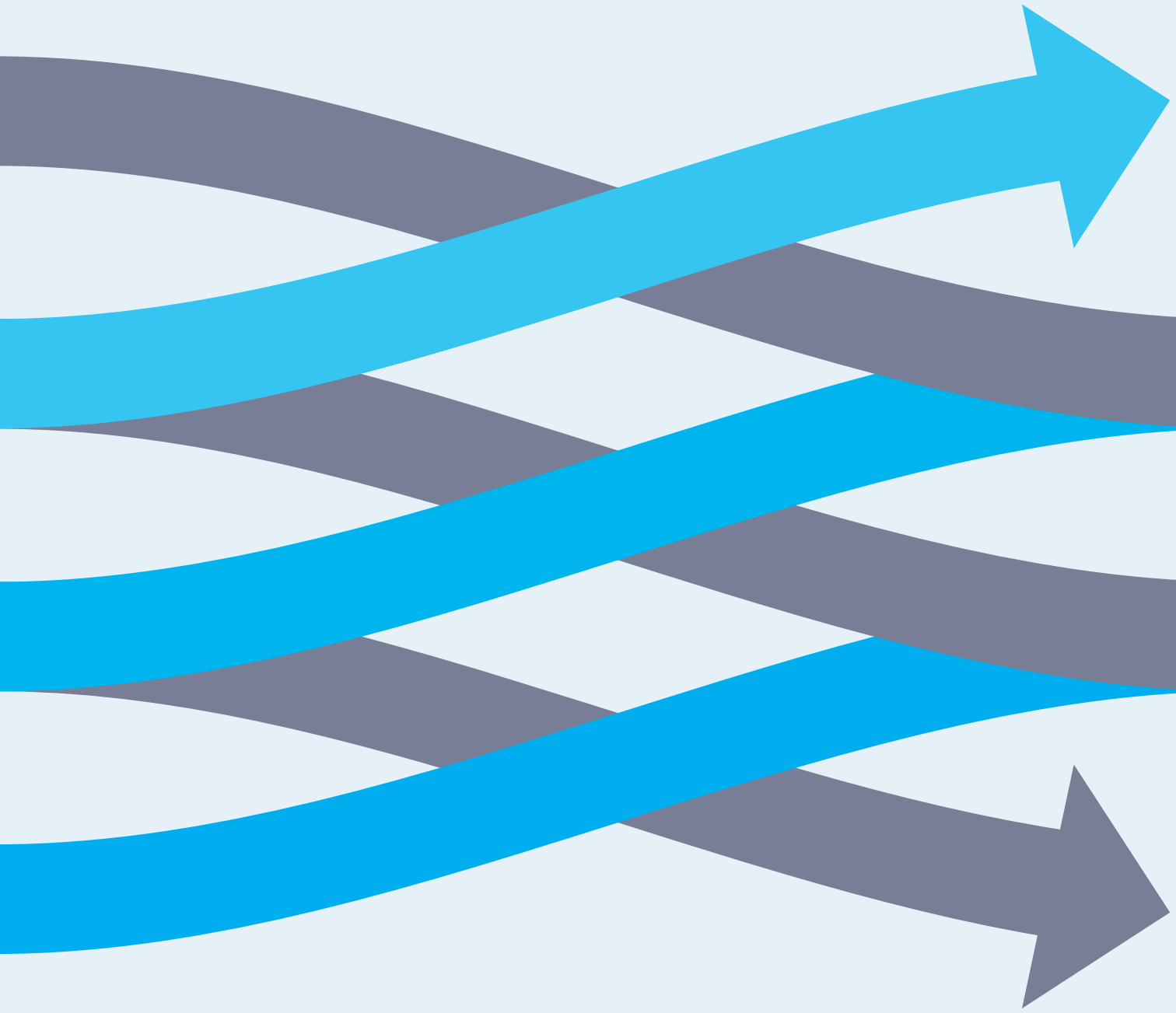
# METER CATALOG



DONSUN


**Company Name**
DONSUN TECHNOLOGY

**Office Address**
10H, 11 BLG,
Shenzhen Software Park
Nanshan District,
Shenzhen 518057
P.R. China

**Annual Capacity**
2,500,000

**Business Description**
Smart metering and grid solution provider

# WHO IS DONSUN?

**DONSUN is a professional team in smart metering industry. With R&D team from different expertise, we are devoted to provide innovational but reliable metering solutions to customers to improve their revenue collection and end user satisfaction.**

We work with clients big and small across the world including Korea, Japan, Indonesia, Singapore, Germany, Ghana and many others. We believe that analysis of your company and your customers is key in responding effectively to your electrification needs and we will work with you to fully understand your business needs.

Whatever the level of support you require, we are sure that we will have a package that meets your needs. All our virtual professionals are highly experienced in the areas in which they work and have been through a thorough development process to ensure they deliver to the high standard that you would want for your business.

If you have questions regarding the content of this catalog please contact us at
**info@donsuntech.com**

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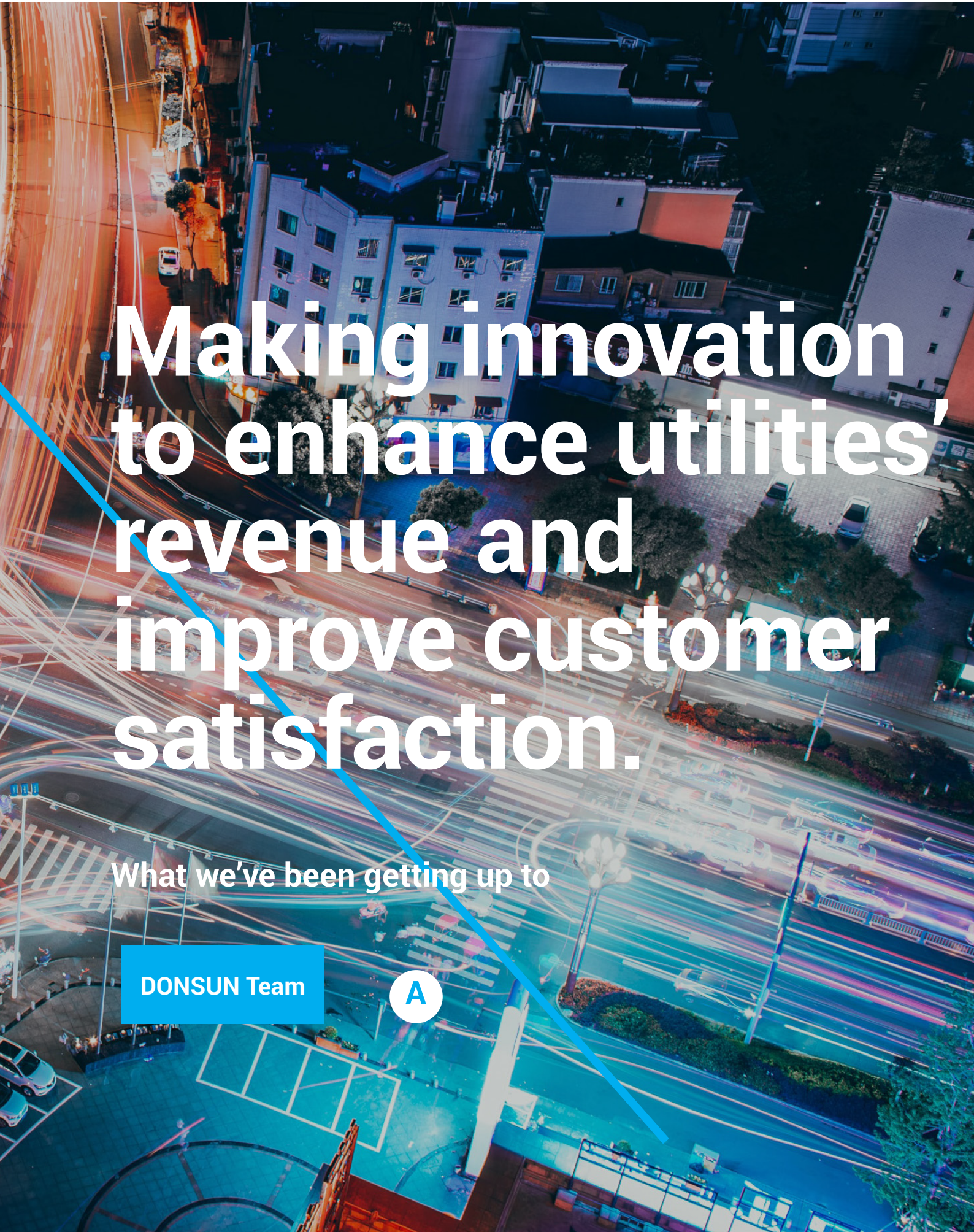
## Who we are



## B

## What we do



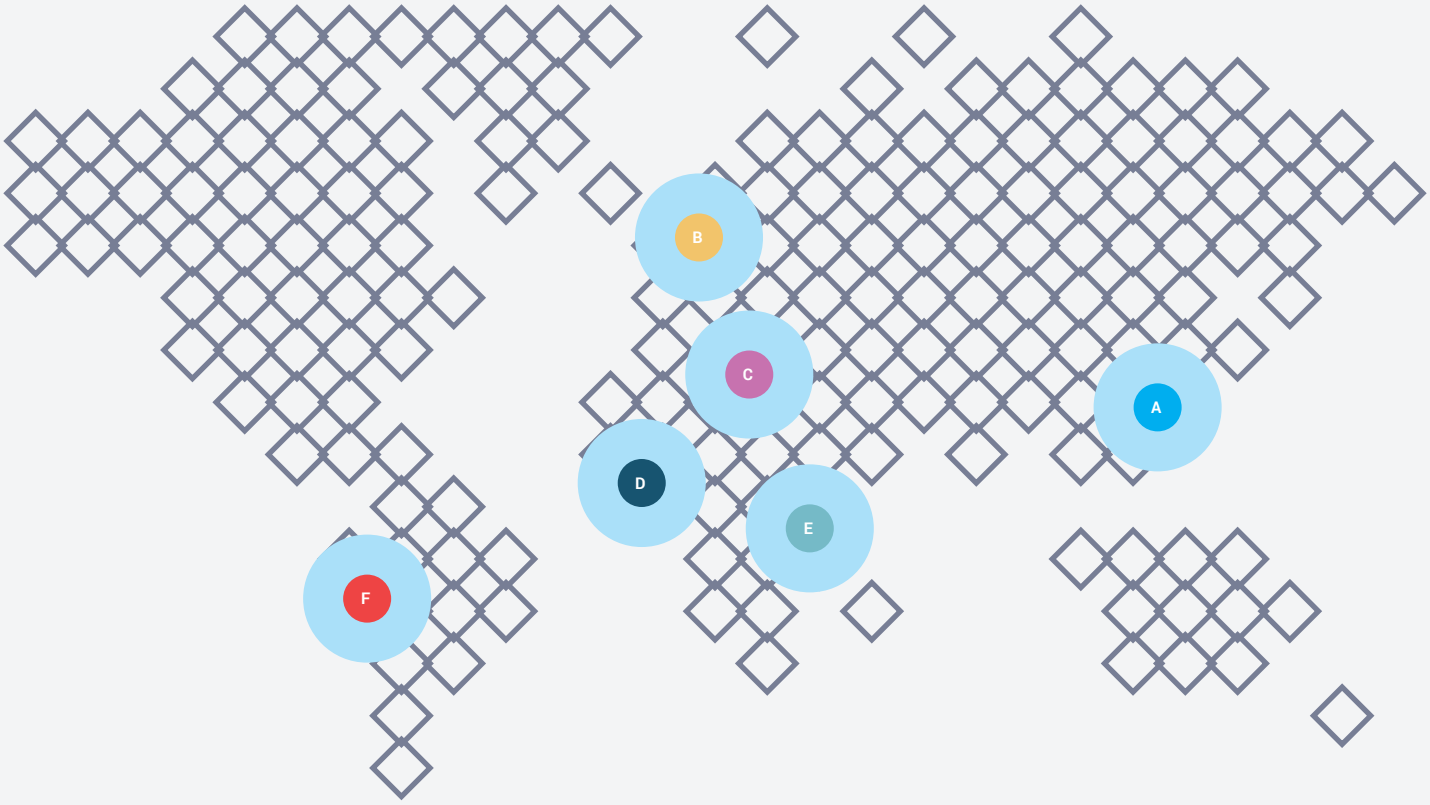
# Making innovation to enhance utilities' revenue and improve customer satisfaction.

