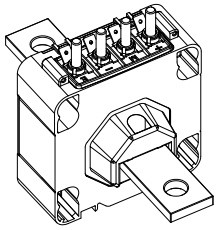
Current Transducer LTC 350-T

I_{PN} = 350 A

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



Electrical data

I_{PN}	Primary nominal rms current			350	A
I_{PM}	Primary current, measuring range @ ± 24 V			0 .. ± 1200	A
R_M	Measuring resistance			$R_{M\,min}$ $R_{M\,max}$	
	with ± 15 V	@ ± 500	A_{max}	0 30	Ω
		@ ± 900	A_{max}	0 8	Ω
	with ± 24 V	@ ± 500	A_{max}	10 60	Ω
		@ ± 1200	A_{max}	10 17	Ω
I_{SN}	Secondary nominal rms current			175	mA
K_N	Conversion ratio			1 : 2000	
U_C	Supply voltage (± 5 %)			± 15 .. 24	V
I_C	Current consumption			< 35 (@ ± 24 V) + I_S	mA

Accuracy - Dynamic performance data

X_G	Overall accuracy @ I_{PN}, T_A = 25 °C		< ± 0.3	%
ε_L	Linearity error		< 0.1	%
			Max	
I_O	Offset current @ I_P = 0, T_A = 25 °C		± 0.3	mA
I_{OT}	Temperature variation of I_O	- 40 °C .. + 85 °C	± 0.7	mA
t_r	Step response time [1] to 90 % of I_{PN}		< 1	µs
d*i*/d*t*	d*i*/d*t* accurately followed		> 100	A/µs
BW	Frequency bandwidth (- 1 dB)		DC .. 100	kHz

General data

T_A	Ambient operating temperature	- 40 .. + 85	°C
T_S	Ambient storage temperature	- 45 .. + 90	°C
R_S	Secondary coil resistance @ T_A = 85 °C	15	Ω
m	Mass	600	g
	Standards	EN 50155: 2007	
		EN 50121-3-2: 2006	

Note: [1] With a d*i*/d*t* of 100 A/µs.

Features

- Closed loop (compensated) current transducer using the Hall effect
- Insulating plastic case recognized according to UL 94-V0.

Advantages

- Excellent accuracy
- Very good linearity
- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.

Applications

- Single or three phase inverter
- Propulsion and braking chopper
- Propulsion converter
- Auxiliary converter
- Battery charger.

Application Domain

- Traction.

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Isolation characteristics

U_d	Rms voltage for AC insulation test, 50 Hz, 1 min	12 [1)]	kV
		1.5 [2)]	kV
		Min	
d_{Cp}	Creepage distance	58.24	mm
d_{Cl}	Clearance	48.8	mm
CTI	Comparative Tracking Index (group I)	600	

Notes: [1)] Between primary and secondary + shield
[2)] Between secondary and shield.

