

PQube® 3 CTI-1A Module

Ultra-accurate way to measure currents from 1-amp CT secondaries



Connect 1-amp CTs (Current Transformers) to your PQube®3

Connect your 1-amp output CTs (e.g. 1000:1, 100:1, etc.) to your PQube®3 (or PQube®3e). The CTI-1A module is an ultra-accurate interface to metering and/or protection CTs.

Each CTI-1A module connects up to four 1-amp circuits. Use as many CTI-1A modules as you need; the only limitation is the number of current channels on your PQube®3.

Your PQube®3 automatically calculates all of its current and power values – just type your CT ratio into your PQube®3's Setup.ini file, and your PQube®3 will do the rest. Every CTI-1A module comes with an individual Calibration File and NIST-trace Certificate, guaranteeing laboratory-grade accuracy!



Product Highlights

- Ultra-accurate – fully certified to IEC 62053-22 Class 0,2S and ANSI C12.20 Class 0.2 revenue accuracy, IEC 61000-4-7 Class I harmonic accuracy – and unlike most other instruments, this certification includes both your PQube®3 accuracy and your CTI-1A accuracy, combined!
- Ultra-safe – the CTI-1A withstand capability is 50 amps for 1 second without damage.
- Ultra-compatible – less than 0.1 VA burden on your CT, compatible with existing instrument/meter/protection transformers.
- Ultra-convenient – DIN-rail mounting, no power required – you can install CTI-1A at a distance up to 5 meters from your PQube®3.
- Ultra-accuracy for harmonics– fully certified to IEC 61000-4-7 Class I harmonic current requirements!

Specifications

	Typical	100% factory test: Pass/Fail limit	Specification	Notes
Accuracy X% rdg ± X% FS	±0.035%	±0.05%	±0.10%	At 50/60 Hz, 2.5%FS~120%FS
Accuracy – phase angle	±0.04°	±0.05°	±0.1°	At 50/60 Hz, 10%FS~120%FS Typical angle accuracy specification is limited by the accuracy of PSL Reference Meter
Nominal full scale	1.0 amp RMS	1.0 amp RMS	1.0 amp RMS	
Crest factor	3.3	-	3.0	For accurate high-harmonic current measurements
Burden	<0.1 VA	<0.1 VA	<0.1 VA	
Nominal frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
Calibrated frequency range	50 Hz ~ 3.0 kHz	50 Hz ~ 3.0 kHz	50 Hz ~ 3.0 kHz	Calibrated to 50 th harmonic at 50/60 Hz, per IEC 61000-4-7 Accuracy Class I
Max overcurrent	500 amps, 1 second	-	50 amps, 1 second	Applied to 1-amp terminals without damage
Isolation	15 kV	7.6 kV	5 kV	Current terminals to signal terminals
CT secondary screw size	#8-32 / M4	#8-32 / M4	#8-32 / M4	For #8 / M4 ring lug terminal
Screw torque: recommended	8 in-lbs / 90 N-cm	8 in-lbs / 90 N-cm	8 in-lbs / 90 N-cm	
Screw torque: limit	13 in-lbs / 147 N-cm	-	10 in-lbs / 113 N-cm	
Screw axial load: limit	100 lbs / 45kg	-	30 lbs / 13 kg	

IEC 62053-22 Certified Influence Quantities: Load, Power Factor, Voltage, Ambient Temperature, Frequency, Phase Sequence, Harmonics, Subharmonics, AC magnetic field, DC magnetic field, RF fields, Conducted RF.

Order Information

- PSL order part number CTI-1A-XX
- Each CTI-1A module can connect one, two, three, or four 1-amp CT circuits to your PQube®3.
- Your CTI-1A comes with a 12" / 30cm shielded cable for connection to your PQube®3 current channel screw terminals. (contact the factory if your application requires a longer cable.)