



PAX ELECTRICITY

DTSD5-M

Electronic Poly-phase multi-functional meter for commercial & Industrial applications

- ▶ Flexible and complex tariff structure
- ▶ Measurement Active and Reactive energy for each tariff
- ▶ Max Demand & Load Profile
- ▶ Up to 4 tariffs managed by internal clock (RTC)
- ▶ Events log & alarm
- ▶ Communication optical port for semi-automatic meter reading
- ▶ Anti-tampering protection



Multi-phasing



External CT/PT (Option)



LCD Display



UP to 4 Tariffs



Internal clock (RTC)



Maximum Demand (option)



Pulse output

DTSD5-M, a multi-functional three-phase static electricity meter. It is developed under the ongoing technology evolution in the commercial & industrial sector and in order to meet the growing customer demand for static meters.

It gives advantages to all users in the process: an installer, a maintenance engineer, a service engineer, a readout operator and a final user. The meter is approved and manufactured in compliance with the IEC 62052-11, IEC 62053-21 (IEC 61036) standards, and was designed according to even higher internal PAX standards.



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Reliability and stability

With proven electronic technology, long-life components and special care in the manufacturing process, DTSD5-M guarantees precise accuracy and high reliability throughout its life span. Re-calibration is no longer necessary.

Fast and Easy Installation procedure

This design is easy to handle and extremely efficient for large-scale residential installations. Adapted to current connection standards the meter is compatible with existing installations and test benches.

Local metering data display (LCD):

- Automatic Scroll mode
- Manual scroll (by button)
- Test mode (for utilities)

Programmable data set and sequence

LCD back-light: optional

LCD display when power absent: optional

Flexible Tariff Management

Benefit from an internal RTC, full Time of Use (TOU) function is realized.

A tariff program is managed by the RTC which is suitable for the most complex metering applications.

The meter is able to generate "End of Period" information as defined by the user, usually based around billing dates.

The non-volatile memory is able to save energy information for up to 12 billing periods. This removes the need to visit the meter on a frequent basis.

DTSD5-M supports 4 kinds of tariffs and 12 intervals in 24 hours for each day, which can be programmed flexibly. Interval 1 to 12 of each day can be combined with tariff 1 to 4 according to various requirements, this combination is called Tariff Set.

In addition, the meter supports holidays & weekends, which can be individually set with different kinds of combination of tariffs and intervals.

Maximum Demand information can also be measured for all tariff rates allowing optimum billing of high consumption customers in particular.

Events log & Alarm

- Over voltage and under voltage
- Over current and under current
- Reverse energy flow
- Phase rotation
- Demand overload
- Low battery
- Programme events
- Open of terminal cover and meter cover
- Occurrence of power on & off, duration of back-up battery working
-

Anti-Tamper Features

- Measures the absolute sum of total and export energy
- Optional abnormalities alarms & logs
- Independent sealing of the meter body and terminal cover
- Not programmable via keyboard

Load Profile

The meter has 6 load profile channels which can store optional data for up to 16M capacity. And the interval length can be set from 1 to 60 minutes.

Instantaneous Value

DTSD5-M Measures all kinds of parameters:

- kW sum of phases and per phase
- kvar sum of phases and per phase
- kVA sum of phases and per phase
- Frequency per phase
- Power factor
- Current per phase
- Voltage per phase

Freezing Function

The meter has optional function to freeze appointed variable parameters at the appointed time. Operators can read out these parameters to analyze.

Self-diagnostic

- Meter parameters need to be set for the first time usage when out of factory. Instead, LCD will have an indication if the parameters are not integrated
- Meter will check the hardware operating well every time when power on again, and will alarm for accidental faults.

Full functional PC software

- Running under Microsoft Windows environment
- Full reading and setting function via optical port or Rs485 port.
- Three security levels for operators:
 - administrator
 - setting & reading
 - reading only
- Printed the programmed parameters selected by user
- Data output & analysis

