Current Transducer HAR 1000-S

I_{PN} = ± 1000A

V_{OUT} = ± 5V

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

Electrical data

I_{PN}	Primary nominal current	±1000	A
I_P	Primary current, measuring range @ V_C = ±15V	±2500	A
V_C	Supply voltage (± 5 %)	±15	V
I_C	Current consumption	<±20	mA
R_{IS}	Isolation resistance @ 500 VDC	>500	MΩ
V_{OUT}	Output voltage @ ± I_{PN}, R_L = 10 kΩ, T_A = 25°C	±5	V
R_{OUT}	Output internal resistance	<100	Ω
V_b	R.m.s. rated isolation voltage	≥2.1	kV
V_d	R.m.s. voltage for AC isolation test, 50/60Hz, 1mn	≥7	kV
R_L	Load resistance	≥10	kΩ
V_e	Partial discharge extinction voltage @ ≤ 10 pC	≥3.6	kV

Accuracy-Dynamic performance data

X	Accuracy [2] @ I_{PN}, T_A = 25°C, V_C = ±15V(±5 %)	<±0.5	% of I_{PN}
e_L	Linearity (0 .. ± I_{PN})	<±0.5	% of I_{PN}
TCe_G	Thermal drift of the gain (between -40 .. +70°C)	≤±5.5	% of I_{PN}
V_{OE}	Electrical offset voltage, T_A = 25°C	<±20	mV
V_{OH}	Hysteresis offset voltage @ I_P = 0; after an excursion of 1 x I_{PN}	<±15	mV
V_{OT}	Thermal drift of offset (between -40 .. +70°C)	<±50	mV
t_r	Response time @ 90% of I_P	≤5	µs
f	Frequency bandwidth (-3 dB)	DC .. 10	kHz

General data

T_A	Ambient operating temperature	-40 .. +70	°C
T_S	Ambient storage temperature	-40 .. +85	°C
m	Mass	400	g
	Creepage distance	≥26	mm
	Clearance	≥19	mm
	Standards	EN 50155, prEN 50124	

Notes : [1] Basic insulation, overvoltage category III, pollution degree 2

[2] Accuracy data exclude the eletrical offset.

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 7kV
- Wide measuring range (2.5 x I_{PN})
- UL 94-V0 rated

Advantages

- Easy mounting
- Compact
- High immunity to external interference
- Low power consumption

Applications

- Traction

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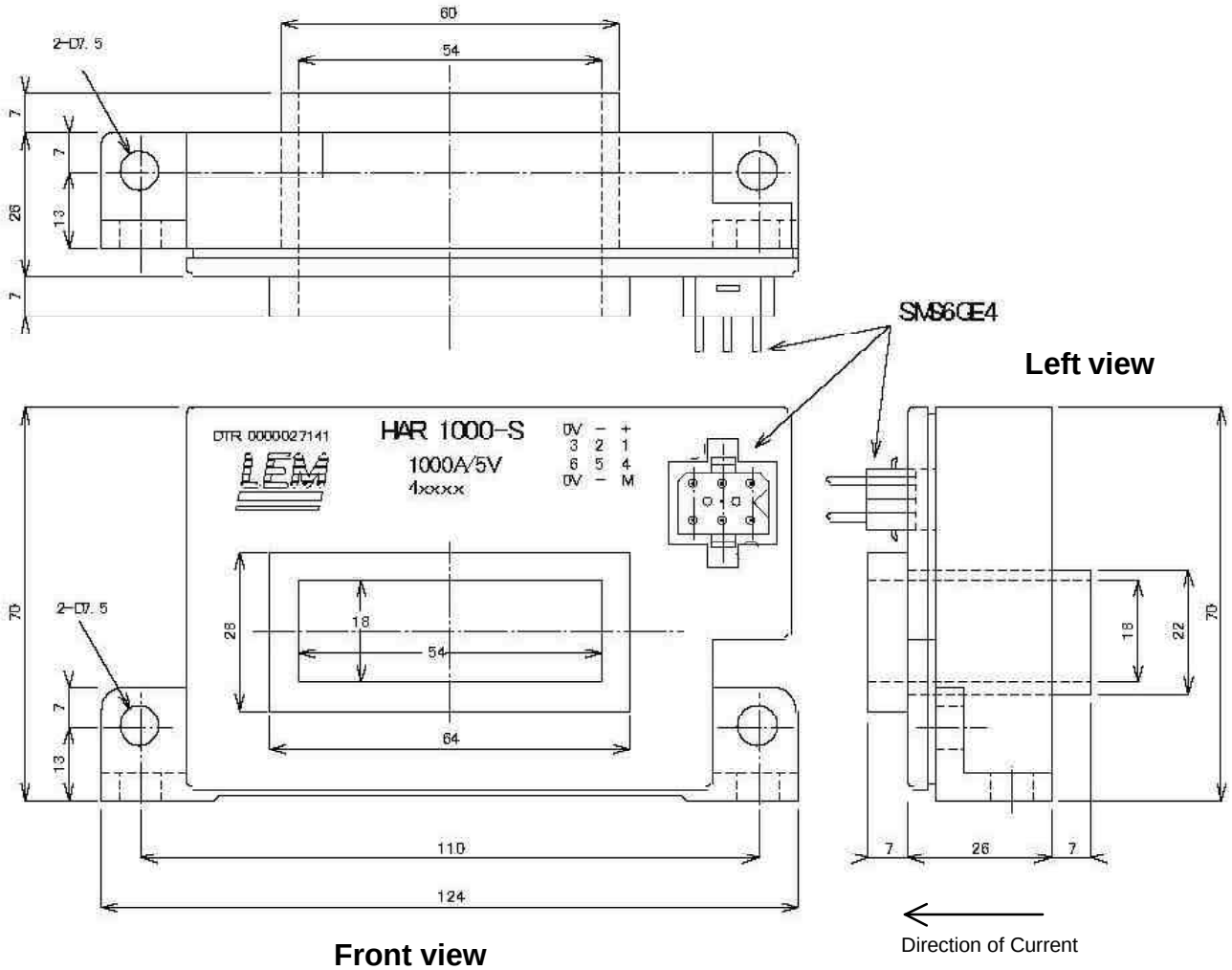
HAR 1000-S
Dimensions (in mm)

Bottom view



Secondary Pin Identifications

- Pin 1 : +15 V
- Pin 2 : - 15 V
- Pin 3 : 0 V
- Pin 4 : Output
- Pin 5 : - 15 V
- Pin 6 : 0 V

Mechanical characteristics

• General tolerance	±1.0 mm
• Fastening	4 x Ø7.5 mm
• Fastening	Max 6.2 Nm
• Apature	54mm x 18mm
• Connection of secondary	Burndy SMS6GE4

- The primary bus bar temperature should not exceed 100 °C