What we've been getting up to

DONSUN Team

A

# DONSUN Global Coverage




**A**

**Asia**

We are covering vast scale of Asian markets from India to Indonesia, Korea to Vietnam, and making endeavours in others.

**B**

**Europe**

With partners from Germany, we are making progress in product development and market coverage in parallel.

**C**

**North Africa**

Products have been installed and used in Egypt, Tunisia and taking trial in others, with cooperation with high end partners in the market.

**D**

**West Africa**

Won tenders from Ghana, Togo, Benin for smart and prepayment energy meters, and now providing smart grid solutions to major utilities.

**E**

**East Africa**

Establishing meter factories in different EAC with access to provide our services as well as solutions to customers and partners.

**F**

**Latin America**

Providing smart meters, including IEC and ANSI compliant models, to utilities as well as well known players in the industry.

## Customer Satisfaction

Our customers are satisfied with our product and service at high rate of more than 95%.

95%

## Product Online Rate

Our product failure rate is lower than 0.02% and provides an overwhelming online success rate to the customer.

99.98%

7.5m
**units**

**Meter Delivered**

Till 2019, we have delivered over 7.5 million units of meters in different forms, including CBU, SKD, CKD.

31,123
**units**

**Smart Terminal**

Totally 31,123 smart terminals have been interconnected with our meters and the online rate is over 99%.

212%
**percentile**

**Growth rate**

Our annual turnover keeps a growth rate of 212% on average, with a growing profitability.

95m
**US Dollar**

**Revenue**

Our turnover since 2016 sums up to 95 million US dollars, attributing to our high quality product and service.

# DS1000

## Single Phase STS Prepayment Energy Meter

DS1000 meters from DONSUN Technology provides a cost-effective solution for prepaid metering solutions. Only complete availability of reliable metering data guarantees an efficient billing process. DS1000 is built as per the well-established DLMS™ to comply with the IEC62056 standard. An optimal data flow is archived through the optical port and RS485 port.

DS1000 Single Phase STS Keypad Prepayment Energy Meter takes 20-digit STS TOKEN as the recharge medium. It is suitable for residential consumer scenarios. The consumer recharge the meter in energy unit and the meter deducts energy unit based on consumption. The meter is built with keypad, enabling active energy measurement and prepayment control via STS.

Meter are compliant to IEC 62055-31, having an ingress protection of IP54 to IEC 60529 and comply with EMC standard IEC 50081-1.


One of our most sophisticated yet low cost solution for your prepayment energy need.

## DS1000 Key Features

DS1000 offers serial and optical communication IEC 62056-21 communications, which allows the meter registers and security data to be read electronically from a laptop or hand-held device, greatly reducing the possibility of manual meter reading errors.

The meter offers high security and detects many of the most commonly used tamper techniques. The display has large easy to read characters with information identified by OBIS. Security data can be included as part of the display sequence and read via the communication ports.

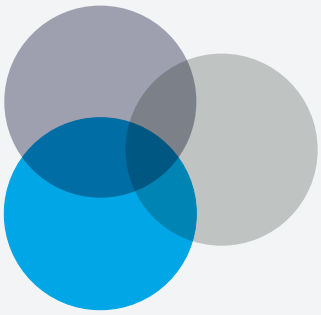
1. **Class 1.0**
   IEC 62053-21
   For kWh measurement.

2. **Class 1.0**
   IEC 62053-24
   For kvarh measurement.

3. **STS Edition 2.0**
   IEC 62055-31
   For latest STS prepayment.

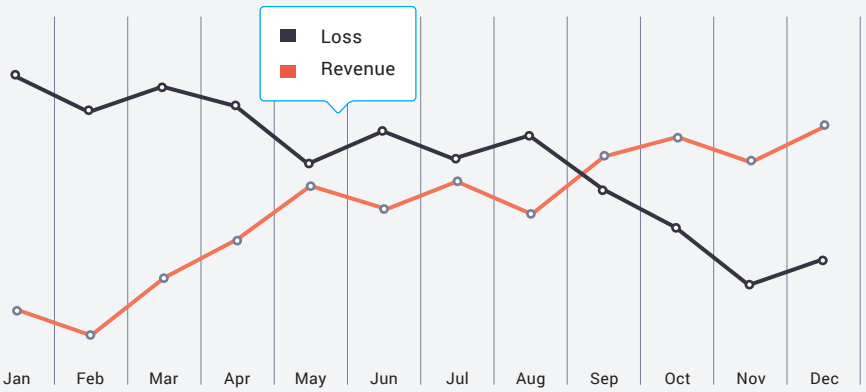
### Addition Features
Prepayment All-in-One

- Optional CIU for split prepayment
- Ready for Neutral Missing measurement
- Ready to connect to external module
- Options for external load control



### Combination of Advantages

- Smart Payment ready
- Improved operational efficiency
- End-consumer driven




A typical operation data after installing DS1000

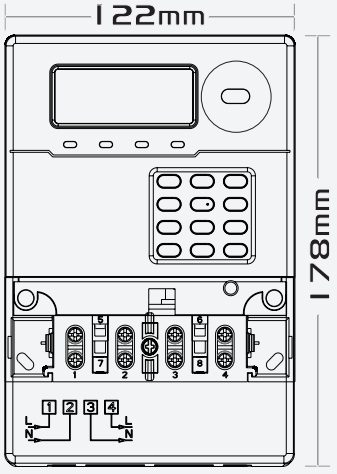
# Technical Specification

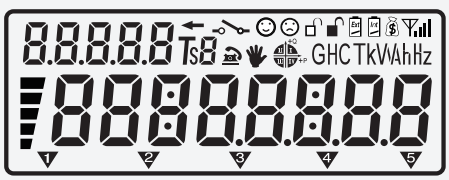
## Highlights
***Function***

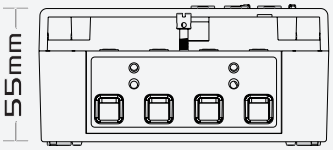
Heightened demand for power availability, distributed generation, and greater efficiency are creating a need for more consumption and power quality measurements at the edge. Meeting this need, Donsun introduces the first prepayment meters to offer multiple channels of load profile data; each of which can be configured independently for interval, size and collection settings.

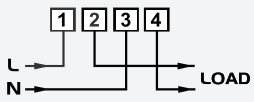
- Data Security: Password protection authenticated, transactions and encryption for for optical communication;
- Units Measured: kW forward, reverse; kWh forward, reverse, forward + reverse, forward - reverse; kvar import, export; kvarh import, export; RMS voltage; RMS current; power factor; frequency; rolling and block demand for energy sources and per quadrant kvarh (optional).
- Main cover, terminal cover and communication module cover detection is included along with registration of magnetic anomalies.
- Create a reliable and robust power line network that detects electricity theft and fraud, as well as identify unexpected technical losses

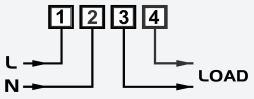
| Electrical | Data |
|---|---|
| Network | 1 Phase 2 Wires network |
| Normanative Standard | IEC 62053-21<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>IEC 62055-31<br>EN 50470 |
| Accuracy Class | kWh: Class 1.0<br>kvarh: Class 1.0 |
| Reference Voltage | 110-120, 220-240V AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 5A/10A |
| Maximum Current Imax | 60A/80A |
| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Communication | Optical, RS485 |
| Enclosure | IP54 IEC 60529 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
| Exclusion Days | 32 |
| End of Billing Dates | 12 |
| Daylight Saving | 30 |






*SHENZHEN DONSUN TECHNOLOGY CO., LTD.*

ADD: 10H, BLG 11, SHENZHEN SOFTWARE PARK, NANSHAN SHENZHEN 518057, CHINA
TEL:+86 755 86565087 / INFO@DONSUNTECH.COM
WWW.DONSUNTECH.COM

# DS1000(M)
## Smart Energy Meter


## One modelling
## Benchmark

Full DLMS/COSEM package to be ready for AMI implementation, ensuring immediate interoperability with enriched HAN application, whereas the latest STS compliance for next 10 yeras smart grid and Internet of Things.

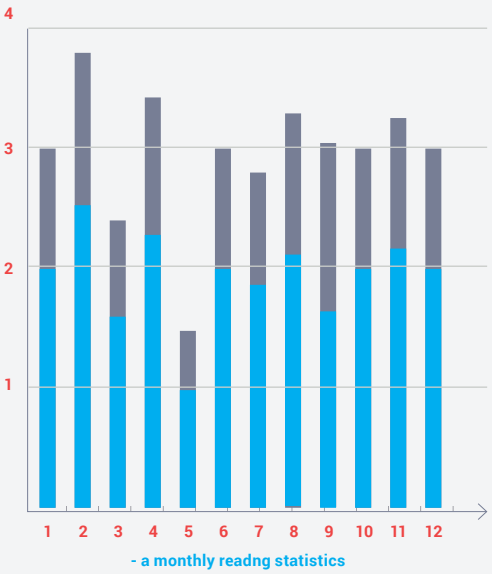
DS1000(M) meter from DONSUN Technology provides a versatile solution for smart prepayment metering solutions for domestic consumers. It offers modular communications as PLC, 3G/GPRS, RF Mesh to interface directly to the utility via WAN or LAN and to connect to a consumer's Home Automation Network (HAN).

