## DT(S)S238 three phase RS485 type static watt hour meter (E3403)



The meter is used in three phase four wire/three phase three wire/two phase three wire power grid. The meter is designed to measure AC active energy. All of its functions comply with the relative technical requirement for class 1 three phase watt hour meter in IEC62053-21 and its data communication rules obey the requirement of DL/T645. It is a long life meter with the advantage of high stability, high over load capability, low power loss.

#### **Basic Function**

★LCD display 6+2 kWh

 $\star$  Bi-directional total active energy measurement, reverse active energy measure in the total active energy

★ Three phase power supply, the meter also measure when loss one phase(any one wire in three phase three wire) or when loss two phase(any two in three phase four wire)

★Loss phase LED indicates working of phase

 $\star$ Pulse LED indicates working of meter, Pulse output with optical coupling isolation

★Infrared and RS485 communication port

★RS485 communication protocol can select MODBUS-RTU or DL/T645

★Two type of cases(protective-class I and II) are available

### **Optional Function**

 $\star$ The meter can measure and LCD display the total forward/reverse active energy

 $\star$ Reverse LED indicates the reverse current direction or wire reverse connect

★Battery for LCD display when power off

 $\star$  Remote control function, the meter has function of remote control on/off through RS-485

★M-BUS communication

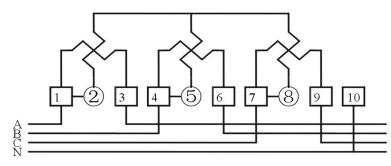
Rate voltage	DTS238 RS485 type three phase four wire 3x57.7/100V,
	3x127/220V, 3x120/208V, 3x220/380V, 3x230/400V,
	3x240/415V
	DSS238 RS485 type three phase three wire(two phase
	three wire)
	2x120/208V, 2x127/220, 3x220V, 3x380V, 3x400V,
	3X415V, 3x100V
Working voltage range	0.8~1.2Un
Rate Current	5A/CT, 1.5(6)A, 5(30)A, 10(40)A, 5(60)A, 20(80)A,
	20(100)A, 30(100)A, or other as required
Frequency	50Hz or 60Hz
Connection mode	CT type or Direct type
Display	LCD
Accuracy class	Active class 1.0
Power consumption	<1W/10VA
Start current	0.004lb
AC voltage withstand	4000V/25mA for 60 sec
Impulse Voltage	6kV 1.2µs waveform
IP grade	IP51 or IP54
Constant	400~6400 imp/kWh
Pulse output	Passive pulse, pulse width is $80\pm5$ ms
Communication port	RS485 port, 1200 $\sim$ 9600bps
	Infrared port 1200 bps
Executive standard	IEC62053-21, IEC62052-11
Work temperature	-30°C~70°C
Outline dimension LXMXH	215x145x69mm (short terminal cover L1)
	260x145x69mm (long terminal cover L2)
Weight	Approx 1.3kg

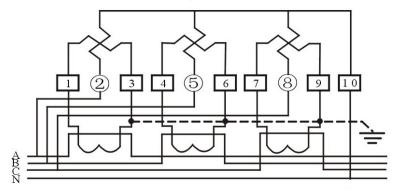
## **Technical Data**

Three phase three wire (also called two phase three wire)

#### Wire connection

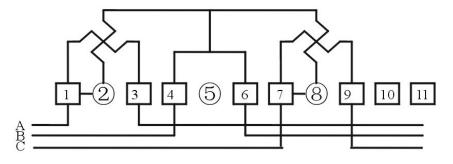
(1) three phase four wire direct connection



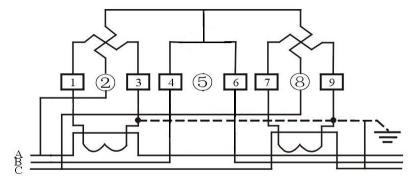


(2) three phase four wire through current transformer connection

(3) three phase three wire direct connection

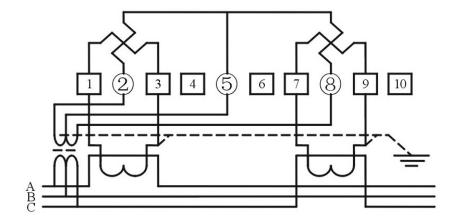


(4) three phase three wire through current transformer connection

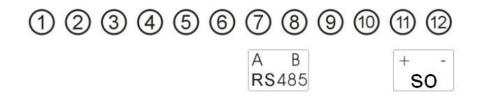


(5) three phase three wire through voltage transformer and current transformer connection

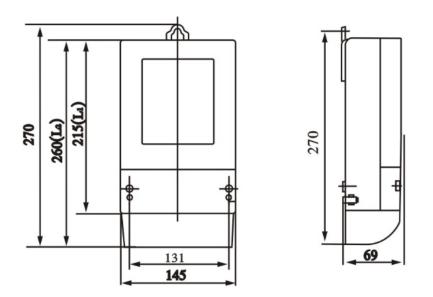
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(6) function terminal diagram



**Outline dimension** 



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