ENERGY METER

CATALOGUE

HONG KONG SONG YANG INDUSTRIAL LTD.
SY1015 Single Phase DIN-rail Watt-hour Meter

Application:
Type SY1015 single phase DIN rail watt-hour meter is a kind of new style single phase electronic watt-hour meter, it adopt micro-electronics technique, and imported large scale integrate circuit, use advanced technique of digital and SMT techniques, etc. The meter completely accord with relevant technical requirements of class 1 and class 2 single phase energy meter stipulated in National standard GB/T17215-2002 and international standard IEC61036. It can accurately and directly measure 50Hz or 60Hz active energy consumption from single phase AC electricity net. It can display total energy consumption by step type impulse register. It has following features: Good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

Functions and Features:
1. 35mm standard DIN rail installation, complying with standard DIN EN5002.
2. 18mm width, complying with standard DIN43880.
3. May select 5+1 digits display (99999.1kWh) and 6+1 digits display (999999.1kWh).
4. Impulse output when no power, complying with standard DIN43864.

Technical Parameters:

<table>
<thead>
<tr>
<th>Type</th>
<th>Accuracy</th>
<th>Rated voltage(V)</th>
<th>Rated current(A)</th>
<th>Starting Current</th>
<th>Insulation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY1015</td>
<td>Class 1</td>
<td>220V</td>
<td>2.5(10),3(15),5(20),5(30)</td>
<td>0.4%lb</td>
<td>AC voltage 2kV for 1 minute</td>
</tr>
<tr>
<td></td>
<td>Class 2</td>
<td>220V</td>
<td>2.5(10),3(15),5(20),5(30)</td>
<td>0.5%lb</td>
<td>Impulse voltage 6kV</td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
SY1018 Single Phase DIN-rail Watt-hour Meter

Application:
Type SY1018 single phase DIN watt-hour meter is a kind of new style single phase electronic watt-hour meter, the meter completely accord with relevant technical requirements of class 1 and class 2 single phase energy meter stipulated in National standard GB/T17215-2002 and international standard IEC61036. It can accurately and directly measure active energy consumption from single phase AC electricity net. It can display total energy consumption by step type impulse register or LCD display. It has following features: Good reliability, small volume, light weight, spocious nice appearance, convenient installation, etc.

Functions and Features:
1. 35mm standard DIN rail installation, complying with standard DIN EN5002.
2. May select 5+1 digits register by step type or 7 digits LCD display.
3. May select infrared carrier wave communication and RS485 serial port communication.
4. Impulse output when no power, complying with standard DIN43864.
5. May select normal or simple connection.

Technical Parameters:

<table>
<thead>
<tr>
<th>Type</th>
<th>Accuracy</th>
<th>Rated voltage(V)</th>
<th>Rated current(A)</th>
<th>Starting Current</th>
<th>Insulation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY1018</td>
<td>Class 1</td>
<td>220V</td>
<td>2.5(10),3(15),5(30),5(40)</td>
<td>0.4%lb</td>
<td>AC voltage 2kV for 1 minute</td>
</tr>
<tr>
<td></td>
<td>Class 2</td>
<td></td>
<td>10(50),15(90),20(100)</td>
<td>0.5%lb</td>
<td>Impulse voltage 6kV</td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
SY1025 Single Phase DIN-rail Multi-rate Energy Meter

Application:
Type SY1025 single phase DIN rail multi-rate energy meter is a kind of new style single phase electronic multi-rate watt-hour meter, energy data display adopt 7 digits wide temperature type crystal display, with many functions of multi-rate (time-of-use) energy measurement, infrared carrier wave communication and RS485 serial port communication reading meter, etc. The meter completely accord with relevant technical requirements of class 1 and class 2 single phase energy meter stipulated in National standard GB/T17215-2002 and international standard IEC61036. It has following features: Good reliability, small volume, light weight, spocious nice appearance, convenient installation, etc.

