Current Transducer LA 305-S/SP19

I_{PN} = 500 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).

16236

Electrical data

I_{PN}	Primary nominal r.m.s. current		500					A
I_P	Primary current, measuring range (@ ± 24V)		0 .. ± 1000					A
$\hat{I}_P$	Overload capability during 10 ms		40					kA
R_M	Measuring resistance @		T_A = 70°C		T_A = 85°C			
			$R_{M\,min}$	$R_{M\,max}$	$R_{M\,min}$	$R_{M\,max}$		
	with ± 15 V	@ ± 600 A_{max}	0	13	0	10		Ω
		@ ± 650 A_{max}	0	8	0	5		Ω
		@ ± 680 A_{max}	0	6	0	3		Ω
	with ± 24 V	@ ± 600 A_{max}	3	13	3	10		Ω
		@ ± 950 A_{max}	3	8	3	5		Ω
		@ ± 1000 A_{max}	3	6	3	3		Ω
I_{SN}	Secondary nominal r.m.s. current		142.8					mA
K_N	Conversion ratio		1 : 3500					
V_C	Supply voltage (± 5 %)		± 15 .. 24					V
I_C	Current consumption		28 (@ ±24 V) + I_S					mA
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn		6					kV
V_e	R.m.s. voltage for partial discharges extinction @ 10 pC		< 2.8					kV

Accuracy - Dynamic performance data

X_G	Overall accuracy @ I_{PN} , T_A = 25°C		± 0.8		%
e_L	Linearity		< 0.1		%
			Typ	Max	
I_O	Offset current @ I_P = 0, T_A = 25°C			± 0.15	mA
I_{OM}	Residual current [1] @ I_P = 0, after an overload of 3 x I_{PN}			± 0.30	mA
I_{OT}	Thermal drift of I_O	- 40°C .. + 70°C	± 0.30	± 0.60	mA
		- 50°C .. + 85°C		± 0.80	mA
t_{ra}	Reaction time @ 10 % of I_{PN}		< 500		ns
t_r	Response time [2] @ 90 % of I_{PN}		< 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		- 40 (- 50) [3] .. + 85	°C
T_S	Ambient storage temperature		- 50 .. + 90	°C
R_S	Secondary coil resistance @	T_A = 70°C	70	Ω
		T_A = 85°C	73	Ω
m	Mass		350	g
	Standards		EN 50155	

Notes : [1] The result of the coercive field of the magnetic circuit
[2] With a di/dt of 100 A/µs
[3] No guarantee on this value, tests not carried out during production.

Features

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

Special features

- I_{PN} = 500 A
- I_P = 0 .. ± 1000 A (@ ± 24 V)
- K_N = 1 : 3500
- V_C = ± 15 .. 24 (± 5 %) V
- T_A = - 40°C (- 50°C) [3] .. + 85°C
- Connection to secondary circuit on shielded cable 3 x 0.5 mm^2
- Internal shield connected to shielded cable
- Serigraphy with customer specification number
- 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.

