five-touch key operation, friendly interface settings
- High-resolution large screen, wide view area with black characters on gray background
- Sub-phase and total power and current demand statistics
- Demand calculation mode, update period, slip time can be set
- Real-time display of the load ratio sector chart
- Power factor histogram indication
- Bidirectional metering, sub-phase active and reactive power metering
- Unbalanced (NEUTRAL WIRE) current and voltage
- Phase sequence judgment, phase angle display
- Manual and automatic page flip, backlight delay can be set
- 8 time periods setting, 4 tariff metering
- 1A/5A transformer type access, variable ratio can be set
- Intelligent setting of forward and reverse wiring of sub-phase transformer
- DI input anti-shake time can be set according to actual needs
- DO level and pulse output can be set according to actual needs
- DO output delay time can be set according to actual needs
- SOE equipment full event record
- Removable battery for easy maintenance
- Dn housing, installation size 92*92mm, extrusion type installation, no snap fastening needed
- Plug and unplug connection

Functions

- Measurement
  - ·phase voltage, line voltage, current, active power, reactive power, apparent power, frequency, power factor
  - ·Calculation of bi-directional active and reactive energy
  - ·Voltage and current harmonic distortion
  - ·Fractional harmonics
  - ·maximum demand
- Best Value Records
  - ·Recording parameters including: voltage, current, power, power factor, etc.
- Input and output functions
  - ·Switching inputs (DI)
  - ·Switching outputs (DO)
  - ·Switching output associated with electrical reference overrun protection
  - ·Electrical pulse output
- Communication functions
  - ·RS485：MODBUS-RTU protocol
  - ·ethernet：MODBUS-TCP protocol
- SOE event logging
  - ·30 events can be recorded

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ（GB/T 17626.2 IEC 61000-4-2）
RF Field Strength Susceptibility	Class Ⅲ（GB/T 17626.3 IEC 61000-4-3）
Electrical Fast Transient /Burst Test	Class Ⅳ（GB/T 17626.4 IEC 61000-4-4）
Surge Test	Class Ⅳ（GB/T 17626.5 IEC 61000-4-5）
Conducted Susceptibility Test	Class Ⅲ（GB/T 17626.6 IEC 61000-4-6）
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ（GB/T 17626.8 IEC 61000-4-8）
Oscillating wave immunity	Class Ⅲ（GB/T 17626.12 IEC 61000-4-12）
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Electrical insulation properties	
Dielectric strength	2kV Working frequency voltage, 1 min （GB/T 13729）
Insulation resistance	≥100MΩ （GB/T 13729）
Shock voltage	5kV，12/50μs （GB/T 13729）

Mechanical properties	
Vibration Response/Durability	Class Ⅰ （GB/T 11287）
Shock Response/Durability	Class Ⅰ （GB/T 14537）
Crash Response	Class Ⅰ （GB/T 14537）
Overall Dimension	
H×W×D	96mm×96mm×73mm
Cut-out Dimension	92mm×92mm

ATZ1000 Series

Multi-function Power Analyzer

Overview

The ATZ1000 series multi-function power Analyzer are featured in accurate measurement and display of various power parameters: voltage, current, power, frequency, active power, reactive power, forward power, reverse power, power factor, total harmonic distortion, sub-harmonics, maximum demand, etc. in single-phase two-wire, three-phase three-wire, and three-phase four-wire grids. It is suitable for real-time power monitoring systems and is characterized by its multi-functionality, versatility, high stability and long life. The meter is suitable for all kinds of high and low-voltage grids with a maximum current of 9999 A and a maximum voltage of 500000 V. It has an RS485 communication interface for remote communication and is ideal for power and energy monitoring.

Model

- ATZ1000 Multi-function Power Analyzer

Feature

- Cycle sampling not less than 128 points, support telematics, remote control, telemetry
- Compatible with single-phase and three-phase full grid system type access
- Sub-phase and total full power parameter measurement
- Fractional harmonic measurement can reach up to 63 times
- Support RS-485 and Ethernet port communication
- Communication rate up to 38400bps
- Five-touch key operation, friendly interface settings
- High-resolution large screen, wide view area with black characters on gray background
- Sub-phase and total power and current demand statistics
- Demand calculation mode, update period, slip time can be set
- Real-time display of the load ratio sector chart
- Power factor histogram indication
- Bidirectional metering, sub-phase active and reactive power metering
- Unbalanced (NEUTRAL WIRE) current and voltage
- Phase sequence judgment, phase angle display
- Manual and automatic page flip, backlight delay can be set
- 1A/5A transformer type access, variable ratio can be set
- Intelligent setting of forward and reverse wiring of sub-phase transformer
- DI input anti-shake time can be set according to actual needs
- DO output delay time can be set according to actual needs
- SOE equipment full event record
- Removable battery for easy maintenance
- Dn housing, installation size 92*92mm, extrusion type installation, no snap fastening needed
- Plug and unplug connection

Functions

- Measurement
  - ·phase voltage, line voltage, current, active power, reactive power, apparent power, frequency, power factor
  - ·Calculation of bi-directional active and reactive energy
  - ·Voltage and current harmonic distortion
  - ·Fractional harmonics
  - ·maximum demand
- Best Value Records
  - ·Recording parameters including: voltage, current, power, power factor, etc.
- Input and output functions
  - ·Switching inputs (DI)
  - ·Switching outputs (DO)
  - ·Switching output associated with electrical reference overrun protection
  - ·Electrical pulse output
- Communication functions
  - ·RS485：MODBUS-RTU protocol
  - ·ethernet：MODBUS-TCP protocol
- SOE event logging
  - ·30 events can be recorded

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ（GB/T 17626.2 IEC 61000-4-2）
RF Field Strength Susceptibility	Class Ⅲ（GB/T 17626.3 IEC 61000-4-3）
Electrical Fast Transient /Burst Test	Class Ⅳ（GB/T 17626.4 IEC 61000-4-4）
Surge Test	Class Ⅳ（GB/T 17626.5 IEC 61000-4-5）
Conducted Susceptibility Test	Class Ⅲ（GB/T 17626.6 IEC 61000-4-6）
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ（GB/T 17626.8 IEC 61000-4-8）
Oscillating wave immunity	Class Ⅲ（GB/T 17626.12 IEC 61000-4-12）
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Electrical insulation properties	
Dielectric strength	2kV Working frequency voltage, 1 min （GB/T 13729）
Insulation resistance	≥100MΩ （GB/T 13729）
Shock voltage	5kV，12/50μs （GB/T 13729）

Mechanical properties	
Vibration Response/Durability	Class Ⅰ （GB/T 11287）
Shock Response/Durability	Class Ⅰ （GB/T 14537）
Crash Response	Class Ⅰ （GB/T 14537）
Overall Dimension	
H×W×D	72mm×72mm×55mm
Cut-out Dimension	67mm×67mm

AT281Y Series

Digital Multi-function Harmonic Analyzer

Overview

AT281Y series digital multifunctional harmonic analyzer has powerful data acquisition and processing functions, with three-phase voltage, three-phase current, active power, reactive power, power factor, frequency, forward and reverse active/reactive energy, total harmonics of three-phase voltage and current and the rate of content of the 2nd-63rd harmonic component measurement and calculation functions, which can greatly reduce system costs, facilitate on-site wiring and improve the reliability of the system.