Functions and Features:
1. May select 35mm DIN rail installation or installation on the board.
2. Have 3 tariffs, 12 daily periods of times, may select single tariff function in weekend.
3. Inner emplaced clock, after power cut down, the message is preserved forever, inner emplaced spare batteries and free of maintenance.
4. The direction of electric power can be distinguished automatically, accident is checked automatically.
5. Infrared carrier wave communication and RS485 serial port communication, meter is set up by program and password is protected.

Technical Parameters:

<table>
<thead>
<tr>
<th>Type</th>
<th>Accuracy</th>
<th>Rated voltage(V)</th>
<th>Rated current(A)</th>
<th>Starting Current</th>
<th>Insulation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY1025</td>
<td>Class 1</td>
<td>220V</td>
<td>2.5(10),3(15),5(30),5(40)</td>
<td>0.4%lb</td>
<td>AC voltage 2kV for 1 minute</td>
</tr>
<tr>
<td></td>
<td>Class 2</td>
<td></td>
<td>10(50),15(90),20(100)</td>
<td>0.5%lb</td>
<td>Impulse voltage 6kV</td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
SY1028 Single Phase Induction Watt-hour Meter

Application:
SY1028 single-phase watt-hour meter is a kind of induction meter, which is applicable to measure the rated frequency 50Hz and power loss in electrified wire netting. All technical targets are completely conformed to National Standard GB/T15283-94 and International Standard IEC60521.

Structure and Features:
The meter has separable electromagnet three kinds; single-jewel, dual jewel, magnetic thrust and magnetic floating. The case has three kinds; aluminum, plastic and glass. The die-casting frame is alloy aluminum with excellent mechanical strength.

Technical Parameters:

<table>
<thead>
<tr>
<th>Accuracy</th>
<th>Rate Voltage(V)</th>
<th>Rate Current(A)</th>
<th>Overload Capacity</th>
<th>Starting Current</th>
<th>Insulation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2</td>
<td>220V</td>
<td>2(4),2.5(5),3(6),5(10),10(20),20(40),30(60),40(80)</td>
<td>200%lb</td>
<td>0.5%lb</td>
<td>AC voltage 2KV for 1 minute Impulse voltage 6kv</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2(6),3(9),5(15),10(30),15(45),20(60)</td>
<td>300%lb</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5(20),3(12),10(40),15(60),20(80)</td>
<td>400%lb</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
SY1029 Single Phase Induction Watt-hour Meter

Application:
Type SY1029 single-phase watt-hour meter is induction meter, which is applicable to measure the rated frequency 50Hz and power loss in electrified wire netting. The meter has novel design, rational structure and features of high overload, low power loss and long life etc. All technical targets are completely conformed to National Standard GB/15283-94 and International Standard IEC60521.

Structure and Features:
1. Sub-closed electromagnetic core, the die-casting frame is made of alloy aluminum, assure magnetism stable and reliable.
2. Meter bearing has three kinds, may select dual jewel, magnetic thrust or magnetic float.
3. May select 5+1 digits or 4+1 digits register.
4. May select 5 kinds of cases: bakelite, PC, ABS plastic, glass and Aluminum.

Technical Parameters:

<table>
<thead>
<tr>
<th>Accuracy</th>
<th>Rate Voltage(V)</th>
<th>Rate Current(A)</th>
<th>Overload Capacity</th>
<th>Starting Current</th>
<th>Insulation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2</td>
<td>220V</td>
<td>1.5(6),2.5(10),3(12),5(20),10(30),10(40),15(60),20(60),20(80),30(90),30(100)</td>
<td>2 ~ 4lb</td>
<td>0.5%lb</td>
<td>AC voltage 2KV for 1 minute, Impulse voltage 6kv</td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
**Application:**
Type SY1030 single phase long life watt-hour meter is a kind of induction type meter which measure active energy electric power consumption in rated frequency 50Hz and single phase AC electricity net. The type single phase watt-hour meter is a new-style induction type meter which is designed and developed on the basis of type DD155 single phase watt-hour meter and absorb domestic and overseas induction meter new techniques and use long life techniques. Its technique performance is completely conforming to the stipulated requirement of National Standard GB/T15283-94 and International Standard IEC60521.

