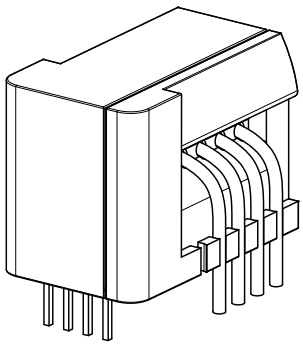
Current Transducer CKSR series I_{PN} = 6, 15, 25, 50 A

Ref: CKSR 6-NP, CKSR 15-NP, CKSR 25-NP, CKSR 50-NP

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



Features

- Closed loop (compensated) multi-range current transducer
- Voltage output
- Single supply
- Isolated plastic case material recognized according to UL 94-V0
- Compact design for PCB mounting.

Advantages

- Very low temperature coefficient of offset
- Very good dv/dt immunity
- Higher creepage / clearance distances
- Reduced height
- Reference pin with two modes: Ref IN and Ref OUT
- Extended measuring range for unipolar measurement.

Applications

- AC variable speed and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications
- Solar inverters.

Standards

- EN 50178
- UL 508
- IEC 61010-1 (safety).

Application Domain

- Industrial.

LEM reserves the right to carry out modifications on its transducers, in order to improve them, without prior notice

Absolute maximum ratings

Parameter	Symbol	Unit	Value
Supply voltage	V_C	V	7
Primary conductor temperature		°C	110
Maximum primary current	$I_{P\ max}$	A	20 x I_{PN}
ESD rating, Human Body Model (HBM)		kV	4

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

Isolation characteristics

Parameter	Symbol	Unit	Value	Comment
RMS voltage for AC isolation test 50/60Hz/1 min	V_d	kV	4.3	
Impulse withstand voltage 1.2/50 µs	$\hat{V}_w$	kV	8	
Partial discharge extinction voltage @ 10 pC (rms)	V_e	V	1000	
Clearance distance (pri. - sec.)	**dCl**	mm	8.2	Shortest distance through air
Creepage distance (pri. - sec.)	**dCp**	mm	8.2	Shortest internal path along device body
Case material	-	-	V0 according to UL 94	
Comparative tracking index	**CTI**	V	600	
Application example	-	-	300 V CAT III PD2	Reinforced isolation, non uniform field according to EN 61010
Application example	-	-	600 V CAT III PD2	Reinforced isolation, non uniform field according to EN 50178
Application example	-	-	1000 V CAT III PD2	Simple isolation, non uniform field according to EN 50178
According to UL 508: primary potential involved in Volts RMS AC or DC	-	V	600	For use in a pollution degree 2 environment

Environmental and mechanical characteristics

Parameter	Symbol	Unit	Min	Typ	Max	Comment
Ambient operating temperature	T_A	°C	-40		105	
Ambient storage temperature	T_S	°C	-55		105	
Mass	***m***	g		9		
Standards	EN 50178, IEC 60950-1, IEC 61010-1, IEC 61326-1, UL 508					

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