



- simple, secure, quick to assemble
  - solution for entire cross-section range
    - only standard tool required
      - unlimited shelf life
        - type tested to CENELEC HD 629.1

Systems For Professionals

**CELLPACK**  
Electrical Products

### **Perfect connection** **Profit from innovation**

Cable accessories are indispensable for a high quality cable network. They must guarantee the same operational security as the cable itself. Due to the high costs incurred by energy suppliers for their medium voltage networks, outages are to be avoided wherever possible. Therefore it is of utmost importance to energy suppliers that cable accessories are **secure, quick** to implement and as **simple** as possible. Innovative solutions are in demand, particularly for medium-voltage networks where assembly defects, resulting in high costs, can be reduced drastically.

Cellplux plug-in cable connectors are the result of over five years of intensive development work at Cellpack and they represent the perfect connector system for the medium voltage field.

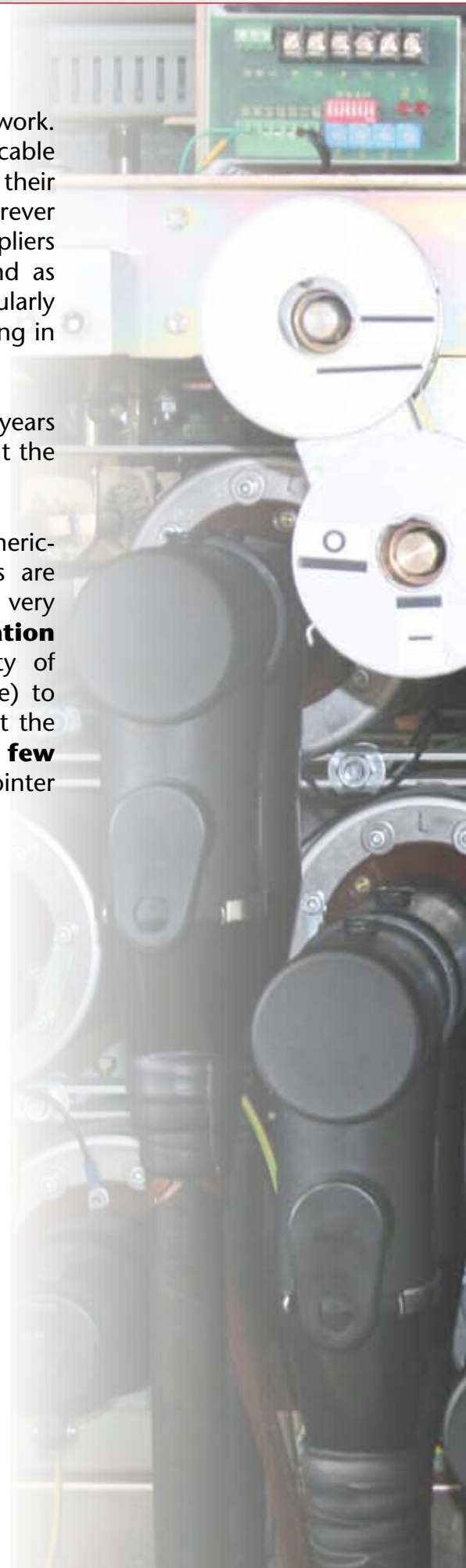
They have been especially developed for connecting polymeric-insulated medium-voltage cables. The system components are harmoniously matched to one another so that assembly is very **simple, secure** and done **quickly**. The innovative **integration concept** for this type of connector permits the majority of assembly steps (formerly performed at the construction site) to be accomplished in advance, under controlled conditions, at the Cellpack factory where they can be tested electrically. **Only a few remaining assembly steps** are performed on-site by the jointer himself.