**Structure and Features:**
The meter has separable electromagnet three kinds; single-jewel, dual jewel, magnetic thrust and magnetic floating. The case has three kinds; aluminum, plastic and glass. The die-casting frame is alloy aluminum with excellent mechanical strength.

**Technical Parameters:**

<table>
<thead>
<tr>
<th>Accuracy</th>
<th>Rate Voltage(V)</th>
<th>Rate Current(A)</th>
<th>Overload Capacity</th>
<th>Starting Current</th>
<th>Insulation Performance</th>
<th>Power Loss in Voltage Circuit</th>
<th>Use Life (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2</td>
<td>220V</td>
<td>1.5(6),2.5(10),3(15),5(30),10(60)</td>
<td>4~6lb</td>
<td>0.5%lb</td>
<td>AC voltage 2KV for 1 minute Impulse voltage 6kv</td>
<td>≤ 1.0W, 5VA</td>
<td>30</td>
</tr>
</tbody>
</table>

**Outer and Mount Dimension:**

![Diagram of the meter]
SY1031 Single Phase Electronic Watt-hour Meter

Application:
Type SY1031 single phase watt-hour meter is a kind of new style single phase electronic watt-hour meter, it adopt a large scale of integrated circuits and SMT techniques, whole screen and anti-jamming structure. The meter completely accord with relevant technical requirements of class 1 and class 2 single phase energy meter stipulated in National standard GB/T17215-2002 and international standard IEC61036. It is used for measuring active energy power loss in frequency 50Hz or 60Hz single phase AC electricity net, and which is installed in meter box indoors or outdoors.

Function and Features:
1. May select 5+1 digits register by step type or 6 digits LED or 7 digits LCD display.
2. The direction of electric power can be distinguished automatically, can measure unidirectional energy power, and has function of anti-stealing electricity.
3. Impulse output when no power, be convenient to collecting read meter.
4. May select many sorts of outlines.

Technical Parameters:

<table>
<thead>
<tr>
<th>Type</th>
<th>Accuracy</th>
<th>Rated voltage(V)</th>
<th>Rated current(A)</th>
<th>Starting Current</th>
<th>Insulation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY1031</td>
<td>Class 1</td>
<td>220V</td>
<td>2.5(10),5(20),5(30),10(40)</td>
<td>0.4%lb</td>
<td>AC voltage 2kV for 1 minute</td>
</tr>
<tr>
<td></td>
<td>Class 2</td>
<td></td>
<td>10(50),20(80),20(100)</td>
<td>0.5%lb</td>
<td>Impulse voltage 6kV</td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
SY1032 Single Phase Prepaid Watt-hour Meter

Application:
Type SY1032 series single phase electronic prepayment watt-hour meter is a kind of new-style meter which purchase electricity by IC card and adopt micro-electronics techniques. It is used for measuring rated frequency 50Hz or 60Hz single phase AC active energy electric power consumption and realize using electric power after prepaying and realize user load control function. It is a kind of idea product for reforming using electricity system and realizing electric energy commoditization and effectively control and adjust electricity net load. Its technique performance is completely conformed to National Standard GB/T17215-1998 and international standard IEC61036.

Function and Features:
1. Data memorizer of not easy to lost, after power cut down, data preserved forever.
2. The direction of electric power can be distinguished automatically, can measure unidirectional energy power, and has function of anti-stealing electricity.
3. May select many kinds of IC card, have IC card with code and data against false.
4. May select 6 digits LED display or 7 digits LCD display.
5. May select payment controls by kWh type or money type.
6. For management system software, or may select net version.

