



CROMPTON INSTRUMENTS DRS-CT-3P-2T CT CONNECTED THREE PHASE ENERGY METER

The DRS range of APPROVED, direct connected energy meters represents a multi-function range of kWh meters in the Crompton Instruments portfolio.

The DRS-CT-3P-2T, energy meter is an accurate and cost effective solution for measurement and display of importing and exporting energy parameters for three phase networks. Its easy programming, mounting and user-friendly navigation make the DRS-CT-3P-2T an ideal choice for customers who require reliable energy measurement.

The product features a DIN-rail enclosure and backlit LCD display. Dual tariff capability for active and reactive energy. Tariff switching is via external input.

The DRS-CT-3P-2T has two communication interfaces

- Modbus™ RTU protocol
- Two pulsed outputs

Product Codes

Description	Part number
MID energy meter DUAL TARRIF Three phase DIN-rail mounted CT connectED 1/5A Modbus + 2 pulsed outputs	DRS-CT-3P-MOD-2T

Features

- Dual Tarrif from external input
- Class B (kWh) to EC 2004/22/EC
- CT CONNECTED 1/5A
- DIN-rail enclosure DIN 43880
- Import / export kWh
- Modbus™ RTU protocol
- Two pulsed output

Benefits

- Cost effective
- Simple navigation
- Tamper-proof

Approvals

- IEC 62053-21
- IEC 62052-11
- IEC 61010-1
- IEC 60068



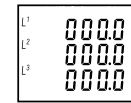
DRS-CT-3P-2T - CT CONNECTED THREE PHASE ENERGY METER

Specifications

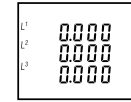
Input	
Nominal input voltage	100-289V AC L-N (173-500V L-L) 600V MAX
Max. continuous input overload voltage	120% of nominal
Max. short duration input voltage	2 x nominal voltage for 1 second
Nominal input voltage burden	< 0.2VA per phase
Nominal input current	1/5A CT CONNECTED
Nom. Input current burden	< 0.5 VA
Max. continuous input overload current	120% of nominal
Max. short duration input current	20 x nominal current for (300 msec)
Auxiliary	
Operating range	85-275VAC 50/60Hz; 120-380VDC +/- 10%
Supply burden	< 10 VA
Accuracy	
Voltage (V)	+/- 0.5% of range maximum
Current (A)	+/- 0.5% of range maximum
Frequency (Hz)	+/- 0.2% of mid-frequency
Power factor (PF)	+/- 1% of unity (0.01)
Active power (W)	+/- 1.0% of range maximum
Reactive power (VAR)	+/- 1.0% of range maximum
Apparent power (VA)	+/- 1.0% of range maximum
Active energy (kWh)	+/- 1.0% of range maximum to IEC 62053-21
Reactive energy (kVARh)	+/- 1.0% of range maximum to IEC 62053-24
THD	1% to 31st harmonic
Response Time	1 sec, typical, to >99% of final reading at 50Hz
Measured Range	
Voltage (V)	1-9999 x PT secondary (Max 5MV L-L)
Current (A)	1-9999 x CT Primary (Max 49kA for 5A CT)
Frequency (Hz)	44 - 66 Hz +/- 2%
Power (W, VAR, VA)	5 - 144% of nominal (bi-directional)
Energy	8 digit, upto 9999999.9 kWh / kVARh
Power factor	4 quadrant
THD	0 - 40% upto 31st harmonic
Input Waveform	Sinusoidal (distortion factor < 0.05)
Environment	
Operating temperature	-25 °C to +55 °C
Storage temperature	-40 °C to +70 °C
Relative humidity	0 to 95%, non-condensing
Shock	30g in 3 planes
Vibration	10Hz to 50Hz, IEC 60068-2-6, 2g
Dielectric voltage	4kV between circuits and measured inputs
Altitude	3000m
Warm-up	1 minute
Magnetic field of external origin	Terrestrial flux
Outputs	
Pulsed output relay (configurable)	Opto-coupled, potential-free SPST-NO contact
Contact rating current	2-27mA at 27V DC
Contact rating voltage	5-27V DC
Pulse width	60 / 100 / 200 ms
Pulse rate	0.01 / 0.1 / 1 / 10 / 100 kWh / kVARh Default. 1 pulse per Wh/VARh
Pulsed output relay (non-configurable)	3200IMP/kWh
Communications	Modbus RTU (RS485)
Type	2-wire half duplex
Baud rate	2400, 4800, 9600, 19.2 K, 38.4 K
Address	1 to 247
Parity	None (default) / Odd / Even
Stop bits	1 (default) / 2
Enclosure	
Enclosure style	DIN-rail to DIN 43880
Dimensions	100x72x66mm (LxWxH)
Protection rating	Front IP51
Material	Self extinguishing UL 94 V-O
Weight	340 g
Cable size	2.5mm ² - 25mm ² stranded cable. AWG 12 - 4.

