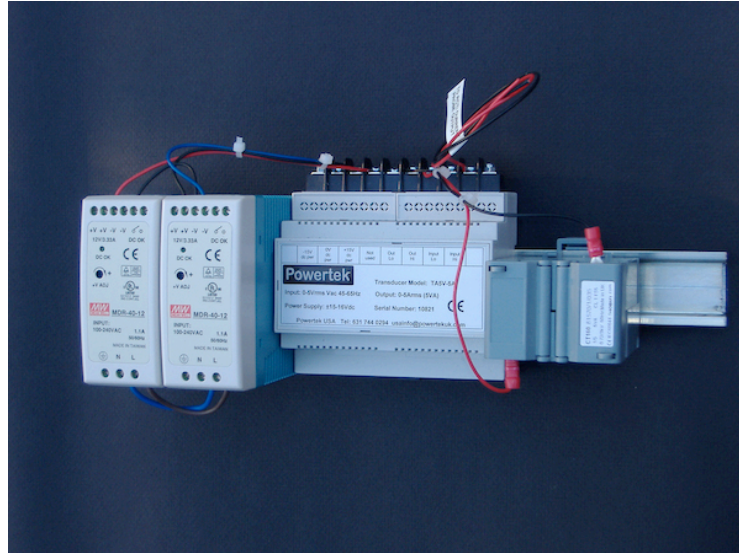


Powertek

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- Power Instrumentation, LCR analysis
- Gain Phase Analysis, PAV
- Shunts, clamp-on current transformers

CTA-5A Rogowski Current Probe



The CTA-5A module converts and conditions a CTA flexible current sensor voltage output to a 0-5Arms output. It will produce a linear current output proportional to the input voltage. The actual current range is indicated on the transducer label. The CTA-5A uses a 1/5A current transformer to provide its 5Arms output. It is supplied with twin Din Rail power supplies creating a $\pm 15.5Vdc$. Typically this device is used when a voltage output current probe/current sensor requires connection to existing 1A or 5A metering circuits.

- Protection
- Suitable for single or three phase systems
- Din Rail or Wall Mounting
- Application
- Retrofit
- Drive Long Cables
- Measure harmonic currents
- Live Installation
- Traceable
- Safety EN61010-1 1000Vac CATIII, 600Vac CATIV CE marked, UL94V0 flame retardant

Specifications

Maximum allowable input voltage is 18Vpk at sense coil input terminals

Input impedance 100k ohm

Recommended measurement range is 5% to 100% range

Minimum dc power supply rail is 15Vdc 1A for module, maximum dc power supply rail is 16Vdc

Accuracy is $\pm 1\%$ over the temperature range $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Operational range -20°C to $+65^{\circ}\text{C}$

Cable: 1000V UL style 20940, 5mm dia, 3metre length

Current Sense coil

Diameter: 100mm/3.93" or 160mm / 6.3" clip-around split core construction

Thickness: 8mm / 0.31"

Material: Flexible Thermoplastic rubber, flame retardant UL94VO

Working voltage: 1000V at 50/60Hz CAT III, tested 7400V 50/60Hz 1 minute

Conditioner-amplifier

Casing: Din Rail module UL94VO and CSA approved polycarb, 250mm total length

Fundamental Frequency: 20Hz to 500Hz

Bandwidth: 20Hz-2500Hz

Output rating: 5VA (0.2 ohm burden)