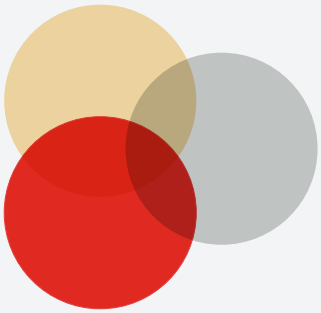
The meter adopts the latest STS standards for prepayment, with variant to accommodate the CTS configuration used in some countries.

It offers high security features including main and terminal cover removal detection and magnetic field manipulation detection protect the meter and module from fraud or tampering.

DS1600(M) provides modular communication platforms, including GSM/GPRS, PLC-G3 and Low Power Radio for WAN/LAN communications. Options for HAN communications can be included each as M-Bus or ZigBee.

* All methods of communication allow the meter registers and security data to be read electronically from a laptop, hand-held device or by HES remotely, greatly reducing the possibility of manual meter reading errors.
* DS1000(M) can be a simple import meter or for import/export, domestic or small-scale commercial sites. An opto-isolated pulsing output can be provided as an option. The output is available via the meter auxiliary terminals.
* DS1000(M) offers high security with various useful security features. The meter stores all registration and configuration data to nonvolatile memory. All data is retained for the life of the meter. Recordable security features are provided.



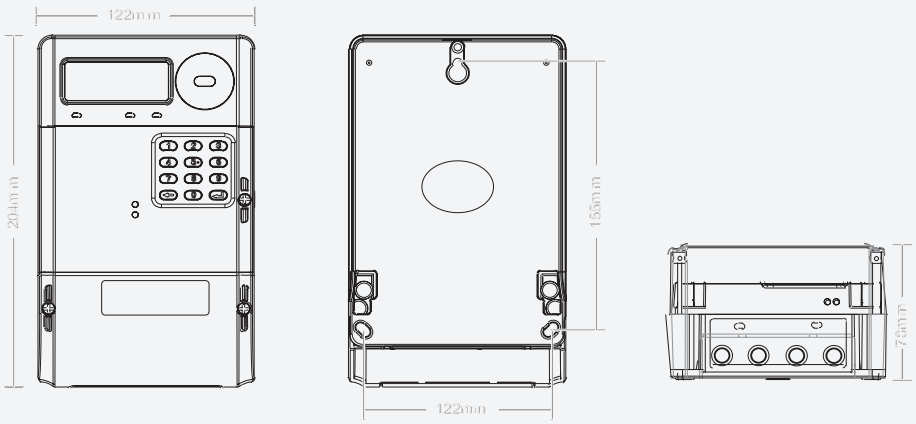
### Combination of Advantages

- Smart Payment ready
- Improved operational efficiency
- End-consumer driven

| Class 1.0 | Class 1.0 | STS 2.0 | DLMS 3.1 |
|---|---|---|---|
| Active Energy kWh Accuracy Compliant to IEC 62053-21 Class 1.0 | Reactive Energy kvarh Accuracy Compliant to IEC 62053-24 Class 1.0 | Conformed to the latest STS 2.0 for the next prepayment generation | Certificated with the latest DLMS 3.1 Suite for Interoperability |

# Technical Specification

| Electrical | Data |
|---|---|
| Network | 1 Phase 2 Wires network |
| Normanative Standard | IEC 62053-21<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>EN 50470 |
| Accuracy Class | kWh: Class 1.0<br>kvarh: Class 1.0 |
| Reference Voltage | 110-120, 220-240V AC AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 5A/10A |
| Maximum Current Imax | 60A/80A |
| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Remote Communication | PLC, RF, GPRS, 3G, 4G, NB-IoT |
| Enclosure | IP54 IEC 60529 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
| Exclusion Days | 32 |
| End of Billing Dates | 12 |
| Daylight Saving | 30 |




DS1000(M) is well designed to accommodate both prepayment and smart metering with internal disconnection relay and various communication interfaces including PLC, RF Mesh, Cellular and fully DLMS.

**Advanced Feature**
AMI Readiness

**DS1000(M) is fully ready for any implementation of AMI. With high security features, it delivers unpararelled metering data as scheduled or on-demand. With selectable and configurable ToU and Load Profile, DS1000(M) offers the complete set of crucial metering data requires now and future. It is also made ready for Internet of Things as a hub for smart home application. Mbus, wMbus or P1 for HAN application as well as LAN communication.**

**With our featured Head End System or any standardized DLMS HES, the meter is a future ready and investment return guaranteed for your business for the next decade.**

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WWW.DONSUNTECH.COM

DONSUN TECHNOLOGY
**METER CATALOG 2019**

# DS1100

*Single Phase Multifunctional Energy Meter*


DS1100 meter from DONSUN Technology is an electronic single meter ideal for domestic and light commercial direct connected applications. DS1100 offers high security and detects many of the most commonly used tamper techniques including the neutral missing connection.

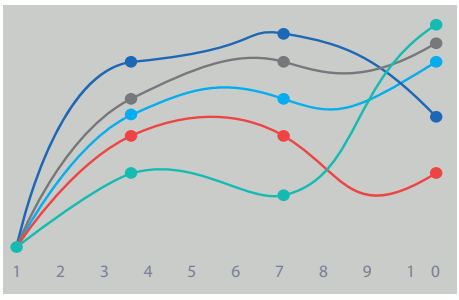
The display has large easy to read characters with information identified by OBIS. Security data can be included as part of the display sequence and read via the communication ports.


1 **ACCURATE**

DS1100 is designed and manufactured according to IEC 62052-11 and IEC 62053-21 to deliver the reliable accuracy.


2 **SECURED**

It offers high security and detects many of the most commonly used tamper techniques including the neutral missing connection.




3 **VERSATILE**

DS1100 is built with replaceable battery and on-board integrated communication module as RF or PLC. It can be implemented in regular or future-ready scenarios.

4 **INTEROPERABLE**

Being Fully compliant with DLMS/COSEM enables DS1100 to be integrated into any smart metering system.

## DATA — *DS1100 Offers*

DS1100 can be a simple import meter or for import/export, domestic or small-scale commercial applications, which provides the ideal solution for utility billing where a consumer's power factor needs to be considered. DS1100 offers high security with various useful security features. The meter stores all registration and configuration data to nonvolatile memory. All data is retained for the life of the meter. Recordable security features are provided.

# Technical Specification

## DS1100
## Key Features
## *Highlights*

* Unidirectional or bi-directional measurement
* Active and reactive energy measurement
* Large digit multilingual display with OBIS information indication on backlite LCD
* Extensive security data
* Replaceable external battery
* DIN double insulated, glass filled polycarbonate case
* Rate select for two rate meters, switch to neutral
* IP54 in accordance with IEC 60529:1989
* Optional IEC 62056-21 optical communications and serial communications
* Maximum demand, Voltage and current instrumentation values registration

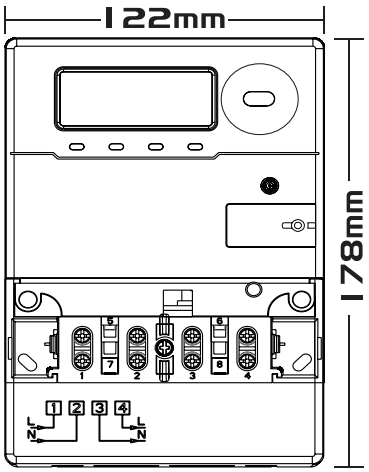
**Profile Record**

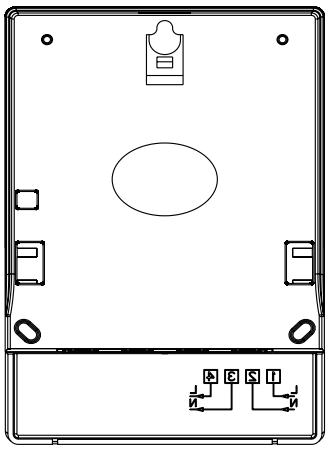
300 days of half hour data available when one channel selected, using a programmable integration period for up to four selectable channels of load profile for any measured quantity.

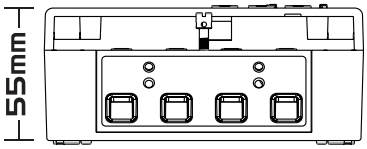
**Display**

DS1100 can be configured by the customer to display English characters or OBIS identification codes.
An optional battery can support the display during power outages.

| Electrical | Data |
|---|---|
| Network | 1 Phase 2 Wires network |
| Normanative Standard | IEC 62053-21<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>IEC 62055-31<br>EN 50470 |
| Accuracy Class | kWh: Class 1.0<br>kvarh: Class 1.0 |
| Reference Voltage | 110-120, 220-240V AC AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 5A/10A |
| Maximum Current Imax | 60A/80A |
| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Communication with CIU | PLC, RF, Wire |
| Enclosure | IP54 IEC 60529 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
| Exclusion Days | 32 |
| End of Billing Dates | 12 |
| Daylight Saving | 30 |



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# DS1600
## Smart Energy Meter

## Reinventing
## Smart Metering

Full DLMS/COSEM package to be ready for AMI implementation, ensuring immediate interoperability with enriched HAN application, whereas the latest STS compliance for next 10 yeras smart grid and Internet of Things.

DS1600 meter from DONSUN Technology provides a versatile solution for smart prepayment metering solutions for domestic consumers. It offers modular communications as PLC, 3G/GPRS, RF Mesh to interface directly to the utility via WAN or LAN and to connect to a consumer's Home Automation Network (HAN).

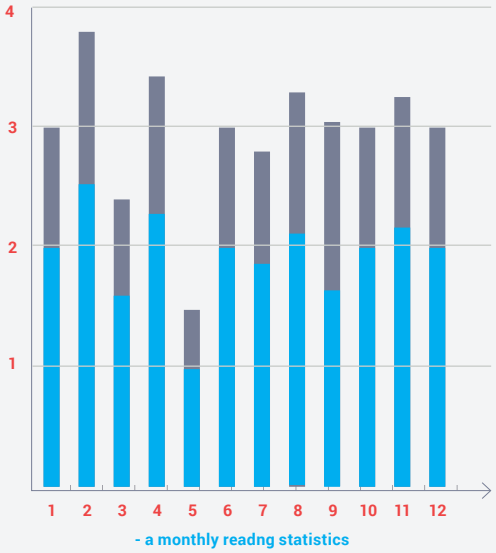
The meter adopts the latest STS standards for prepayment, with variant to accommodate the CTS configuration used in some countries.

