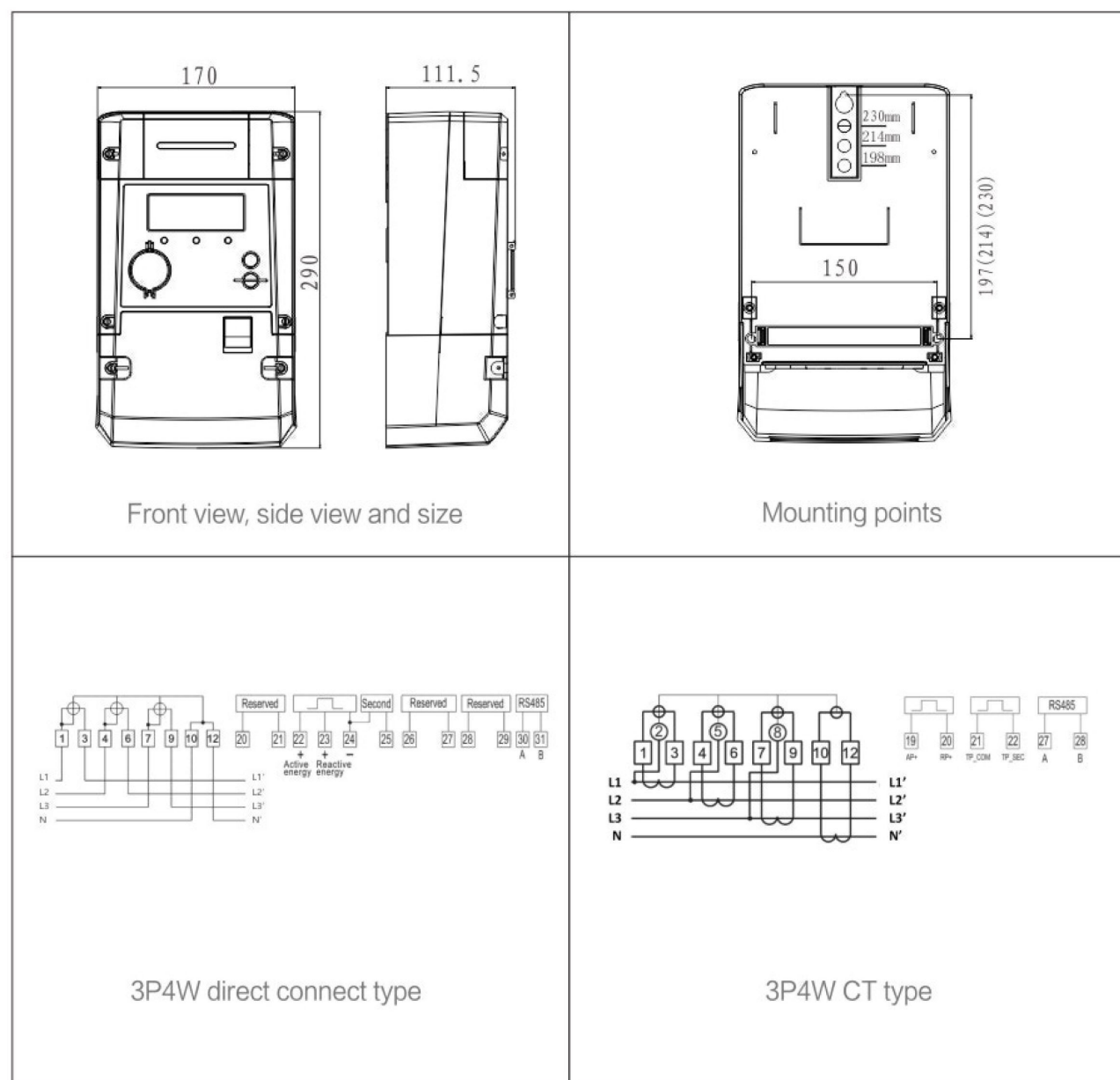


## DIMENSION & CONNECTION



# DTSD545-IS1

## Three Phase Smart Meter



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## OVERVIEW



DTSD545-IS1 is a new generation of smart meter. Working with Holley's ESEP system, the meter can realize the function of automatic reading, load control and prepayment function. This meter complies with IEC 61053-23, IEC61053-21. Meter parameter is configurable through PC software. The meter has high precision, low power consumption. It is suitable for the users in villa, commercial and industrial project, etc.