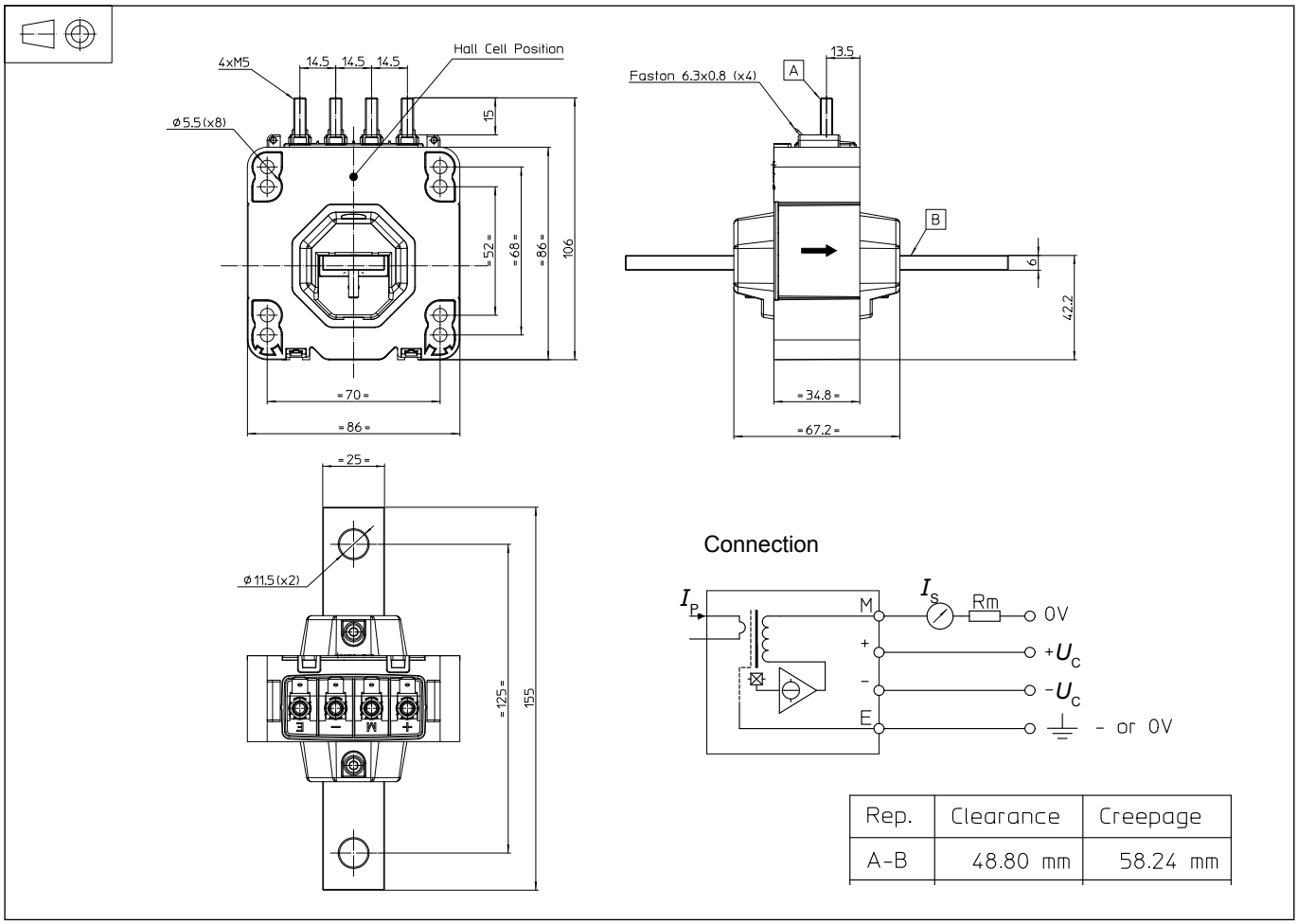
Safety

This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.

Caution, risk of electrical shock

When operating the transducer, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply).
Ignoring this warning can lead to injury and/or cause serious damage.
This transducer is a build-in device, whose conducting parts must be inaccessible after installation.
A protective housing or additional shield could be used.
Main supply must be able to be disconnected.

Dimensions LTC 350-T (in mm)



Rep.	Clearance	Creepage
A-B	48.80 mm	58.24 mm

Mechanical characteristics

- General tolerance ± 1 mm
- Transducer fastening 8 holes Ø 5.5 mm
  4 M5 steel screws
  Recommended fastening torque 3.4 N·m
  Or by the primary bar 2 holes Ø 11.5 mm
- Primary through-hole Ø 27.5 mm
- Connection of secondary 4 M5 threaded studs
  Recommended fastening torque 2.2 N·m
  Faston 6.3 x 0.8 mm

Remarks

- I_S is positive when I_P flows in the direction of the arrow.
- Temperature of the primary conductor should not exceed 100 °C.
- Dynamic performances (d*i*/d*t* and response time) are best with a single bar completely filling the primary hole.
- This is a standard model. For different versions (supply voltages, turns ratios, unidirectional measurements...), please contact us.