Phase shift: 0.04° at 50/60/400Hz

Accuracy: $<1.0\%$ accuracy

Input impedance: 100kohm

Accurate with waveform crest factors: 1 - 5

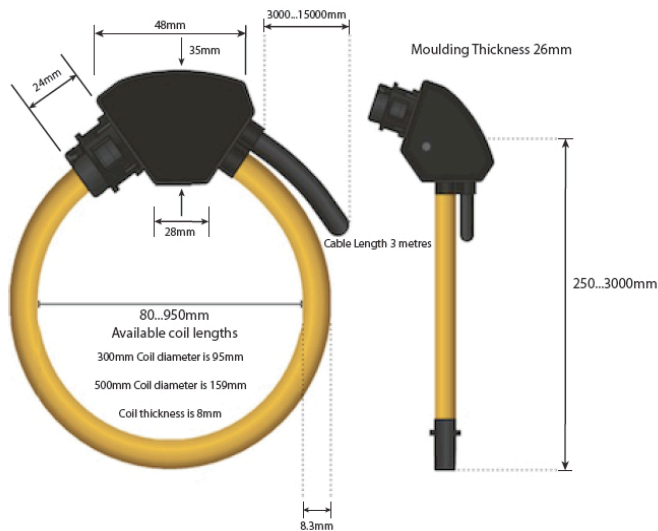
Input ranges: 100A to 10,000Arms

Power: 110Vac-240Vac power, optional 24Vdc, 48Vdc and 125Vdc

Includes: Din Rail, PSU and output CT (5A)

07 April 2015 V1.0

CTA Coil Drawing 2



Powertek

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Title:

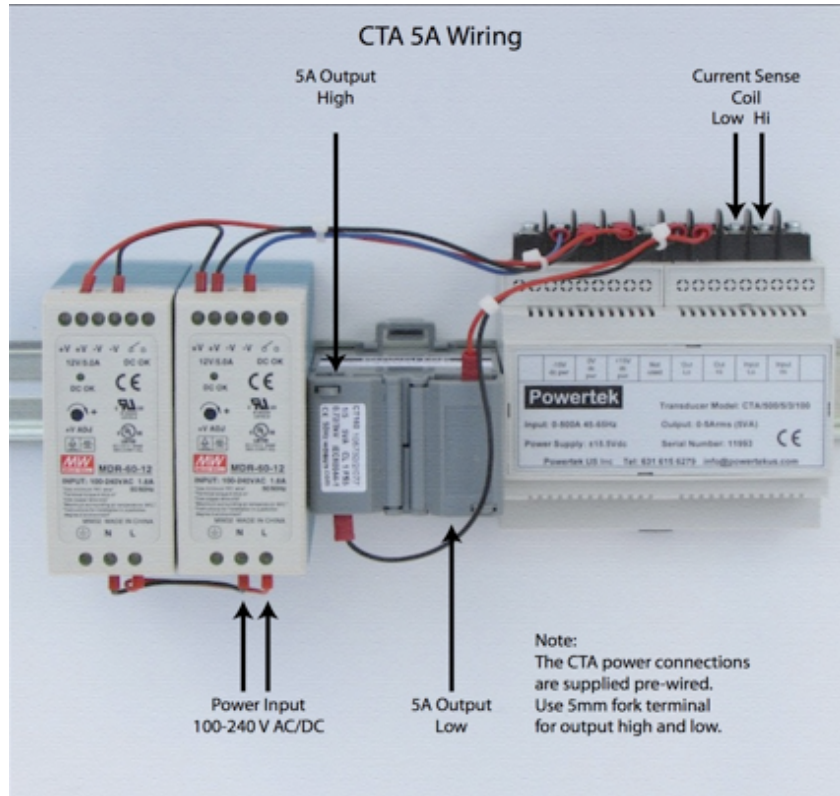
Drawing No:

Revision:

Date:

Connections and installation

Screw terminals are provided for the power input and output connections. The terminal block connections are labeled. The CTA-5A is DIN rail or wall mountable.



Installation and safety

Installation should be carried out by authorised personnel, familiar with the danger of electric shock hazards. The CTA-5A transducer should only be used in dry indoor environments. To prevent damage, check for correct connection of the CTA-5A psu, inputs and outputs. Allow a minimum warm up period of 5 minutes. Ensure that the CTA casing ventilation slots are not obstructed. If the internal fans cannot be heard running, do not use the module.

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