Technical Parameters:

<table>
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<tr>
<th>Type</th>
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<th>Insulation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY1032</td>
<td>Class 1</td>
<td>220V</td>
<td>2.5(10), 5(20), 5(30), 10(40)</td>
<td>0.4%lb</td>
<td>AC voltage 2kV for 1 minute</td>
</tr>
<tr>
<td></td>
<td>Class 2</td>
<td></td>
<td>10(50), 20(80), 20(100)</td>
<td>0.5%lb</td>
<td>Impulse voltage 6kV</td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
SY1035 Single Phase Multi-rate Watt-hour Meter

Application:
SY1035 series Single Phase Multi-tariff Static Electricity Meter adopts the ASIC and SCM technology. It conforms to IEC61036-2000. It is characterized with small start current and large overload times.

Main Functions & Features:
1. Adopt ADE7755 measurement chip.
2. High accuracy class.
3. Large overload times.
4. Can sum up the absolute value of positive and negative energy.
5. Record power energy of this month, last month, and the month before last.
6. Can set 2 (or more) tariffs on each day, 8 time intervals, Min. interval is 1 minute. Current tariff is indicated by LED.
7. Large LCD display. Double counters are optional, the upper and below are Total register and Off-peak register.
8. Can record the time & date of last programming, original Total and original Off-peak.
9. Infrared interface for programming and reading. According to user’s requirement, we can expand RS485 port and passive second pulse exportation port.
10. RS485 has expanded functions: register freeze, time & date of last power cut and recovery, accumulated time of power cut.
11. Can be read in case of power cut (displaying in case of power cut)

Outer and Mount Dimension:
SY1040 Three Phase DIN-rail Multi-rate Energy Meter

Application:
Type SY1040 three phase DIN rail watt-hour meter is a kind of new style three phase electronic watt-hour meter, the meter completely accord with relevant technical requirements of class 1 and class 2 single phase energy meter stipulated in National standard GB/T17215-2002 and international standard IEC61036. It can accurately and directly measure active energy consumption from three phase AC electricity net, it can display total energy consumption by step type impulse register or LCD display. It has following features: Good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

Function and Features:
1. May select 35mm DIN rail installation and installation on the board.
2. May select 5+1 digits register by step type or 7 digits LCD display.
3. May select infrared carrier wave communication and RS485 serial port communication.
4. Impulse output when no power, complying with standard DIN43864.

Technical Parameters:

<table>
<thead>
<tr>
<th>Name</th>
<th>Rate Voltage (V)</th>
<th>Accuracy</th>
<th>Rate Current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three phase four wire active energy electronic type Watt-hour meter</td>
<td>3×380/220V, 3×100/57.5V</td>
<td>Class 1</td>
<td>1.5(6), 3(6), 5(30), 10(50), 15(90), 20(100)</td>
</tr>
<tr>
<td>Three phase three wire active energy electronic type Watt-hour meter</td>
<td>3×100V, 3×380V</td>
<td>Class 2</td>
<td></td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
SY1041 Three Phase DIN-rail Watt-hour Meter

Application:
Type SY1041 three phase DIN rail watt-hour meter is a kind of new style three phase electronic multi-rate watt-hour meter, energy data display adopt 7 digits wide temperature type crystal display, with many functions of multi-rate (time-of use) energy measurement, infrared carrier wave communication and RS485 serial port communication reading meter, etc. The meter completely accord with relevant technical requirements of class 1 and class 2 single phase energy meter stipulated in National standard GB/T17215-2002 and international standard IEC61036. It has following features: Good reliability, small volume, light weight, specious nice appearance, convenient installation, etc.

Function and Features:
1. May select 35mm DIN rail installation or installation on the board.
2. Have 3 tariffs, 12 daily periods of times, may select single tariff function in weekend.
3. Inner emplaced clock, after power cut down, the message is preserved forever, inner emplaced spare batteries and free of maintenance.
4. The direction of electric power can be distinguished automatically, accident is checked automatically.
5. Infrared carrier wave communication and RS485 serial port communication, meter is set up by program and password is protected.

