

# 7

# SAFETY EQUIPMENT

Fully-insulated and part-insulated earthing and short-circuiting devices for low voltage applications



### Availability by phone:

For queries concerning products and delivery time, and to place an order by phone, we are available as follows

### +49 89 43604-0

Monday - Thursday: 8:00 am -12:00 noon and 12:30 pm -16:00 pm

### Friday:

8:00 am -12:00 noon

### Information concerning this catalogue:

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### Safe Working in Low Voltage Networks

# Why Earthing and Short-Circuiting Devices for Low Voltage?

To earth and short-circuit is an essential element among a number of safety rules, in the case of ongoing work in or near electric installations.

In high voltage networks there always was the necessity of earthing and short-circuiting, opposite to low voltage networks.

Because of more widespread private power generators (emergency generators, photovoltaic installations, and others) and resulting uncontrolled external power supply, also in low voltage networks there is an increasing risk potential for installation personnel.

Consequently and in accordance with EN 50110 earthing and short-circuiting in low voltage networks is also required.

In high voltage networks possible faulty operations and resulting short-circuit currents are safely controlled by earthing and short-circuiting devices clamped to the high voltage side of the transformer. On the low voltage side the earthing and short-circuiting device has the only purpose to safely deviate occurring currents from influencial voltages or from uncontrolled external power supply from private power generators.

So primarily the earthing and short-circuiting device for low voltage applications can be considered as a working earth.



# Safe Working in Low Voltage Networks



# Individual, cost effective and extensible

ARCUS earthing and short-circuiting devices for low voltage are a sophisticated kit system consisting of separate components which can be perfectly combined for each usage.

Our kit system offers:

- cost-effective and individual customer solutions,
- simple refitting,
- uncomplicated re-usage of already existing basic components.

Basic element of our earthing and short-circuiting kit is a multi-polar device (1) made of highly-flexible PVCinsulated copper lead with patented, fully-insulated or part-insulated connection couplings.

Matching connection elements for the phase (2) and earth side (3) are available for many customary usages.

Available space and different options for connection to low voltage distribution networks, cable distribution cabinets or house service connections are manifold and may be problematic, depending on construction. For this reason you may not find suitable components for all of your requirements in our product line.

### In such case we will be pleased to give you advice!



### Safe Working in Low Voltage Networks

This catalogue will give you an overview on our range of fully-insulated and part-insulated earthing and short-circuiting devices for low voltage applications.

We have arranged these products in different groups to have them clearly structured and facilitate identification. All important details are listed in a table and supported by pictures.

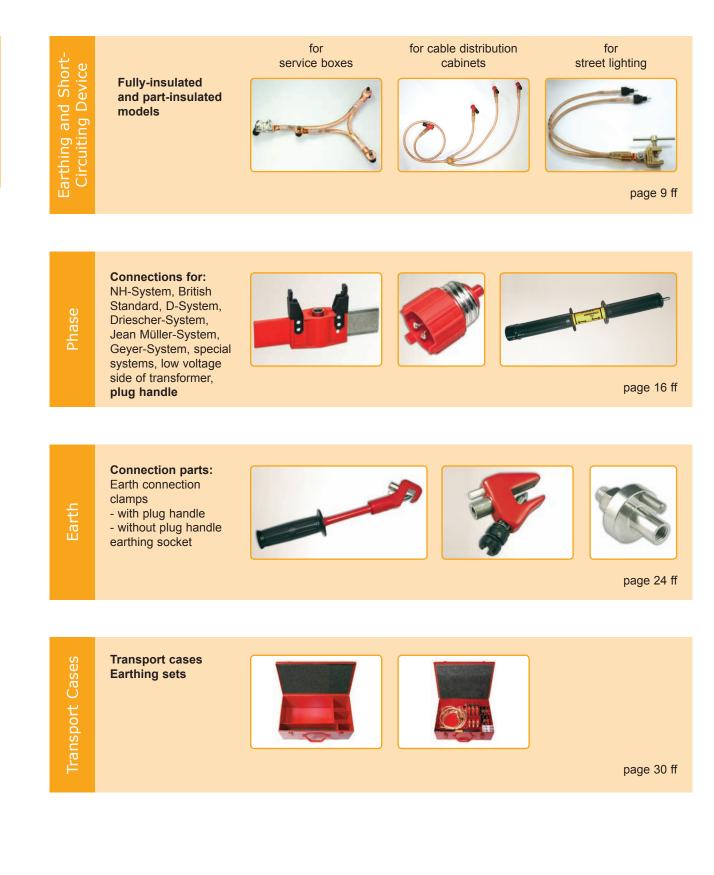
In case of uncertainties how to find a product or how to select a suitable one, please contact us. You will find our contact details on the backside of this catalogue.