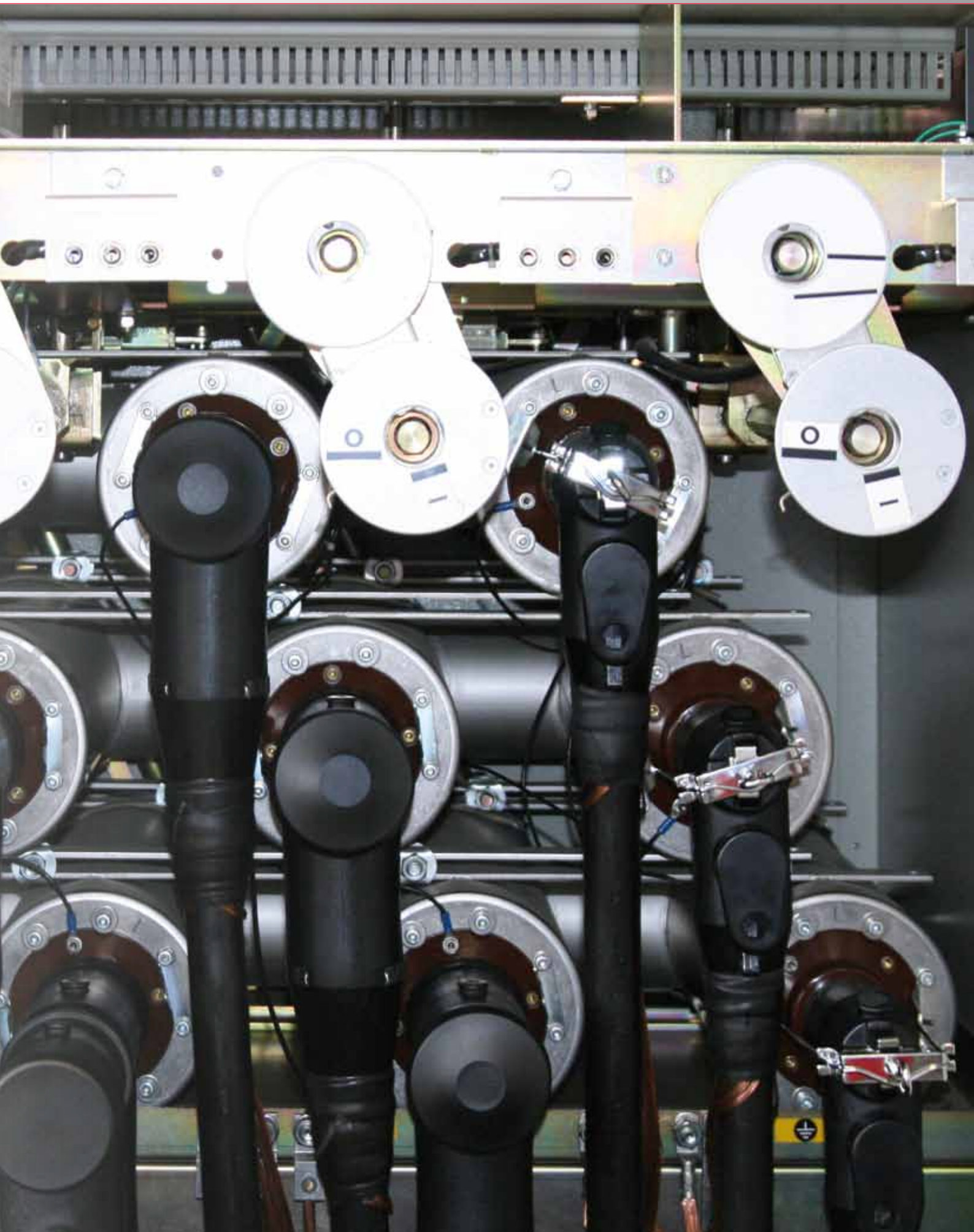
#### **Your advantages**

- great operational security
- simple, secure and quick to assemble
- only standard tool required
- applicable to tight spaces
- solution for entire cross-section range
- mechanically robust
- unlimited shelf life
- each unit tested electrically

#### **Your profit**

- reduced costs for assembly, inventory and transport
- reduced operational costs for the cable network
- security





## Proven system

### Insulation materials

The insulating materials used in Cellplux cable connectors have outstanding electrical and mechanical characteristics. They are manufactured from high voltage resistant EPDM in a controlled injection moulding process. The individual material components have been subjected to years of electrical and mechanical testing and have proven themselves in actual applications for decades.

### Stress control

Our refractive stress control system, proven millions of times around the world, is already integrated in Cellplux. Faulty cable preparation and faulty stress-control body positioning are eliminated, thus drastically reducing the number of potential mounting mistakes.



### Shear bolt cable lug and shear bolt contact bolt

Cellplux plug-in cable connectors have a proven shear bolt connection system.

The diameter of the cable lug is designed to ensure a reliable connection for copper conductors as well as aluminium conductors over the entire range of cross-sections. Its contact screws have been optimised so that only a single conventional tool is necessary for assembly throughout the entire cross-section range. This proven system is already integrated into the CTS plug-in contact bolts, thus eliminating incorrect assembly of cable plug-in components.

### Contact security

Cellplux plug-in cable connectors have a 3 mm thick shield made of semi-conductive EPDM rubber. All models have successfully passed the «detectable current error» test at 6 kV.



**CWS 250A/M | CGS 250A/M****Separable cable connectors for plastic-insulated single-core cables****Application**

Cellplux straight and elbow separable cable connectors are advantageous for connecting all polymeric insulated single-conductor cables (PVC, PE, XLPE, EPR) with various types of semi-conductor layers (graphitized, pull-off or peel-off) as well as shield designs (wire or tape shield) to switching equipment and transformers having plug-in connections for type A outer cone system terminals (per EN 50180, EN 50181 and DIN 47636) up to a maximum network voltage of 24 kV.

