



Specification Sheet

LFC7590/01 Surge Guard

The LFC7590/01 Surge Guard is an overvoltage protection module for the LCN77xx Segment Control Unit. It is used where the Segment Control Unit standard protection level (EN61000-6-2, industrial immunity) is not sufficient.

The Surge Guard is designed specifically for the LCN77xx Segment Control Unit, making this module able to withstand surge pulses up to ± 6 kV and burst pulses up to ± 4 kV. The module consists of four independent protected mains rated channels which each have a built-in thermal protection. The Surge Guard is designed to be installed on a DIN-rail next to the LCN77xx Segment Control Unit.

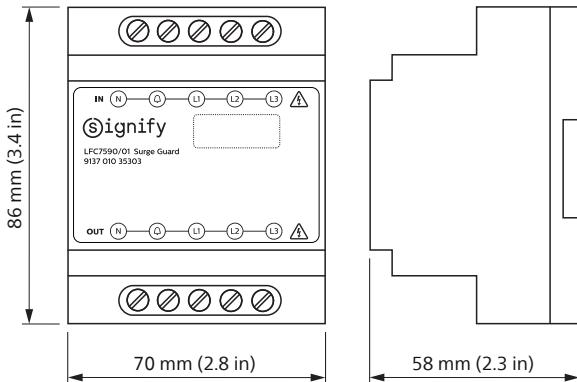
For more detailed information, see the specific manuals and guides.

Note

Graphics are only indicative depiction of the actual product

LFC7590/01

Dimensional drawing



Dimensions

Functionality

Surge protection level	± 6 kV according to EN61000-4-5
Burst protection level	± 4 kV according to EN61000-4-4

Connections

Warning

Make sure all primary inputs are disconnected from mains before making any changes in the installation.

Warning

Neutral must be connected before using/ powering up the product.

Input	<p>Three mains rated phase (line) inputs: L1, L2 and L3</p> <p>One mains rated alarm monitor input: </p> <p>One mains neutral input: N</p>
Output	<p>Surge and burst protected outputs, which may only be connected to the LCN77xx Segment Control Unit.</p> <p>Three mains rated phase (line) outputs: L1, L2 and L3</p> <p>One mains rated alarm monitor output: </p> <p>One mains neutral output: N</p>

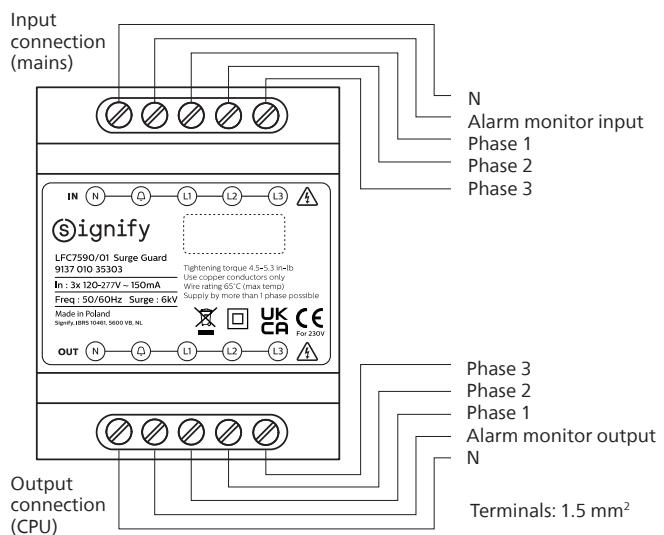
Installation

The Surge Guard is suitable only for use in combination with the Segment Control Unit.

The Surge Guard should be protected from dust and water, preferably by enclosing the system in a metal IP class 65 (NEMA type 4) outdoor cabinet.

Keep wiring short from the mains circuit breaker towards the mains power input. The wires between the Surge Guard and the Segment Control Unit may not exceed 0.15 m.

Wiring



Specifications

Environmental conditions

Storage temperature	-40 to 85 °C
Operating temperature	-20 to 60 °C
IP rating	IP20
Max humidity	90 % (non-condensing)

Supply characteristics

Input voltage	L1, L2, L3 to N 120 to 277 Vac alarm monitor to N 0 to 277 Vac Nominal voltage: 230 Vac Nominal frequency: 50/60 Hz
Current	Typical 150 mA, Maximum 350 mA
Power consumption	< 0.4 W with maximum load connected to SCU

Mechanical

Housing	Top part Gray (RAL 7035) Lexan 940 Base part Black (RAL 7021) Noryl VO 1550 Coating Conformal coated
Mounting	DIN-rail (EN50022)
Weight	120 g

Robustness and reliability

Operational lifetime	70,000 hrs
Lifetime failure rate	<=10%

⚠ Warning

To be wired by trained/certified Personnel only

Connections

Input and output connector	0.82 to 1.31 mm ² (AWG 18 - 16) solid/stranded; copper conductors only, wire rating 65 °C min.; wire strip length: 6 mm, screwdriver, bladed, size 0.4 x 2.5 VDE insulated Tightening torque: min 0.5 Nm, max. 0.68 Nm (6 lbs in)
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Standards and approvals

2014/35/EU, Low Voltage Directive (LVD)
2014/30/EU, EMC Directive
RoHS according EU directive 2011/65/EU and China directive GB/T26572
REACH according EC 1907/2006
UL 916



Packing data

Type	Box dimensions	Qty	Material	Weight (Kg)	
				net	gross
LFC7590/01 Surge Guard	395 x 290 x 205 mm (15.55 x 11.42 x 8.07 in)	32	Cardboard	0.39	0.48

Ordering Data

Type	MOQ	Ordering number	EAN code level 1	EAN code level 3	EOC
LFC7590/01 Surge Guard	1	9137 010 35303	8718696 723579	8718696 723586	723579 00

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