Model

- AT261Y Digital Three Phase Multi-function Harmonic Analyzer
- AT281Y Digital Three Phase Multi-function Harmonic Analyzer

Features

- Highly accurate power measurement, energy metering
- Modular design for flexible configuration of individual functions
- adjustable voltage and current ratios
- Parameter settings permanently saved in case of power failure
- RS-485 communication suppor
- Adopt AC/DC dual-use power supply, high and low voltage isolation
- Segmented LCD display

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control

Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Overall Dimension	
H×W×D	96mm×96mm×75mm
Cut-out Dimension	92mm×92mm

AT280Y Series

Digital Multi-function Power Meter

Overview

AT280Y series digital multi-function power meters have powerful data acquisition and processing functions, with three-phase voltage, three-phase current, active power, reactive power, power factor, frequency, forward and reverse active/reactive power measurement and calcu - lation functions, which can greatly reduce system costs, facilitate on-site wiring and improve system reliability.

Model

- AT261Y Digital Three Phase Multi-function Power Meter
- AT281Y Digital Three Phase Multi-function Power Meter

Features

- Highly accurate power measurement, energy metering
- Modular design for flexible configuration of individual functions
- adjustable voltage and current ratios
- Parameter settings permanently saved in case of power failure
- RS-485 communication suppor
- Adopt AC/DC dual-use power supply, high and low voltage isolation
- Segmented LCD display

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control

Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Overall Dimension	
H×W×D	96mm×96mm×75mm
Cut-out Dimension	92mm×92mm

AT181Y Series

Digital Multi-function Harmonic Analyzer

Overview

AT181Y series digital Multi-function Harmonic Analyzer has powerful data acquisition and processing functions, with three-phase voltage, three-phase current, active power, reactive power, power factor, frequency, forward and reverse active/reactive energy, total harmonics of three-phase voltage and current and the rate of content of the 2nd-31st harmonic components measurement and calculation functions, which can greatly reduce system costs, facilitate on-site wiring and improve the reliability of the system.

Model

- AT161Y Digital Three Phase Multi-function Harmonic Analyzer
- AT171Y Digital Three Phase Multi-function Harmonic Analyzer
- AT181Y Digital Three Phase Multi-function Harmonic Analyzer

Features

- Highly accurate power measurement, energy metering
- Modular design for flexible configuration of individual functions
- adjustable voltage and current ratios
- Parameter settings permanently saved in case of power failure
- RS-485 communication suppor
- Adopt AC/DC dual-use power supply, high and low voltage isolation
- Segmented LCD display
- Various sizes, easy installation and wiring

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Overall Dimension	
H×W×D	96mm×96mm×75mm
Cut-out Dimension	92mm×92mm

AT180Y Series

Digital Multi-function Power Meter

Overview

AT181Y series digital Multi-function Power Meter has powerful data acquisition and processing functions, with three-phase voltage, three-phase current, active power, reactive power, power factor, frequency, forward and reverse active/reactive energy, total harmonics of three-phase voltage and current and the rate of content of the 2nd-31st harmonic components measurement and calculation functions, which can greatly reduce system costs, facilitate on-site wiring and improve the reliability of the system.

Model

- AT160Y Digital Three Phase Multi-function Power Meter
- AT170Y Digital Three Phase Multi-function Power Meter
- AT180Y Digital Three Phase Multi-function Power Meter
- AT190Y Digital Three Phase Multi-function Power Meter

Features

- Three-phase power parameter calculation
- Modular design for flexible configuration of individual functions
- adjustable voltage and current ratios
- Parameter settings permanently saved in case of power failure
- Support RS-485 communication, MODBUS-RTU protocol
- AC/DC power supply, high and low voltage isolation
- Segmented LCD display
- Various sizes, easy installation and wiring

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Overall Dimension	
H×W×D	96mm×96mm×75mm
Cut-out Dimension	92mm×92mm

AT100Y Series

Digital Single Phase Power Meter

Overview

The AT100Y series of digital single-phase multifunction meters can replace many traditional analog or digital single-phase measuring instru - ments, which can greatly reduce system costs, facilitate on-site wiring and improve system reliability.

Model

- AT100Y Digital Single Phase Multi-function Power Meter

Function

- Calculation of single-phase electrical parameters
- adjustable voltage and current ratios
- Support RS-485 communication, MODBUS-RTU protocol
- AC/DC power supply, high and low voltage isolation
- Segment LCD and digital tube display optional
- Various sizes available, and plug & pull connection

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ(GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ(GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ(GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ(GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

AT131Y Series

Digital Three Phase Power Meter

Overview

The AT131Y series of digital three-phase power meter is an ideal device for testing current or voltage. The product integrates digitalisation, intelligence and networking, with its superior performance, high measurement accuracy, beautiful appearance and strong EMC compatibility, and can also be used as a terminal component of power monitoring and distribution systems, SCADA systems, DCS systems, BAS systems, etc., to achieve remote data acquisition and monitoring.

Model

- AT111Y Digital Three Phase Current Meter
- AT112Y Digital Three Phase Voltage Meter
- AT121Y Digital Three Phase Current Meter
- AT122Y Digital Three Phase Voltage Meter
- AT131Y Digital Three Phase Current Meter
- AT132Y Digital Three Phase Voltage Meter

Features

- Three-phase voltage, three-phase current measurement
- Selectable three-phase three-wire, three-phase four-wire
- Voltage and current multiplier adjustable
- Switching input
- RS485 communication function
- Switching remote control output
- LCD segmented liquid crystal display or high brightness LED digital tube display
- Various sizes, easy installation and wiring

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ(GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ(GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ(GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ(GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

AT101Y Series

Digital Single Phase Panel Meter

Overview

The AT101Y series digital single-phase power meter can be used to adjust CT and PT parameters via the panel keys, display the primary current and voltage values of the system intuitively, and can be equipped with alarm output contacts to provide advance warning of potential faults and confirm the safety of power-using equipment by setting the upper and lower alarm values; it is convenient to connect with remote RTU and can be equipped with RS485 interface to exchange data with the host computer, which is a high-performance automation instrument suitable for modern power supply and distribution systems in industrial and mining enterprises, civil buildings and building automation.

Model

- AT101Y Digital Single Phase Current Meter
- AT102Y Digital Single Phase Voltage Meter

Features

- Measurement of single-phase voltage, single-phase current
- Voltage and current multiplier adjustable
- Switching inputs and outputs
- LCD segmented or high-brightness LED digital tube display
- RS485 communication interface

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ(GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ(GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ(GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ(GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ(GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ(GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ(GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

AT100DY Series

Digital DC Power Meter

Overview

The AT100DY series of digital DC power meter is an intelligent instrument for power and industrial automation measurements. The meters come with a wide range of optional functions. It is widely used in the field of power DC screen monitoring, industrial automation control.

