

# Surge protection with greater coordination

## OBO Coordinated-LightningControllers MCD 50-B and MCD 125-B/NPE



When combined with surge arresters connected in series immediately downstream, the new OBO lightning arresters MCD 50-B and MCD 125-B/NPE ensure a coordinated response, without the need for additional decoupling elements. The fundamental advantages of the innovative multi-carbon technology of OBO LightningControllers are fully preserved.

The low protection level ( $\leq 1.3$  kV) makes it unnecessary to install decoupling inductances or to provide additional lengths of conductor between lightning arresters (requirement class B) and surge arresters (requirement class C). This results in a space saving on installation of up to 45 per cent, a great advantage where compact EMC concepts are concerned. In addition, the separate NPE spark gap at the surge arrester

(requirement class C) with compact TT and TN-S systems can be omitted.

Preferred fields of application for the new OBO devices are compact surge protection concepts in separate housings and the installation of arresters of requirement classes B and C in a distribution board. Typical applications: compact mobile phone installations.

Ideal for industry  
and mobile phone  
installations



# OBO Coordinated-LightningControllers

## MCD 50-B and MCD 125-B/NPE

### The advantages

- ▶ Low protection level  $\leq 1.3$  kV.  
No need for a decoupling inductance or a length of conductor between arresters of requirement classes B and C.
- ▶ Up to 45% space saving with compact EMC concepts.
- ▶ Proven multi-carbon technology in the LightningControllers.
- ▶ No sensitive trigger electronics inside the lightning arresters.
- ▶ With compact TT and TN-S systems there is no need for the additional NPE sum spark gap with surge arresters of requirement class C.

### MCD 50-B

The specially doped insulating rings, which determine the precisely defined spacing of the nine spark gaps, guarantee the low protection level ( $U_p \leq 1.3$  kV). As with the proven MC 50-B/VDE, the modular arrester makes it possible to remove the upper part without interrupting the main voltage, in order to measure the insulation resistance in accordance with TAB 2000.

### MCD 125-B/NPE

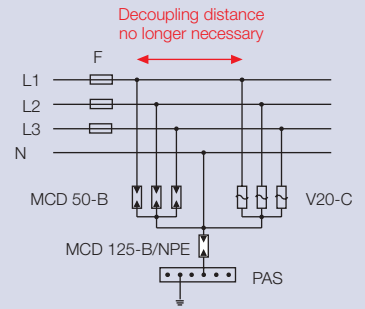
The MCD 125-B/NPE version is an NPE spark gap intended to be installed between the neutral conductor (N) and the protective earth conductor (PE). The low protection level ( $\leq 1.3$  kV) is achieved by a specially coordinated protection circuit.



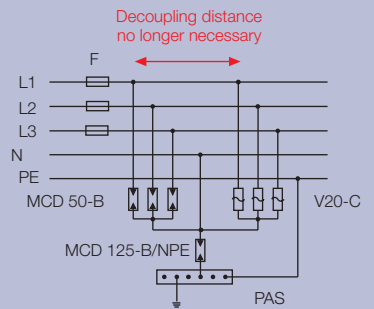
### Technical data

Type		MCD 50-B	MCD 125-B/NPE
Requirement class		B (class I), coordinated	N-PE lightning arrester, coordinated
Maximum continuous operating voltage $U_c$		255 V	255 V
Discharge capacity (10/350 $\mu$ s)	$I_{imp}$	50 kA	125 kA
Protection level	$U_p$	$\leq 1.3$ kV	$\leq 1.3$ kV
Mains follow-up current quenching capacity of the arrester at	$U_c$	12.5 kA <sub>eff</sub>	100 kA <sub>eff</sub>
Max. asymmetric short-circuit current	$I_p$	25 kA	–
Short-circuit strength (series fuse 500 A gL)	$U_c$	17.6 kA <sub>eff</sub>	17.6 kA <sub>eff</sub>
Max. asymmetric short-circuit current	$I_p$	25 kA	25 kA
Order no.		<b>5096 84 9</b>	<b>5096 86 5</b>

### TT network systems



### TN-S network systems



### TN-C-S network systems

