D☐SU666 series

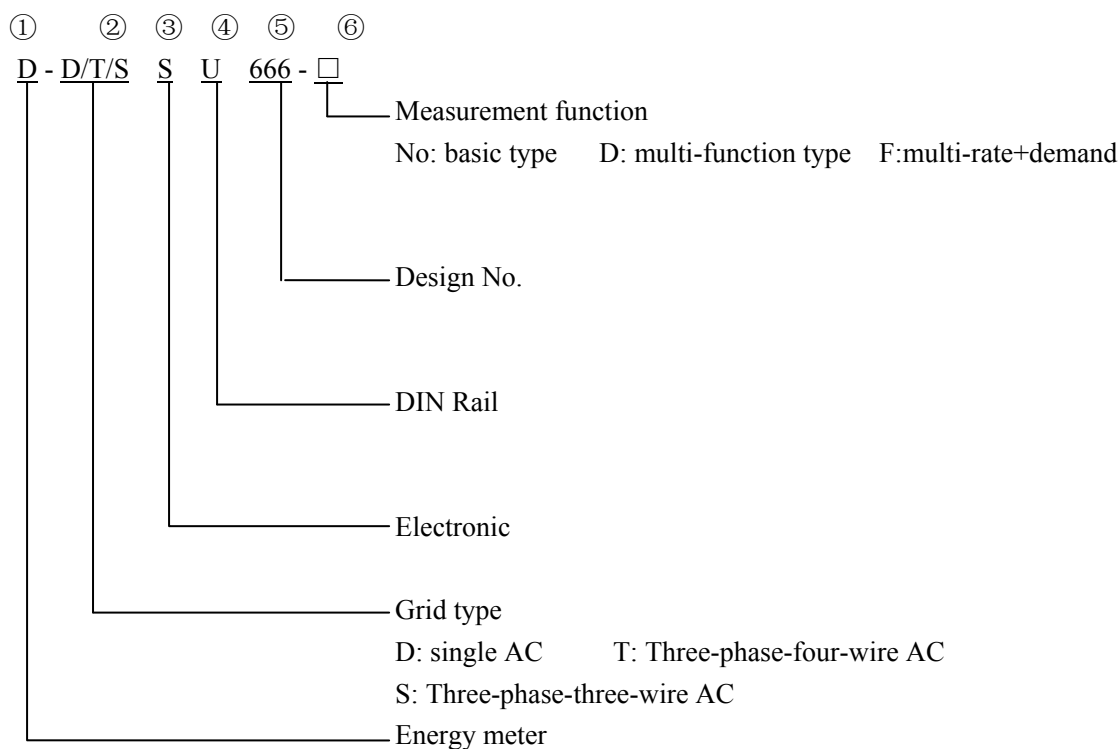single/three phase electronic energy meter(DIN Rail)

Summary

D☐SU666 series electronic energy meter is designed for power monitoring and energy measurement such as power system, communication industry, construction industry, etc. to be a new generation of programmable intelligent instrument, integrated with measurement and communication function, mainly used for real-time measurement and display for the electrical parameters such as voltage, current, active power, reactive power, frequency, power factor, energy in the electrical circuit, etc. It can realize networked through RS485 communication interface and external device. Adopting the standard DIN-rail mount type of DIN35mm with structural modular design, it is characterized with small volume, easy-installation & networking, etc. widely applied into the internal energy assessment and monitoring for industrial and mining enterprises, hotels, schools and large public buildings.

1. Model composition and the representative meanings:
The model is composed of five parts, when ordering, Part ①~Part ⑤ are required, and others can be determined according to their needs.

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①    ②    ③  ④   ⑤    ⑥
D -  D/T/S  S   U  666 - ☐
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⑥ Measurement function
No: basic type   D: multi-function type   F:multi-rate+demand

⑤ Design No.

④ DIN Rail

③ Electronic

② Grid type
D: single AC   T: Three-phase-four-wire AC
S: Three-phase-three-wire AC

