

When the voltage rises...

The new V20/V50 arrester series

**OBO**  
BETTERMANN

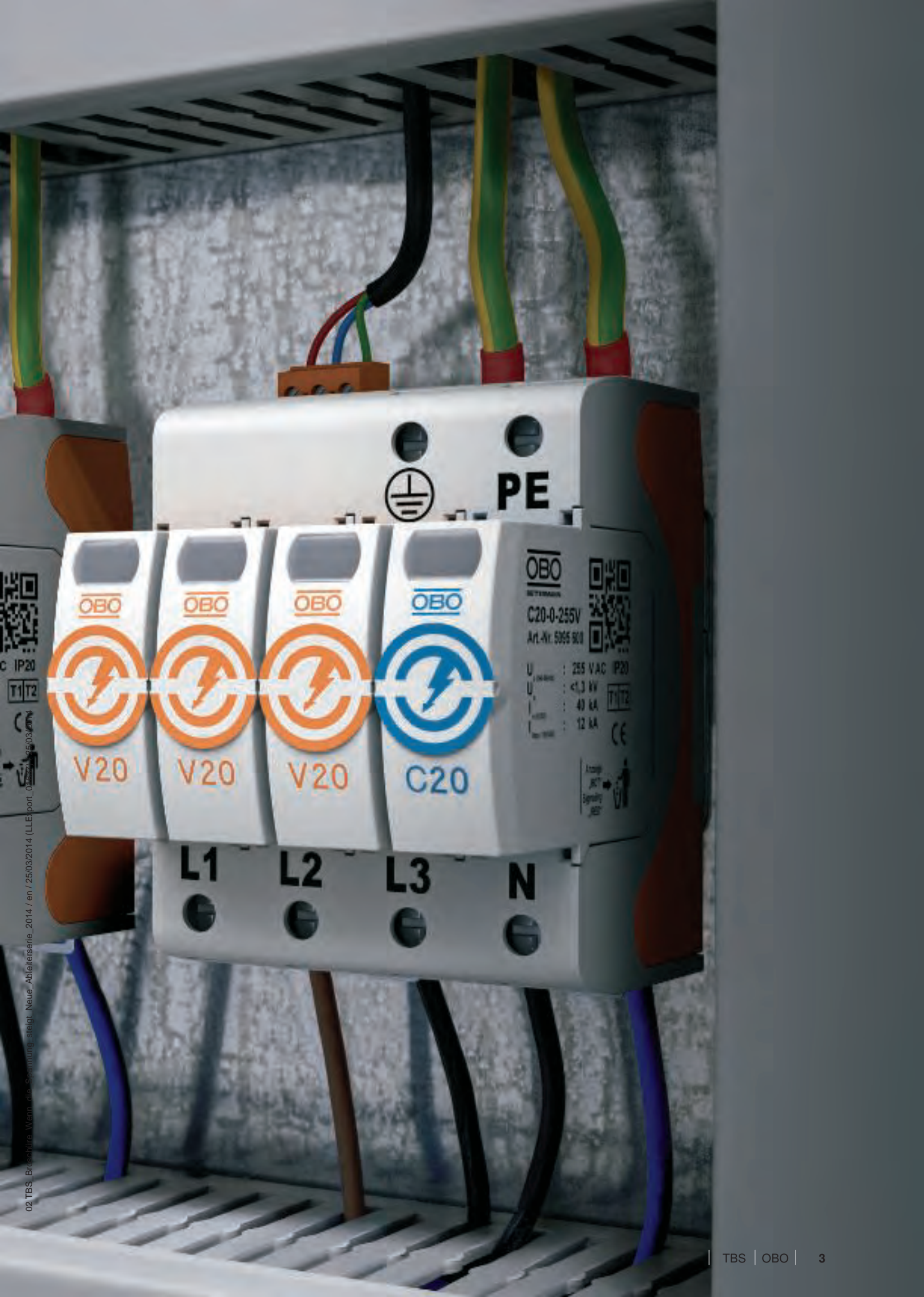


**THINK CONNECTED.**









IP20  
T1/T2  
CE

OBO  
V20

OBO  
V20

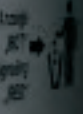
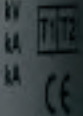
OBO  
V20

OBO  
C20

OBO  
MULTIRANG  
C20-0-255V  
Art.-Nr. 5305 901

U <sub>max</sub>	: 255 V AC	IP20
U <sub>max</sub>	: <1,3 kV	T1/T2
I <sub>max</sub>	: 40 kA	CE
I <sub>max</sub>	: 12 kA	

Leistung  
Speicherung  
Festlegung



L1

L2

L3

N



Modular design facilitates diverse configurations.