ARCUS Schiffmann offers you not only a vast range of fully-insulated and part-insulated earthing and short-circuiting devices for low voltage applications, but furthermore will be pleased to support you in selecting the suitable products.

This service is a matter of course for us!

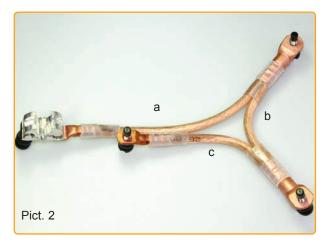


### **Product Overview**



### Part-Insulated Earthing and Short-Circuiting Device for Service Boxes







# Earthing and short-circuiting device for service boxes (pict. 1)

### **Device suitable for connections:** Phase side: (pict. 4) – suitable for:

- NH-System size 00 ( $\rightarrow$  page 16)
- D-System ( $\rightarrow$  page 17)

Earth side: (pict. 3) with earth connection clamp (type number 502 067) – suitable for:

- Flat conductors: 9-18 mm
- Round conductors up to Ø18 mm
- Hexagonal: KS17 and KS19

Assembly of the joint (pict. 2):

All earthing cables are manufactured under observance of the required tensile load values of EN 61230. Earthing cables are made of highly flexible copper lead with cross section 25 mm<sup>2</sup> and PVC-coating.

Transitions from the part-insulated coupling (pict. 2) towards the lead coating are enclosed by a stabilising tenacious elastic and transparent sleeve.

### Installation:

Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).

### Electric short-circuit strength:

Type number 512 258: Rated voltage and rated time/peak factor: 7 kA - 0.5 s - 2.0

**Temperature range:** -25 °C up to +70 °C

Other cable lengths are available upon request.

Cable cross section [mm <sup>2</sup> ]	Cable length a [mm]	Cable length b [mm]	Cable length c [mm]	Type number
25	260	180	180	512 258
25	310	200	200	597 172

# Fully-Insulated Earthing and Short-Circuiting Device for Distribution Cabinets (Standard Model)

Earthing and short-circuiting device for low voltage distribution systems and cable distribution cabinets (pict. 1)

### Device suitable for connections:

Phase side:  $\rightarrow$  page 16-22 Earth side:  $\rightarrow$  page 24-27 (with exceptions)

### Assembly of the device:

The connection cluster (pict. 3) is compressed, bolted, and moulded with a watertight and transparent protection cover.

Transitions from the connection cluster and from the part-insulated coupling (pict. 2) towards the lead coating are enclosed by a stabilising tenacious elastic and transparent sleeve.

This mechanical kinking protection guarantees a reliable sealing against moisture ingress.

#### Installation:

Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).

### **Electric short-circuit strength:**

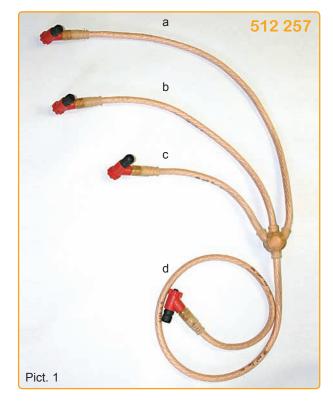
cable cross section 25 mm<sup>2</sup>: Rated voltage and rated time/peak factor: 7 kA - 0.5 s - 2.0

cable cross section 35 mm<sup>2</sup>: Rated voltage and rated time/peak factor: 10 kA - 0.5 s - 2.0

### Temperature range:

-25 °C up to +70 °C

Other cable lengths are available upon request.



