

## DC/DC converter

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<b>Identification</b>	Type	NG-6391
	Part-No.	716391

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<b>Product version</b>		
Datasheet version	00	

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<b>Use/Application/Properties</b>		
Description	The converter operating voltage is DC 110 V, the voltage area corresponds to Rail Standard EN 50155. The output voltage is DC 24 V $\pm$ 5 %.	

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<b>Technical data</b>		
Voltage range	DC 77.0 – 154.0 V	
Input voltage	DC 110 V	
Efficiency	Max. 89 %	
Output voltage	DC 24 V $\pm$ 5 %	
Output current	1.5 A	
Capacitive load	max. 3300 $\mu$ F	
Protection device	Reverse diode / Suppressor diode	
Status Indication	LED green (Output voltage) LED red (Thermal warning)	
Protection device output	Short-circuit and overload protection Internal overtemperature protection with automatic restart	

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<b>General</b>		
Termination	X1 / X2: Spring terminal: 0,2 – 2,5 mm <sup>2</sup> Stripping Length: 10 mm Screwdriver: 3,5 x 0,6 mm X0: Screw M4	
Operation temperature range	-40 °C – 70 °C (+85 °C 10 min)	
Storage temperature range	-40 – 85 °C	
Dimensions (w x h x d)	66.0 x 54.0 x 160.0	
Weight (kg/piece)	0.395 kg/piece	
Housing material	Aluminium	
Field installation	on TS35-15 or TS35-7,5 acc. to EN 60715	

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Installation position	Optional
Standards	<b>EN 50155:2007-07</b> Railway applications – Electronic equipment used on rolling stock <b>EN 50121-3-2:2006-07</b> Railway applications – Electromagnetic compatibility – Part 3-2: Rolling stock – Apparatus <b>EN 50124-1:2001-03</b> Railway applications – Insulation coordination – Part 1: Basic requirements, Clearances and creepage distances for all electrical and electronic equipment <b>EN 61373:2010-09</b> Railway applications – Rolling stock equipment – Shock and vibration tests <b>HN_Isolationsprüfung:2012-02</b> Company standard insulation testing
Galvanic insulation I/O	yes
Electrical isolation	DC 1500 V - Input voltage against output voltage. If there is an external connection between input and PE, the insulation voltage amounts only DC 710 V! - Input voltage against housing/PE DC 710 V - Output voltage against housing/PE
Protection class	IP 20
Rated insulation voltage	150 V Contamination level 2 Over voltage category II

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### Failure Rate Prediction (MTBF)

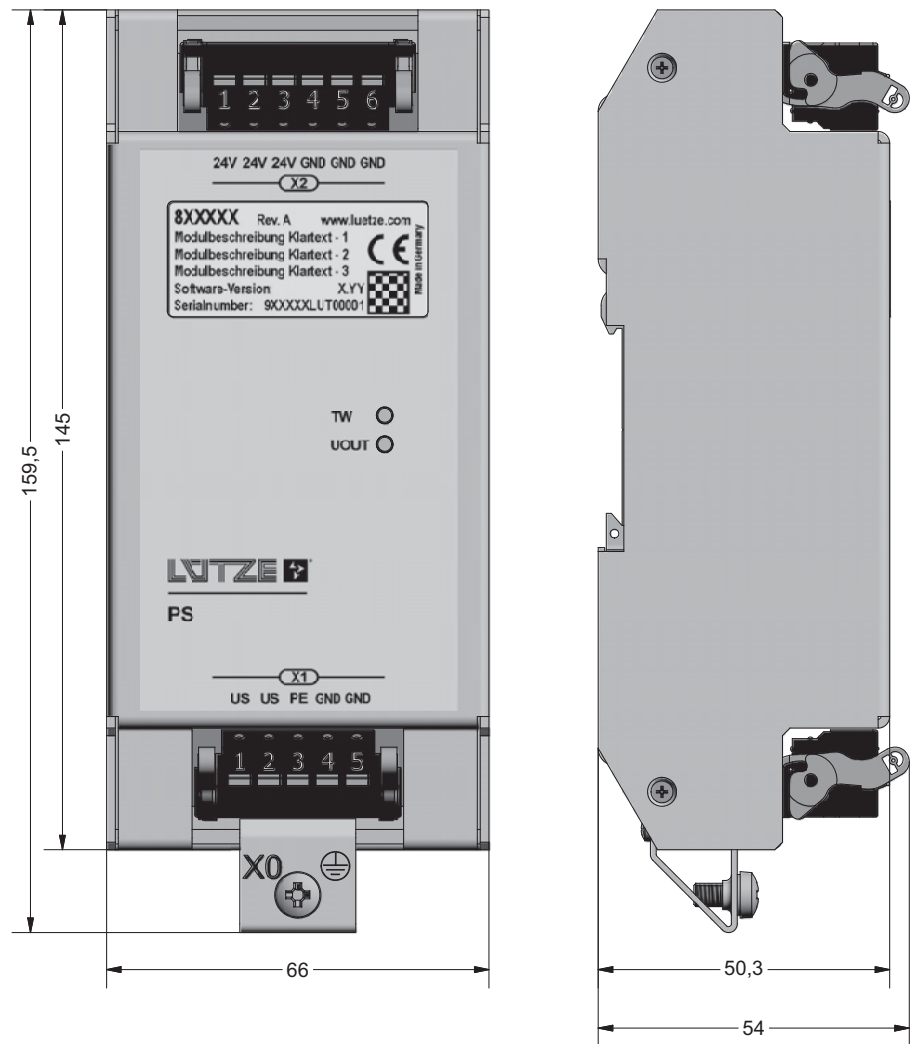
Standards	Electronic components – Reliability – Reference conditions for failure rates and stress models for conversion: EN/IEC 61709 Failure Rates of Components – Expected values: SN 29500
Failure rate at -40 °C	81 fit
Failure rate at +40 °C	950 fit
Failure rate at +70 °C	3122 fit 1 fit equals one failure per 10 <sup>9</sup> component hours The indicated temperature is the mean component ambient temperature.
Comments	The results are valid under following conditions: Automotive environment or industrial areas without extreme dust levels and harmful substances

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<b>Accessories</b>	Terminal set, part no. 819000 included in delivery
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## Dimensions



## Circuit diagram

