Ideal for Renewables!

DTS 307

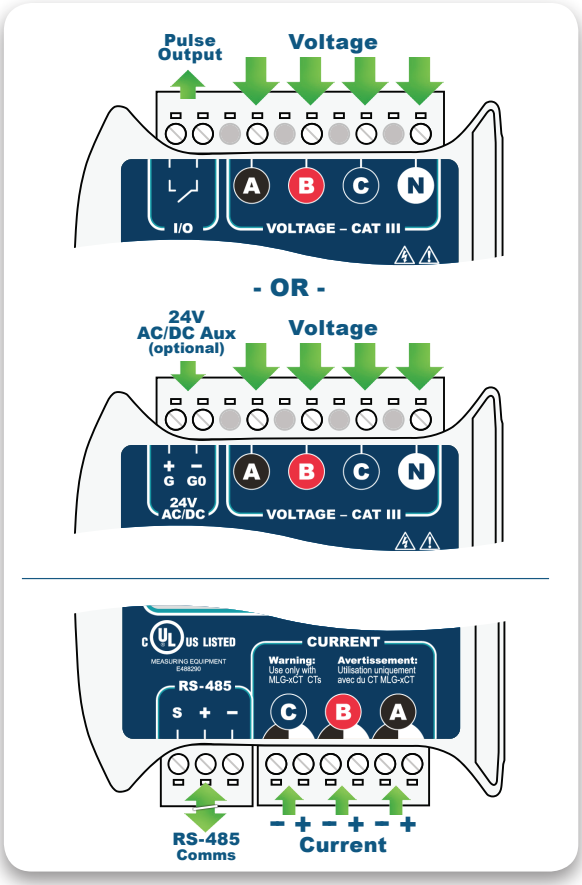
Ultra Compact Line Powered Three Phase Energy Sub-meter

Small Footprint!

c UL US LISTED CE BTL SUNSPEC ALLIANCE

FEATURES

- Line powered single / three phase energy sub-meter with auto-topology detection
- Ultra-Compact DIN rail design : 3.11" L x 1.38" W x 4.25" H
- UL Listed, CE, FCC Part 15 Class B
- ANSI C12.20 - "Revenue grade"
- 208-480 Vac (1P 2W, 1P 3W, 3P 4W)
- Interfaces with "safe" mV and RopeCTs
- RS-485 and/or Pulse (kWh) connectivity
- Modbus RTU or BACnet MS/TP
- Bi-directional for renewable systems (NET metering)
- Color coded, pluggable connectivity
- User configurable using DTS Config software
- User-definable Modbus register area
- Compatible with most Energy Management Software
- SunSpec Alliance certified, BTL Listed
- Designed and Manufactured in the USA. Complies with the Buy American Provisions of ARRA Section
- Also available in a OEM board level format



MEASUREMENT PARAMETERS*

	DTS 307
Measurement Topologies	
3 Phase, 3 and 4-wire	✓
Single Phase 2 and 3-wire (120/208 & 120/240V)	✓
Measurements	
AC Volts (phase-phase)	L1, L2, L3 & III
AC Volts (phase-neutral)	L1, L2, L3 & III
AC Current	L1, L2, L3 & III
Neutral Current	✓
Frequency (Hz)	L1, L2, L3 & III
Power	
Active Power - kW (consumed/generated)	L1, L2, L3 & III
Reactive Power - kVAr (inductive/capacitive)	L1, L2, L3 & III
Apparent Power - kVA	L1, L2, L3 & III
Power Factor	L1, L2, L3 & III
Phase Angle	L1, L2, L3 & III
Bi-directional for renewable systems	✓
Demand	
kW - Sliding Window	L1, L2, L3 & III
Energy	
Active Energy - kWh (consumed/generated)	L1, L2, L3 & III
Reactive Energy - kVArh (inductive/capacitive)	L1, L2, L3 & III
Setpoints, Alarms, Control	
Pulse / Status Output	1
Communications	
Modbus RTU	✓
BACnet MS/TP	✓

* Model dependent ** CTs excluded

Call Toll Free: 1-877-777-6567 or 303-805-5252 Email: info@measurlogic.com

MEASURLOGIC www.measurlogic.com

SPECIFICATIONS*

Measuring Circuits:

Voltage range:	208-480V ac, L-L (CAT III) 120-300V ac L-N (CAT III)
Voltage overload:	1.2 x
Voltage burden:	<0.1 VA @ 280 V ac L-N
Frequency:	45 to 65 Hz
Rated current:	333 mV or model dependent
Current overload:	1.2 x
Power overload:	1.2 x

Accuracy:

Voltage:	0.5%, <0.2% typical (80-120%)
Current:	0.5%, <0.2% typical (10-120%)
Power:	0.5%, <0.2% typical (10-120%)
Power Factor:	0.5% (between 0.5 and 1.0)
Energy:**	Class 0.2 (ANSI C12.20)