It offers high security features including main and terminal cover removal detection and magnetic field manipulation detection protect the meter and module from fraud or tampering.

The DS1600 provides modular communication platforms, including GSM/GPRS, PLC-G3 and Low Power Radio for WAN/LAN communications. Options for HAN communications can be included such as M-Bus or ZigBee.

* All methods of communication allow the meter registers and security data to be read electronically from a laptop, hand-held device or by HES remotely, greatly reducing the possibility of manual meter reading errors.
* The DS1600 can be a simple import meter or for import/export, domestic or small-scale commercial sites. An opto-isolated pulsing output can be provided as an option. The output is available via the meter auxiliary terminals.
* DS1600 offers high security with various useful security features. The meter stores all registration and configuration data to nonvolatile memory. All data is retained for the life of the meter. Recordable security features are provided.


Smart meter for AMI implementation for the next decade of smart grid.




- a monthly readng statistics

### Modular Design

Modular communication to ensure the exchangeable and update of any kind.

| Class 1.0 | Class 1.0 | STS 2.0 | DLMS 3.1 |
|---|---|---|---|
| Active Energy kWh Accuracy Compliant to IEC 62053-21 Class 1.0 | Reactive Energy kvarh Accuracy Compliant to IEC 62053-24 Class 1.0 | Conformed to the latest STS 2.0 for the next prepayment generation | Certificated with the latest DLMS 3.1 Suite for Interoperability |

# Technical Specification

| Electrical | Data |
|---|---|
| Network | 1 Phase 2 Wires network |
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| Maximum Current Imax | 60A/80A |
| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Remote Communication | PLC, RF, GPRS, 3G, 4G, NB-IoT |
| Enclosure | IP54 IEC 60529:1989 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
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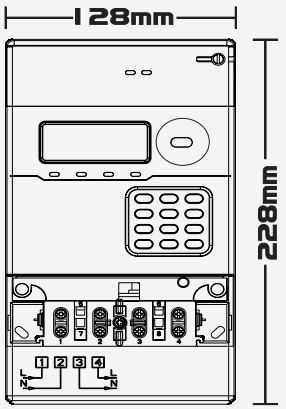
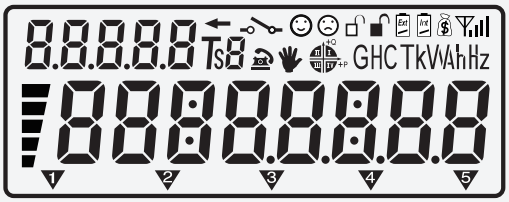
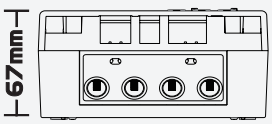
| Daylight Saving | 30 |




DS1600 is well designed to accommodate both prepayment and smart metering with internal disconnection relay and various communication interfaces including PLC, RF Mesh, Cellular and fully DLMS.

**Advanced Feature**
AMI Readiness

**DS1600 is fully ready for any implementation of AMI. With high security features, it delivers unpararelled metering data as scheduled or on-demand. With selectable and configurable ToU and Load Profile, DS1600 offers the complete set of crucial metering data requires now and future. It is also made ready for Internet of Things as a hub for smart home application. Mbus, wMbus or P1 for HAN application as well as LAN communication.**

**With our featured Head End System or any standardized DLMS HES, the meter is a future ready and investment return guaranteed for your business for the next decade.**

*SHENZHEN DONSUN TECHNOLOGY CO., LTD.*

ADD: 10H, BLG 11, SHENZHEN SOFTWARE PARK, NANSHAN SHENZHEN 518057, CHINA
TEL:+86 755 86565087 / INFO@DONSUNTECH.COM
WWW.DONSUNTECH.COM

# DS1000

Sinlge Phase
DIN-RAIL STS
Prepayment Meter


## The Stats

**Grid System:**
Single Phase Two Wire

**Communication with CIU:**
G3-PLC, RF, Wire

**Communication distance:**
120M

**Data back-up duration:**
10 years after power-off

**Surge immunity:**
8KV

**ESD immunity:**
8KV

## Prepayment

STS 2.0

DS1000 takes 20-digit STS TOKEN as the recharge medium. The consumer recharge the meter in energy unit and the meter deducts energy unit based on consumption. The meter is built without keypad but with Customer Interface Unit (CIU), enabling high anti-tamper features.

## Data

IEC 62056-21

DS1000 has the option of serial and optical IEC 62056-21 communications, which allows the meter registers and security data to be read electronically from a laptop or hand-held device, greatly reducing the possibility of manual meter reading errors.

## Communication

RF/PLC/WIRE/GPRS...

DS1000 offers various communication options with the CIU, from PLC, wire to RF, to accommodate different installation location challenges. The communication module is exchangeable based on the need of the Utility, which is the first design of its kind in the industry

## DS1000 Key Features *Highlights*

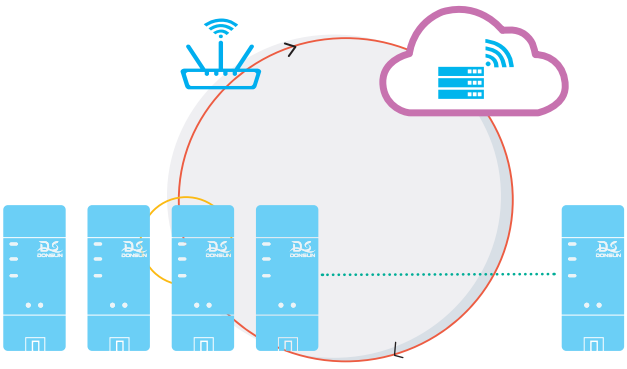
* Accuracy Class 1.0 to IEC 62053-21
* Standard IEC 62055-31 for STS prepayment
* Unidirectional or bi-directional measurement
* Robust and reliable for long durability
* CIU built with large digit multilingual display with OBIS information indication
* Extensive security data
* High security, compact design
* Rate select for two rate meters, switch to neutral

**C** Contactor Disconnect
The internal contactor can be disconnected locally or remotely by the Utility. It can be driven directly or driven by the meter at load limiting thresholds, credit expiry or defined events occurrence

**S** Security
DS1000 offers high security with various useful security features. The meter stores all registration and configuration data to nonvolatile memory. All data is retained for the life of the meter. Recordable security features are provided.

# Technical Specification

| Electrical | Data |
|---|---|
| Network | 1 Phase 2 Wires network |
| Normanative Standard | IEC 62053-21<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>IEC 62055-31<br>EN 50470 |
| Accuracy Class | kWh: Class 1.0<br>kvarh: Class 1.0 |
| Reference Voltage | 110-120, 220-240V AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 5A/10A |
| Maximum Current Imax | 60A/80A |
| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Communication with CIU | PLC, RF, Wire |
| Enclosure | IP54 IEC 60529:1989 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
| Exclusion Days | 32 |
| End of Billing Dates | 12 |
| Daylight Saving | 30 |



**AMI Ready**
***Convertable to Clustering Metering***

## Structural Narratives

DS1000 is an innovatively designed Din-Rail prepayment meter with ingenious features.

**Facade**


**Output**
Pulse output, Optical, and alarm status LEDs are arrogantly made.

**Rear**

**Din-Rail**
A standard Din-Rail clip is made on the back for installation.

**Terminal**

**Connection**
The connection terminal design provides two options - traditional and SABS complied type.

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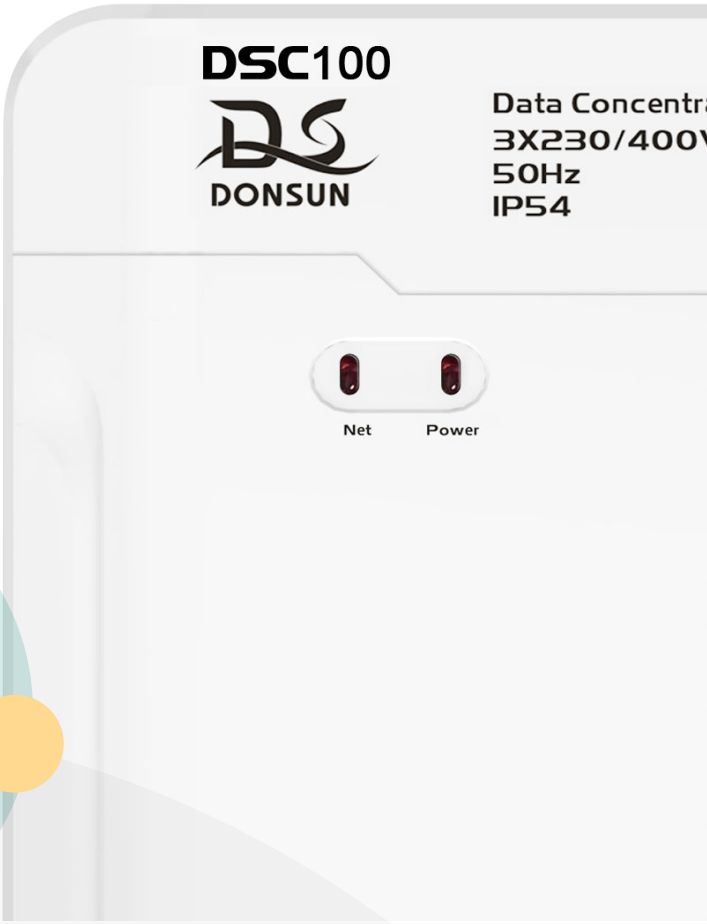



# DSC100

## — *Data Concentrator Unit*

### Brief

The DSC100 is a DLMS and DL/T 698 compliant data concentrator whose primary function is to communicate between the Head End System (HES), and data streams collected from a variety of energy meters with different communication modules. The system is intended to provide reliable and secure data management for Advanced MeteringInfrastructure (AMI) and Post Event Analysis.

The DSC100 system collects, processes, and reports data in compliance to DLMS, DL/T 698 from smart energy meter and system monitoring applications.

Smart metering data from a variety of meters are time-aligned, structured, and transmitted to upstream devices, which can be similar DCU to smart meter, Super PDCs, visualization devices, external historians, or external applications.

The DSC100 can be installed at the Transformer Level, or at a Regional Control Center. DONSUN's data concentrator, DSC100, acquires metering data from various Energy Measurement Units (EMUs), such as the single-phase RF meter, PLC meter and three phase RF and PLC meter,and from other EMU devices with different reporting rates.