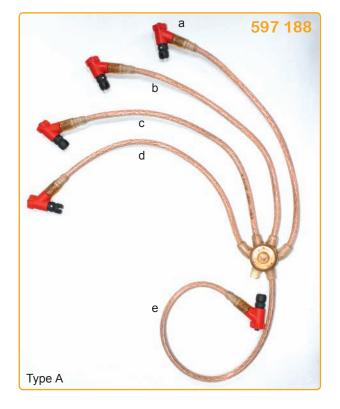


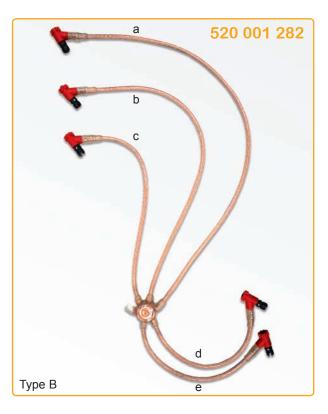




Cable cross section [mm <sup>2</sup> ]	Cable length a [mm]	Cable length b [mm]	Cable length c [mm]	Cable length d [mm]	Type number
35	720	520	320	1000	512 257
35	720	520	320	1300	597 467
35	820	570	320	1000	597 594
35	1000	1000	1000	3000	597 558

# Fully-Insulated Earthing and Short-Circuiting Device for Distribution Cabinets





Cable cross section [mm <sup>2</sup> ]	Cable length a [mm]	Cable length b [mm]	Cable length c [mm]	Cable length d [mm]	Cable length e [mm]	Design	Type number
25	500	500	500	500	600	Туре А	597 188
25	1000	750	500	400	400	Туре В	530 001 282
35	600	600	600	600	2000	Туре А	530 001 161
35	1000	1000	1000	1000	2000	Туре А	530 001 317

# Earthing Cable Extension for Fully-Insulated Earthing and Short-Circuiting Device

Earthing cable extension for fullyinsulated earthing and short-circuiting devices

Earthing cable extension suitable for: Earthing and short-circuiting devices with cable cross section 35 mm<sup>2</sup>  $\rightarrow$  page 10-11.

Assembly of the earthing cable extension: All earthing cables are manufactured under observance of the required tensile load values of EN 61230.

Earthing cables are made of highly-flexible copper lead with cross section 35 mm<sup>2</sup> and PVC-coating.

Transitions from the connection cluster and from the part-insulated coupling towards the lead coating are enclosed by a stabilising tenacious elastic and transparent sleeve.

This mechanical kinking protection guarantees a reliable sealing against moisture ingress.

### Installation:

Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).

### **Electric short-circuit strength:**

Rated voltage and rated time/peak factor: 10 kA - 0.5 s - 2.0

### Temperature range:

-25 °C up to +70 °C

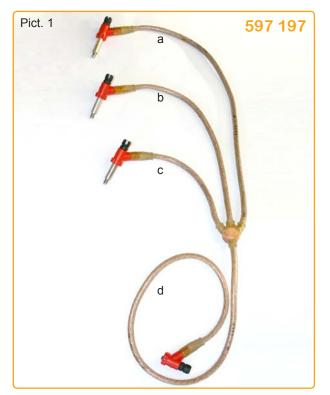
Other cable lengths are available upon request.

Cable cross section [mm <sup>2</sup> ]	Cable length [mm]	Type number
35	350	597 372
35	1500	520 001 101



# Part-Insulated Earthing and Short-Circuiting Device for Jean Müller-Disconnector SL1-3x3/3A





# Earthing and short-circuiting device for Jean Müller-Disconnector SL1-3x3/3A (pict. 1)

### Assembly of the device:

Assembly and earth connection of this device are identical with device type number 512 257  $\rightarrow$  page 10).

Phase connections (pict. 2) are part-insulated.

### Installation:

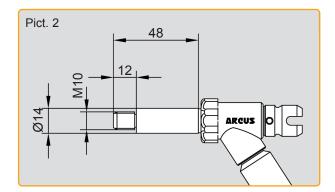
Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).

#### **Electric short-circuit strength:**

Rated voltage and rated time/peak factor: 10 kA – 0.5 s – 2.0

**Temperature range:** -25 °C up to +70 °C

Other cable lengths are available upon request.



Cable cross section	Cable length a	Cable length b	Cable length c	Cable length d	Type number
[mm <sup>2</sup> ]	[mm]	[mm]	[mm]	[mm]	
35	720	520	320	1000	597 197

## Part-Insulated Earthing and Short-Circuiting Device for Street Lighting



### Phase connection



# Earthing and short-circuiting device for street lighting

### **Device suitable for:**

Phase side: E14, E16, E18, E27 Earth side: Clamping height up to 7 mm or up to 20 mm

#### Assembly of the device:

All earthing cables are manufactured under observance of the required tensile load values of EN 61230.