Model

- AT100DY Digital DC Multi-function Power Meter
- AT101DY Digital DC Current Meter
- AT102DY Digital DC Voltage Meter

Features

- DC voltage, DC current monitoring
- Voltage, current multiplier adjustable
- Analog output, switching input
- RS485 communication interface
- LCD or LED display

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ(GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ(GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ(GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ(GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ(GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ(GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ(GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Electrical insulation properties	
Dielectric strength	2kV Working frequency voltage, 1 min (GB/T 13729)
Insulation resistance	≥100MΩ (GB/T 13729)
Shock voltage	5kV，12/50μs (GB/T 13729)

AT180G Series

Three Phase Din Rail Energy Meter

Overview

AT180G Three Phase Din Rail Energy Meter series are designed to collect, analyze and measure power parameters. AT100G series single-phase din rail energy meter can support the measurement and analysis of various power parameters, such as voltage, current, four-quadrant power parameters, power factor, bi-directional active and reactive power etc. This series of products have RS485 communication interface, the highest baud rate support 38400bps, support Modbus, DL T645 and other communication protocols, can easily realize remote data reading. Meanwhile, it adopts LCD display, which can view and set various measurement parameters locally, and the product has password protection function to ensure the data security of the product.

Model

- AT180G Three Phase Din Rail Energy Meter
- AT180G-CT Three Phase Din Rail Energy Meter

Features

- Multifunctional parameter measurement
- Support bi-directional power metering
- Support direct access type, CT variable ratio access
- Support 1-channel pulse optocoupler output
- Support RS485 communication , support Modbus RTU protocol
- Standard 4-mode digital width, TH35-7.5 type din rail mounting
- Large LCD display, white backlight, backlight lighting time adjustable
- LCD refresh time: 1s, support manual page turning and automatic display rotation (can be set to switch)

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous, 2 times(10s)
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω

Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF EMF radiation immunity	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Fast Transient Burst/Burst	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

AT100G Series

Single Phase Din Rail Energy Meter

Overview

AT100G series single-phase din rail energy meter is designed to collect, analyze and measure power parameters. AT100G series single-phase din rail energy meter can support the measurement and analysis of various power parameters, such as voltage, current, four-quadrant power parameters, power factor, bi-directional active and reactive power etc. This series of products have RS485 communication interface, can easily realize remote data reading. Meanwhile, it adopts LCD display, which can view and set various measurement parameters locally, and the product has password protection function to ensure the data security of the product.

Model

- AT100G Single Phase Din Rail Energy Meter

Features

- Up to 100A direct access
- Standard 2-module width, TH35-7.5 type din rail mount
- Multi-functional parameter measurement
- Support bi-directional power metering
- Support RS485 communication , support Modbus RTU protocol
- Support 1-channel pulse optocoupler output
- Large LCD display, white backlight, backlight lighting time adjustable
- LCD refresh time: 1s, support manual page turning and automatic display rotation (can be set to switch)

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous, 2 times(10s)
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω

Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF EMF radiation immunity	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Fast Transient Burst/Burst	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

AT180G-YF Series

Three Phase Din Rail Prepaid Energy Meter

Overview

AT180G-YF series three-phase din rail prepaid energy meter meets the class 1 accuracy standard of IEC62053-21. It has a complete prepayment management system for easy power sales management. The meter automatically deducts charges according to the electricity consumption. The recharge operation can be done remotely and does not require any media such as IC cards. The meter has a two-level balance alarm function and an emergency amount function. It will automatically stop the electricity supply when the lessee is in arrears or has zero credit, or when a pre-set value is reached.

Model

- AT180G-YF Three Phase Din Rail Prepaid Energy Meter
- AT180G-CT-YF Three Phase Din Rail Prepaid Energy Meter

Features

- Multifunctional parameters measurement
- Support bi-directional power metering
- Clearable display of electricity usage
- Support direct access type, CT variable ratio access
- Support RS485 communication , support Modbus RTU protocol
- Standard din rail mounting
- Large LCD display, white backlight
- LCD refresh time: 1s, support manual page turning and automatic display rotation (can be set to switch)

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous, 2 times(10s)
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω

Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF EMF radiation immunity	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Fast Transient Burst/Burst	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

AT100G-YF Series

Single Phase Din Rail Prepaid Energy Meter

Overview

AT100G-YF series single-phase din rail prepaid energy meter has the advantages of good anti-electromagnetic interference, low power consumption, good stability and long service life. It has RS485 communication interface and supports high-speed com - munication function of RS485. It is ideal for energy management system, energy monitoring system and sub-metering

Model

- AT100G-YF Single Phase Din Rail Prepaid Energy Meter

Features

- Up to 100A direct access
- Standard din rail mounting
- Multi-functional parameter measurement
- Support prepayment function
- Support RS485 communication , support Modbus RTU protocol
- Clearable display of electricity usage
- High-brightness LCD display with white backlight

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous, 2 times(10s)
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω

Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF EMF radiation immunity	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Fast Transient Burst/Burst	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

ATB-800 Series

Microcomputer Protection Devices

Overview

ATB-800 series Microcomputer protection Devices are suitable for protecting, measuring, and controlling interval units of all voltage levels below 110kV. With perfect protection, measurement, control, backup power auto-activation, and communication monitoring func - tions, it can provide a complete solution for the protection and control of substations, power plants, high & low voltage distribution and plant power systems, which can strongly guarantee the safe and stable operation of high and low voltage power grids and plant power sys - tems. Together with other protection and automation equipment, it can be used to form an automation system through a communication inter- face. All devices can be installed centrally in a panel or locally in high & low voltage switchgear.

Models

- ATB-890 general-purpose protection and control device
- ATB-865 Motor Protection and control device
- ATB-867 Motor Differential protection device
- ATB-871 Backup Power activation protection device
- ATB-872 PT parallel protection and control device
- ATB-873 PT protection monitoring device
- ATB-875 Busbar standby protection device
- ATB-882 Transformer differential protection device
- ATB-885 Transformer backup protection monitoring and control device

Parameters

Working power supply	
Rated working voltage	AC200V、DC220V or DC100V
Rated Tech Specs	
AC Current	5A or 1A
AC voltage	400V or 100V
Frequency	50Hz
Power consumption	
Power supply	Under operation ≤5W, Under Protection Status ≤10W
AC current circuit	< 1VA/Phase (IN=5A) ; < 0.5VA/Phase (IN=1A)
AC voltage circuit	< 0.5VA/Phase
Precise working range	
Current	0.4In~20In
Voltage	0.4V~0.2Un
Frequency	0.9Fn~1.1Fn
Time	0~100s
Accuracy for Protection Section	
Constant value accuracy	≤±5%
Time accuracy	< ±1% or ±35ms
Whole group action time	≤35ms
Frequency Accuracy	≤0.01Hz
Accuracy for Measurement and Control Section	
AC accuracy	≤0±.2%
Active and reactive power	≤±0.5%
Input Output	
Digital Input	Input type: Active Number of optoisolated inputs：8
Relay output	Rated current carrying cap acity of contacts：250Vac/220Vdc，5A Output Type： Passive (null contact)
Communication port	
RS485	Modbus RTU
Working environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Electrical insulation properties	
Dielectric strength	2kV Working frequency voltage, 1 min (GB/T 13729)
Insulation resistance	≥100MΩ (GB/T 13729)
Shock voltage	5kV，12/50μs (GB/T 13729)
Mechanical properties	
Vibration Response/Durability	Class Ⅰ (GB/T 11287)
Shock Response/Durability	Class Ⅰ (GB/T 14537)
Crash Response	Class Ⅰ (GB/T 14537)
Overall Dimension	
H×W×D	215.4mm×149mm×183.6mm
Cut-out Dimension	208mm×147mm