The DSC100 can accommodate RF and PLC communication module for downlink to meters and GPRS/3G/4G modules for uplink to HES. All EMU data sent to the DSC100 must comply with DLMS or DL/T 698.

The DSC100 system is a DLMS and DL/T 698 complaint DCU. This DSC100system can communicate with DLMS or DL/T 698 standard compliant EMU/DC devices. The primary functions of the DSC100 are to:

- communicate with EMUs and other DCs (eg: super-DC)
- acquire meter data from up to meters at different sites
- time-scheduled data from various meters
- filter and process the received data as required, if configured by the user
- structure/aggregate output datasets from the available input data
- archive and visualize the EMU data if it is ordered with the optional device and visualization tool for various real-time energy visualization applications.

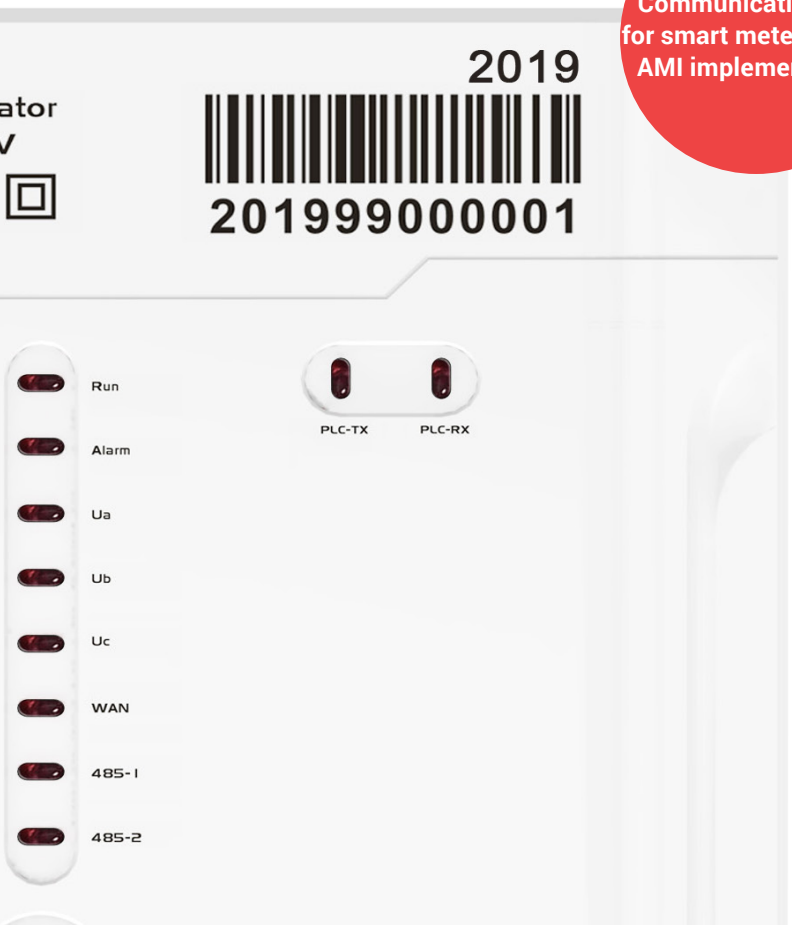
The DSC100 is a multi-processor computing platform comprising multiple single board computers: Processor Single Board Computer and one other Single Board Computer are housed in composite plastic case.

To alleviate maintenance concerns, the DSC100's design has eliminated the need for any moving parts, and it is cooled entirely by natural convection (for mounting requirements for cooling, see the Mechanical Installation > Mounting section below).

In addition to its processor cards, the DSC100 device supports 2, 128 MB solid-state drives connected to the processor, should it be ordered, to serve as its archive location.
Finally, though the base model of the DSC100 has 1 power supply (DC or Universal), it can be equipped with a fully redundant, current sharing mate.

The DSC100 can be ordered with either a low voltage DC power supply or a high voltage universal AC/DC power supply. Additionally, the device may be ordered with a fully redundant power supply. The DSC100's power supply and its mate (if installed) are located adjacent to the input power board. A LED indicator has been provided to show the status of the supply. The input power requirements are also clearly indicated on the front of each supply.

Communication hub for smart metering and AMI implementation




## Technical Data

| Electrical | Data |
|---|---|
| Reference Voltage | 3X230V AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Reference Frequency | 50Hz +/- 5% |
| Power Consumption | Voltage circuit <5W, <6 VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Universal Serial, RS485 |
| Downlink Communication | RF, PLC, Zigbee |
| Uplink Communication | GPRS, 3G, 4G, NB-IoT |

## Type Test

| Electrical | Data |
|---|---|
| Dielectric Voltage | 4 kV AC/6 kV DC |
| Insulation Resistance Test | 500V DC |
| Damped Oscillatory | 2.5KV CM, 1KV DM |
| Electrostatic Discharge | EN 61000-4-2 |
| RF Immunity | EN 61000-4-3 |
| Fast Transient Disturbance | EN 61000-4-4 |
| Surge Immunity | EN 61000-4-5 |
| Conducted RF Immunity | IP54 IEC 60529:1989 |
| Radiated & Conducted Emissions | CISPR11 |
| Sinusoidal Vibration | IEC 60255-21-1 |
| Shock & Bump | IEC 60255-21-2 |
| Siesmic | IEC 60255-21-3 |
| Power magnetic Immunity | IEC 61000-4-16 |
| Voltage Dip & interruption | IEC 61000-4-11 |
| Ripple on DC power port Immunity test | IEC 61000-4-17 |
| Environmental (Cold) | IEC 60068-2-1 |
| Environmental (Dry heat) | IEC60068-2-2 |
| Relative Humidity Cyclic | IEC60068-2-30 |
| SWC Damped Oscillatory | IEEE/ANSIC37.90.1 |
| SWC EFT | IEEE/ANSIC37.90.1 |
| Altitude | MIL-STD-810E |
| Ingression Protection | IP54 IEC 60529:1989 |

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# DSD100

*— Customer Interface Unit*

## LED INDICATOR

LED indicators on its front panel 3 gives intuitive information to the customer to keep aware of the consumption level

INTUITIVE, USER FRIENDLY INTERFACE

## KEYPAD

A numerric keypad which fits human figure that ergonomically designed for easy input of the user

EASY OPERATION AND HUMAN ORIENTED

## LCD DISPLAY

A large size LCD of DSD100 can be configured by the customer to display English characters or OBIS identification codes.

ABANDANT DATA VIEW WITH TAGS

## Brief

DSD100 introduced by DONSUN Technology is capable of the full STS prepayment functionality. Customers are now able to have better monitoring over their energy consumption remotely.

DSD100 is compatible with all prepayment energy meters of DONSUN, providing different communications with the meter over Radio Frequency, PLC (SFSK/OFDM), wire cable or other defined method by the Utility.

It is automatically connected to the meter after the matching code is input via its built-in keypad.

The DSD100 provides various options of alarm and alert to the customer relating to meter status and consumption. The 3 LED indicators on its front panel gives intuitive information to the customer to keep aware of the consumption level, balance credit, meter tamper and power outage, whilst it also makes active buzzer alarm when acute event occurs as low credit, over load or tampering.

## Technical Data

| Electrical | Data |
|---|---|
| Reference Voltage | 120, 230V AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Reference Frequency | 50Hz +/- 5% |
| Power Consumption | Voltage circuit <5W, <6 VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Uplink Communication | RF, PLC, Zigbee |
| Enclosure | IP54 IEC 60529:1989 |
| Modulation | FSK, OFDM, Wired |

### COMMUNICATION

FAST AND STABLE COMMUNICATION WITH METER

Providing different communications with the meter over Radio Frequency, PLC (SFSK/OFDM), wire cable or other defined method by the Utility

### MAINTENANCE

NO HASSLE IN RE-PLACING ANY OF IT

Paring with meter with universal code with the right meter ID to make the maintenance handy

### ALERT

INSTANT, SAFE AND SECURED USAGE OF ELECTRICITY

Warning against meter tamper and events, whilst it also makes active buzzer alarm when acute event occurs.

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# DS3000

## Three Phase Keypad STS Prepayment Energy Meter


DS3000 Three Phase STS Keypad Prepaid Energy Meter takes 20-digit STS TOKEN as the recharge medium. The data is transmitted using a 20-digit numeric code as per international encryption protocol STS (Standardized Transfer Specification) or Currency Transfer Specification (CTS), which enabling them to automatically shut off the customer's power supply in the event of fraudulent manipulation (opening of the terminal cover, etc.) and exceeding of power.

**Highlights**

DS300 is flexible between post payment mode and prepayment mode, and it offers Customer Interface Unit (CIU) as an optional device.

DS3000 is well designed to accommodate both prepayment and smart metering with internal disconnection relay and various communication interfaces including PLC, RF Mesh, Cellular and fully DLMS.

### Feature One
COMMUNICATION

DS3000 is built with an IEC 62056-21 compliant optical communications and serial communications. It has an embedded communication module with standard UArt port, for RF, PLC and others, enabling AMR/AMI application and implementation.

### Feature Two
VERACITY

DS3000 includes all the high functionality: four-quadrant metering; active, reactive, and apparent energy and demand measurements; standard event logs and time-of-use metering; and non-volatile memory for both billed and non-billed interval data.

### Feature Three
LOAD MANAGEMENT

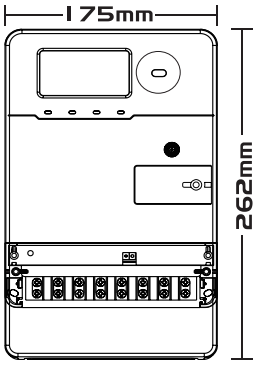
DS3000 has the internal contactor that can be disconnected locally or remotely by the Utility. It can be driven directly or driven by the meter at load limiting thresholds, credit expiry or defined events occurrence. Its contactor is compliant to UC 3 according to IEC 62055-31 Annex C.

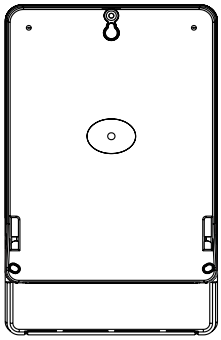
### Feature Four
USER FRIENDLY

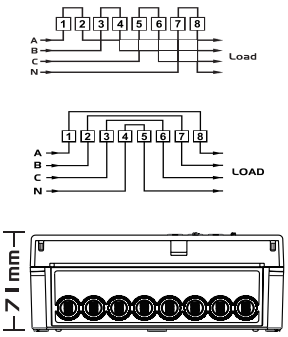
DS3000 can be configured by the customer to display English characters or OBIS identification codes.
An optional battery can support the display during power outages.
It also provides a full series of short code for presentation of different data value contained in meter.