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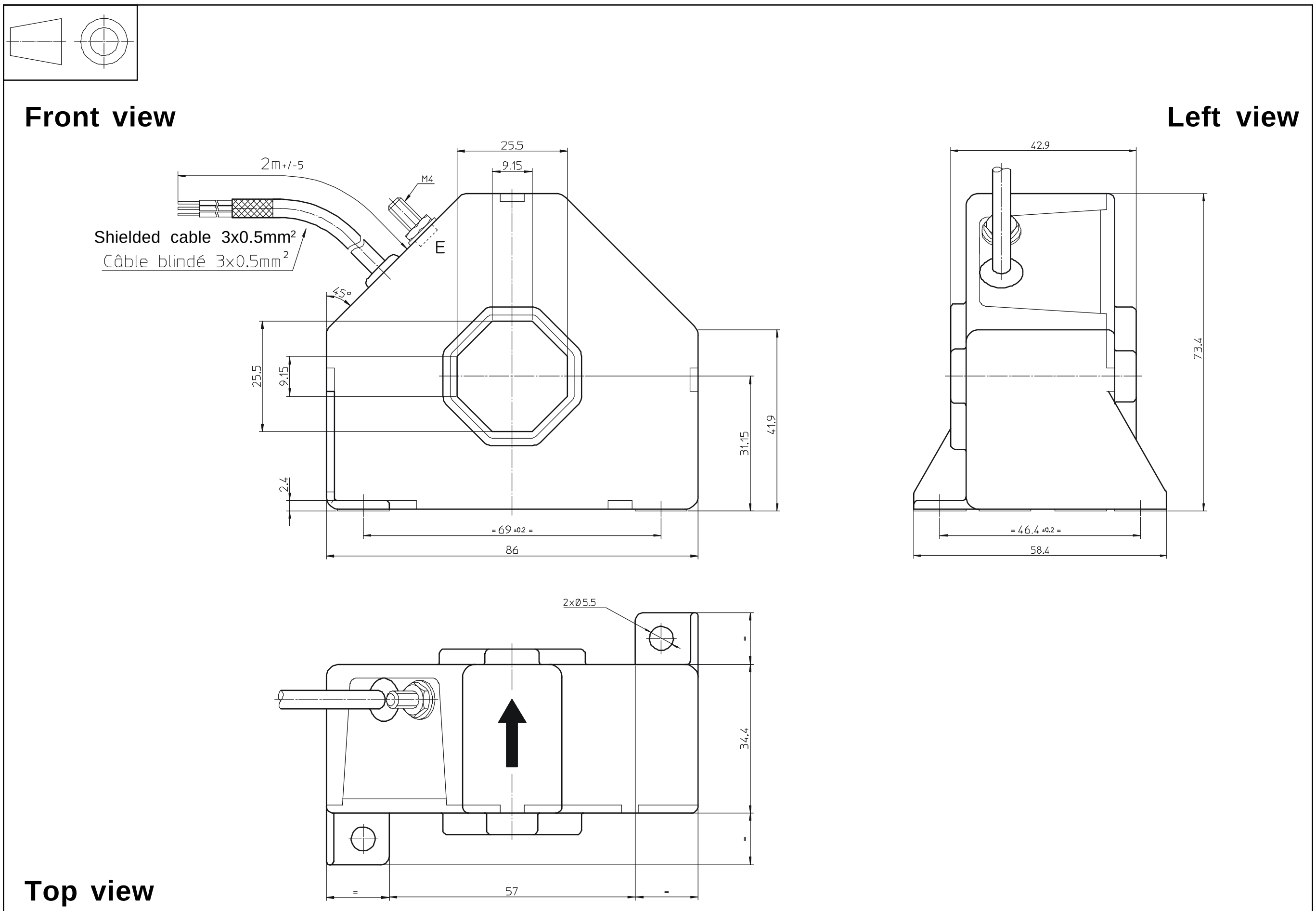
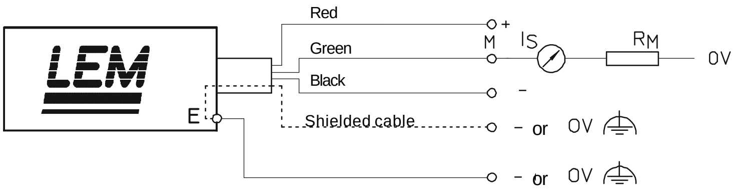
Dimensions LA 305-S/SP19 (in mm. 1 mm = 0.0394 inch)

Front view | **Left view**



Top view

Connection



Mechanical characteristics

- General tolerance — ± 0.5 mm
- Transducer fastening — 2 holes ∅ 5.5 mm, 2 M5 steel screws
  Fastening torque, max. — 4 Nm or 2.95 Lb. - Ft.
- Primary through-hole — 25.5 x 25.5 mm
- Connection of secondary — shielded cable 3 x 0.5 mm²
- Connection of screen — M4 threaded studs
  Fastening torque, max. — 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.
- Dynamic performances (di/dt and response time) are best with a single bar completely filling the primary hole.

单击下面可查看定价，库存，交付和生命周期等信息

>>LEM(莱姆)