Voltage and Current

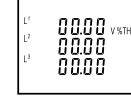
Each successive press of the  button selects a new parameter.



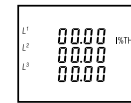
Phase to neutral voltages



Current on each phase




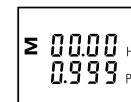
Phase to neutral voltage THD%



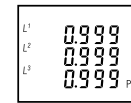
Current THD% for each phase

Frequency and Power Factor and Demand

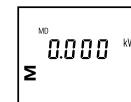
Each successive press of the  button selects a new parameter.



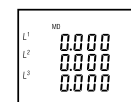
Frequency and Power Factor (total)



Power Factor of each phase



Maximum Power Demand



Maximum Current Demand

DRS-CT-3P-2T - CT CONNECTED THREE PHASE ENERGY METER

Power

Each successive press of the **P** button selects a new parameter.

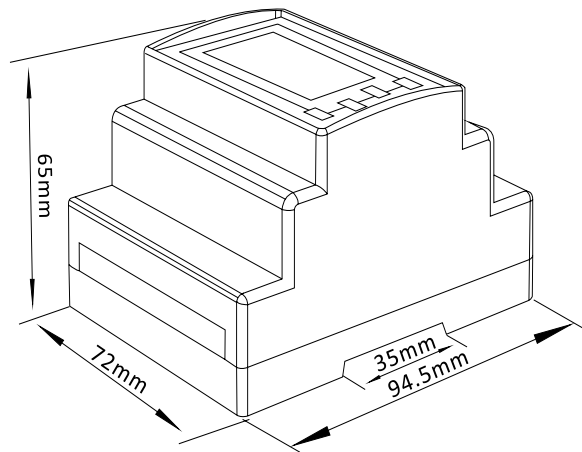
	Instantaneous Active Power in kW
	Instantaneous Reactive Power in kVAr
	Instantaneous Volt-Amps in KVA
	Total kW, kVArh, kVA

Energy Measurements

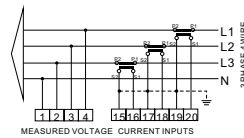
Each successive press of the **E** button selects a new parameter.

	Imported Active Energy in kWh
	Exported Active Energy in kWh
	Imported Reactive Energy in kVArh
	Exported Reactive Energy in kVArh
	Total Active Energy in kWh
	Total Reactive Energy in kVArh
	Tarriff 1-2 Active Energy in kWh

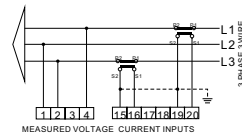
Dimensions



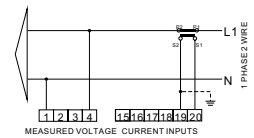
Three Phase Four Wire



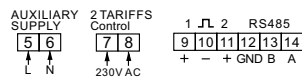
Three Phase Three Wire



Single Phase



Additional Connections



About TE Connectivity

TE Connectivity Ltd. (NYSE: TEL) TE Connectivity is a \$12 billion global technology leader. Our commitment to innovation enables advancements in transportation, industrial applications, medical technology, energy, data communications, and the home. TE's unmatched breadth of connectivity and sensor solutions, proven in the harshest of environments, helps build a safer, greener, smarter and more connected world. With 75,000 people – including more than 7,000 engineers – working alongside customers in nearly 150 countries, we help ensure that EVERY CONNECTION COUNTS.

WHEREVER ELECTRICITY FLOWS, YOU'LL FIND TE ENERGY



crompton-instruments.com

For email or phone, go to:

crompton-instruments.com

FOR MORE INFORMATION: TE Technical Support Centres

UK +44 1376 509 401

USA: +1 800 327 6996

Australia +61 1300 656 090

Singapore +65 6590 5151

Hong Kong: +852 2738 8193

crompton-instruments.com

© 2017 TE Connectivity. All Rights Reserved. EPP 2912-11/17.

TE, TE Connectivity, the TE connectivity (logo) are trademarks of the TE Connectivity Ltd. family of companies. Crompton is a trademark of Crompton Parkinson and is used under a licence. Other logos, product and company names mentioned herein may be trademarks of their respective owners. While TE has made every reasonable effort to ensure the accuracy of the information in this brochure, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this brochure are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.