Optical status display

Double PE connection terminal

**V20 series**  
**Type 2 surge arrestor**

- Surge protection compliant with VDE 0100-443 (IEC 60364-4-44)
- Conducting capacity of up to 40 kA (8/20) per pole, through high-performance varistors
- Use: equipotential bonding in main and sub-distribution boards

**Available voltage versions:**  
**(highest permanent voltage AC)**

- 75 V
- 150 V
- 280 V
- 320 V
- 385 V
- 440 V
- 550 V
- up to 1,000 V



#### Remote signalling versions

Remote signalling versions have potential-free changeover contacts



#### Versions

One-pole to four-pole versions with and without pluggable NPE separating spark gaps, including status displays

#### V50 series

##### Lightning current combined arrester Type 1+2

- Equipotential bonding for lightning protection compliant with VDE 0185-305 (IEC 62305)
- Lightning current conducting capacity 12.5 kA (10/350) per pole and up to 50 kA (10/350) total
- Use: equipotential bonding for lightning protection in buildings of categories III and IV
- Up to 160 AgL useable without preliminary fuses

#### Available voltage versions: (highest permanent voltage AC)

- 150 V
- 280 V
- 320 V
- 385 V



## Intelligent design, lots of useful details

The advantages of the new arrestor series lie in its numerous well-thought-out components. These arrestors can be installed without difficulty in just a few moves. Their high-grade materials and intelligent designs enable them to be used even under tough physical conditions.

### Mis-plugging guard

To ensure that the upper sections insert properly

### Safe handling

Acoustic feedback (click) ensures that the arrestors snap dependably into place without vibration; grip areas are ergonomically designed to assist in comfortable handling.

### Optimised specification label

QR code for full traceability on every arrestor upper section, including stored website address for further user information.

### Soft-release contacts

Newly developed soft-release contacts in conjunction with a catch mechanism secure the upper sections of the protection elements even under the toughest physical conditions. The contacts' wedge shape makes the upper sections easy to plug in.







**Voltage and type coding**

Ensure that upper and lower sections of arrestors are clearly matched

**High-grade materials**

Their halogen-free and UL-listed plastic materials meet the latest standards in installation equipment.



