

RCTrms-3ph

Industrially specified true rms ac current transducer



RCTrms-3ph - Thin, flexible, clip-around, ac current transducer with true rms measurement

The RCTrms-3ph is a 3-Channel ac current transducer for permanent installation. Simple to install and easy to retrofit it combines the benefits of a thin, flexible, clip-around Rogowski (sense) coil with a signal conditioner providing accurate, true rms measurement, of ac current.

The RCTrms-3ph has an industry standard 4-20mA or 0-5V output making it ideal for process control, status alarming or system monitoring purposes. Typically the RCTrms is used with SCADA systems, PLCs, data loggers

The RCTrms-3ph is a 3-Channel ac current transducer providing a 4 to 20mA or 0 to 5V output proportional to the true RMS of the primary current and has the advantages of:

- Easy to retrofit
- Simple to install in applications where space is limited
- The size of the Rogowski coil can be specified independently of the primary current
- Does not suffer from magnetic saturation
- Ideal for process control, status alarming or system monitoring in a wide variety of applications, from arc furnaces to power distribution.

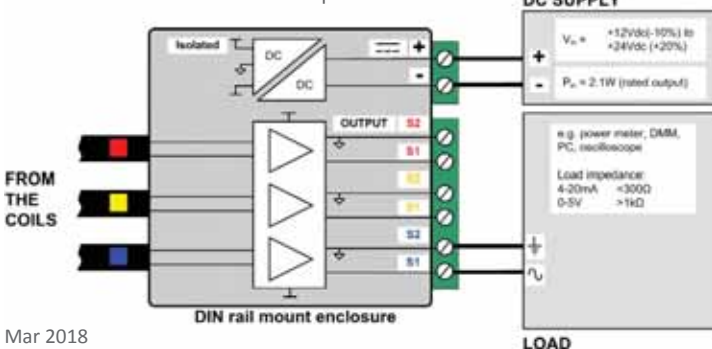
RCTrms-3ph

Specifications



Rated current (rms)	100A	2000A	10000A
	250A	2500A	16000A
	500A	3000A	20000A
	800A	4000A	25000A
	1000A	5000A	40000A
	1600A	8000A	50000A
Rated output (Full scale FS)	4 to 20mA - or - 0 to 5V output		
Output limit	150% FS (28mA or 7.5Vdc)		
Supply voltage (Wide input)	12Vdc (-10%) to 24Vdc (+20%)		
Input power	2.1W (at rated output)		
Operating temperature range	-5°C to +65°C (Integrator) -20°C to +80°C (Coil and cable)		
Bandwidth (-3dB)	2Hz to 100kHz		
Max. Response time (10 to 90%)	1000ms		
Accuracy (typ.)	± 1.0% of reading (0 - 5V) ± 1.5% of reading (4 - 20mA) (10% to 150% FS, 25°C)		
Output load	<300Ω for 4 - 20mA output >1kΩ for 0 - 5V output		
Coil Length	300mm, 500mm or 700mm <i>Custom lengths available</i>		
Cable Length (coil to electronics)	1m or 2.5m <i>Custom lengths available</i>		

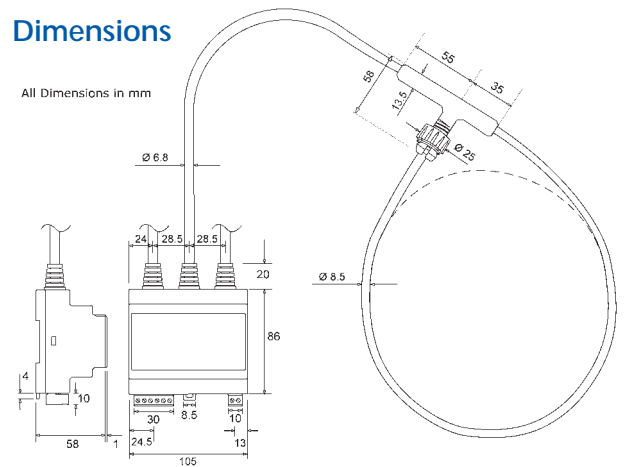
Connections



Mar 2018

Dimensions

All Dimensions in mm



Features

- Traceable calibration
 - Every unit is supplied with a traceable calibration certificate
 - No magnetic materials means excellent linearity <math><0.1\%</math> reading
- Fully isolated measurement
 - Isolated power supply 2kVdc
 - Coil rated at 2kVpeak (withstand test is 4kVrms /50Hz/ 60 sec)
- Small DIN rail (or panel mount) enclosure – UL94 V-0 rated

Options

- Isolated BNC-BNC cable split option
 - Between coil and electronics to enable ease of installation e.g. threading through existing conduit. Standard cable permanently fixed.

Standards and Approvals

- CE marked
- Complies with EMC EN 61326-1 2006
- Complies with IEC61010-1:2001

Order code RCTrms-3ph

The RCTrms-3ph order code can be generated as follows:

Output	Rated current (A)	Cable length (m)	Coil length (mm)	Options
420 (4 to 20mA)	250 500 -	1 2.5 -	300 500 700	BC BNC Cable Split
005 (0 to 5Vdc)	- 50000	- Custom lengths	- Custom lengths	

For example: RCTrms3ph/420/2000/1/700 has a rated primary current 2000A, 4-20mA Output, 1m cable 700mm coil no options

Further information

The RCTrms-3ph can be configured to suit a great many applications. If your requirement is outside that listed in this datasheet please contact us to discuss your application.

More detailed technical advice is available at www.pemuk.com



Power Electronic Measurements

Gloucester House, 162 Wellington Street, Long Eaton, Nottingham. NG10 4HS. United Kingdom.
T +44 (0) 115 946 9657.
F +44 (0) 115 946 8515.
E info@pemuk.com

www.pemuk.com