Product selection guide

Function		Model	ATB-865	ATB-867	ATB-871	ATB-872	ATB-873	ATB-875	ATB-882	ATB-885	ATB-890
Protection		Three-stage overcurrent protection						■		■	■
		Phase-to-phase fixed time overcurrent protection	■								
		Overload protection	■					■		■	■
		Overload blocking voltage regulation								■	
		Overload start air cooling								■	
		Three-phase once reclose									■
		Acceleration protection									■
		Charge protection						■		■	■
		Negative sequence overcurrent protection	■								■
		Zero-sequence overcurrent protection	■							■	■
		Over-voltage protection	■			■	■			■	■
		Low voltage protection	■			■	■			■	■
		Zero-sequence overvoltage protection	■							■	■
		Low-frequency load shedding									■
		Non-power protection	■	■					■		■
		Differential Quick Break		■					■		
		Ratio differential		■					■		
		Second harmonic blocking							■		
		CT disconnection blocking		■					■		
		In-line standby self-recovery			■			■			
		Bridge switch standy self-recovery			■			■			
		PT disconnection alarm				■	■				
		Busbar grounding				■	■				
		PT voltage parallel/unparallel				■					
Telemetry communicate		Voltage	■							■	■
		Current	■	■					■	■	■
		Active Power	■							■	■
		Reactive power	■							■	■
		Power Factor	■							■	■
		Frequency	■							■	■
		Telemetry	8	11	11	11	11	11	11	11	8
Event logging		Protection Events	■	■	■	■	■	■	■	■	■
		Alarm events	■	■	■	■	■	■	■	■	■
		Telemeter shift events	■	■	■	■	■	■	■	■	■
		Operation log events	■	■	■	■	■	■	■	■	■
		Accidental shift count statistics	■							■	■
Control		Remote protection throwing/returning	■	■	■	■	■	■	■	■	■
		Remote Modification of setting value								■	■
		Local/remote switching and closing	■	■					■	■	■
Operation Box		Tripping and closing indication								■	■
		Self-hold and anti-tripping								■	■
		Adaptive trip and close current								■	■
		Control circuit disconnection alarm								■	■
Comm.		RS-485 communication	■	■	■	■	■	■	■	■	■

ATB-700 Series

Microcomputer Protection Devices

Overview

ATB-700 series Microcomputer protection Devices are suitable for protecting, measuring, and controlling interval units of all voltage levels below 35kV. With perfect protection, measurement, control, backup power auto-activation, and communication monitoring func - tions, it can provide a complete solution for the protection and control of substations, power plants, high & low voltage distribution and plant power systems, which can strongly guarantee the safe and stable operation of high and low voltage power grids and plant power sys - tems. Together with other protection and automation equipment, it can be used to form an automation system through a communication inter - face. All devices can be installed centrally in a panel or locally in high & low voltage switchgear.

Features

- Fully hermetically sealed design with good resistance to vibration and dust
- Small in size, light in weight, beautiful in appearance and easy to install
- Unique reliability design, no adjustable components, good device stability, strong anti-interference
- LCD display, simple human-machine interface, easy to operate
- The power supply of the device is AC/DC dual-use
- Has a serial communication port with RS485 bus and integrated MODBUS standard communication protocol
- With event sequence recording funct ion, 100 events can be recorded, no loss of data in case of power failure
- Small and fine shape, reasonable structure, high grade and high quality components and multilayer board technology andSMT process, so that the product has high electrical performance
- with complete circuit breaker operation circuit
- Ultra-low power consumption

Parameters

Working power supply	
Rated working voltage	AC200V、DC220V or DC100V
Rated Tech Specs	
AC Current	5A or 1A
AC voltage	400V or 100V
Frequency	50Hz
Power consumption	
Power supply	Under operation ≤5W, Under Protection Status ≤10W
AC current circuit	＜1VA/Phase(IN=5A)；＜0.5VA/Phase(IN=1A)
AC voltage circuit	＜0.5VA/Phase
Precise working range	
Current	0.4In~20In
Voltage	0.4V~0.2Un
Frequency	0.9Fn~1.1Fn
Time	0~100s
Accuracy for Protection Section	
Constant value accuracy	≤±5%
Time accuracy	＜±1% or ±35ms
Whole group action time	≤35ms
Frequency Accuracy	≤0.01Hz
Accuracy for Measurement and Control Section	
AC accuracy	≤0±.2%
Active and reactive power	≤±0.5%
Input Output	
Digital Input	Input type: Active Number of optoisolated inputs：8
Relay output	Rated current carrying cap acity of contacts：250Vac/220Vdc，5A Output Type：Passive (null contact)
Communication port	
RS485	Modbus RTU
Working environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ(GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ(GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ(GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ(GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ(GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ(GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ(GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)
Electrical insulation properties	
Dielectric strength	2kV Working frequency voltage, 1 min (GB/T 13729)
Insulation resistance	≥100MΩ (GB/T 13729)
Shock voltage	5kV，12/50μs (GB/T 13729)
Mechanical properties	
Vibration Response/Durability	Class Ⅰ (GB/T 11287)
Shock Response/Durability	Class Ⅰ (GB/T 14537)
Crash Response	Class Ⅰ (GB/T 14537)
Overall Dimension	
H×W×D	200mm×149mm×72.5mm
Cut-out Dimension	176mm×144.5mm

Product selection guide

Function	Model	ATB-765	ATB-771	ATB-772	ATB-773	ATB-790
Protect	Excessive start time protection	■				
	Phase-to-phase overcurrent protection		■			■
	Phase to phase fixed time overcurrent protection	■				
	Overload protection	■	■			■
	Reclosing protection					■
	Acceleration protection					■
	Charging protection		■			■
	Negative sequence overcurrent protection		■			■
	Zero-sequence overcurrent protection	■	■			■
	Over-voltage protection	■	■	■	■	■
	Low voltage protection	■	■	■	■	■
	Zero-sequence overvoltage protection	■	■	■	■	■
	Low-frequency load shedding					■
	Non-power protection	■				■
	Inline backup power self-recovery		■			
	Bridge switch self-recovery					
	PT break detection			■	■	
telemetry communicate	Voltage	■	■	■	■	■
	Current	■	■			■
	Active Power	■	■			■
	Reactive power	■	■			■
	Power Factor	■	■			■
	Frequency	■	■	■	■	■
	Telemetry	12	12	12	12	12
event logging	Protection Events	■	■	■	■	■
	Alarm events	■	■	■	■	■
	Telemeter shift events	■	■	■	■	■
	Operation log events	■	■	■	■	■
	Accidental shift count statistics	■	■	■	■	■
control	Remote protection throwing/returning	■	■	■	■	■
	R emote Modification of setting value		■	■	■	■
	Local/remote switching and closing	■	■			
comm.	RS-485 communication	■	■	■	■	■

ATB-600 Series

Microcomputer Protection Devices

Overview

The ATB-600 series integrated protection, measurement and control device is a very practical protection device designed for 35kV and below ring network cabinets, 550 cabinets and 450 cabinets, which can not only provide voltage and current protection for the corre - sponding power equipment, but also achieve measurement, control and communication functions. In addition, the common functions are set as options to meet the needs of the site, thus providing the most suitable product for the customer, avoiding waste of resources and reducing costs. This series of protection, measurement and control devices are suitable for the protection of incoming and outgoing lines, busbars, distribution transformers and small capacity motors in power distribution systems.