Voltage Supply (Self-Powered):

Voltage:	Powered from Phase A & B or Phase A & Neutral (model dependent)
Frequency:	50/60 Hz
Burden:	<2VA

Low Voltage AC/DC Auxiliary (Option):

Voltage options:	12-24Vdc or 24Vac
Tolerance:	+/- 10%
Burden:	<2VA
Isolation:	Must be powered from a Class 2 IEC 60950 isolated power supply

Mechanical:

Connection:	Pluggable screw terminals suitable for 12AWG stranded wire (2.5mm^2)
Case Material:	Self-extinguishable, V0 plastic
Protection:	Nema 1 (IP40)
Dimensions:	3.11"(79mm) D x 4.25"(108mm) H x 1.38"(35mm) W
Weight:	0.5lb (0.23 kg)

Environmental:

Operating temp:	-4° to 158°F (-20° to 70°C)
Storage temp:	-40° to 185°F (-40° to 85°C)
Humidity:	5 to 95% R.H. non-condensing

Communications (Serial):

Connection:	3 way pluggable, screw terminal
Protocols:	Modbus RTU (SunSpec Certified) BACnet MS/TP (BACnet Listed)

Pulse Output:

Type:	Potential Free, N.O. Solid State Relay
Pulse Width:	100 mS default Min 50 mS, User configurable up to 10 Seconds Max 10 Pulses per Second
Pulse Rate:	1 Pulse / 1 kWh default, User configurable
Max On-Resistance:	30 ohm
Max switching voltage:	50Vdc or 30Vac
Max switching current:	120mA (350mA for 10mS)
Connection:	Isolated Pin-Pair

Standards & Safety:

UL Listing:	E488290
Conforms to:	UL Std 61010-1 3rd Edition, May 11, 2012, Revised July 15, 2015
Certified to:	CAN/CSA C22.2 # 61010-1, 3rd Edition, Revised July 2015
Additional Standards:	IEC 61010-2-030: 2010, 1st Edition
EMC:	IEC 61326-1 (2012) Ed2, IEC 61000-3-2, IEC 610003-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Emissions:	CISPR 11 Group1 Class B / FCC Part 15 Class B
Other:	Measurement Category III – 300Vac L-N / 520Vac L-L

MODEL NUMBER BUILDER*

DTS 307 - a b - c d - e - f - g h

Current & Voltage Inputs

a:
- **3** = 333mV CT
- **9** = Rope CT

b:
- **4** = 208 - 480 Vac L-L 3 or 4 Wire

Communications

c:
- **S** = Serial
- **N** = None

d:
- **M** = Modbus
- **B** = BACnet
- **N** = None

I/O

e:
- **N** = Not fitted
- **P** = 1 x Digital output (PhotoMos relay)

Service Type

f:
- **N** = **Neutral** (1P 2W, 1P 3W, 3P 4W) 120 – 480 Vac
- **2** = **No Neutral** (3P 3W) 208 – 240 Vac L-L

Low Voltage AC/DC Auxiliary Option

f:
- **A** = 12 - 24Vdc or 24Vac

Current Transformers

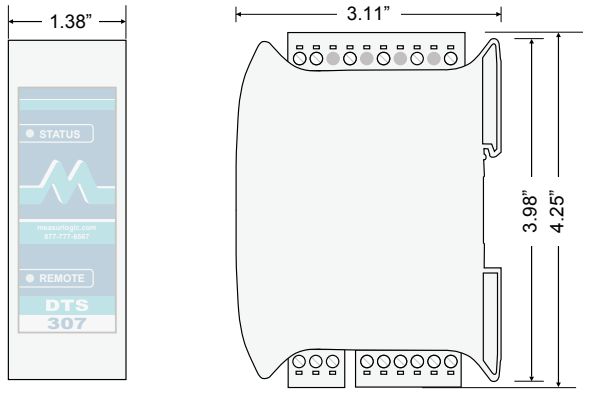
g: **Amperage of CT's**
Blank: if 333mV current input

h: **CT Aperture Size**
Blank: if 333mV current input

Split Core CTs
- **T** = 0.4" diameter
- **S** = 0.72" x 0.62"
- **N** = 1.00" x 1.40"
- **M** = 1.3" x 1.7"
- **L** = 2" x 3.5"
- **H** = 2" x 5.5"

Rope CTs
- **R2** = 2" diameter
- **R3** = 3" diameter
- **R4** = 4" diameter
- **R6** = 6" diameter
- **R8** = 8" diameter
- **R12** = 12" diameter

DIMENSIONS



* Model dependent ** CTs excluded
Technical details subject to change

Distributor:

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