

LOVAG Registered Laboratory 2014

<u>LOVAG CB</u>	<u>Id Code</u>	<u>Name</u>	<u>Address</u>	<u>Observer</u>
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**LOVAG Scheme Scope**

<b>Main Standards in the LOVAG Scheme</b>			
<u>Category</u>	<u>Standards</u>	<u>Description</u>	
<input checked="" type="checkbox"/>	POW	IEC/EN 60947-1	Low-voltage switchgear and controlgear
<input type="checkbox"/>	POW	IEC/EN 60947-2	Circuit-breakers
<input checked="" type="checkbox"/>	POW	IEC/EN 60947-3	Switches, disconnectors, switch-disconnectors and fuse-combination units
<input type="checkbox"/>	POW	IEC/EN 60947-4-1	Electromechanical contactors and motor starters
<input type="checkbox"/>	POW	IEC/EN 60947-5-1	Auxiliary Switch
<input type="checkbox"/>	POW	IEC/EN 60439-1 IEC/EN 61439-1 & IEC/EN 61439-2	Low-voltage switchgear and controlgear assemblies Part 2: Power switchgear and controlgear assemblies
<input type="checkbox"/>	POW	IEC/EN 61439-1 & IEC/EN 61439-6	Low-voltage switchgear and controlgear assemblies Part 6: Busbar trunking systems (busways)
<u>Additional standards tested by MERSEN</u>			
<input checked="" type="checkbox"/>	POW	IEC/EN 60269-1	Low-voltage fuses –Part 1: General requirements
<input checked="" type="checkbox"/>	POW	IEC/EN 60269-2	Low-voltage fuses-Part 2: Supplementary requirements for fuses for use by authorized persons
<input checked="" type="checkbox"/>	POW	IEC/EN 60269-3	Low-voltage fuses-Part 3: Supplementary requirements for fuses for use by unskilled persons (Fuses mainly for household and similar applications)
<input checked="" type="checkbox"/>	POW	IEC/EN 60269-4	Low-voltage fuses-Part 4: Supplementary requirements for fuse-links for the protection of semiconductor devices
<input checked="" type="checkbox"/>	POW	IEC/EN 60269-6	Low-voltage fuses-Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems

<b>General Overview of Scope of tests (*)</b>		
<u>Type of tests:</u>	<u>Test description:</u>	<u>Maximum Test limits:</u>
<input checked="" type="checkbox"/> High-current tests	<input checked="" type="checkbox"/> Short-circuit switching capacity <input checked="" type="checkbox"/> AC <input checked="" type="checkbox"/> DC <input checked="" type="checkbox"/> Overload switching capacity <input checked="" type="checkbox"/> AC <input checked="" type="checkbox"/> DC <input checked="" type="checkbox"/> Making/breaking capacity <input checked="" type="checkbox"/> AC <input checked="" type="checkbox"/> DC <input checked="" type="checkbox"/> Short-time withstand current <input checked="" type="checkbox"/> Impulse withstand current <input checked="" type="checkbox"/> Arc fault withstand capacity	Voltage : <b>45 V</b> / Current : <b>300 kA</b> Voltage : <b>4.4 kV</b> / Current : <b>14 kA</b>  Voltage : <b>45 kV</b> / Current : <b>300 kA</b> Voltage : <b>4.4 kV</b> / Current : <b>14 kA</b>  Voltage : <b>45 kV</b> / Current : <b>300 kA</b> Voltage : <b>4.4 kV</b> / Current : <b>14 kA</b> Current : <b>50 kA</b> Time : <b>1 s</b> Current : <b>65 kA</b> Energy : <b>5 MA<sup>2</sup>s</b>
<input type="checkbox"/> Insulation tests	<input type="checkbox"/> High voltage <input type="checkbox"/> Impulse withstand voltage <input type="checkbox"/> Minimum Leakage current detection	Voltage : kV Voltage : kV Current : mA
<input type="checkbox"/> Temperature-rise tests	<input type="checkbox"/> AC / <input type="checkbox"/> DC max. current <input type="checkbox"/> Minimum Impedance measurement	Current : A / Current : A Ω
<input type="checkbox"/> Tripping behaviour	<input type="checkbox"/> AC / <input type="checkbox"/> DC max. current	Current : A / Current : A
<input type="checkbox"/> Lifespan	<input type="checkbox"/> Mechanical lifespan <input type="checkbox"/> Electrical durability: <input type="checkbox"/> AC <input type="checkbox"/> DC	Voltage : V / Current : A Voltage : V / Current: A
<input type="checkbox"/> Mechanical properties of terminals		
<input type="checkbox"/> EMC tests		
<input type="checkbox"/> Climatic tests		
<input type="checkbox"/> Vibration and shock tests		
<input type="checkbox"/> Degree of protection tests	<input type="checkbox"/> IP-code (water and solid bodies) <input type="checkbox"/> IK-code (impact resistance of enclosures)	IP IK

(\*) The provided technical information are not contractual and could be different, according to the relevant test specifications of a specific product standard. For more technical specifications or details, please refer to laboratory documentations or website.