Models

- ATB-690 general-purpose protection and control device
- ATB-677 Anti-islanding protection device

Features

- Uses an embedded 32-bit microprocessor with integrated DSP and FPU unit for greater data processing capability
- has a friendly human-machine interface, with convenient field device testing functions
- Integral panel, fully enclosed chassis, strict separation of strong and weak power. At the same time the software design also take corresponding anti-interference measures, the device's anti-interference ability greatly improved, the external electromagnetic radiation meet the relevant standards
- Complete software and hardware self-test function, easier installation and commissioning
- The device is compact and can be grouped centrally or separately installed on the switchgear.

Parameters

Rated Parameters

Operating power supply	AC/DC220V，DC110V，DC48V
AC rated voltage Ue	100V or V
AC rated current Ie	5A,1A
Frequency	50Hz

Action value error

Average error of action values for delayed periods	≤±35ms or 2.5%
AC current circuit	< 1VA/Phase(IN=5A)；< 0.5VA/Phase(IN=1A)
Event recording resolution	≤ 1ms

Measurement accuracy

Current, voltage	Class 0.5
Power, kWh	Class 1.0
Frequency	±0.02Hz

Telemetry

Input method	Passive contact
Telematry resolution	≤ 1ms

Thermal performance (overload capacity)

AC voltage circuits	continuous operation under 1.2 times rated voltage; operate for 10s under 1.4 times rated voltage
AC current circuits	continuous operation under 2 times rated current; 10s operation under 10 times rated current, 1s operationunder 20 times rated current

Power consumption

DC power circuits	≤5W
AC voltage circuit	≤0.5VA/Phase

Output contact capacity

Output method	Passive contact
Turn-on current	8A@250VAC，8A@30VDC
Open contact voltage tolerance	1000V
voltage tolerance between coil and contact	4000V
Operation time	8ms(Max.)
Mechanical durability	With load>100,000times without load>10，000，000times

Output contact capacity

Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m

Electromagnetic compatibility Performance

Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

Electrical insulation properties

Dielectric strength	2kV Working frequency voltage, 1 min (GB/T 13729)
Insulation resistance	≥100MΩ (GB/T 13729)
Shock voltage	5kV，12/50μs (GB/T 13729)

Mechanical properties

Vibration Response/Durability	Class Ⅰ (GB/T 11287)
Shock Response/Durability	Class Ⅰ (GB/T 14537)
Crash Response	Class Ⅰ (GB/T 14537)

Overall Dimension

H×W×D	156.2mm×75mm×85.5mm
Cut-out Dimension	148mm×69mm

ATB-690

general-purpose protection and control device

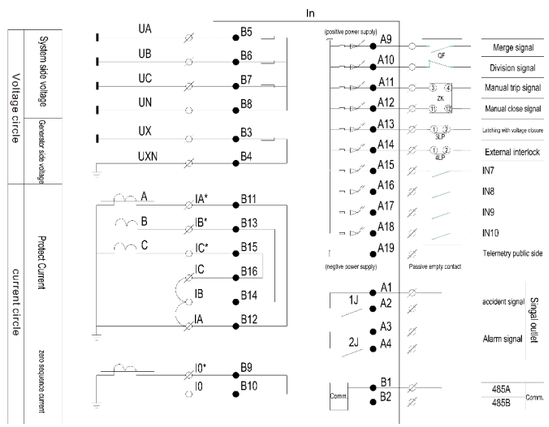
Overview

ATB-690 is a comprehensive protection, measurement and control device for lines, transformers, motors, capacitors, busbar protection and measurement and control devices for voltage levels up to 10KV.

Protection Function

- motor start
- overcurrent 1 segment
- Overcurrent 2 segments
- Overcurrent 3 segments
- PT Loss of Voltage
- unbalanced voltage
- Unbalanced current
- Charge protection
- Negative control trip
- Overload
- Zero sequence overcurrent
- Reclosing
- overvoltage
- Low voltage
- Zero-sequence overvoltage
- low frequency load shedding
- PT disconnection
- Negative sequence current
- Control circuit disconnection
- System loss of power
- Main transformer open
- Overcurrent inverse time limit
- Heavy gas
- Light gas
- High temperature
- Temperature rise

Wirings



ATB-677

Anti-islanding protection device

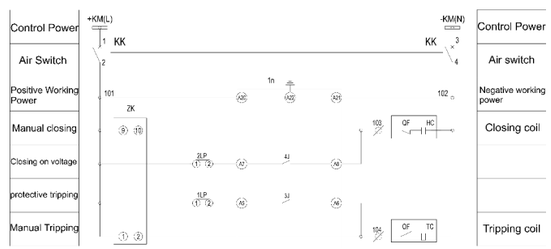
Overview

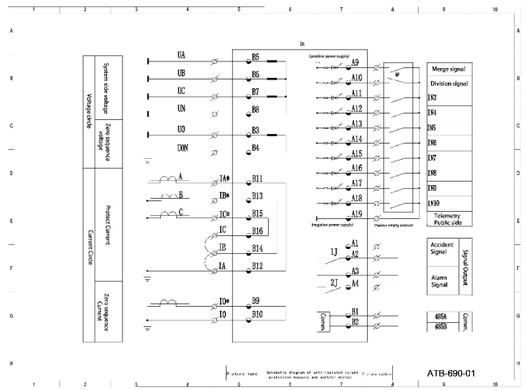
The ATB-677 is an anti-islanding device for small distributed photovol - taic stations, which trips the parallel network switch for safety when an unplanned islanding effect exists. The device can be installed in a group of panels or in situ in the switchgear.

Protection Function

- Frequency too high 1 paragraph
- Frequency too high 2 segments
- Frequency too low 1 segment
- Frequency too low 2 segments
- Overvoltage 1 segment
- Overvoltage 2 segments
- Low voltage 1 segment
- low voltage 2 segments
- Sudden frequency change
- Voltage-dependent automatic closing
- External link jump
- System power loss
- Overcurrent 1 segment
- Overcurrent 2 segments
- Overcurrent 3 segments
- Zero sequence overcurrent
- Inverse power
- Power Recovery Closure
- Harmonic monitoring

Wirings





ATD-650

Low voltage motor protection controller

Overview

The ATD-650 low-voltage motor protection controller incorporates advanced network communication technology to provide a complete set of specialized solutions for low-voltage AC motor circuits and is ideal for intelligent MCC. It is suitable for many industries such as electric power, petrochemical, light industry, coal, paper making, steel, and metallurgy.