Earthing cables are made of highly flexible copper lead with cross section 16 mm<sup>2</sup> and PVC-coating.

Transitions from the connection cluster and from the part-insulated coupling towards the lead coating are enclosed by a stabilising tenacious elastic and transparent sleeve.

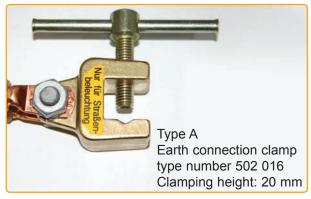
### Electric short-circuit strength:

Type number 597 440: Rated voltage and rated time/peak factor 2.3 kA - 0.5 s - 2.0

Temperature range: -25 °C up to +70 °C

Upon request other cable lengths are available.

### Earth connection





Type B Earth connection clamp type number 597 425 Clamping height: 7 mm

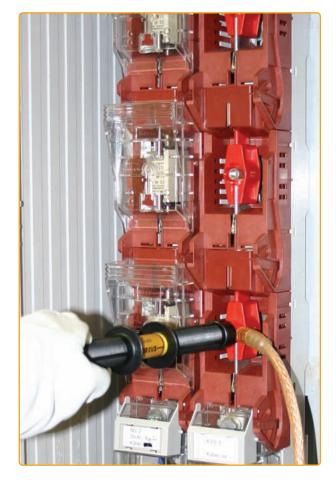
# Part-Insulated Earthing and Short-Circuiting Device for Street Lighting





Cable cross section [mm <sup>2</sup> ]	Cable length [mm]	Number of cables	Phase connection	Earth connection	Type number
16	500	2	E14	Туре А	597 408
16	500	2	E14	Туре В	597 440
16	500	2	E16	Туре А	597 409
16	500	2	E16	Туре В	597 508
16	500	2	E16	Туре А	597 593
16	500	2	E18	Туре А	597 443
16	400	2	E27	Туре А	597 124
16	500	2	E27	Туре А	597 661
16	500	2	E27	Туре В	597 468

# Cartridges for Fuse Bases (NH-System and British Standard)



### Standard model



Size	Type number
NH 00	508 141
NH 0-3	508 142
NH 1	508 151
NH 4a <sup>1)</sup>	508 143

### With grip plates



Size	Type number
NH 00	597 294
NH 0-3	597 196
NH 4a <sup>1)</sup>	597 411

# For fuse bases BS 88.5-J (British Standard)



Dual spacing, width	Type number
82 mm, 6 mm	597 047
92 mm, 8 mm	597 611

### Cartridge for insertion into fuse bases

### Material:

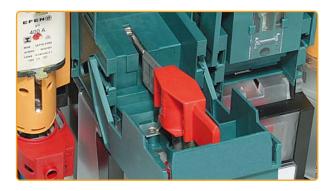
Contact parts: Copper alloy (tin-plated) or Aluminium alloy (tin-plated) Insulation: Polyamid (heat-resistant, impact-proof and shock-resistant)

### **Connection:**

Threaded connection for fully-insulated and partinsulated earthing and short-circuiting devices.

### Installation:

Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).



### With spring contacts



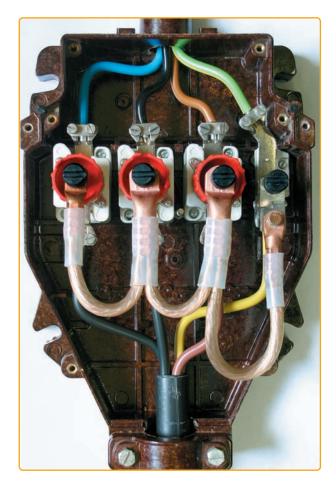
Size	Type number
NH 0-3 (6 mm)	597 302
NH 0-3 (8 mm)	597 349

### With grip plates and spring contacts



Size	Type number
NH 0-3	597 621

# DIAZED Fuse Inserts (D-System)



### With pin earthing (incoming current)



Size	Type number
E27	597 064
E33	597 063

# Threaded fuse inserts for insertion into Diazed fuse bases

### Material:

Contact parts: Copper alloy (tin-plated) Insulation: Polyamid (heat-resistant, impact-proof and shock-resistant).

