

DTS 541

Three Phase, Four Wire, kWh Meter with built in pulse output.

230 / 400 Volt, 50 Hz, 100 Amp

The DTS 541 is a new three phase meter introduced by Autometers to address the requirement for a low-cost MID approved meter with a pulse output.

The New meter is small and compact with a clear and easy to read display fitted with an SO Pulse out (1kwh/imp) and an extended terminal cover as standard.

The DTS 541 can be used in all applications where the energy is to be monitored and the meter read for billing purposes.

Features Available

MID Approved "B" and "D" for revenue collection

Small and compact in size (170 x 250.5mm)

Large and clear display for easy reading

Pulse Output: 1 imp/kWh

Large terminal connection holes (9.5mm diameter)

Extended terminal cover

The display indicating individual phase voltages which are connected (L1, L2, L3)



DTS 541

Three Phase Meter Specification

Summary

The Energy meter meets the requirements of:
IEC62052-11

Electricity metering equipment (a.c.) – General requirements, tests and test conditions – Part 11: Metering equipment.

IEEC 62053-21 (2003)

Electricity metering equipment (a.c.) – Particular requirements – Part 21: Static meters for active energy (classes 1.0 and 2.0).

EN 50470-1

Electricity metering equipment (a.c.) Part 1: General requirements, tests and test conditions – metering equipment (class indexes A, B and C).

EN 50470-3

Electricity metering equipment (a.c.) Part 3: Particular requirements – static meters for active energy (class indexes A, B and C).

DIN 43 857 T.2 09/1978

Watt-hour meters in moulded insulation case without instrument transformers, up to 100 A rated maximum current; principal dimensions for poly-phase meters.

DIN 43 857 T.5 05/1998

Watt-hour meters in moulded case without instrument transformers up to 100 A rated maximum current – Part 5: Principal dimensions for terminal cover.

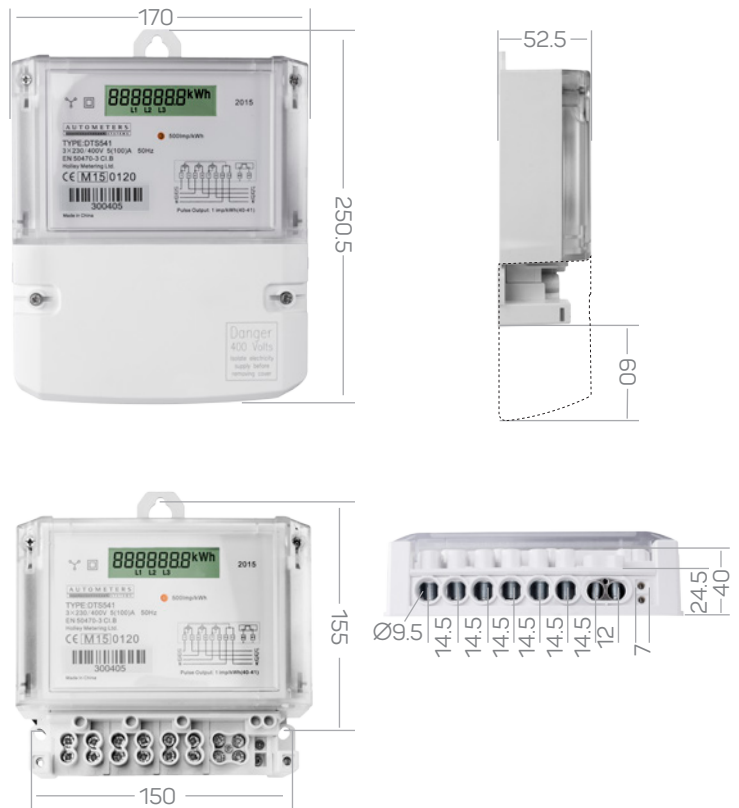
DIRECTIVE 2004/22/EC

DIRECTIVE 2004/22/EC of The European Parliament and of The Council of 31 March 2004 on measuring instruments (text with EEA relevance).

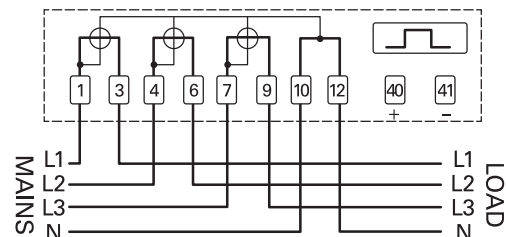


Device Type	DTS541
Type Code	TNF1-SA10A0-1N000-0010 TNF1-SA10A0-21000-0010
Connection type	Three Phase Four Wires Direct Connection Type
Metering element	Three Shunt
Rated voltage (Un)	3 x 230/400 V
Working voltage range	70%-120%Un (161V-276V)
Frequency	50Hz
Current Imin-Ib(Imax)	0,25-5(60)A , or 0,25-5(100)A
Starting current Ist	0.004Ib (0.02A)
Itr	10%Ib
Accuracy class	Class B EN50470-1,-3 Class 1.0 IEC62053-21
Pulse output	LED 500 imp/kWh
S0 Pulse output	Optional: S0 Pulse Output 1 imp/kWh
Measurement	1 Tariff: 1.8.0 Active kWh
LCD	Segment LCD, 6+1 display View angle: 15° upward directions and 60° in other directions. The min size of each digit 5 mm x 9.5 mm (width x height) (1 tariff). The min size of each digit 4.25 mm x 8.08 mm (width x height) (2tariff).
Mechanical Environment	M1
Electromagnetic environment	E2
Relative humidity	Up to 95%RH
Protection class	IP51
Withstand impulse voltage	6kV, IEC 62052-11
Short over current	30Imax, IEC62053-21
Power consumption Voltage circuit Un Current circuit In	<2W / <10VA @ Un <2 VA @ (Ib)
Temperature	Operating Range: -25°C ~ +55°C Limit Range of Operation: -40°C ~ +70°C Range for Storage and Transport: -40°C ~ +70°C
Design lifetime	According to the Siemens NORM SN 29500, the design lifetime of the meter is >15 years.
Percentage error limits	±1,5% when 0,25A ≤ I < 0,5A PF=1 ±1,0% when 0,5A ≤ I ≤ 60A PF=0,5 ind./1.0/0,8 cap. ±1,5% when 0,25A ≤ I < 0,5A PF=1 ±1,0% when 0,5A ≤ I ≤ 100A PF=0,5 ind./1.0/0,8 cap.
Sealing provision	2 meter cover seal, 2 terminal cover seals.
Terminal block	DIN 43857 Part 2
S0 output	Terminal 40, 41
Terminal hole diameter	≥9.5mm
Mechanical material	Meter cover: PC Meter base: PC + GF
Dimension	250.5mmx170mmx52.5mm
Weight	Approx: 720g

Dimensions



Connections



Pulse Output: 1 imp/kWh (40-41)