# Technical Specification

| Electrical | Data |
|---|---|
| Network | 3 Phase 4 Wires network |
| Normanative Standard | IEC 62053-21<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>IEC 62055-31<br>EN 50470 |
| Accuracy Class | kWh: Class 1.0<br>kvarh: Class 1.0 |
| Reference Voltage | 3x110-120/190-208V AC , L-N<br>3x220-240/380-415V AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 5A/10A |
| Maximum Current Imax | 100A |
| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Remote Communication | PLC, RF, GPRS, 3G, 4G, NB-IoT |
| Enclosure | IP54 IEC 60529:1989 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
| Exclusion Days | 32 |
| End of Billing Dates | 12 |
| Daylight Saving | 30 |

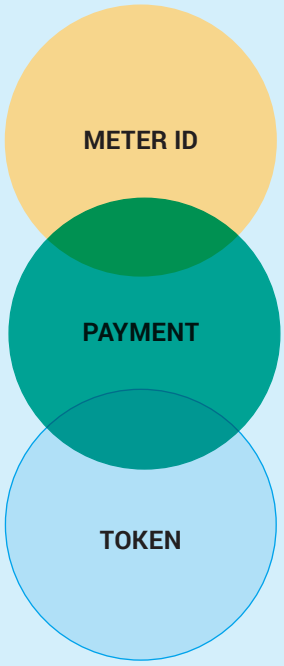





# HOW TO RECHARGE — *Workflow*

**Notes**
To recharge the STS prepayment meter, the TOKEN can be input through the keypad or remotely.




## Meter Stats

**Protection Grade:**
IP54

**Insulation:**
8KV

**ESD Immunity:**
8KV

**Surge Immunity:**
15KV

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DONSUN TECHNOLOGY
**METER CATALOG 2019**

Smart meter for AMI implementation for the next decade of smart grid.

# DS3000(M)
## *Three Phase Smart Meter*


Full DLMS/COSEM package to be ready for AMI implementation, ensuring immediate interoperability with enriched HAN application, whereas the latest STS compliance for next 10 yeras smart grid and Internet of Things.

DS3000(M) is a highly accurate, robust, system ready meter that is ideally suited for commercial and light industrial metering applications. With its standard communication protocol, DS3000(M) meter can be integrated into any metering system. The DS3000(M) meter can be easily upgraded and offers our customers the flexibility to keep pace with their changing metering requirements and business growth.

The meter adopts the latest STS standards for prepayment, with variant to accommodate the CTS configuration used in some countries.

It offers high security features including main and terminal cover removal detection and magnetic field manipulation detection protect the meter and module from fraud or tampering.

DS3600® provides modular communication platforms, including GSM/GPRS, PLC and Low Power Radio for WAN/LAN communications. Options for HAN communications can be included such as M-Bus or ZigBee.

DS3600® includes all the high functionality: four-quadrant metering; active, reactive, and apparent energy and demand measurements; standard event logs and time-of-use metering; LCD with optional backlight provides a flexible interface to the user for displaying meter data; and non-volatile memory for both billed and non-billed interval data.

DS3000(M) offers multiple anti-tampering and advanced security features that ensures revenue protection for our customers. The site diagnostic capability continuously monitors the service, verifying that all phases are present and that the wiring configuration is correct. Adverse or abnormal conditions, such as phase outages and reverse energy events, are logged.

DS3000(M) offers high security with various useful security features. The meter stores all registration and configuration data to nonvolatile memory. All data is retained for the life of the meter. The data can be read out by local and remote communication. Recordable security features are provided.

## COMMUNICATION ADAPTABILITY

| Type of Communication | Type | Modulation | Protocol | Application |
|---|---|---|---|---|
| Optical | Local | – | IEC 62056-21 | Local reading/ writing |
| RS-485 | LAN | – | IEC 62056-21 | Parameterization |
| Mbus | HAN | – | Proprietory | Water/gas meter |
| wMbus | HAN | – | Proprietory | Water/gas meter |
| PLC | LAN | SFSK/G3/ Broadband | DLMS | Uplink to DCU |
| RF | LAN | SFSK/LoRa | DLMS | Uplink to DCU |
| GSM | WAN | GPRS/3G/4G/ NB-IoT | DLMS | Uplink to HES |

# Technical Specification

| Electrical | Data |
|---|---|
| Network | 3 Phase 4 Wires network |
| Normanative Standard | IEC 62053-21<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>IEC 62055-31<br>EN 50470 |
| Accuracy Class | kWh: Class 1.0<br>Kvarh: Class 1.0 |
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| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 5A/10A |
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| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Remote Communication | PLC, RF, GPRS, 3G, 4G, NB-IoT |
| Enclosure | IP54 IEC 60529:1989 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
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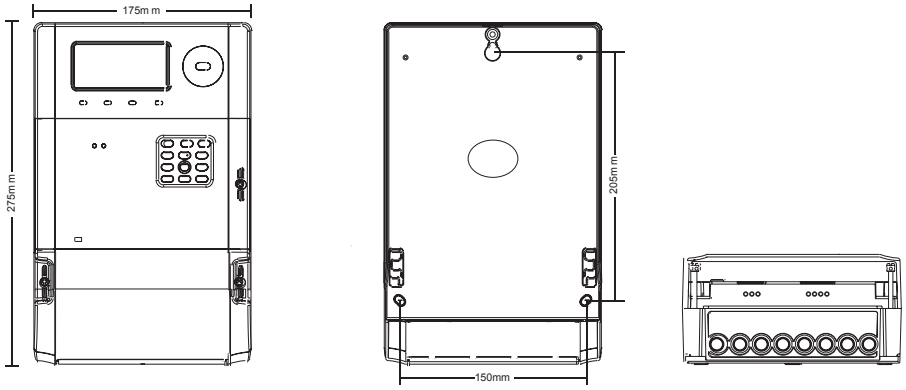


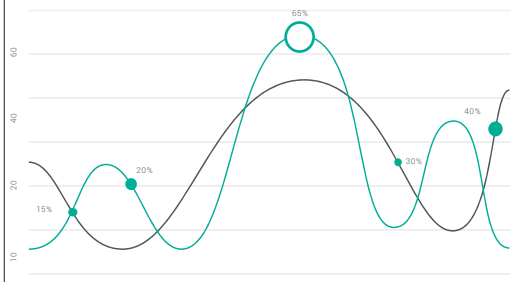


## The Stats

**PLC Carrier Frequency:**
35.9K - 90.6K

**RF Frequency:**
432MHz - 915MHz

**Communication Baud Rate:**
2,400 bps - 19,200 bps

**Immunity to ESD:**
8kV

**Immunity to Surge:**
8kV

**RTC Frequency:**
32.768 KHz

### Advanced Feature
AMI Readiness

**DS3000(M) is fully ready for any implementation of AMI. With high security features, it delivers unpararelled metering data as scheduled or on-demand. With selectable and configurable ToU and Load Profile, DS3000(M) offers the complete set of crucial metering data requires now and future. It is also made ready for Internet of Things as a hub for smart home application. Mbus, wMbus or P1 for HAN application as well as LAN communication.**

**With our featured Head End System or any standardized DLMS HES, the meter is a future ready and investment return guaranteed for your business for the next decade.**

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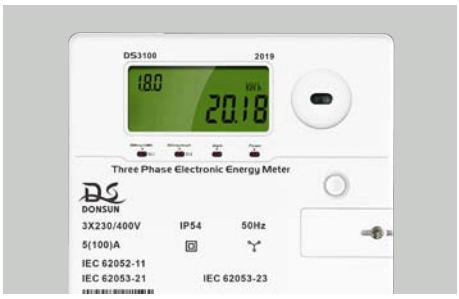
DONSUN TECHNOLOGY
**METER CATALOG 2019**

# DS3100

*Three Phase Multifunctional Energy Meter*


DS3100 three phase energy meter made by DONSUN Technology is a high quality, reliable and robust product for commercial direct connected applications. DS3100 can operate as a stand-alone or as part of a comprehensive AMR/AMI metering system via a variety of internal communication modules.

DS3100 offers high security and detects many of the most commonly used tamper techniques including the neutral missing connection. The display has large easy to read characters with information identified by OBIS. Security data can be included as part of the display sequence and read via the communication ports.

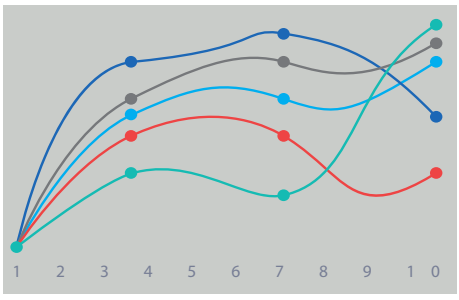



1 **ACCURATE**

DS3100 is designed and manufactured according to IEC 62052-11 and IEC 62053-21 to deliver the reliable accuracy.


2 **SECURED**

It offers high security and detects many of the most commonly used tamper techniques including the neutral missing connection.




3 **VERSATILE**

DS3100 is built with replaceable battery and on-board integrated communication module as RF or PLC. It can be implemented in regular or future-ready scenarios.

4 **INTEROPERABLE**

Being Fully compliant with DLMS/COSEM enables DS3100 to be integrated into any smart metering system.

## DATA — *DS3100 Offers*

DS3100 can be a simple import meter or for import/export, domestic or small-scale commercial applications, which provides the ideal solution for utility billing where a consumer's power factor needs to be considered. DS1100 offers high security with various useful security features. The meter stores all registration and configuration data to nonvolatile memory. All data is retained for the life of the meter. Recordable security features are provided.

# Technical Specification

## DS3100
## Key Features
## *Highlights*

* 4-Quadrant measurement (+P, -P, +Q, -Q, Q1...Q4)

* Active and reactive energy measurement

* Large digit multilingual display with OBIS information indication on backlite LCD

* Extensive security data

* Replaceable external battery

* RTC time back-up with super-cap with internal battery and external exchangeable battery

* Rate select for two rate meters, switch to neutral

* IP54 in accordance with IEC 60529:1989

* Optional IEC 62056-21 optical communications and serial communications

* Maximum demand, Voltage and current instrumentation values registration

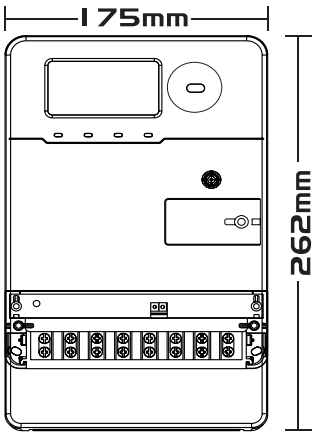
**P** **Profile Record**

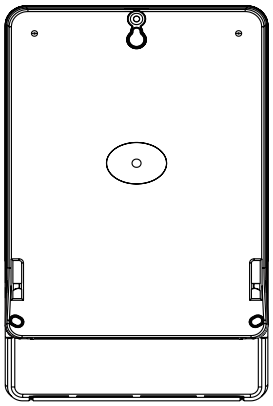
300 days of half hour data available when one channel selected, using a programmable integration period for up to four selectable channels of load profile for any measured quantity.