Technical Specification

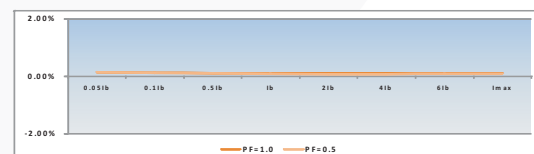
Voltage	Reference Voltage	57.7V/100V/110V/220V/230V/240V
	Operation Voltage Range	0.9Un—1.1Un
	Limit Voltage Range	0.7Un—1.2Un
Frequency	Reference Frequency	50Hz/60Hz
Current	Base Current	Selectable 1A、1.5A、3A、5A、10A、20A、30A
	Max Current	Selectable 2A、6A、20A、60A、80A、100A
Measurement Accuracy	Active energy to IEC62053-22	Class 0.2S or Class 0.5S
	Reactive energy to IEC62053-23	Class 2
	Starting Current	0.1%In to class 0.2S and class 0.5S
Power consumption	Voltage circuit	≤2W, 4VA
	Current circuit	≤1VA
Environment Influences	Temperature Range	To IEC 62052-11
	Operation	-25℃ to +55℃
	Storage	-40℃ to +70℃
	Impermeability according to IEC62059	IP52
Insulation Strength	Insulation Strength	4kV at 50Hz during 1 min
	Impulse voltage	1.2/50us 6kV
	Protection class	II according to IEC62052-11
Calendar Clock	Accuracy	≤0.5S/day
	With battery	≥10 years
Display	Type	LCD
	Digit size in value field	12.5mm 5.5mm
	Number of positions in value field	8 digits with programmable decimal point
Outputs	Test pulse output	LED / Photocoupler series
	Alarm	LED
Communication Interfaces	Optical interface	According to IEC62056-21
	RS485 interface	Optional
Dimensions	Width	172mm
	Height	292mm
	Depth	72mm

Typical performance curve

Active



Reactive



DTSD5-M

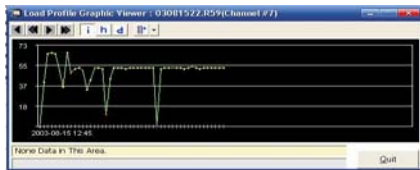


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Tariff Definition

Number of tariff rates	Up to 4
Intervals per day	Up to 12
Tariff sets	Up to 5
Weekdays	Optional from Sun to Sat
Holidays	Sat
Historic Registers	Up to 30
Billing period	Up to 12 sets

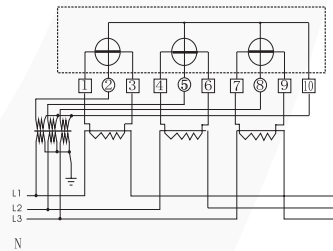
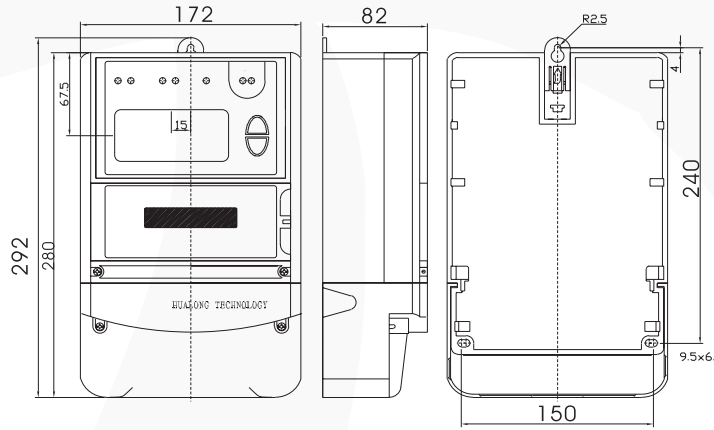
Load Profile Analysis



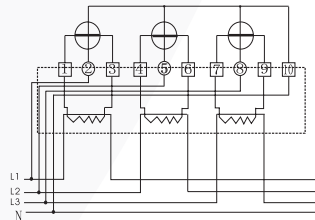
Full Reading & Setting PC Software



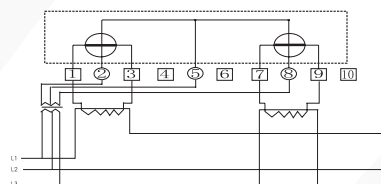
DIMENSION



3-Phase 4- Wire active power indirect connected through current transformer



3-Phase 4- Wire active power direct connected through current transformer



3-Phase 3- Wire active power indirect connected through current transformer

Owing to periodical improvements of our products
The supplied products can differ in some details from the data stated in the prospectus material

Manufactured under a quality system approved to ISO9001

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