

Current Transducer LT 108-S7

For the electronic measurement of currents : DC, AC, pulsed..., with galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).

$$I_{PN} = 100 \text{ A}$$



77198



Electrical data

I_{PN}	Primary nominal current rms	100	A			
I_{PM}	Primary current, measuring range	0 .. ± 150	A			
R_M	Measuring resistance	with $\pm 12 \text{ V}$	@ $\pm 100 \text{ A}_{max}$	$R_{M min}$ 0	$R_{M max}$ 136	Ω
			@ $\pm 150 \text{ A}_{max}$	0	74	Ω
		with $\pm 15 \text{ V}$	@ $\pm 100 \text{ A}_{max}$	0	175	Ω
			@ $\pm 150 \text{ A}_{max}$	0	106	Ω
I_{SN}	Secondary nominal current rms	50	mA			
K_N	Conversion ratio	1 : 2000				
V_C	Supply voltage ($\pm 5 \%$)	$\pm 12 \dots 15$	V			
I_C	Current consumption	$28 @ \pm 12 \text{ V} + I_S$	mA			

Accuracy - Dynamic performance data

X_G	Overall accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$	± 0.6	%
ϵ_L	Linearity error	< 0.1	%
I_{OE}	Electrical offset current @ $I_P = 0$, $T_A = 25^\circ\text{C}$	Typ	Max
			± 0.15
I_{OM}	Magnetic offset current ¹⁾ @ $I_P = 0$, and specified R_M , after an overload of $3 \times I_{PN}$		± 0.10
I_{OT}	Temperature variation of I_O @ $-10^\circ\text{C} \dots +70^\circ\text{C}$	± 0.20	± 0.64
t_{ra}	Reaction time to 10 % of I_{PN}	< 500	ns
t_r	Response time ²⁾ to 90 % of I_{PN}	< 1	μs
di/dt	di/dt accurately followed	> 100	A/ μs
BW	Frequency bandwidth (-3 dB)	DC .. 100	kHz

General data

T_A	Ambient operating temperature	- 10 .. + 70	$^\circ\text{C}$
T_S	Ambient storage temperature	- 25 .. + 80	$^\circ\text{C}$
R_S	Secondary coil resistance @ $T_A = 70^\circ\text{C}$	32	Ω
m	Mass	73	g
	Standards ³⁾	EN 50178	

Features

- Closed loop (compensated) current transducer using the Hall effect
- Insulated 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

- AC variable speed drives 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.

Applications Domain

- Industrial.

Notes: ¹⁾ Result of the coercive field of the magnetic circuit.

²⁾ With a di/dt of 100 A/ μs .

³⁾ A list of corresponding tests is available.

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Isolation characteristics

V_d	Rms voltage for AC isolation test ¹⁾ , 50 Hz, 1 min	3.52	kV
\hat{V}_w	Impulse withstand voltage 1.2/50 μ s	6.5	kV
		Min	
dCp	Creepage distance ²⁾	10	mm
dCI	Clearance distance ³⁾	6	mm
CTI	Comparative Tracking Index (group IIIa)	275	

Applications examples

According to EN 50178 and IEC 61010-1 standards and following conditions:

- Over voltage category OV 3
- Pollution degree PD2
- Non-uniform field

	EN 50178	IEC 61010-1
dCp, dCI, \hat{V}_w	Rated isolation voltage	Nominal voltage
Single isolation	600 V	600 V
Reinforced isolation	300 V	300 V

Notes: ¹⁾ Between primary and secondary.

²⁾ On housing.

³⁾ On housing.

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).