Protection Function

- Underload protection
- Overload pre-alarm
- blocking protection
- Short-circuit protection
- Current unbalance protection
- Wire break protection
- Residual current protection
- External fault(process interlock)
- Overload protection(fixed time limit)
- Overload protection(inverse time limit)
- Grounding protection
- Overvoltage protection
- Under-power protection
- Start-up timeout protection
- tE time protection
- Phase sequence protection
- Undervoltage protection
- Voltage disconnection alarm

Motor activation Control Function

- Two-speed control
- Reduced voltage start
- Direct start
- Two-way control
  - ·Y-Δ Starter control
  - ·Resistance voltage reduction starters
  - ·Autotransformer voltage reduction starters
  - ·Series reactor voltage reduction starters
  - ·Soft start cooperation
- Variable frequency tie-in control
- Large motor assisted control
- "Anti-sway" function
- Undervoltage (loss of voltage) restart function
- Power-on self-start function

Measurement Function

- three-phase currents
- Zero sequence current 3I0
- Current unbalance
- Three-phase line voltage
- Active power (total)
- Reactive power (total)
- Power factor (total) Frequency
- Activ e power
- Reactive power
- Residual current value
- Insulation resistance

Maintenance functions

- Maintenance functions
- Total running time
- Stopping time
- Start time
- Start current
- Number of starts
- Number of decoupling
- Three-phase fault current
- DI/DO status enquiry
- Alarm enquiry
- Fault enquiry (64 times, timing marked)

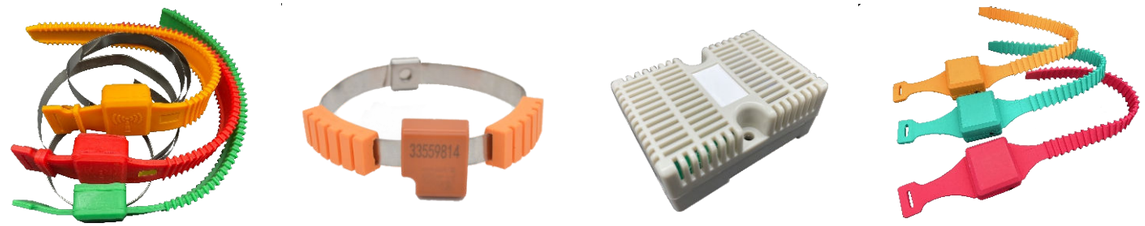
Communication Function

- MODBUS

Overall Dimension	
H×W×D	156.2mm×75mm×85.5mm
Cut-out Dimension	148mm×69mm

ATW001 Series

Wireless Temperature Monitoring Device



Overview

The ATW001 strap type active temperature sensor is used to measure the temperature on the surface or at the contacts of high voltage point objects, such as exposed contacts in high voltage switchgear, busbar connections, outdoor cutters and transformers, etc.

Features

- Real-time temperature detection
- Temperature over-valve alarm
- Supply voltage self-test
- High performance battery powered/CT inductive power extraction
- Long distance transmission
- Bundle mounting

Parameters

Temperature measurement range	-40℃~+125℃
Resolution	0.1℃
Measurement accuracy	±1℃
Collecting cycle	Default as 10s (adjustable)
Reporting cycle	Default as 1 min (adjustable)
Alarm threshold	Default as 2℃(adjustable)
wireless frequency	433M/2.4G
Transmission distance	300m/100m
Operating power	High performance lithium batteries
Strap material	High-temperature resistant silicone
Mounting method	Strap-on
Dimensions	Main body size: 38mm*35mm*24mm

Product selection guide

Function	Model	ATW001	ATW002	ATW003	ATW004
Resolution	0.1℃	■	■	■	■
Measurement accuracy	±1℃	■	■	■	■
Collecting Cycle	10s	■	■	■	■
Reporting cycle	60s	■	■	■	■
Alarm Threshold	2℃	■	■	■	■
Wirelessfrequency	433M/2.4G	■	■	■	■
Transmissiondistance	300m/100m	■	■	■	■
Operating power	lithium battery	■			■
	Inductive power pick- up 5A		■	■	
Service life	5 years	■			■
	10 years		■	■	
Strap material	High- temperature resistantsilicone	■	■	■	■
	Permalloy			■	
	Flameretardant plastic				■
Mounting method	Strapped	■	■	■	
	Din rail type				■
Strap length		385mm	360mm		
Overall dimensions		38mm*35mm*24mm	44.5mm*37mm*24.5mm	25.5mm*21.5mm*11mm	65mm*46mm*28.5mm

ATW2000

Centralized Temperature Monitoring Device

Overview

ATW2000 centralized Temperature Monitoring Device is an intelligent wireless temperature measurement centralized display all-in-one machine, developed using a multi-core hardware platform, which allows users to easily realize wireless temperature measurement touch and display func - tions through the temperature measurement touch mainframe.

Features

- Multiple Touch Points
- Data can be forwarded
- Highly adaptable at low temperatures
- Alarm values can be configured independently

Parameters

Basic Parameters	
Screen Dimension	10.1" (7", 15.6", 21.5" optional)
Resolution	1024*600
CPU	8 cores
RAM	1G
ROM	8G
Operation System	Android 6.0
Touch Mode	Capacitive
Peripheral interface	2 RS232, 2 RS485, 1 WIF, 1 Ethernet
Operating voltage	8~28V
Operating temperature and humidity	-20℃~+70℃, ≤90%RH
Outline size	280*183*40mm
Cut-out size	269*165mm
Standby power consumption	≤8W
Installation method	Embedded installation

Functions

- Real-time data
  - ·A scrolling list of real-time data for all devices in the system
  - ·If there is an alarm or warning, the alarm or warning message will be displayed at the bottom of the property information card
  - ·At the bottom of the real-time data is a recor d of the alarm information
- Historical data
  - ·Displays historical data for all devices within a day
  - ·Three attributes can be displayed simultaneously
- Alarm records
  - ·A scrolling list of each alarm message generated -
  - ·Each alarm record clearly shows the alarm status, alarm value, and alarm time of the device
  - ·Alarm records can be deleted
- System settings
  - ·Serial ports, hosts, points, wireless receiver modules, etc. can be configured
  - ·history data can be deleted
  - ·Alarm data can be deleted

ATW1000

Wall-mounted Temperature Monitoring Device

Overview

The ATW1000 wall-mounted temperature monitoring device is a field temperature monitor that integrates temperature sensor operating status monitoring, field temperature display, alarm indication and output, event logging and data recording.