Technical Parameters:

<table>
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<tr>
<th>Name</th>
<th>Rate Voltage (V)</th>
<th>Accuracy</th>
<th>Rate Current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three phase four wire active energy electronic type Watt-hour meter</td>
<td>3×380/220V, 3×100/57.5V</td>
<td>Class 1</td>
<td>1.5(6),3(6),5(30),10(50),15(90),20(100)</td>
</tr>
<tr>
<td>Three phase three wire active energy electronic type Watt-hour meter</td>
<td>3×100V, 3×380V</td>
<td>Class 2</td>
<td></td>
</tr>
</tbody>
</table>

Outer and Mount Dimension:
Overview:

SY1060 is 3 Phase Multifunctional Static Electricity Meter, taking advantage of the strong points of the international similar companies, adopting modern micro electronics, computer, electrometer, communications, advanced SMT technology. Its technical specifications completely comply with IEC61036-2000. As a good choice to replace the electromechanical meter, it is characterized with high accuracy class, stable and reliable function, long life, small volume, light weight, low power consumption, convenient operation, and easy function’s expanding. It is widely applied to electric energy measurement and the field of electric autoimmunization.

Main Functions:

1. Electricity consumption measurement:
   Measure the active kWh and store the data. Can store the data of last month and month before last
2. Max. demand measurement:
   In a designated period (one month), measure the Max. demand, maximum demand of time interval and its occurring time and date, then storage the data. Can storage the data of last 2 months
3. Tariff and time interval:
   With the functions of calendar, timing, auto be switch of leap year. 4 tariffs and 12 time intervals are freely programmed within 24 hours.
4. Event record:
   Record the total times of demand reset, time & date of last demand reset; record the total times of voltage lost, accumulated time of voltage lost of each phase, time & date of last voltage lost; record the total times of power cut, time & date of last power cut and re-supply; record the time of usage of data back-up battery, time & date of last programming; displaying in real time the voltage of 2 interior batteries
5. Output interface:
   With remote pulse output interface of photoelectric isolation (can be as a testing interface for error testing) and output interface of RS485 to communicate with palmtop PC, PC (communication protocol is optional). With infrared communication function to communicate with palmtop PC and infrared remote control HHU. (Max. Communication distance > 4 m)
6. Load record:
   Record the load of appointed 24 hours, record every 60 minutes, 24 points of load in all. The recorded load can be read out through the RS485 interface or infrared interface
   Size: 273mm x 172mm x 91mm
   Weight: 2.5Kg
SY1060 Three Phase Multi-Function Watt-hour Meter

Overview:
SY1060 is 3 Phase Multifunctional Static Electricity Meter, taking advantage of the strong points of the international similar companies, adopting modern micro electronics, computer, electrometer, communications, advanced SMT technology. Its technical specifications completely comply with IEC61036-2000. As a good choice to replace the electromechanical meter, it is characterized with high accuracy class, stable and reliable function, long life, small volume, light weight, low power consumption, convenient operation, and easy function's expanding. It is widely applied to electric energy measurement and the field of electric autoimmunization.

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   Size: 273mm x 172mm x 91mm
   Weight: 2.5Kg

Size: 273mm x 172mm x 91mm
Weight: 2.5Kg
SY1065 Three Phase Multi-Function Watt-hour Meter

