

# Product Specification

## SPECIFICATION FOR 5VDC OUTPUT AC CURRENT SENSOR

**Model number**

CQ35-5A-5VDC-60HZ

<b>Absolute stress above which the unit may be damaged.</b>	<b>Min.</b>	<b>Max.</b>	<b>unit</b>
Ambient temperature	-40	80	°C
Measured current (monotonic but not linear above rating)		15	A-rms max
Shock (any axis)		2500	g

<b>Range over which operation is guaranteed.</b>	<b>Min.</b>	<b>Max.</b>	<b>unit</b>
Ambient temperature	-5	70	°C
Frequency	59	61	Hz
Total harmonic distortion of sensed current (Note 2)		3.0	percent
Vibration (1Hz-10kHz)		200	g

<b>Operating parameters.</b>	<b>Min.</b>	<b>Typ.</b>	<b>Max.</b>	<b>unit</b>
Input current	0.0	5.0	6.0	A-rms
Output voltage	0	5.0	6.0	V dc
Output impedance (Note 1)		108.0		k
Load impedance, undamaged 0 to load (Note 1)	0		Infinity	
Sensor internal resistance		90.0		k
Thermal coefficient, potting B		0.028		% / °C
Rise time constant		180		msec
Fall time constant		200		msec

<b>Physical</b>	<b>Min.</b>	<b>Typ.</b>	<b>Max.</b>	<b>unit</b>
Current wire hole size		0.5	0.5	inch
Depth		0.5		inch
Height		1.4		inch
Width		1.5		inch
Weight		35		grams
Polarized output wire leads		12		inch
Flammability, 94 V-O, self extinguishing				

- Note 1** Sensors are calibrated with 500 k  $\pm$  2% //300 pf. instrumentation capacity.
- Note 2** Sensor response nearly identical for all waveforms; sine, square, or triangle (except triacs).
- Note 3** The sensor output impedance is approx. 108k // 2.2uf.
- Note 4** Maximum output current obtained by dividing output volts by sensor internal resistance.
- Note 5** Sensors are powered by current being measured.

**Smith Research & Technology, Inc.**

---



3109 N. Cascade Ave., Bldg. #201  
 Colorado Springs, CO 80907-5190  
 719 634 2259, FAX 719 634 2601

Inductive AC voltage and current sensors