#### Sizes: E27, E33

### Connection:

Threaded connection for fully-insulated and partinsulated earthing and short-circuiting devices.

### Installation:

Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).

### With ring earthing (outgoing current)



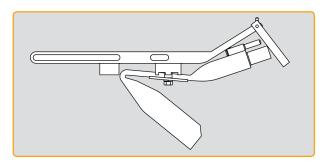
Size	Type number
E27	597 066
E33	597 065



### **Connections for Driescher-Disconnectors**



### Design: Outgoing Current



Size Type numbe	
400 A	508 148
630 A	508 149

### Earthing insert for disconnector brand Driescher (System 403)

### Material:

Contact parts: copper alloy (tin-plated) Insulation: Polyamid (heat-resistant, impact-proof and shock-resistant

### **Connection:**

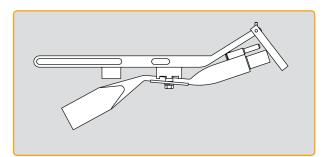
Threaded connection for fully-insulated earthing and short-circuiting devices.

### Installation:

Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).



Design: Incoming Current

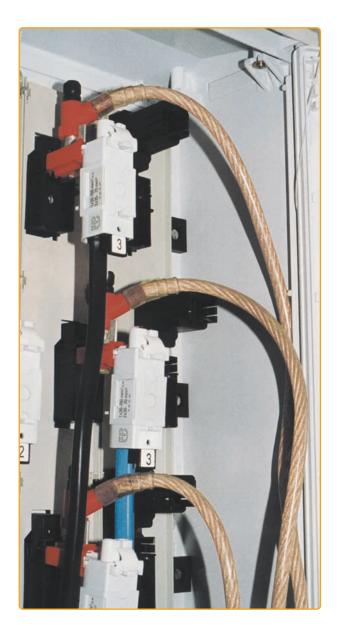


Size	Type number
400 A	597 216
630 A	597 344

Further models available upon request.



### **Connections for Jean Müller-Disconnectors**



# Earthing insert for disconnector brand Jean Müller

### Material:

Contact parts: copper alloy (tin-plated) Insulation: Polyamid (heat-resistant, impact-proof and shock-resistant

#### **Connection:**

Threaded connection for fully-insulated earthing and short-circuiting devices.

### Installation:

Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).



Description	Type number
Connection element for plug-in cable distributions brand Jean Müller	508 144

# Connections for Low Voltage Side of Transformers



# Clamps for the low voltage side of transformers

### Material:

Contact parts: Copper alloy (tin-plated)

#### **Connection:**

Threaded connection for fully-insulated earthing and short-circuiting devices.

### Installation:

Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).



Earth connection	Type number 597 465
clamp	
With plug handle mad	e of plastic for easy and
safe installation.	
Clamping range:	Flat up to 20 mm,

Round Ø9-22 mm, Ball point connector Ø20 mm



Earth connection clamp	Type number 597 489
With plug handle made safe installation.	of plastic for easy and
Clamping range:	Flat up to 20 mm, Round Ø9-22 mm, T-Bolts: 20 mm, Ball point connector Ø20 mm, Ball point connector Ø25 mm

# Adaptor for Phase Connections



### Adaptor for Phase Connections

### Material:

Contact parts: Copper alloy (tin-plated) Insulation: Polyamid (heat-resistant, impact-proof and shock-resistant)

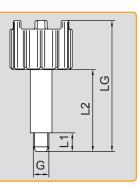
### **Connection:**

Threaded connection for fully-insulated earthing and short-circuiting devices.

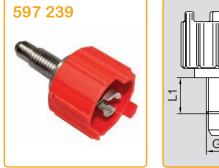
### Installation:

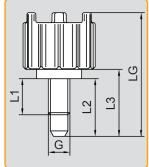
Safe and simple installation with our fullyinsulated plug handle (type number 508 145  $\rightarrow$  page 23).