Features

- Multi-source data reception
- Alarm output
- Parameter configuration
- WiFi configuration
- Point names can be modified
- Alarm logs

Parameters

Wireless frequency	433M/2.4G
Transmission distance	300m /100m
Number of sensors connected	256 temp. sensors+64 temp. and humidity sensors
Communication interface	2-way RS485 comm. port
Communication protocol	Modbus-RTU
Baud rate	Default as 9600(1200~38400 optional)
Calibration method	Default as 8N1,Also support 8N1,8E1, 801,80N2,8E2,802
Alarm parameters	Upper limit default as 90℃,Lower limit default as -20℃(-40~125℃configurable)
Alarm output	1-way normally open dry contact
Standby power consumption	≤3W
Screen size	3.2inch
Operating power	≤3W
Operating temperature and humidity	-40℃~+85℃,≤95%RH,non-condensing, no corrosive air
Protection level	IP20
Installation method	Wall-mount installation, dimension: 124mm*114mm*98mm

Functions

- Temperature Monitoring
  - ·displays the temperature data detected by the temperature sensor and the operating voltage of the sensor in real-time
  - ·The display modes are "Power three-phase" and "Point list".
- Alarm logs
  - ·records the location of the alarm point, the alarm start time, the alarm end time, the type of alarm (high or low temperature), and the temperature extremes.
  - ·up to 200 records, automatically overwriting the oldest record when more than 200 records are stored.
- List of points
  - ·View information about the temperature sensors bound to the machine, including device type, device number, and temperature measurement point name.
- Parameter view
  - ·View the unit's number, firmware version, limit on the number of sensors s upported, and information on the communication and alarm output interfaces.
- Communication settings
  - ·View and modify the unit's communication parameters. Including the 485 c ommunication address, baud rate and data format.
- Alarm settings
  - ·Alarm switch
  - ·Alarm sound
  - ·Low temperature threshold: -20°C at the default low temperature threshold, with a minimum limit of -50°C
  - ·High temperature threshold: default high temperature threshold at 90°C, maximum limit 150°C
  - ·Clear records

ATH48

Digital Type Temperature and Humidity Controller

Overview

ATH48-WSK-SX temperature and humidity controller is a combination of high reliability microprocessor, high-performance digital temperature and humidity sensor, and intelligent software. The controller has the characteristics of strong anti-interference ability, high control accuracy, flexible control mode, etc. It can set the upper and lower temperature and humidity limits, control return difference and control mode respectively，which can effectively prevent the power equipment from various accidents caused by high ambient temperature and humidity and condensation, and realize the automation of dehumidification, heating and anti-condensation control. The temperature and humidity controller has high reliability, easy installation, maintenance-free, long-term stable operation and other characteristics, can be widely used in various types of occasions where temperature and humidity control is mandatory.

Features

- Small size, light weight, easy and fast installation
- Professional polymer temperature and humidity sensor, strong anti-interference ability, and high precision
- Humidity, temperature sensor 24 hours real-time sampling
- Double rows of high-definition digital tube display, LED equipment operation status indication
- Online programming of various instrument parameters, friendly interface, easy to operate
- Adopt photoelectric isolation, can avoid system paralysis and other failures caused by module failure
- Parameter setting locked by password, parameter setting power off permanent storage
- Adopt standard communication interface and user-oriented communication protocol

Parameters

Basic Parameter	
Power supply	AC/DC85~265V
Power consumption	≤3.5W
Setting method	Button
Accuracy level	Temperature ±0.5℃,Humidity ±3%RH
Input circuit	Numerical temperature and humidity sensors
Control range	Temperature 0.00~99.9℃, Humidity 0.00~99.9%RH
Control output	Relay output 5A/250VAC
Control return	Temperature 0.0~9.9℃ Humidity0.0~9.9%RH
Communication interface	RS485/Modbus

Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m

Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

Electrical insulation properties	
Dielectric strength	2kV Working frequency voltage, 1 min (GB/T 13729)
Insulation resistance	≥100MΩ (GB/T 13729)
Shock voltage	5kV，12/50μs (GB/T 13729)

Mechanical properties	
Vibration Response/Durability	Class Ⅰ (GB/T 11287)
Shock Response/Durability	Class Ⅰ (GB/T 14537)
Crash Response	Class Ⅰ (GB/T 14537)

ATH2P

OLED Type Temperature and Humidity Controller

Overview

ATH48-WSK-SX temperature and humidity controller is a combination of high reliability microprocessor, high-performance digital temperature and humidity sensor, and intelligent software. The controller has the characteristics of strong anti-interference ability, high control accuracy, flexible control mode, etc. It can set the upper and lower temperature and humidity limits, control return difference and control mode respectively，which can effectively prevent the power equipment from various accidents caused by high ambient temperature and humidity and condensation, and realize the automation of dehumidification, heating and anti-condensation control. The temperature and humidity controller has high reliability, easy installation, maintenance-free, long-term stable operation and other characteristics, can be widely used in various types of occasions where temperature and humidity control is mandatory.

Features

- Professional polymer temperature and humidity sensor with high resistance to interference and high accuracy
- Optoelectronic isolation is used to avoid system breakdown due to failure of a module
- 0.96" HD OLED display screen
- Online programming of all parameters
- Parameter setting with password lock, parameter setting breakpoints are permanently saved
- Standard communication interface and user-developed communication protocols

Parameters

Basic Parameter	
Power supply	AC/DC85~265V
Power consumption	< 5VA
Setting method	Button
Accuracy level	Temperature ±0.5℃,Humidity ±3%RH
Input circuit	1 Temp/1 Humidity/1temp and 1 humidity/two temp and two humidity
Control range	Temperature 0.00~99.9℃, Humidity 0.00~99.9%RH
Control output	Relay output 5A/250VAC
Control return	Temperature 0.0~9.9℃ Humidity0.0~9.9%RH
Communication interface	RS485/Modbus

Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m

Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

Electrical insulation properties	
Dielectric strength	2kV Working frequency voltage, 1 min (GB/T 13729)
Insulation resistance	≥100MΩ (GB/T 13729)
Shock voltage	5kV，12/50μs (GB/T 13729)

Mechanical properties	
Vibration Response/Durability	Class Ⅰ (GB/T 11287)
Shock Response/Durability	Class Ⅰ (GB/T 14537)
Crash Response	Class Ⅰ (GB/T 14537)

ATCS

Intelligent Dehumidification Device

Overview

ATCS Series Intelligent Electrical Cabinet Dehumidifier adopts semiconductor refrigeration dehumidification method, the humid air in the closed space is sucked into the dehumidification duct under the action of the fan, and the water vapor in the air is condensed into water after the semi - conductor refrigeration mechanism, and then discharged from the cabinet through the guide pipe, which can achieve a good dehumidification effect. The relative humidity and absolute humidity are lowered by reducing the moisture content in the air, almost no increase in temperature, fundamentally reduce accidents caused by raising temperature, also no accelerate the aging of the cabinet devices because of high tempera - tion. Instead of passively prevent condensation, this Intelligent dehumidification device will actively guide condensation, effectively prevent the cabinet equipment aging, insulation strength reduction, secondary terminal breakdown, material mold and steel structure rust and other security risks, to ensure the safe operation of the power grid.。

Model

- ATCS-100 Intelligent Dehumidification Device
- ATCS-200 Intelligent Dehumidification Device

Application

- High and low voltage control cabinets
- High and low voltage switchgear
- Terminal boxes
- Ring network cabinets
- Box-type substations, dry-type substations
- Constant temperature and humidity boxes, warehouses, etc.
- GIS control cabinets

Features

- Small size, light weight, easy and fast installation
- Switching between automatic operation and manual dehumidification, adjustable starting values for temperature and dehumidification
- dehumidification air ducts actively induce condensation, exclude gas heating and dehumidification
- 24-hour real-time sampling of humidity and temperature sensors, automatic dehumidification beyond the set start value
- Humidity and temperature settings with memory function
- Fault display function for quick fault finding to ensure normal operation
- special moisture-proof components, internal circuit board with moisture-proof treatment
- shielding and isolation technology, in accordance with GB/T17626 -2008 level 3 standard
- dehumidification and condensation piping, which allows the water to be drained out of the cabinet after condensation, and also collected outside the cabinet using a liquid storage bag
- with heating function
- RS485 communication function with adjustable communication address; remote control, adjustment of operating parameters and fault reporting