## Surge protection, arrester, type 1+2 (office and housing)

### Combination arrester V50 in 280 V, type 1+2

Combination arrester V50, 3-pole 280 V

Available from 01/08/2014

Combination arrester V50, 4-pole 280 V

Available from 01/08/2014

### Combination arrester V50 in 280 V with FS, type 1+2

Combination arrester V50, 3-pole with FS 280 V

Available from 01/08/2014

Combination arrester V50, 4-pole with FS 280 V

Available from 01/08/2014

### Combination arrester V50 in 280 V with NPE, type 1+2

Combination arrester V50, 1-pole + NPE 280 V

Available from 01/10/2014

Combination arrester V50, 2-pole + NPE 280 V

Available from 01/10/2014

Combination arrester V50, 3-pole + NPE 280 V

Available from 01/10/2014

### Combination arrester V50 in 280 V with NPE+FS, type 1+2

Combination arrester V50, 1-pole + NPE with FS 280 V

Available from 01/10/2014

Combination arrester V50, 3-pole + NPE with FS 280 V

Available from 01/10/2014

### Combination arrester V50 cover, type 1+2

Upper part V50 150 V

Available from 01/08/2014

Upper part V50 280 V

Available from 01/08/2014



## Surge arrester V20 in 75 V, type 2

Surge arrester V20, 1-pin, 75 V  
Available from 01/08/2014

Surge arrester V20, 2-pin, 75 V  
Available from 01/08/2014

Surge arrester V20, 1-pin + NPE, 75 V  
Available from 01/08/2014

## Surge arrester V20 in 150 V, type 2

Surge arrester V20, 1-pin, 150 V  
Available from 01/08/2014

Surge arrester V20, 2-pin, 150 V  
Available from 01/08/2014

Surge arrester V20, 3-pin, 150 V  
Available from 01/08/2014

## Surge arrester V20 in 150 V with NPE, type 2

Surge arrester V20, 1-pin + NPE, 150 V  
Available from 01/08/2014

Surge arrester V20, 2-pin + NPE, 150 V  
Available from 01/08/2014

Surge arrester V20, 3-pin + NPE, 150 V  
Available from 01/08/2014

## Surge arrester V20 in 150 V with NPE+FS, type 2

Surge arrester V20, 2-pin + NPE and FS,  
150 V  
Available from 01/08/2014

Surge arrester V20, 3-pin + NPE and FS,  
150 V  
Available from 01/08/2014

## Surge arrester V20 in 280 V, type 2

Surge arrester V20, 1-pin, 280 V  
Available from 01/08/2014

Surge arrester V20, 2-pin, 280 V  
Available from 01/08/2014

Surge arrester V20, 3-pin, 280 V  
Available from 01/08/2014

Surge arrester V20, 4-pin, 280 V  
Available from 01/08/2014



## Surge protection, arrester, type 2

### Surge arrester V20 in 280 V with FS, type 2

Surge arrester V20, 1-pin with FS, 280 V

Available from 01/08/2014

Surge arrester V20, 2-pin with FS, 280 V

Available from 01/08/2014

Surge arrester V20, 3-pin with FS, 280 V

Available from 01/08/2014

Surge arrester V20, 4-pin with FS, 280 V

Available from 01/08/2014

### Surge arrester V20 in 280 V with NPE, type 2

Surge arrester V20, 1-pin + NPE, 280 V

Available from 01/08/2014

Surge arrester V20, 2-pin + NPE, 280 V

Available from 01/08/2014

Surge arrester V20, 3-pin + NPE, 280 V

Available from 01/08/2014

### Surge arrester V20 in 280 V with NPE+FS, type 2

Surge arrester V20, 1-pin + NPE and FS, 280 V

Available from 01/08/2014

Surge arrester V20, 2-pin + NPE and FS, 280 V

Available from 01/08/2014

Surge arrester V20, 3-pin + NPE and FS, 280 V

Available from 01/08/2014

### Surge arrester V20 in 320 V, type 2

Surge arrester V20, 1-pin, 320 V

Available from 01/08/2014

Surge arrester V20, 3-pin, 320 V

Available from 01/08/2014

### Surge arrester V20 in 320 V with FS, type 2

Surge arrester V20, 1-pin with FS, 320 V

Available from 01/08/2014

Surge arrester V20, 3-pin with FS, 320 V

Available from 01/08/2014



## Surge arrester V20 in 320 V with NPE, type 2

Surge arrester V20, 1-pin + NPE, 320 V

Available from 01/08/2014

Surge arrester V20, 3-pin + NPE, 320 V

Available from 01/08/2014

## Surge arrester V20 in 320 V with NPE+FS, type 2

Surge arrester V20, 1-pin + NPE and FS,  
320 V

Available from 01/08/2014

Surge arrester V20, 3-pin + NPE and FS,  
320 V

Available from 01/08/2014

## Surge arrester V20 in 385 V, type 2

Surge arrester V20, 1-pin, 385 V

Available from 01/08/2014

Surge arrester V20, 2-pin, 385 V

Available from 01/08/2014

Surge arrester V20, 3-pin, 385 V

Available from 01/08/2014

Surge arrester V20, 4-pin, 385 V

Available from 01/08/2014

## Surge arrester V20 in 385 V with FS, type 2

Surge arrester V20, 2-pin with FS, 385 V

Available from 01/08/2014

Surge arrester V20, 3-pin with FS, 385 V

Available from 01/08/2014

Surge arrester V20, 4-pin with FS, 385 V

Available from 01/08/2014

## Surge arrester V20 in 385 V with NPE, type 2

Surge arrester V20, 1-pin + NPE, 385 V

Available from 01/08/2014

Surge arrester V20, 3-pin + NPE, 385 V

Available from 01/08/2014



## Surge protection, arrester, type 2

### Surge arrester V20 in 385 V with NPE+FS, type 2

Surge arrester V20, 3-pin + NPE and FS,  
385 V

Available from 01/08/2014

### Surge arrester V20 in 440 V, type 2

Surge arrester V20, 1-pin, 440 V

Available from 01/08/2014

### Surge arrester V20 in 550 V, type 2

Surge arrester V20, 1-pin, 550 V

Available from 01/08/2014

Surge arrester V20, 2-pin, 550 V

Available from 01/08/2014

Surge arrester V20, 3-pin, 550 V

Available from 01/08/2014

Surge arrester V20, 4-pin, 550 V

Available from 01/08/2014

### Surge arrester V20 in 550 V with FS, type 2

Surge arrester V20, 2-pin with FS, 550 V

Available from 01/08/2014

Surge arrester V20, 3-pin with FS, 550 V

Available from 01/08/2014

Surge arrester V20, 4-pin with FS, 550 V

Available from 01/08/2014

### Surge arrester V20 covers, type 2

Upper part V20 75 V

Available from 01/08/2014

Upper part V20 150 V

Available from 01/08/2014

Upper part V20 280 V

Available from 01/08/2014

Upper part V20 320 V

Available from 01/08/2014

Upper part V20 385 V

Available from 01/08/2014

Upper part V20 440 V

Available from 01/08/2014



### Surge arrester V20 covers, type 2

Upper part V20 550 V

Available from 01/08/2014

### NPE discharge gap C20 in 280 V, type 2

Upper part C20 280 V

Available from 01/10/2014



# Protected



Our systems ensure maximum protection, just like four well-trained bodyguards. Our “Protection to the power of four” philosophy states that only well-balanced protection is real protection. Learn more about what each of our systems does.



Watch the “Protection to the power of four” video. Simply scan the QR code.



## 4 | Surge protection systems

Surge protection systems form a multi-stage barrier which no voltage surge can break through.



# 1

## Air termination and down conductor systems

Direct lightning strikes with energy of up to 200,000 A are reliably received by air termination devices and conducted into an earthing system through the arrester system.



# 3

## Equipotential bonding systems

These form the interface between external and internal lightning protection. They ensure that dangerous potential differences do not come about in the building.



# 2

## Earthing systems

If the conducted lightning current reaches the earthing system, then approximately 50 per cent of the energy is passed into the ground, while the other half is distributed via the equipotential bonding system.







**OBO BETTERMANN GmbH & Co. KG**

P.O. Box 1120  
58694 Menden, Germany

**Customer Service Germany**

Tel. +49 (0)2373 89-0  
Fax +49 (0)2373 89-1238  
E-mail: [export@obo.de](mailto:export@obo.de)

**[www.obo-bettermann.com](http://www.obo-bettermann.com)**

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