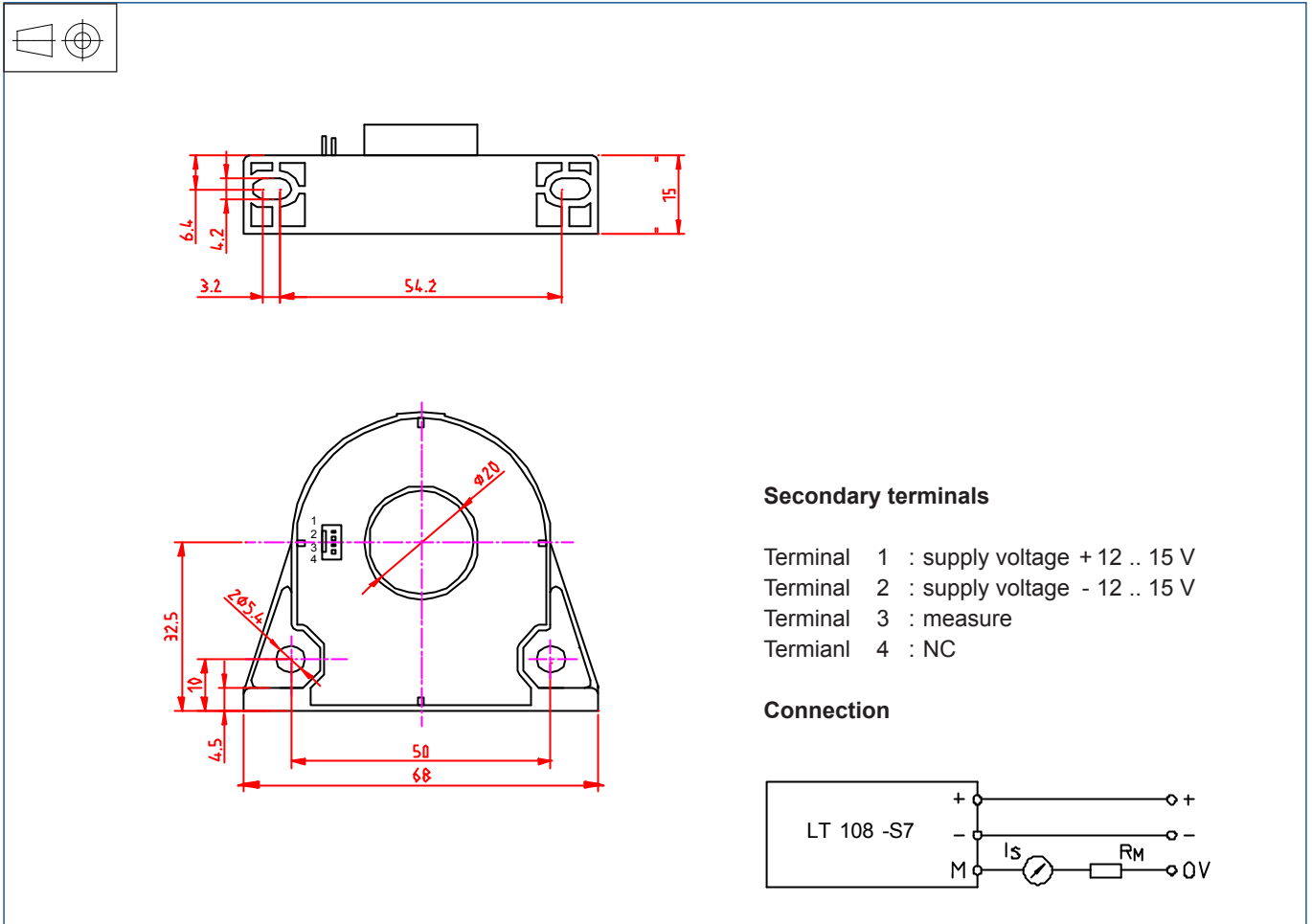
Ignoring this warning can lead to injury and/or cause serious damage.

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 LT 108-S7 (in mm)



Mechanical characteristics

- General tolerance ± 0.5 mm
- Fastening holes $\varnothing 5.4 \times 2$ mm
- Primary through-hole $\varnothing 20$ mm
- Connection of secondary Socket 2541WV-4P (Gallant, Shanghai)

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 (di/dt 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.

单击下面可查看定价，库存，交付和生命周期等信息

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