① Energy meter

2. Main technical performance and parameters:

Technical parameters	Index	
Safety	AC withstand voltage	Between > 40V and <40V connecting terminals can stand 2kV/5mA/1min AC withstand voltage
	Pulse voltage	Between > 40V and <40V connecting terminals can stand ±4kV 1.2/50μs pulse voltage(10 times/polarity)
	Insulation resistance	The input, output terminal of the case>100MΩ
	Outage data hold time	≥10 years
Electromagnetic compatibility	Noise immunity of electrostatic discharge	GB/T 17626.2-2006 class 4(contact discharge 8kV, air discharge 15kV)
	Noise immunity of RF fields	GB/T 17626.3-2006 class 3(10V/m)
	EFT immunity	GB/T 17626.4-2008 class 4(4kV/5kHz)
	Surge immunity	GB/T 17626.5-2008 class 4(4kV)
	Conduction disturbance rejection of radio frequency field induction	GB/T 17626.6-2008 class 3(150kHz-80MHz, 10V)
	Noise immunity of decay wave	GB/T17626.12-1998 class 3(common mode 2.5kV, differential mode 1kV)
	Radio interference suppression	GB 9254-2008 class B
Work environment	Specified operating temperature range	-10℃~+45℃(3K5grade, indoor use)
	Ultimate operating temperature range	-25℃~+55℃(3K6grade, indoor use)
	Ultimate temperature range for storage and transportation	-40℃~+70℃(3K8Hgrade, indoor use)
	Relative humidity	Annual average<75%RH, no dew, no corrosive gas places
	Atmosphere	86kPa~106kPa

3. External and installation size

Model	modulus	External size (Length× width× height)
DDSU666 series	2	36×85×66
DDSU666-E series	4	76×89×74
DDSU666-D series		
DDSU666-F series		
D T/S SU666 series	7	126×89×66
D T/S SU666-D series		
D T/S SU666-F series		

DDSU666 series

single phase electronic
energy meter(DIN Rail)

1. Main functions and characteristics

◆DIN35mm standard DIN-Rail mount, with segment LCD display;

◆Measuring function: it is characterized with measurement for voltage, current, frequency, active power, power factor and active energy.

◆Communication function: RS485 communication interface, supporting DL/T645-2007 protocol, customizable for MODBUS-RTU protocol

◆Multi-rate function: it supports four rates including top, peak, flat and valley rate.

2. Specification and model selection:

Product function		Model			
		DDSU666	DDSU666-E	DDSU666-D	DDSU666-F
Voltage input	Direct input	0.8Un~1.2Un			
Current input	Direct input	5(60)A	5(80)A		
	Input via CT	_	1.5(6)A		
Voltage, current, power, frequency, power factor		NO		YES	
energy	Active energy	YES			
	Bidirectional measurement	NO		YES	
	multi-rate(clock)	NO			YES
Others	Demand	NO			YES
	Power pulse	YES			
Communication	IR	NO			YES
	RS485	YES			
Display mode		Single line LCD, 6 bit	Single line LCD, 7 bit		
Dimension L×W×H(mm) 36×85×66		2 modulus	76×89×74 4 modulus		

3. Main technical performance and parameters

Technical parameters		Index	
		Wiring mode	Single phase
		Voltage specification	AC 220V

Input signal	voltage	Specified working voltage range	0.9Un~1.1Un; the extensional work voltage range: 0.8Un~1.2Un
		Consumption of the voltage circuit	≤5VA/1W
		Resistance	>500kΩ
	Current	Rated value	Input via CT/PT: AC1.5(6)A Direct input: AC5(60)A/AC 5(80)A
		Overload Current	Input via CT/PT: instant:201max, time of application is 0.5s Direct input: instant:301max, time of application: half cycle of the rated frequency
		Consumption of the current circuit	≤2VA
		Resistance	<20mΩ
	Frequency	Input range	(50/60±5%)Hz
Clock	Clock battery capacity		≥1200mAh
	Clock accuracy class(daily error)		<0.5s/d(23℃)
Output	Display		Segment LCD
	Measurement parameters and grade		Voltage Class 0.5; Current Class 0.5; Power factor Class 1; Frequency Class 0.5; Active power Class 1; Reactive power Class 1; Active energy Class 1;
	Energy	Multi-rate energy	Support multi-rate measurement of passive, negative total active power
		Max. demand record	Support Max. demand record of passive, negative total active power, demand interval and slip time can be set
		Pulse constant	AC200V | AC1.5(6)A | 6400imp/kWh AC220V | AC5(60)A/AC5(80)A | 800imp/kWh
		Pulse signal output	Provide 1 set(active energy) optical signal and optocoupler isolated open collector electrical signal pulse output, pulse length:80ms±16ms
	Communication	RS485 communication	Support or DL/T645-2007 communication protocol, customizable MODBUS-RTU communication protocol, the communication baud rate 1200bps, 2400bps,4800bps,9600bps can be set, assumed to be 2400bps
		IR communication	Support DL/T645-2007 communication protocol, customizable for MODBUS-RTU communication protocol, Infrared wave length:900nm~1000nm Communication baud rate: 1200bps Communication angle: ≥±15° Communication distance: ≥4m

Note: 1. The meter can only be the same as its corresponding technical performance and parameters;

2. The items remarked * is the optional items, which shall be specified by the customers while ordering.