Main Features:
1. High accuracy class. The accuracy can reach Class 0.2S. Wide overload times, the accuracy class can be better than 0.5S within the range of 10 times overload.
2. 16M data storage memory, 256K programs storage memory, 10MIPS operation speed can easily realize many functions of the meter.
3. Functions configuration is optional to meet the different need of clients. The modules of chosen function are all independent to insure the stable operation and extension
4. The accumulation of meter running and long-term R&D experience--greatly improve reliability of the meter.
   a) Highly reliable data storage, independent bus, several copies for data storage in different substances, complete calculation of data error correcting, greatly insure the security of data operation
   b) Highly reliable double clocks and complete calculation for temperature equalizing, make the clock error greatly superior to the national standard within -10°C~50°C
   c) Security of meter programming is optional; it can identify automatically the meter's operation state either in consumption locale or in calibration center. Password protected in different administrative levels, automatically prevent password stealing or illegal access to data
   d) Optional highly protected output interface to insure the electric security of data output and operation
5. With function of time interval booking and load peak adjusting to meet the need of current electricity management

Main Functions:
1. Measurement of active and reactive power consumption, as well as related demand.
2. Measurement of real-time voltage, current, frequency and power factor.
3. TOU, support the time interval of holiday and weekend.
4. A back-up tariff set can be programmed and saved to make it easy for power company to change the tariff of all meters at the same time in the future.
5. With the function of checking of load peak adjusting, the period of load peak adjusting can be programmed, during which recording the load operation for management of the electricity consumption in order.
6. Ways of event record is optional (<all>phase lost, current lost, overload, phase reversal, power reversal, terminal cover open, etc).
7. Quality checking of electricity network.
8. Load record with flexible configuration and 16M memory.
9. Powerful function of alarming with sound and flash is optional.
10. Two RS485 ports and one local infrared communication port can be communicated at the same time.
11. Two sets of display in scroll to be programmed in one meter to meet the need of management.
12. Extension interfaces are reserved for further extension of communication interface, through which clients can lower the cost when expanding later

Tel: 86-571-85394178, 85393435, 85390637, 85391965, 85301329  Fax: 86-571-85301324
E-mail: sales@songyangmeter.com  Website: www.songyangmeter.com
Terminal unit of SY1101 Power Consumption Locale Service & management System

System description

The terminal unit of SY1101 system is designed according to the national standard and clients' requirements. With the application of advanced GSM/GPRS networks communication technology and 32 RISC CPU, compared with the traditional load management terminal unit, it is characterized with wide cover, stable operation, practical, powerful functions. It can be widely applied in utility's power consumption locale automatic management.

Main functions and features

1. Remote reading.
2. Alarm of abnormal electricity consumption.
3. Load management.
4. Quality checking of electric energy.
5. Output interface
SY1101 Power Consumption Locale Service & Management System

System Introduction:

Based on digital communication technology, computer science, electric energy measurement technology and electricity marketing & sales technology, SY1101 Power Consumption Locale Service & Management System is an integrated real-time information collecting and analyzing system for modern electricity management. It consists of "Real-time Supervision of Key Customer System", "Load Management & Control System", "Resident Remote Concentration Reading System", "Electricity Distribution Supervision System" and "Transformer Substation Remote Concentration Reading System".

It is operated on the base of public wireless network of GSM/GPRS, and supported by other communication ways of carrier wave, local bus and RS485 to realize the data communication between the master workstation and the terminal unit at remote locale. Its functions include remote meter reading, alarm of abnormal electricity consumption, improvement of customer service, quality checking of electric energy, analysis of network energy loss, load management & control, resident remote concentration reading, transformer substation remote concentration reading, etc.

System Composition:

1. Key customer management and service sub-system
2. Power transformation and distribution monitoring sub-system
3. Transformer substation remote centralized reading and analysis sub-system
4. Household remote centralized reading sub-system
SY1102 Key Customer Management & Service Sub-system

Product description
Key customer management & service sub-system is the first sub-system we developed. It focuses on the remote reading, alarming of abnormal consumption, better customer service and load control & management. The terminal unit of key customer system is designed according to the national standard and clients’ requirements. With the application of advanced GSM/GPRS networks communication technology and 32 RISC CPU, compared with the traditional load management terminal unit, it is characterized with wide cover, stable operation, practical, powerful functions. It can be customized to choice the GSM or GPRS.