G	L1 [mm]	L2 [mm]	LG [mm]	Type number
M10	12	52	85	597 199
M10	15	16	49	597 332





G		L1 [mm]	L2 [mm]	L3 [mm]	LG [mm]	Type number
M	12	20	32	37	70	597 239

### Hint:

These adaptors are suitable for different types of disconnectors. Usage needs to be examined in each case.









# Adaptor for insulated low voltage overhead line

The adaptor is suitable for connection of a fullyinsulated earthing and short-circuiting device to an insulated overhead line.

The adaptor is weather-resistant and suitable as a permanent connection for the purpose of earthing and short-circuiting, and for voltage testing.

### Assembly of the Adaptors:

Connection for voltage testing:

The small cap which is secured against loss by means of a cord, is removable to enable a voltage test (pict.1). The connection for voltage testing is shaped to be touch-proof (pict.3).

#### Threaded connection:

with anti-twist connection for fully insulated earthing and short-circuiting devices, e.g. type number 512 257 (pict.2).

Both connections are protected against soiling, ingress of moisture, and mechanical damages by plug-on caps.

Undetachable flags for phase and neutral conductor (pict.2).

### Material:

Contact parts: Copper alloy (tin-plated) Insulation (red): Protefan-coated Caps (black): Thermally highly resistant and weatherproof rubber.

### **Electric short-circuit strength:**

Rated voltage and rated time/peak factor: max. 10 kA / 0.5 s - 2.0

**Temperature range:** -25 °C up to +70 °C

# Plug Handle

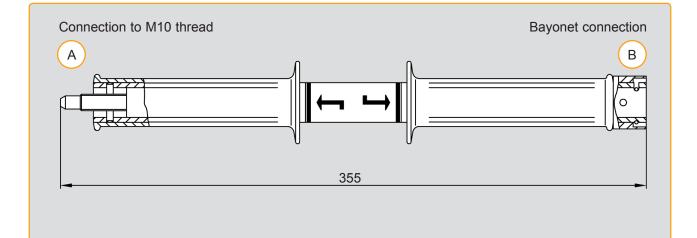


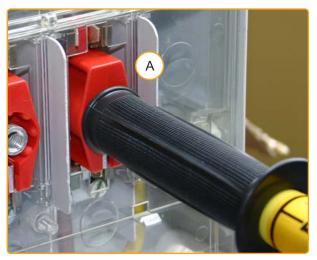
### Plug handle

Dual-purpose plug handle for safe installation of fully- and part-insulated earthing and short-circuiting devices.

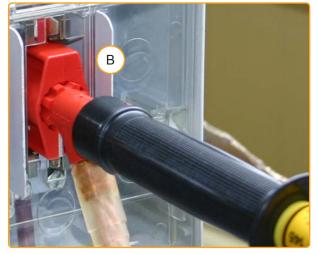
Type number 508 145







Installation of phase connection parts



Installation of earthing and short-circuiting device

# Earth Connection Clamps with Plug Handle



### Installation from top side of flat bar

# Earth connection clamps with plug handle

### Material:

Clamp head: copper alloy (tin-plated) Handle: threaded spindle with hardened conical tip

Clamp head and plug handle are insulated.

### Installation:

The plug handle is flexible and bendable for use in confined space, e.g. in closed distribution cabinets.

The width of the clamp head of approx. 20 mm requires little space to clamp it to the ground bar.



### Earth connection clamp With anti-twist connection for fully insulated earthing and short-circuiting devices. Clamping range: Flat 3-10 mm

elamping langer	
Total length [mm]	Type number
310	502 065
410	597 317



Earth connection clamp	
With connection for grooved cable lugs (type number 111 094).	
Clamping range: Flat 3-10 mm	
Total length [mm] Type number	
310	597 136



Earth connection clamp	
With connection for conductors 16-35 mm <sup>2</sup>	
(max. 1× 35 mm² H07RN-F).	
Clamping range:	Flat 3-10 mm
Total length [mm]	Type number
310	502 066

### Installation from bottom side of flat bar





Earth connection clamp	
With anti-twist connection for earthing and short- circuiting devices.	
Clamping range:	Flat 3-10 mm
Total length [mm]	Type number
290	502 064
410	597 106



Earth connection clamp		
With connection for conductors 16-35 mm <sup>2</sup> (max. 1× 35 mm <sup>2</sup> H07RN-F).		
Clamping range:	See table	
Total length [mm]	Flat [mm]	Type number
290	3-10	502 056
290	3-6	597 147



Earth connection clamp	
With threaded connection M10.	
Clamping range:	Flat 3-10 mm
Total length [mm]	Type number
290	502 055



Earth	connection	clamp
-------	------------	-------

With anti-twist connection for earthing and short-circuiting devices, with circular groove on spindle end.

