

Ref: CTSR 0.3-P, CTSR 0.6-P

For the electronic measurement of current: DC, AC, pulsed..., with galvanic separation between the primary circuit and the secondary circuit.



## Features

- Closed loop (compensated) current transducer
- Voltage output
- Single supply voltage
- PCB mounting.

## Advantages

- High accuracy
- Very low offset drift over temperature
- Wide aperture
- High overload capability
- High insulation capability
- Reference pin with two modes, Ref In and Ref Out
- Degauss and test functions.

## Applications

- Residual current measurement
- Leakage current measurement in transformerless PV inverters
- First human contact protection of PV arrays
- Failure detection in power sources
- Symmetrical fault detection (e.g. after motor inverter)
- Leakage current detection in stacked DC sources
- Single phase or three phase nominal current measurement up to  $\pm 30 \text{ A}$  per wire (DC or AC).

## Standards

- EN 50178: 1997
- IEC 61010-1: 2010
- UL 508: 2010.

## Application Domain

- Industrial
- Suitable to fulfil VDE 0126-1-1 and UL 1741.

**Absolute maximum ratings**

Parameter	Symbol	Unit	Value
Supply voltage	$U_C$	V	7
Primary conductor temperature	$T_B$	°C	110
Impulse overload (100 μs, 500 A/μs)	$\hat{I}_P$	A	3300

Stresses above these ratings may cause permanent damage. Exposure to absolute maximum ratings for extended periods may degrade reliability.

**UL 508: Ratings and assumptions of certification**

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**Standards**

- CSA C22.2 NO. 14-10 INDUSTRIAL CONTROL EQUIPMENT - Edition 11 - Revision Date 2011/08/01
- UL 508 STANDARD FOR INDUSTRIAL CONTROL EQUIPMENT - Edition 17 - Revision Date 2010/04/15

**Ratings**

Parameter	Symbol	Unit	Value Version P	Value Version TP
Primary involved potential*		V AC/DC	600	1000
Max surrounding air temperature	$T_A$	°C	105	
Primary current	$I_P$	A	According to series primary currents	
Secondary supply voltage	$U_C$	V DC	7	
Output voltage	$V_{out}$	V	0 to 7	

\* Environmental: For use in Pollution degree 3.

**Conditions of acceptability**

*When installed in the end-use equipment, consideration shall be given to the following:*

- 1 - A suitable enclosure shall be provided in the end-use application.
- 2 - The insulation between the primary and the secondary sensing circuits were evaluated with 4250 V AC for CTSR 0.6-TP/SP and 2200 V AC for CTSR 0.6-P in dielectric voltage withstand test.
- 5 - CTSR series is intended to be mounted on the printed wiring board of the end-use equipment.
- 7 - The uninsulated live parts of primary feeder and secondary circuit clearance spacing of Model CTSR XX-P series shall maintain at least 5.5 mm apart.
- 8 - Primary feeder of the devices shall be connected after an overvoltage device or system which has been evaluated by the Standard for Transient Voltage Surge Suppressors, UL 1449.

**Marking**

Only those products bearing the UL or UR Mark should be considered to be Listed or Recognized and covered under UL's Follow-Up Service. Always look for the Mark on the product.