

# Single Phase Split-type Prepayment Electronic Energy Meter



## DDSY23S

### TYPE DE213

 [Brief Introduction](#)

DDSY23S(DIN-Rail) is basic on the design conception of state-of-the-art, supporting various communication technology for the IoT world. Compliant with DLMS protocol, it ensured its high interoperability.

The meter has low power consumption, and it is convenient for users to operate with a CIU display unit. It can meet different communication requirements of the utilities with the data concentrator or CIU, such as PLC.

The meter can be configured in Prepaid or Postpaid mode and provide utilities with high degree of accuracy and reliability. It is designed based on 20-bit token following STS specifications. The meter is in accordance with SANS 1524-1.

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The compact construction of meter makes it possible to install them in a meter box with various capacities of 1,2,4 etc. It adopts DIN rail standard, with features of easy installation, small size and light weight. The meter is compliant with the requirement of installation with IP54 protection level.

The meter is suitable for residential or commercial customers in utility companies to accomplish prepayment business process with conventional and smart options.

The meter will automatically disconnect the load when the credit is low and detect the abnormal circuit. Its robust anti-tampering and prepayment functions make it ideal low-cost device for revenue collection and protection solution.



### MAIN FUNCTIONALITIES

#### Measurement

- Up to 2 elements
- 4 quadrants measurement
- Import & export kW, kvarh and kVAh
- Absolute/net energy measurement

#### Demand

- Import/export power in kW/kvar/kVA
- Block/sliding mode, configurable integration period
- Automatic billing

#### Instantaneous Values

- Vrms, Irms, Power, Power factor, Frequency

#### Power Quality Monitoring

- Power up & down
- Current reverse
- Sag & swell

#### Billing Data

- 12 entries(monthly)/31 entries(daily)
- Automatic/remote reset

#### Load Profile

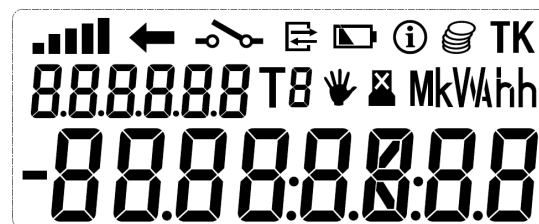
- Capture periods configurable(1-60 mins)
- Up to 14 channels
- 15 mins interval for 93 days

#### Clock

- Gregorian calendar
- $\pm 0.5s/day$ , follow IEC62054-21

#### LCD Display(CIU)

- Auto scroll/manual scroll mode
- High resolution mode
- Backlight (optional)



#### Tariff

- Up to 8 tariffs
- Up to 12 time slots
- Up to 8 day tables
- Up to 8 week tables
- Up to 12 season tables
- Up to 100 holiday tables

#### Load Control

- Integrated relay
- Power limiter/fuse supervision configurable
- Relay status detection

#### Tamper Detection

- Meter cover/terminal cover
- Current reverse
- Strong magnetic field detection(optional)
- By-pass(optional)

## Event Records

- Standard events
- Fraud events
- Power quality events
- Communication events
- Parameter changing events

## Communication

- Local: Optical port/Micro USB
- CIU: PLC
- Remote: PLC

## Security

- Security suite 0/1 as per DLMS Green book

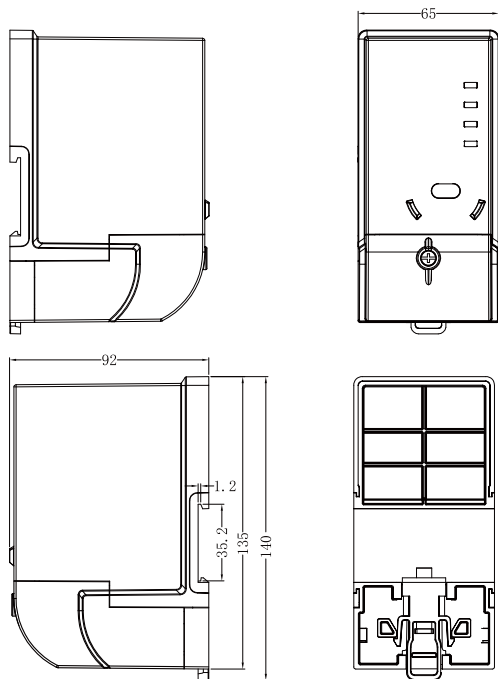
## SPECIFICATIONS

Model		DDSY23S(DE213)
Standards	IEC standard	IEC 62052-11 IEC 62053-21 IEC 62055-31 IEC 62053-23 IEC 62055-41 IEC 62056-21
Rated Voltage		220V~240V(Un)
Current	Basic current Maximum current Starting current	5A/10A 60A/80A/100A 0.4%I <sub>b</sub>
Accuracy Class	Active Reactive	Class 1(IEC) Class 2(IEC)
Power Consumption	Voltage circuit Current circuit	≤2W, 10VA ≤0.5VA
Frequency		50Hz ± 5%
Temperature Range	Operation Storage	-40°C~+70°C -40°C~+85°C
Humidity Range		Up to 95%
Ingress Protection		IP54
Case Material		PC + GF
Impulse Constant	Active Energy Reactive Energy	1000imp/kWh 1000imp/kvarh
Communications		Local communication —Optical port/Micro USB CIU communication —PLC Remote communication —PLC

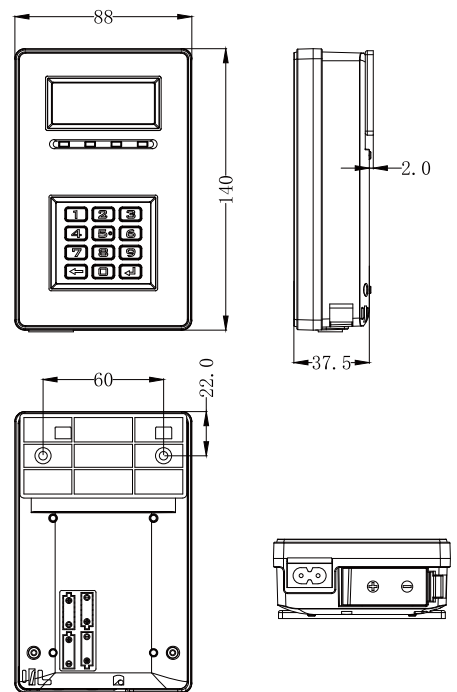
Communication Protocol	DLMS/COSEM	
Display(CIU)	LCD:8 Digits Automatic scroll reading	
LED Indicator	Energy Pulse Status Indication	1 for active energy pulse 1 for reactive energy pulse(optional) 1 for communication/alarm indication 1 for power on indication(optional)
RTC	Built-in < 0.5s/day	
Power Backup	Battery	Environment friendly lithium battery 1200mAh
Weight	About 0.45kg (with built-in relay)	
Dimension	Maximum 140 x 65 x 92mm(H x W x D)	

## DIMENSION

### MCU:



### UIU:



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