Clamping range:	Flat 3-10 mm
Total length [mm]	Type number
290	597 307



Earth connection clamp	
With anti-twist connection for earthing and short- circuiting devices, Spindle position changeable by 30°.	
Clamping range:	Flat up to 25 mm
Total length [mm]	Type number
290	502 071

Further models available upon request.

# Earth connection clamps, mountable with plug handle type number 508 145











### Plug handle

Dual-purpose plug handle for safe installation of fully- and part-insulated earthing and short-circuiting devices. For detailed information  $\rightarrow$  page 23.

**Type number 508 145** 

### Earth connection clamp

With anti-twist connection for fully-insulated earthing and short-circuiting devices with connection for plug handle (type number 508 145).

Clamping range: Flat Clamping width: 30 r

Flat 2-12 mm 30 mm

Type number 515 229

### Earth connection clamp

With anti-twist connection for fully-insulated earthing and short-circuiting devices with connection for plug handle (type number 508 145).

Clamping range:Flat 3-10 mmClamping width:18 mm

Type number 597 342

### Earth connection clamp

with connection for cable lug with  $\emptyset$  9 mm palm hole with connection for plug handle (type number 508 145).

Clamping range: Clamping width: Flat 3-8 mm 20 mm

Type number 597 352

### Earth connection clamp

With anti-twist connection for fully-insulated earthing and short-circuiting devices. With connection for plug handle (type number 508 145).

Clamping range: Flat Clamping width: 22 r

Flat 3-26 mm 22 mm

# Earth connection clamps, mountable with plug handle type number 508 145



Earth connection clamp (tin plated)

For subsequent stationary installation in cable distribution cabinets. With anti-twist connection for fully- insulated earthing and short-circuiting device. With connection for plug handle type number 508 145. Clamping range: Flat 3-5 mm Clamping width: 50 mm

Type number 597 165

### Earth connections clamps, mountable with plug handle Type number 502 055 01







### Plug handle

The plug handle is flexible and bendable for use in confined space, e.g. in closed distribution cabinets.

With cone-shaped tip at end of spindle, for safe installation of earth connection clamps.

### Type number 502 055 01

### Earth connection clamp

With anti-twist connection for fully- insulated earthing and short-circuiting device. With connection for plug handle type number 502 055 01.

Clamping range:Flat 3-10 mmClamping width:16 mm

Type number 597 173

### Earth connection clamp

With anti-twist connection for fully- insulated earthing and short-circuiting device. With connection for plug handle type number 502 055 01.

Clamping range: Clamping width: Flat 3-10 mm 16 mm



# Earth Connection Clamps without Plug Handle

### Earth connection clamps, mountable with plug handle type number 597 301





### Cable end sleeves

### Plug handle

The plug handle is flexible and bendable for use in confined space, e.g. in closed distribution cabinets.

With circular edge at end of spindle, for safe installation of earth connection clamps.

**Type number 597 301** 

### Earth connection clamp

with anti-twist connection for fully-insulated earthing and short-circuiting devices. With connection for plug handle type number 597 301.

Clamping range: Flat 3-10 mm Clamping width:

25 mm

**Type number 597 161** 



### Cable end sleeve (insulated)

For earthing of disconnected cable loops. With anti-twist connection for fully-insulated earthing and short-circuiting devices. With 1 contact screw KS6.

Conductor cross section 25-150SM-185RM,SM(r) 16-50RE-150SE, [mm<sup>2</sup>]: 185SE (90°)

**Type number 508 147** 

### Cable end sleeve (insulated)

For earthing of disconnected cable loops. With anti-twist connection for fully-insulated earthing and short-circuiting devices. With 1 contact screw KS4.

Conductor cross section [mm<sup>2</sup>]: 2.5-16



# Earth Connection Clamps without Plug Handle

### Earthing flanges





### Earthing socket



Earthing flange (tin-plated)

For subsequent stationary installation in cable distribution cabinets. With anti-twist connection for fully-insulated earthing and short-circuiting device. With threaded connection M10.

