

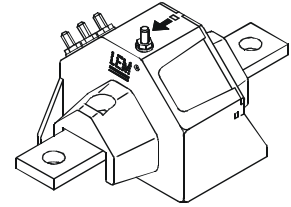
Current Transducer LA 205-T/SP14

$$I_{PN} = 200 \text{ A}$$

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



0707



Electrical data

I_{PN}	Primary nominal r.m.s. current	200	A		
I_P	Primary current, measuring range	0 .. ± 600	A		
R_M	Measuring resistance @ $T_A = 80^\circ\text{C}$ with $\pm 15 \text{ V}$	$R_{M \min}$	$R_{M \max}$		
				@ $\pm 200 \text{ A}_{\max}$	5
		@ $\pm 250 \text{ A}_{\max}$	5	65	Ω
		@ $\pm 600 \text{ A}_{\max}$	5	6	Ω
I_{SN}	Secondary nominal r.m.s. current	100	mA		
K_N	Conversion ratio	1 : 2000			
V_C	Supply voltage ($\pm 10 \%$)	± 15	V		
I_C	Current consumption	$20 + I_S$	mA		
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	5 ¹⁾	kV		
		1 ²⁾	kV		

Accuracy - Dynamic performance data

X_G	Overall accuracy @ $I_{PN}, T_A = 25^\circ\text{C}$	± 0.8	%
e_L	Linearity	< 0.1	%
I_O	Offset current @ $I_P = 0, T_A = 25^\circ\text{C}$	Typ	Max
			± 0.15 mA
I_{OM}	Residual current ³⁾ @ $I_P = 0$, after an overload of $3 \times I_{PN}$		± 0.50 mA
I_{OT}	Thermal drift of I_O - $25^\circ\text{C} \dots + 80^\circ\text{C}$	± 0.15	± 0.40 mA
t_{ra}	Reaction time @ 10 % of $I_{P \max}$	< 500	ns
t_r	Response time ⁴⁾ @ 90 % of $I_{P \max}$	< 1	μs
di/dt	di/dt accurately followed	> 100	A/ μs
f	Frequency bandwidth (- 3 dB)	DC .. 100	kHz

General data

T_A	Ambient operating temperature	- 25 .. + 80	$^\circ\text{C}$
T_S	Ambient storage temperature	- 40 .. + 85	$^\circ\text{C}$
R_S	Secondary coil resistance @ $T_A = 80^\circ\text{C}$	36	Ω
m	Mass	270	g
	Standards	EN 50155	

Features

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

Special features

- $I_P = 0 \dots \pm 600 \text{ A}$
- $V_C = \pm 15 (\pm 10 \%) \text{ V}$
- $V_d = 5 \text{ kV}^{1)}$
- $T_A = - 25^\circ\text{C} \dots + 80^\circ\text{C}$
- Shield between primary and secondary
- Connection to secondary circuit on M4 threaded studs
- Potted
- VRT Burn-in
- Railway equipment.

Advantages

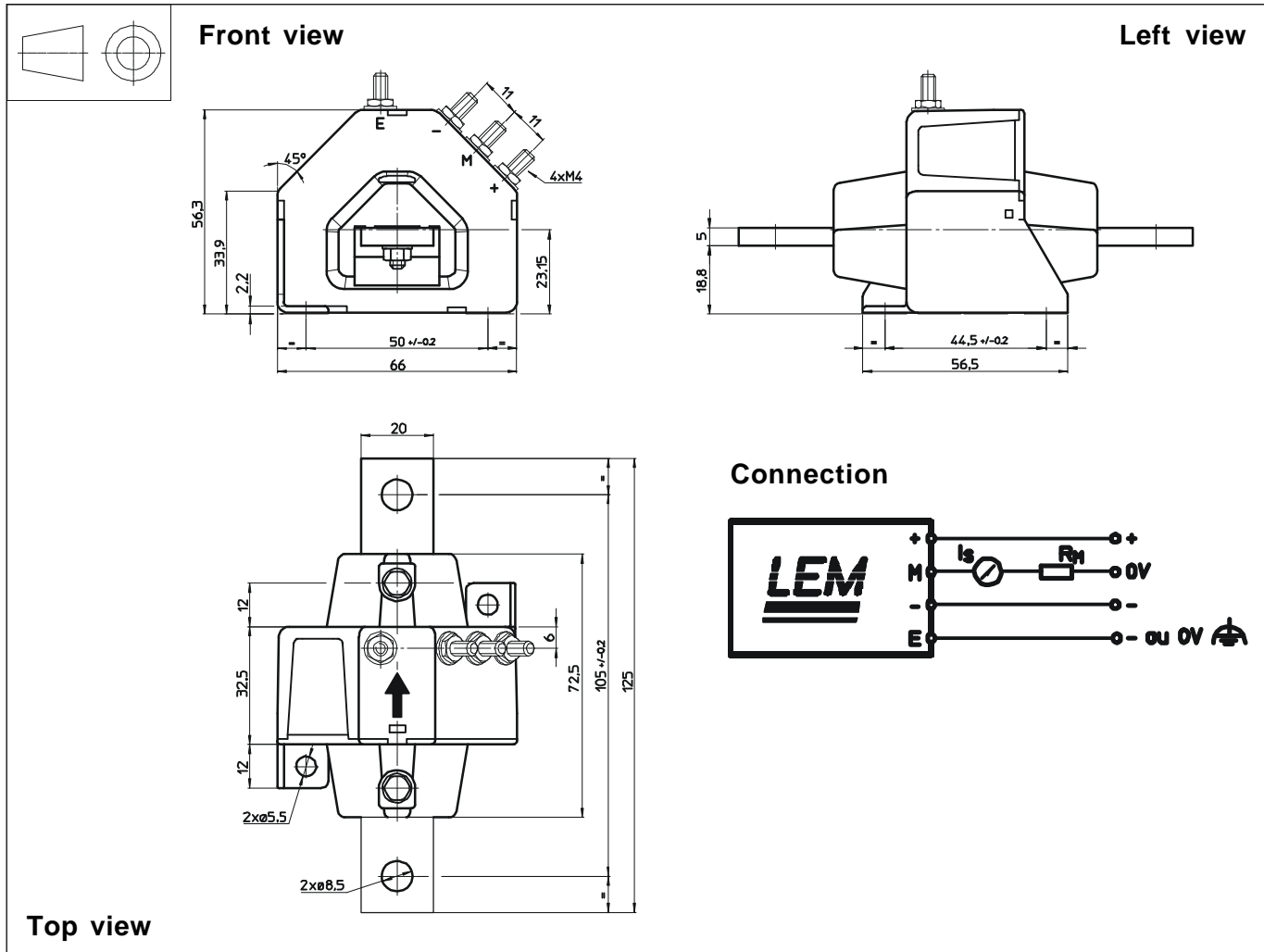
- Excellent accuracy
- Very good linearity
- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.

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.

Notes :
¹⁾ Between primary and secondary + shield
²⁾ Between secondary and shield
³⁾ The result of the coercive field of the magnetic circuit
⁴⁾ With a di/dt of 100 A/ μs .

Dimensions LA 205-T/SP14 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- General tolerance ± 0.5 mm
- Transducer Fastening
 - 2 holes $\varnothing 5.5$ mm
 - 2 M5 steel screws
 - Fastening torque max. 4 Nm or 2.95 Lb. - Ft.
 - Or
 - By the primary bar
- Connection of secondary
 - 2 holes $\varnothing 8.5$ mm
 - M4 threaded studs
 - Fastening torque 1.2 Nm or .88 Lb.-Ft.

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.