DIN-rail Mounted Energy Meter

User Manual

Applied to：

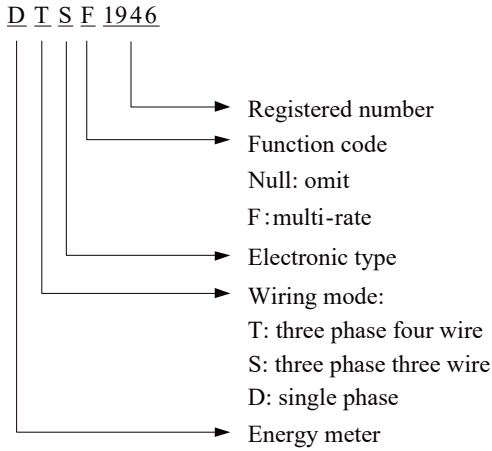
-DDSF1946-2P

JIANGSU SFERE ELECTRIC CO., LTD.

1. Introduction

DIN-rail mounted energy meters are designed and produced according to user's real electricity consumption situation by adopting advanced energy measurement IC and using digital sampling processing and SMT technologies. They adopt modularity structure with the features such as small volume, convenient installation and reliable working.

2. Naming rule



3. Model Selection

Function \ Model		Single phase
		DDSF1946-2P
Wiring mode	Single phase	√
	Three phase four wire	-
	Three phase three wire	-
Voltage range	220V	√
	3×220/380V	-

	3×380V	-
Current specification	Direct input	5 (100) A
	Input via CT	-
Real-time measurement	U/I	√
	P/Q/S	√
	PF	√
	F	√
	THD	-
Energy metering	Bi-directional energy	√
	Four-quadrant reactive energy	√
	Multi-rate energy	√
Demand		√
Max./min. value		√
Events record		√
RS485 communication port		√
Energy pulse		√
Display mode		LCD

Note: √ Yes， - No;

4. Technical specification

Electrical feature		
Model		DDSF1946-2P
Accuracy		Voltage, current: 0.2 Class, Power, active energy: 0.5S Class, Reactive energy: 2 Class.
Rated voltage		220V
Input current	Direct input	5(100)A
	Input via CT	-

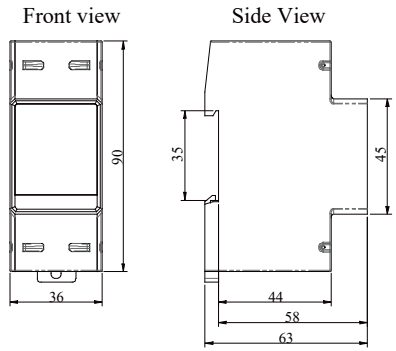
Frequency		50/60 Hz
Wiring mode		Single phase
Voltage range		0.8Un ～ 1.2Un
Consumption	Voltage circuit consumption	< 4VA
	Current circuit consumption	< 1VA
Start current	Direct input	0.002Ib
	Input via CT	
Energy pulse		One active energy pulse output, pulse width（80±20%）ms
RTC error		≤0.5s/day
Communication feature		
RS485 port		Modbus-RTU protocol，baud rate up to 9600bps
Mechanical feature		
Dimension (mm)		36×90×63.5
IP protection		IP54（front case）/IP20（rear case）
Environment feature		
Work temperature		(-25～70)℃
Storage temperature		(-30～80)℃
Relative humidity		(5～95)% （no condensation）
EMC		
Electrostatic discharge immunity		IEC 61000-4-2-III class
Radiated, radio-frequency, electromagnetic field immunity		IEC 61000-4-3-III class
Electrical fast transient/burst immunity test		IEC 61000-4-4-Ⅳ class
Surge immunity		IEC 61000-4-5-Ⅳ class
Immunity to conducted disturbances, induced by radio-frequency fields		IEC 61000-4-6-III class

Power frequency magnetic field immunity	IEC 61000-4-8-III class
Voltage dips, short interruptions and voltage variations immunity	IEC 61000-4-11-III class

5. Installation and wiring

5.1 Outline dimension

DDS1946-2P/DDSF1946-2P



5.2 Installation method