Type number 597 426

### Earthing flange (tin-plated)

For subsequent stationary installation in cable distribution cabinets. With anti-twist connection for fully-insulated earthing and short-circuiting device. With threaded connection M10.

**Type number 597 358** 



Earthing socket (tin-plated)

with fixing attachment for subsequent stationary installation in cable distribution cabinets. With anti-twist connection for fully-insulated earthing and short-circuiting device.

With 2 bolts KS17. Clamping range:

Earth band 30×3 mm

Type number 515 228

### Transport Cases for Free Kitting



#### Transport case

Color: red

Type number 615 059 Dimensions WxDxH [mm]: 390×240×110 Robust case made of steel plate with 2 hinges and 3 compartments

For instance to take up:

2× three-phase earthing and short-circuiting device (e.g. type number 512 257)

2× Earth connection clamp (e.g. type number 502 064)

3-6× cartridges (e.g. type number 508 142)

1× plug handle (e.g. type number 508 145)



### Transport case

Type number 615 053

Dimensions WxDxH [mm]: 440×330×130 Robust case made of steel plate with 2 hinges and 5 compartments Color: red For instance to take up:

- 2× three-phase earthing and short-circuiting device type number 512 257
- 2× three-phase earthing and short-circuiting device type number 512 258
- 2× Earth connection clamp (e.g. type number 502 064)
- 3× Driescher-earthing insert (e.g. type number 508 148)
- 6× cartridge (e.g. type number 508 141)
- 6× cartridge (e.g. type number 508 142)
- 6× Jean Müller-earthing insert type number 508 144
- 1× plug handle type number 508 145



### Transport case

Type number 615 060

Dimensions WxDxH [mm]: 450×250×195 Robust case made of steel plate with 2 hinges and 5 compartments Color: red

For instance to take up:

- 2× three-phase earthing and short-circuiting device type number 512 257
- 2× three-phase earthing and short-circuiting device type number 512 258
- 2× Earth connection clamp (e.g. type number 502 064)
- 3× Driescher-earthing insert (e.g. type number 508 148)
- 6× cartridge (e.g. type number 508 141)
- 6× cartridge (e.g. type number 508 142)
- 6× Jean Müller-earthing insert type number 508 144
- 6× cable end sleeve type number 508 147
- 1× plug handle type number 508 145

# Earthing Sets



### Earthing Set

consisting of: 1× transport case 1× three-phase earthing and short-circuiting device 1× Earth connection clamp 502 064 1× Earth connection clamp 502 065 3× cartridge 3× cartridge 1× plug handle

1× instruction for use

### Earthing Set

consisting of: 1× transport case 1× three-phase earthing and short-circuiting device 1× three-phase earthing and short-circuiting device 1× Earth connection clamp 502 064 1× Earth connection clamp 502 065 3× cartridge 3× cartridge 4× earthing socket 4× cable end sleeve 1× plug handle 1× T-box wrench KS6 1× instruction for use



### Earthing Set

- consisting of: 1× transport case
- 2× three-phase earthing and short-circuiting device
  - 2× Earth connection clamp
- 597 074
- 2× Earth connection clamp
- 502 065
- 6× cartridge
- 3× adaptor for fuse railsr 4× cable end sleeve
- 4× cable end sie 1× plug handle
- 1× T-box wrench KS6
- 1× instruction for use

- Type number 597 392
- Type number 615 059 Type number 512 257 Type number

Type number

Type number 508 141 Type number 508 142 Type number 508 145 Type number 132

### Type number 597 462

Type number 615 053 Type number 512 257 Type number 512 258 Type number

Type number

Type number 508 141 Type number 508 142 Type number 515 228 Type number 508 147 Type number 508 145 Type number 620 157 Type number 132

### Type number 597 466

Type number 615 060 Type number 597 467 Type number

Type number

Type number 508 142 Type number 597 239 Type number 508 147 Type number 508 145 Type number 620 157 Type number 132



Capacitive Voltage Detectors and Voltage Detection Systems

### Catalogues "Safety Equipment"



Fully-Insulated and Part-Insulated Earthing and Short-Circuiting Devices for Low Voltage Application



Safety Equipment for Railway Systems



Portable and Stationary Earthing Lances



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