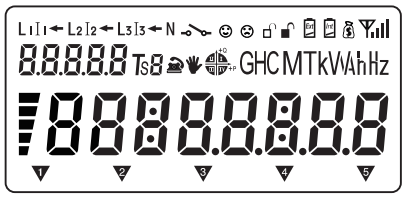
**D** **Display**

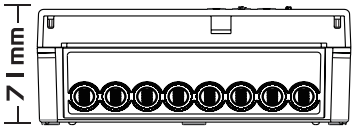
DS3100 can be configured by the customer to display English characters or OBIS identification codes.
An optional battery can support the display during power outages.

| Electrical | Data |
|---|---|
| Network | 3 Phase 4 Wires network |
| Normanative Standard | IEC 62053-21<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>IEC 62055-31<br>EN 50470 |
| Accuracy Class | kWh: Class 1.0<br>Kvarh: Class 1.0 |
| Reference Voltage | 3x110-120/190-208V AC , L-N<br>3x220-240/380-415V AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 5A/10A |
| Maximum Current Imax | 100A |
| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Remote Communication | PLC, RF, GPRS, 3G, 4G, NB-IoT |
| Enclosure | IP54 IEC 60529:1989 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
| Exclusion Days | 32 |
| End of Billing Dates | 12 |
| Daylight Saving | 30 |








*SHENZHEN DONSUN TECHNOLOGY CO., LTD.*

ADD: 10H, BLG 11, SHENZHEN SOFTWARE PARK, NANSHAN SHENZHEN 518057, CHINA
TEL:+86 755 86565087 / INFO@DONSUNTECH.COM
WWW.DONSUNTECH.COM

# DS3600®
## *Three Phase Smart Meter*

**Smart meter for AMI implementation for the next decade of smart grid.**


Full DLMS/COSEM package to be ready for AMI implementation, ensuring immediate interoperability with enriched HAN application, whereas the latest STS compliance for next 10 yeras smart grid and Internet of Things.

DS3600® is a highly accurate, robust, system ready meter that is ideally suited for commercial and light industrial metering applications. With its standard communication protocol, the DS3600 meter can be integrated into any metering system. The DS3600 meter can be easily upgraded and offers our customers the flexibility to keep pace with their changing metering requirements and business growth.

The meter adopts the latest STS standards for prepayment, with variant to accommodate the CTS configuration used in some countries.

It offers high security features including main and terminal cover removal detection and magnetic field manipulation detection protect the meter and module from fraud or tampering.

DS3600® provides modular communication platforms, including GSM/GPRS, PLC and Low Power Radio for WAN/LAN communications. Options for HAN communications can be included each as M-Bus or ZigBee.

DS3600® includes all the high functionality: four-quadrant metering; active, reactive, and apparent energy and demand measurements; standard event logs and time-of-use metering; LCD with optional backlight provides a flexible interface to the user for displaying meter data; and non-volatile memory for both billed and non-billed interval data.

DS3600® offers multiple anti-tampering and advanced security features that ensures revenue protection for our customers. The site diagnostic capability continuously monitors the service, verifying that all phases are present and that the wiring configuration is correct. Adverse or abnormal conditions, such as phase outages and reverse energy events, are logged.

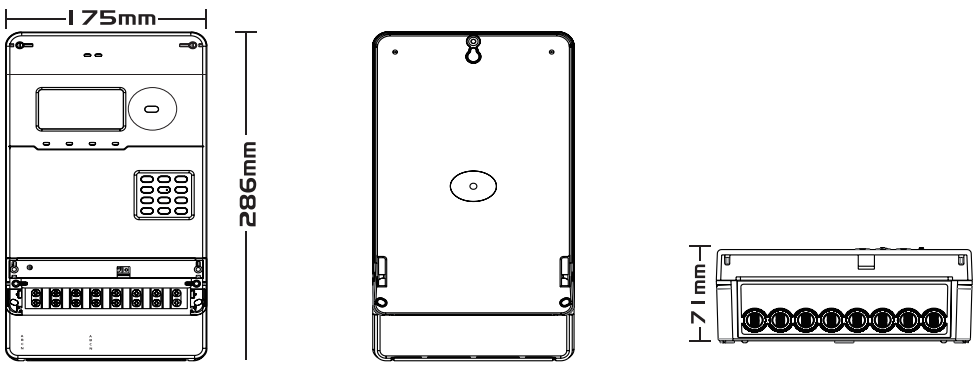
DS3600® offers high security with various useful security features. The meter stores all registration and configuration data to nonvolatile memory. All data is retained for the life of the meter. The data can be read out by local and remote communication. Recordable security features are provided.

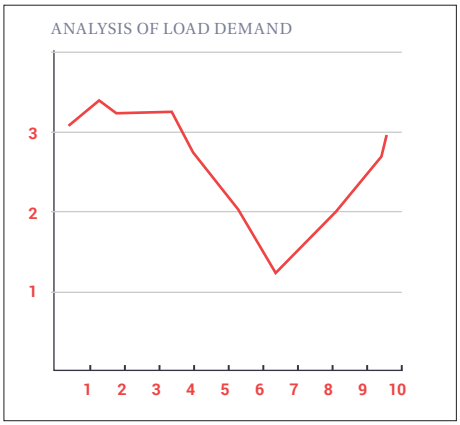
## COMMUNICATION ADAPTABILITY

| Type of Communication | Type | Modulation | Protocol | Application |
|---|---|---|---|---|
| Optical | Local | – | IEC 62056-21 | Local reading/ writing |
| RS-485 | LAN | – | IEC 62056-21 | Parameterization |
| Mbus | HAN | – | Proprietory | Water/Gas meter |
| wMbus | HAN | – | Proprietory | Water/Gas meter |
| PLC | LAN | SFSK/G3/ Broadband | DLMS | Uplink to DCU |
| RF | LAN | SFSK/LoRa | DLMS | Uplink to DCU |
| GSM | WAN | GPRS/3G/4G/ NB-IoT | DLMS | Uplink to HES |

# Technical Specification

| Electrical | Data |
|---|---|
| Network | 3 Phase 4 Wires network |
| Normanative Standard | IEC 62053-21<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>IEC 62055-31<br>EN 50470 |
| Accuracy Class | kWh: Class 1.0<br>kvarh: Class 1.0 |
| Reference Voltage | 3x110-120/190-208V AC , L-N<br>3x220-240/380-415V AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 5A/10A |
| Maximum Current Imax | 100A |
| Starting Current Ist | 0.4%/0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Remote Communication | PLC, RF, GPRS, 3G, 4G, NB-IoT |
| Enclosure | IP54 IEC 60529:1989 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
| Exclusion Days | 32 |
| End of Billing Dates | 12 |
| Daylight Saving | 30 |




## The Stats

**PLC Carrier Frequency:**
35.9K - 500K

**RF Frequency:**
169MHz - 918MHz

**Communication Baud Rate:**
300 bps - 19,200 bps

**Immunity to ESD:**
15kV

**Immunity to Surge:**
8kV

**RTC Frequency:**
32.768 KHz

### Advanced Feature
AMI Readiness

**DS3600 is fully ready for any implementation of AMI. With high security features, it delivers unpararelled metering data as scheduled or on-demand. With selectable and configurable ToU and Load Profile, DS3600 offers the complete set of crucial metering data requires now and future. It is also made ready for Internet of Things as a hub for smart home application. Mbus, wMbus or P1 for HAN application as well as LAN communication.**

**With our featured Head End System or any standardized DLMS HES, the meter is a future ready and investment return guaranteed for your business for the next decade.**

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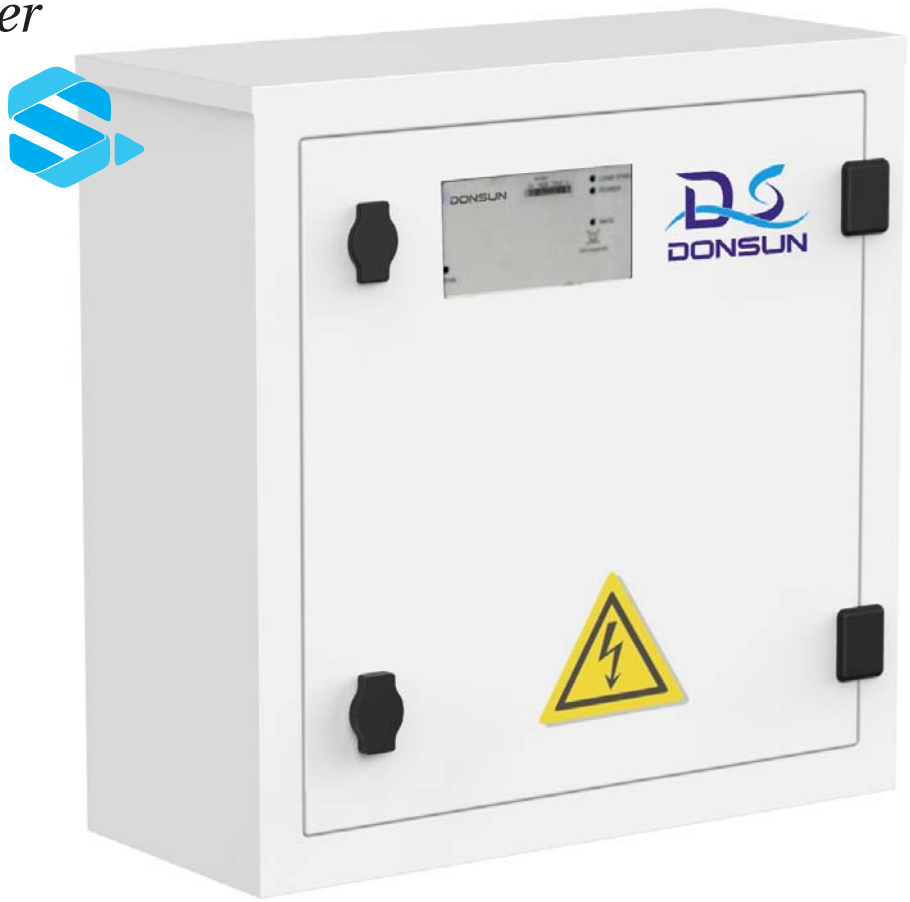
# DS3601®
## *Three Phase Smart Meter*

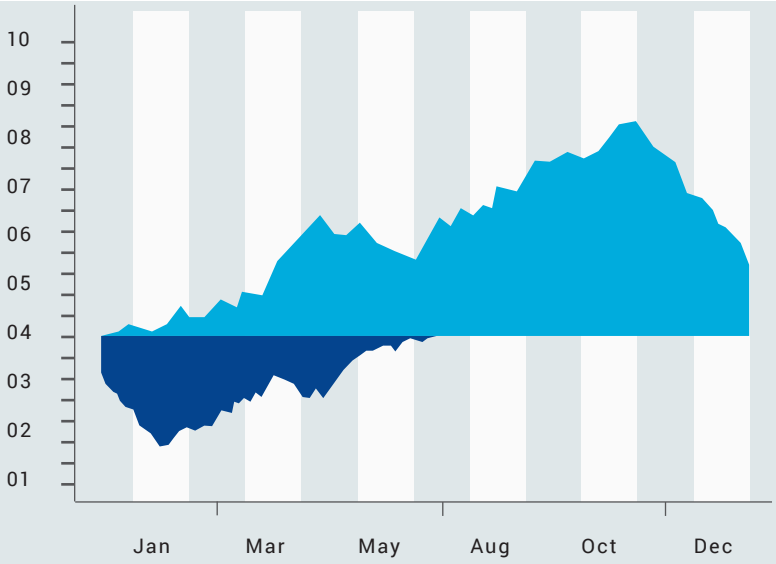



DS3601 provides an exceedingly robust and high precision meter solution to high current with compact and modern design. It maintains 0.5S accuracy throughout its service life and high surge protection over 10kA and 10kV.

