

# Product Specification

## SPECIFICATION FOR 5VDC OUTPUT AC CURRENT SENSOR

**Model number**  
EP20-400A-5VDC-60Hz.

| Absolute stress above which the unit may be damaged.     | Min. | Max. | unit      |
|--|------|------|-----------|
| Ambient temperature                                      | -60  | 80   | °C        |
| Measured current (monotonic but not linear above rating) |      | 900  | A-rms max |
| Shock (any axis)   |      | 2500 | g         |

| Range over which operation is guaranteed.            | Min. | Max. | unit    |
|--|------|------|---------|
| 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       |

| Operating parameters.                        | Min. | Typ.  | Max.     | unit   |
|--|------|-------|----------|--------|
| Input current                                | 0.0  | 400.0 | 900.0    | A-rms  |
| Output voltage                               | 0    | 5.0   | 9.7      | V dc   |
| Output impedance (Note 1)                    |      | 0.790 |          | k      |
| Load impedance, undamaged 0 to load (Note 1) | 0    |       | Infinity |        |
| Sensor internal resistance                   |      | 0.784 |          | k      |
| Thermal coefficient, potting B               |      | 0.043 |          | % / °C |
| Rise time constant                           |      | 70    |          | msec   |
| Fall time constant                           |      | 75    |          | msec   |

| Physical                                 | Min. | Typ. | Max. | unit  |
|--|------|------|------|-------|
| Current wire hole size                   |      | 0.99 | 0.99 | inch  |
| Depth                                    |      | 1.0  |      | inch  |
| Height                                   |      | 2.5  |      | inch  |
| Width                                    |      | 2.3  |      | inch  |
| Weight                                   |      | 180  |      | 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. 790 // 20uf.
- Note 4** Maximum output current obtained by dividing output volts by sensor internal resistance.
- Note 5** Sensors are powered by current being measured.

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Inductive AC voltage and current sensors