Parameters

Operating power	AC85V~305V/DC120V~432V
Dehumidification efficiency	100±10 200±10、300±10、450±10%ml/Day(under 35℃,RH=90%)
External heating power	50W~500W
Dehumidification temperature	5℃~45℃
Power	20W、40W、60W、80W
Operating temperature	-25℃~85℃
Humidity detection range	20%RH～98%RH
Temperature detection range	-25℃~125℃
Dehumidification start value	50%RH~98%RH(
Temperature start value	1℃~55℃
Humidity measurement accuracy	±3%RH
Temperature measurement accuracy	0.5℃
Bus type	Rs485
Communication protocol	Modbus RTU

AT-CTKD

Open and Close Type Current Transformer

Overview

The open and close type current transformer is an improvement on the traditional transformer. It can be installed and dismantled quickly and easily without powering off or disconnecting the wires. This series of products have a wide measuring range, rated primary current range: 5~630A, rated secondary current range: 0~5A, the current ratio can reach 500:1~10000:1. The orderly production process ensures its accuracy level, reliability and other technical requirements. This product conforms to GB/T20840.1.2 standard.

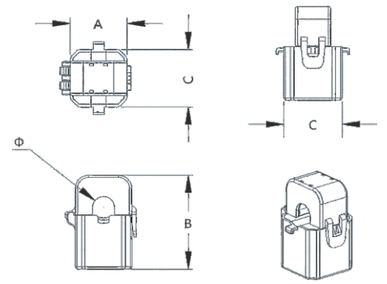
Application

- Suitable for agricultural network renovation, electrical fire monitoring, fire and leakage systems, intelligent power systems, power measurement, power quality analysis and collection of s ignals from electrical equipment, lighting equipment, motors, power devices and other equipment for power demand side management small current earthing systems, electromagnetic relay protection, micro-computer protection, intelligent power, environmental monitoring, etc.

Features

- Snap structure, good linearity and high sensitivity
- Highly permeable silicon steel for good linearity and sensitivity
- Internal epoxy resin casting, good stability, light weight, easy to install

Appearance and Wiring



Parameters

Electrical Parameter	
Operating frequency	50~2KHz
Rated Input	5A-2000A
Measurement range	10%In~130%In
Rated output	0.333V(AC) or 0-5A
Ratio Difference	≤±1.0%
Phase to Difference	≤±10 points
Dielectric strength	2.5KV/1mA/1min
Insulation resistance	DC500V/1000MΩ /min
Mechanical Parameter	
Housing	ABS, flame-retardant class 94-V0
Skeleton	PBT
Iron core	Silicon steel
Internal structure	Snap
Construction solutions	Tie fixing
Operating temperature	-25C~+75°C
Ambient humidity	≤85%
Wiring method	PVC tri-colour 1.5m twisted pair

Model	Rated Input (A)	Rated Output (mA/V)	Accuracy Class	Dimension (mm)			
				□	A	B	C
CTKD10	5-75A(5、10、20、50、75)	0-50mA 0.333V	0.5、1.0、3.0	10	23	40	27
CTKD16	5-160A(5、10、50、100、160)	0-5A 0.333V		16	31	50	30
CTKD24	10-300A(10、50、100、200、250)	0-5A 0.333V		23	43	73	39
CTKD35	70-630A (20、100、250、400、600)	0-5A 0.333V		36	60	89	43
CTKD50	70-2000A(200、500、1000、1500、2000)	0-5A 0.333V		50	81.2	119.8	58

ATS180G Series

Smart Energy Safety Monitoring Device

Overview

The ATS180G series of smart energy safety monitoring devices are designed for the collection and analysis of power parameters and electric metering, supporting the measurement and analysis of a wide range of power parameters. The RS485 communication interface allows for easy remote data reading, while the LCD display allows for easy local viewing and setting of various measurement parameters.

Model

- ATS100G Smart Energy Safety Monitoring Device
- ATS180G Smart Energy Safety Monitoring Device

Features

- Din rail mount
- Touch key design
- Multifunctional parameter measurement
- Supports bi-directional energy metering
- LCD with full-view display, white backlight, adjustable backlight illumination time
- LCD refresh time: 1 second, supports manual page turning and automatic display rotation (switchable)

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)
Oscillating wave immunity	Class Ⅲ (GB/T 17626.12 IEC 61000-4-12)
Electromagnetic emission limits	Accordant(GB/T 14598.16 IEC 60255-25)

ATS180L

Smart Energy Safety Monitoring Device

Overview

ATS180L series intelligent electricity safety monitoring device adopts a professional metering chip with industrial-grade microprocessor as its core, which has high reliability. The product installation adopts embedded installation, which makes it easier for installation and wiring.

Model

- ATS100L Smart Energy Safety Monitoring Device
- ATS180L Smart Energy Safety Monitoring Device

Features

- Three-phase power parameter calculation
- Modular design for flexible configuration of individual functions
- adjustable voltage and current ratios
- Password lock for parameter setting, permanent storage in case of power failure
- Support RS-485 communication, MODBUS-RTU protocol
- AC/DC power supply, high and low voltage isolation
- LCD display
- Easy installation and wiring

Parameters

Working Power	
Operating range	AC/DC85~265V
Power consumption	≤5W
AC input	
Input voltage	
Rated	AC 100V、220V、400V
Overload	1.2times continuous，2times（10s）
Power consumption	<0.4VA/phase
Impedance	≥200kΩ
Input current	
Primary current	1-9999A
Secondary input	1A or 5A
Short-time overcurrent	20 times Max. current for 0.5 s
Power consumption	<0.2VA/Phase
Impedance	≥0.1Ω
Input output	
Switch inputs	Dry contact input, opto-isolated
Switch outputs	Relay output; any power alarm can be set, default remote control
Comm. Port	
RS485	Modbus RTU
Accuracy	
Voltage/Current	0.5%
Frequency	0.2%
Power / Power Factor	1%
Active power	Class0.5S
Reactive power	Class2
Operation Environment	
Operating temperature	-25℃~55℃
Storage temperature	-40℃~70℃
Operating humidity	≤90%RH，non-condensing,no corrosive air
Storage humidity	≤95%RH，non-condensing,no corrosive air
Altitude	≤2000m
Electromagnetic compatibility Performance	
Electrostatic discharge	Class Ⅳ (GB/T 17626.2 IEC 61000-4-2)
RF Field Strength Susceptibility	Class Ⅲ (GB/T 17626.3 IEC 61000-4-3)
Electrical Fast Transient /Burst Test	Class Ⅳ (GB/T 17626.4 IEC 61000-4-4)
Surge Test	Class Ⅳ (GB/T 17626.5 IEC 61000-4-5)
Conducted Susceptibility Test	Class Ⅲ (GB/T 17626.6 IEC 61000-4-6)
Power Frequency Magnetic Field Susceptibility Test	Class Ⅳ (GB/T 17626.8 IEC 61000-4-8)