

## Lightning Coordinator LC63



### Application

The OBO Lightning Coordinator LC 63 establishes energy coordination between spark-gap-based lightning arresters (requirement class B) and varistor-based surge arresters (requirement class C), where, because of the application, these devices have to be installed less than five metres apart.

The lightning coordinator also ensures coordination of NPE arresters of different requirement classes.

If there are two or more surge protection devices in an installation, they may influence each other, and this calls for energy coordination of the parallel arresters.

The effect of the coordination of the arresters is that, in the event of the connection of a lightning current, the lightning arrester (class B) operates reliably, to divert the high-energy currents and to protect the surge arrester (class C or class D) from an energy overload.

Typical examples are compact surge protection designs in separate housings, and installations of requirement class B and C arresters in a distribution box.

The Lightning Coordinator LC 63 need only be used if the distance between lightning arrester and surge arrester at the lightning protection

zone interface is not more than 5 metres. Where less than 5 metres, the natural inductances of the conduction path are insufficient, thus requiring a lightning coordinator to be connected between protection devices which operate in different ways to ensure the scheme operates successfully.

### Operation

The good commutation property of the lightning coordinator is due to the optimal level of inductance designed in. The large cross-section of the ribbon-shaped coil conductor gives a low DC resistance, so that temperature rise, and associated power loss in normal operation is minimal.

### Installation location/mounting

The LC 63 Lightning Coordinator is designed for snap-fitting to commercially available 35 mm top-hat din rails. Connections are made to the integral terminals of the coil housing.

### Special feature

The optimal value of the inductance of the decoupling coils means that an extremely high level of protection is achieved in the consumer installation, combined with a high discharge capacity.

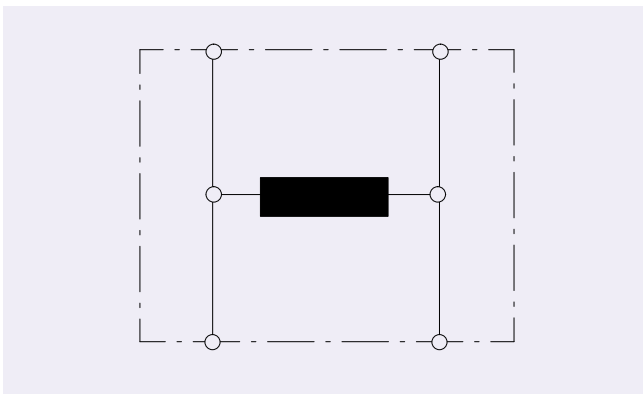
### Other marks



## Technical data

OBO Lightning Coordinator		LC 63
Type		<b>LC 63</b>
Rated voltage	$U_N$	< 500 V / 50-60 Hz
Rated current	$I_N$	63 A
Inductance (50-60 Hz)	$L_N$	5 $\mu$ H $\pm$ 10%
DC resistance	$R_{CU}$	1 m $\Omega$
Temperature rise	$\Delta_T$	45 K (63A)
Maximum required series fuse	F	63 A gL
Operating temperature range		-40 °C to +85 °C
Degree of protection to IEC 60 529/EN 60 529		IP 20
Connection cross-section rigid/flexible/stranded Tightening torque ( $M_A$ ) at least 4 Nm		10-50 / 10-25 / 10-35mm <sup>2</sup> AWG 8-2
Mounting		Snap-fitting to 35 mm top-hat rail to DIN EN 50022
Dimensions to DIN 43880	- Height - Width - Depth	100 mm 35 mm 75 mm

Subject to technical alterations



Block diagram of LC 63