Main functions & features
Key customer management & service sub-system have the functions as following:
1. Remote reading
2. Alarming of abnormal power consumption
3. Improvement of customer service
4. Management of network power waste
5. Load control & management
6. Quality checking of electric energy

For the salability, security and efficiency of the functions, the system adopts the design and the accessorial function module as following:
1. System adopts CSS or BSS structure
2. Provide COM+, CORBA data interface
3. Optional formation of chart and report
4. Hardware management
5. Terminal unit management
6. Channel management
7. Management of user's access
8. Web customer terminal process
SY1103 Transformer substation remote centralized reading & analysis sub-system

Product description

Transformer substation remote centralized reading & analysis sub-system derives from the Power Consumption Locale Service & management System to apply in the remote centralized reading & data analysis of Transformer substation. It derives from the main system so it can cooperate well with the main system, further more it is stressed on the remote centralized reading of transformer substation. The system can not only read the remote data, but also analyze the data and get a result.

Main functions & features

Transformer substation remote centralized reading & analysis sub-system has the functions as following:

1. Remote reading, one terminal unit can connect 255 at most
2. Analysis of line waste
3. Analysis of network waste
4. Analysis of voltage change waste
5. Load management
6. Balance of main line
7. Voltage quality checking

For the salability, security and efficiency of the functions, the system adopts the design and the accessoril function module as following:

1. System adopts CSS or BSS structure
2. Provide COM+, CORBA data interface
3. Optional formation of chart and report
4. Hardware management
5. Terminal unit management
6. Channel management
7. Management of user's access
8. Web customer terminal process
**SY1104 Household remote centralized reading sub-system**

**Product description**

Household remote centralized reading sub-system derives from the Power Consumption Locale Service & management System to apply in the remote centralized reading of household. It derives from the main system so it can cooperate well with the main system, but focuses on the household remote reading. It combines with the "Data collector" and "Low-voltage carrier wave module" to form a perfect communication network of remote reading of household.

**Main functions & features:**

Household remote centralized reading sub-system has the functions as following:

1. Remote reading, one terminal unit can connect 255 meters or data collectors through RS485, every data collector can connect 20 household meters through RS485 or low-voltage carrier wave.
2. Management of line power waste.
3. Analysis of line power waste.
4. Analysis of household district network waste.
5. Management of electricity pre-purchase.

For the salability, security and efficiency of the functions, the system adopts the design and the accessorlial function modules as following:

1. System adopts CSS or BSS structure.
2. Provide COM+, CORBA data interface.
3. Optional formation of chart and report.
4. Hardware management.
5. Terminal unit management.
6. Channel management.
7. Management of user's access.
8. Web customer terminal process.

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Tel: 86-571-85394178, 85393435, 85390637, 85391965, 85301329 Fax: 86-571-85301324
E-mail: sales@songyangmeter.com Website: www.songyangmeter.com
SY1105 Power transformation and distribution monitoring sub-system

Product description
Power transformation and distribution monitoring sub-system derives from the Power Consumption Locale Service & management System to apply in the monitoring of power transformation and distribution. It cooperates well with the main system. It combines with the transformer oil temperature supervision device, oil pressure supervision device and insulating resistance checking device to form a perfect power transformation and distribution monitoring sub-system.

Main functions & features
Power transformation and distribution monitoring sub-system has the functions as following:
1. Remote reading
2. Voltage quality checking
3. Load supervision
4. Earth resistance supervision
5. Insulating resistance supervision
6. Oil abnormal supervision
7. Supervision of transformer’s oil temperature

For the salability, security and efficiency of the functions, the system adopts the design and the accessorail function modules as following:
1. System adopts CSS or BSS structure
2. Provide COM+, CORBA data interface
3. Optional formation of chart and report
4. Hardware management
5. Terminal unit management
6. Channel management
7. Management of user's access
8. Web customer terminal process