## ADVANTAGES / FEATURES

- Uplink communication GPRS/RF/PLC/G3/G4 module replacable
- Downlink communication with CIU by PLC/RF/M-bus (optional)
- Protocol DLMS/PRIME

## MEASUREMENT & BILLING

- Active energy (import and export)
- Reactive energy (import and export)
- Instantaneous Measurement
  - Voltage (L1/L2/L3)
  - Current (L1/L2/L3)
  - Active/reactive power (total/L1/L2/L3)
  - Voltage current angle (L1/L2/L3)
  - Frequency (total/L1/L2/L3)
  - Power factor (total/L1/L2/L3)
- Tariff control available, up to 6 tariffs
- Step tariff is also available.
- Supporting 10 period

## BILLING

- Record the recent 12 times billing data. The billing time is configurable.

## DEMAND

- Record the import/export active MD and MX demand (total/T1/T2/T3/T4/T5/T6)
- Record the import/export reactive MD and MX demand (total/T1/T2/T3/T4/T5/T6)
- Record import/export active the accumulated MD (total/T1/T2/T3/T4/T5/T6)
- Record import/export reactive the accumulated MD (total/T1/T2/T3/T4/T5/T6)
- MD reset
- Support block and split type demand

## TAMPERING PROOF

- Meter cover open
- Terminal cover open
- Magnetic field influence
- Energy reverse
- Current unbalance
- Battery remove

## PREPAYMENT FUNCTIONS (OPTIONAL)

- The meter can be integrated with relay and will disconnect from the power in some case, such as over load, over voltage, tampering, remote control and so on.
- The meter is recharged through CIU. The main prepayment functions are:
  - Charging
  - Remaining credit alarms (the alarm limit is configurable)
  - Anti-electricity hoarding (the credit hoarding is configurable)
  - Overdraft (credit is configurable)
  - Friendly credit. In this mode, the relay will be off even if the credit is not enough.
- The meter can also be configured to post-payment mode for user's convenience.

## LOAD PROFILE

- Up to 2 channels
- Load profile for energy, voltage, power and demand data.

## DISPLAY

- 3 LED indicators for active pulse, Alarm and reactive pulse.
- 3 display modes available: scrolling display, manual display and power-off display
- Display content and period are configurable
- Backlight is available in the weak light condition
- Display digits: 8

## EVENT

- Meter will record 100 standard events:
  - Tampering
  - Power off/on
  - Remote relay control
  - Current unbalance
  - Losing phase
  - Sag of each phase
  - Swell of each phase
  - Module remove
- Event reset

## SPECIFICATION

NO.	TYPE	PARAMETER
1	Standard	IEC62052-11 , IEC62053-21 , IEC62053-23 , IEC62056-21 , IEC62056-61 , IEC62056-53 , IEC62056-46 , IEC62056-42
2	Accuracy	Direct type      Transformer type - Active Class 1.0      -Active Class 0.5s - Reactive Class 2.0      -Reactive Class 2.0
3	Rated Voltage	3X220/400 V, 3X230/400 V, 3X240/400 V
4	Operation voltage range	0.7Un~1.2Un
5	Current	
6	Basic current	5A, 10A
7	Maximum current	60A, 100A
8	Starting current	0.004Ib
9	Power consumption	
10	Voltage circuit(Un)	≤2W/5VA
11	Current circuit(In)	≤0.5VA
12	Frequency	50Hz
13	Temperature	
	Operating temperature	-45°C to +75°C
	Storage and transportation temperature	-55°C to +85°C
14	Humidity	< 75%
15	Protection Class	IP54
16	RTC	≤1s/day (in 23°C)
17	Insulation strength	
	AC voltage test	4kV, 1min
	Impulse voltage test	6kV, 1min
18	EMC	
	Electrostatic discharges(Contact discharges)	8kV
	Electrostatic discharges(Air discharges)	15kV
	Surge immunity test	4kV
	Fast transient burst test	4kV
	Electromagnetic RF fields	10V, 150kHz~80MHz
19	Battery	Operating for at least 2 years in case of any power failure
20	Meter case material	Polycarbonate Fire, heat and ultra violet radiation resistant
21	Communication	Optical communication
22	Dimension	170mmx111.5mmx290mm
23	Weight	Approx. 2kg