

## DDSF3 Single-phase Multi-rate Static Energy Meter

### Summary

DDSF3 single-phase multi-rate meter is an ideal product for active energy measurement corresponding to different tariffs. It realizes data exchange via RS485 network or by HHU, and the data transmission protocol conforms to IEC1107. The meters have the characteristics of small size, beautiful shape, long life, high accuracy, low power consumption, strong anti-interference ability, etc., and conform to DL/T645-1997.

### Technical specification

#### 1. Accuracy class: 1.0, 2.0;

Normal working voltage: working 4hours under 154V260V, 440V AC without power consumption;

Power consumption of voltage circuit:  $\leq 1.5W(5VA)$ ;

Power consumption of current circuit:  $\leq 1.0VA$ ;

Clock calendar and battery;

Clock error:  $\leq 0.5s/d$ (under the reference voltage);  $\leq 1.0s/d$ (standby lithium battery in service);

Batteries voltage: 3.0V, capacitance  $\geq 225mAh$ ;

Batteries life: >10years;

Light-coupled output interface;

Impulse extent:  $80 \pm 20ms$ ;

Working voltage: 5~24V(DC); working voltage: 5mA(DC);

Life: 10years.

#### 2. Ambient condition

Normal working temperature:  $-20^{\circ}C \sim +55^{\circ}C$ ;

Limit working voltage:  $-30^{\circ}C \sim +70^{\circ}C$ ;

Stockpile and transportation temperature:  $-35^{\circ}C \sim +70^{\circ}C$ ;

Relative humidity: annual average < 80%;

Accord standard: IEC62053; GB/T17215-2002; GB/T15284-2002; GB/T645-1997.



### Model

Model	Rated frequency (Hz)	Nominal current(A)					Meter constant (imp/kwh)
DDSF3(220)	50	1.5(6)	2.5(10)	5(20)	10(40)	15(60)	On nameplate

We can provide with both Chinese and English display.

### Basic function

#### 1. Measurement functions: measure positive and negative active and reactive energy

#### 2. Measurement in different time periods

This energy meter can intercalate three tariffs(peak, flat, valley), 12 day-time section, minimum intervals between time periods is 5 minutes;

Store data of various tariffs in 12 months;

Power transfer storage (auto-reading day) covering 0~23 complete clock from date 1 to 28.

#### 3. Reversal-power computation in time period

Automatic identify the power direction, reversal power saving and added to positive power meter. Record automatically reversal power positive state time and reverse running time;

Have reverse impulse measure and direction function.

#### 4. RS485 and infrared communication

Electric disconnecting RS485 joint, communication agreement accord to DL/T645-1997; adjustable type reverse infrared joint, carrier wave frequency 38KHz, the communication agreement conforms to DL/T645-1997;

Automatic identify the power direction, negative power saving and added to positive power meter. Record automatically reversal power positive state time and reverse running time;

Have reverse impulse measure and direction function.

#### 5. Display function

LCD display clearly within  $-30^{\circ}\text{C}\sim+70^{\circ}\text{C}$ ;

Adopt Chinese character LCD display screen, double lines display in simultaneity-six;

Integer and two decimal fraction. The saving capacity of inner meter is 6 integers and 2 decimal fraction;

The display mode can be set in circulation and stop.

#### 6. Other function

Code and program of on-off are dual protection in input data, it automatically record down final programming time and times;

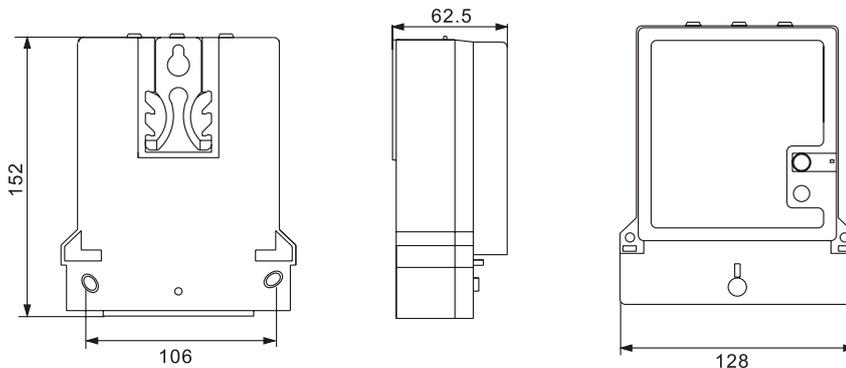
Clock circuit In hardware, low current loss, the spare battery is one-off lithium material;

Set meter mark, bureau number, time section, charge, date, time and automatic meter and circle display and start power;

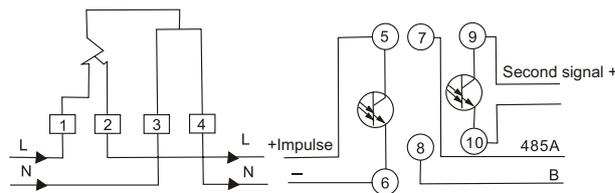
Spare battery under voltage monitor and indication, hardware state monitor, timing state, power direction, time checking and contemporary time section and read the situations from RS485 and portable computer;

Check the power parameters by pushing the blue button on cover of meter.

## Outline dimension and wiring



Diag1 outline dimension



Diag 2 wiring