DS3601 is a three-phase high current, four wire, and STS compliant split prepayment electricity meter and is ideal for light to medium industrial applications and large office complexes.

DS3601 comprises a user interface with tactile feedback called the Customer Interface Unit (CIU) and the Measurement Control Unit (MCU), which contains three single pole bi-stable 250 Amp disconnection switches with automatic re-connection.

The MCU is ideally mounted in a substation or indoors. The CIU is mounted inside the customers' premises for convenient access.




1.2
Million kWh Measured

54
Monthly Collection

Total - 10,000,00 bytes

Loss - 15,000

Revenue - 25,000

# DS3601
# Load Protection

DS3601 uses three 250 Amp, 7.5kA single pole bi-stable load switches.

The disconnection switch is not designed as a protection device and should not be used to interrupt fault currents. It is imperative that this meter is installed with upstream and downstream breakers to interrupt any fault currents that may occur.

When a load limit has been detected (current or power overload), the meter will suspend the supply for approximately 30 seconds and then auto reconnect. If the overload condition is still present the supply will be suspended for a further 30 seconds.

When the supply voltage exceeds 264V and the duration exceeds the setting delayed time 30 seconds, LCD displays OVEr-V and the meter makes disconnection.

When the SUPPLY voltage drops below 150V and the duration exceeds the setting delayed time 30 seconds, LCD displays Lo-V and the meter makes disconnection.

### Safety Feature

- Each phase is protected by a 5kA / 5kV surge arrestor.
- 420VAC for a period of up to 48 hours.
- MCU is completely sealed to prevent tampering.
- CIU displays the tamper status of the meter.
- Protection against the ingress of insects, dust and humidity.
- Unique meter security key.

## Technical Specification

| Electrical | Data |
|---|---|
| Network | 3 Phase 4 Wires network |
| Normanative Standard | IEC 62053-22<br>IEC 62053-24<br>IEC 62056-21/46/53/61/62<br>IEC 62055-31<br>EN 50470 |
| Accuracy Class | kWh: Class 0.5S<br>Kvarh: Class 1.0 |
| Reference Voltage | 3x110-120/190-208V AC , L-N<br>3x220-240/380-415V AC , L-N |
| Operating Voltage | 70% - 120% Un |
| Basic Current Ib | 25A/30A |
| Maximum Current Imax | 250/400/630A |
| Starting Current Ist | 0.2% Ib |
| Reference Frequency | 50/60Hz +/- 5% |
| Power Consumption | Voltage circuit <1W, <2.5VA<br>Current circuit < 0.25VA |
| Temperature | Operation: -40° to + 55° C<br>Storage: -40° to + 85° C |
| Local Communication | Optical, RS485 |
| Remote Communication | PLC, RF, GPRS, 3G, 4G, NB-IoT |
| Enclosure | IP54 IEC 60529:1989 |
| **Tariff Structure** | **Number** |
| Time-of-Use (TOU) Register | 8 |
| Maximum Demand (MD) | 4 |
| Switching Times | 48 |
| Seasons | 4 |
| Change of Season Days | 12 |
| Exclusion Days | 32 |
| End of Billing Dates | 12 |
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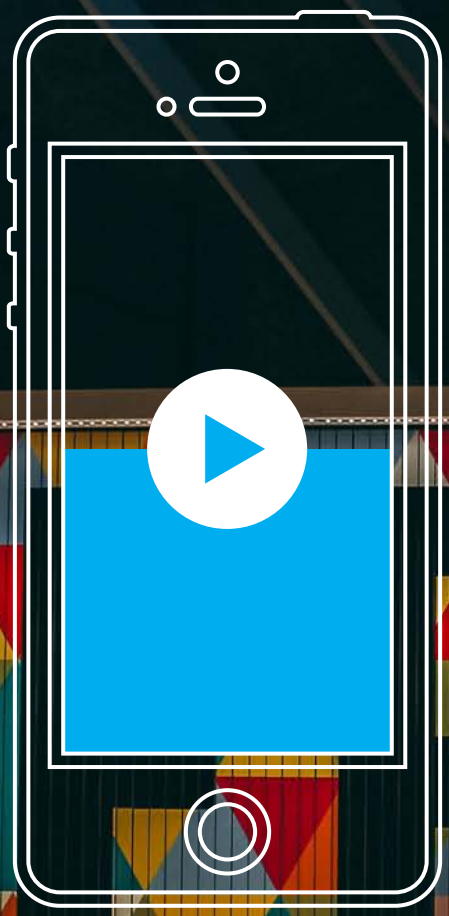
# 99.7% Availability

Donsun AMI BiMAX® system is designed to help utilities to fully leverage meter data, this innovative highly available system can provide uninterrupted operation in any transaction, which help to simplify the operations that are critical to improved performance and productivity.



Load Profile

Big Data Analysis

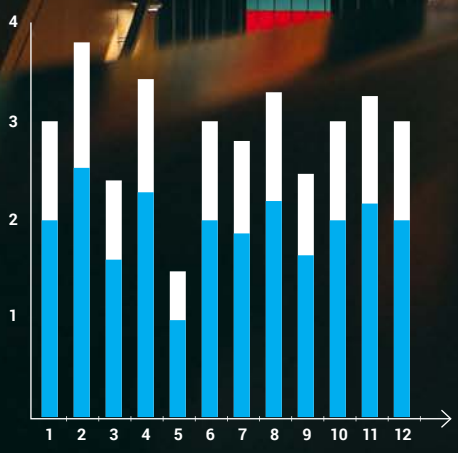
Role Hierarchy

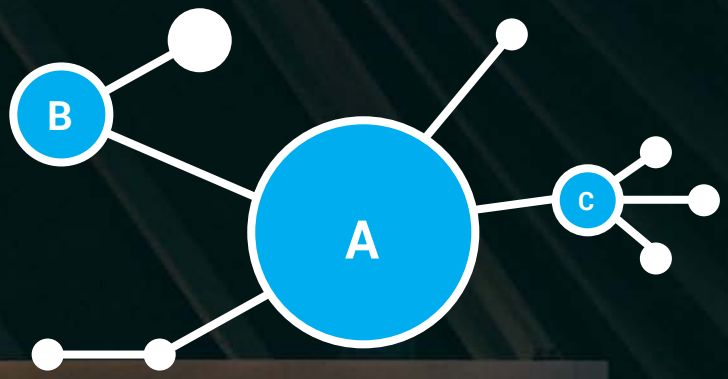
# BiMAX®
# AMI System

**$4.45 Million**

## Communication Coverage

DONSUN BiMAX® AMI system consists of Smart meter, communication modules, DCU (Data Concentrator Unit), Head End System (MDCS), Meter Data Management System (MDMS), Database, and Server.

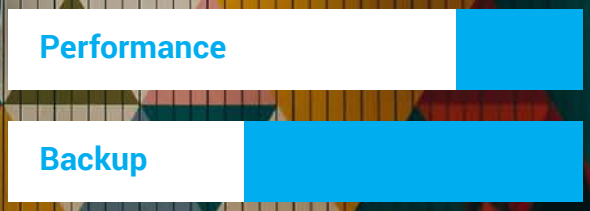





## INTEROPERABILITY

Following the latest international standards, Donsun BiMAX® AMI system provides the capability for multiple meter readings and data exchanging, enabling the seamless data integration by the utility and customer, eliminating the need of manual manipulation of data and improving the data security implemented in all level.

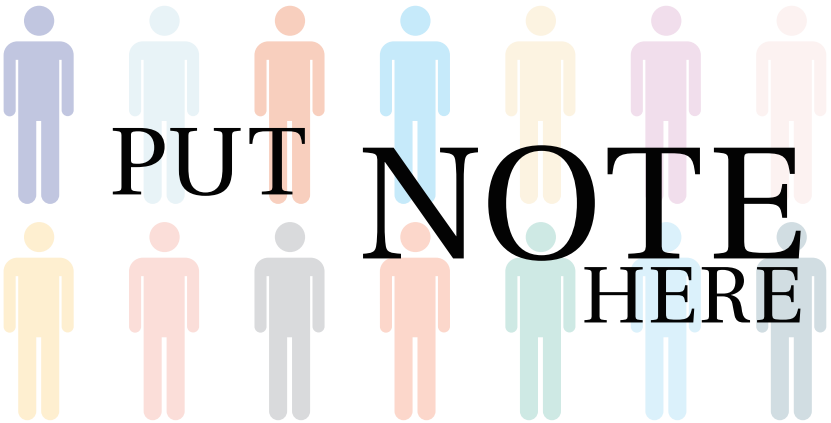
# SCALABILITY




DONSUN BiMAX® AMI system offers flexible network and capacity at customer's choice, so it is affordable to even small and private project owners. The scalability of the system vertically and horizontally helps the customer to focus on the key data cares about and key revenue for a utility.

# REVENUE

DONSUN BiMAX® AMI system offers both prepaid and postpaid billing solution. The data management system will provide the data exchange interface to the electricity bill system. In postpaid billing system, electricity providing company can detect user whose bill is due, and the system will also remind the user to pay bill on time automatically if the bill is in due.



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Thank you for

# Considering us