**Characteristics**

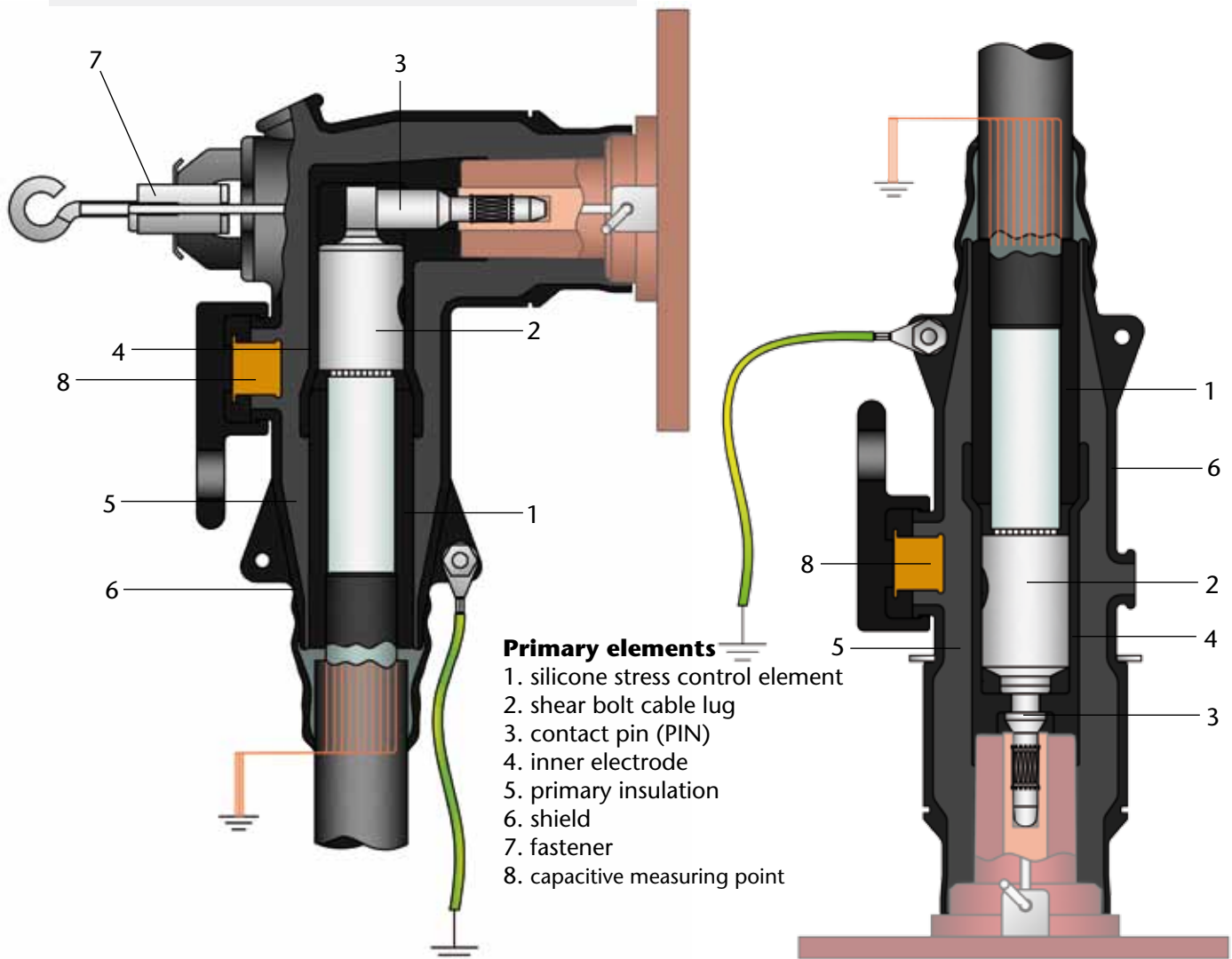
- quick, safe and easy assembly
- with capacitive measuring point
- each piece pre-tested
- outer semi-conducting layer made of semi-conductive EPDM provides protection from exposed electrical parts
- cable sheath insulation fault test may be performed under voltage
- for both copper and aluminium conductors
- suitable for a wide range of applications due to integrated screw cable lug

**Testing**

- plug-in connection type-tested per CENELEC HD 629. 1

**Scope of delivery**

- set of 3 separable cable connectors
- silicone stress-control elements
- earthing kit
- assembly accessories
- screw cable lug for main conductor
- assembly instructions

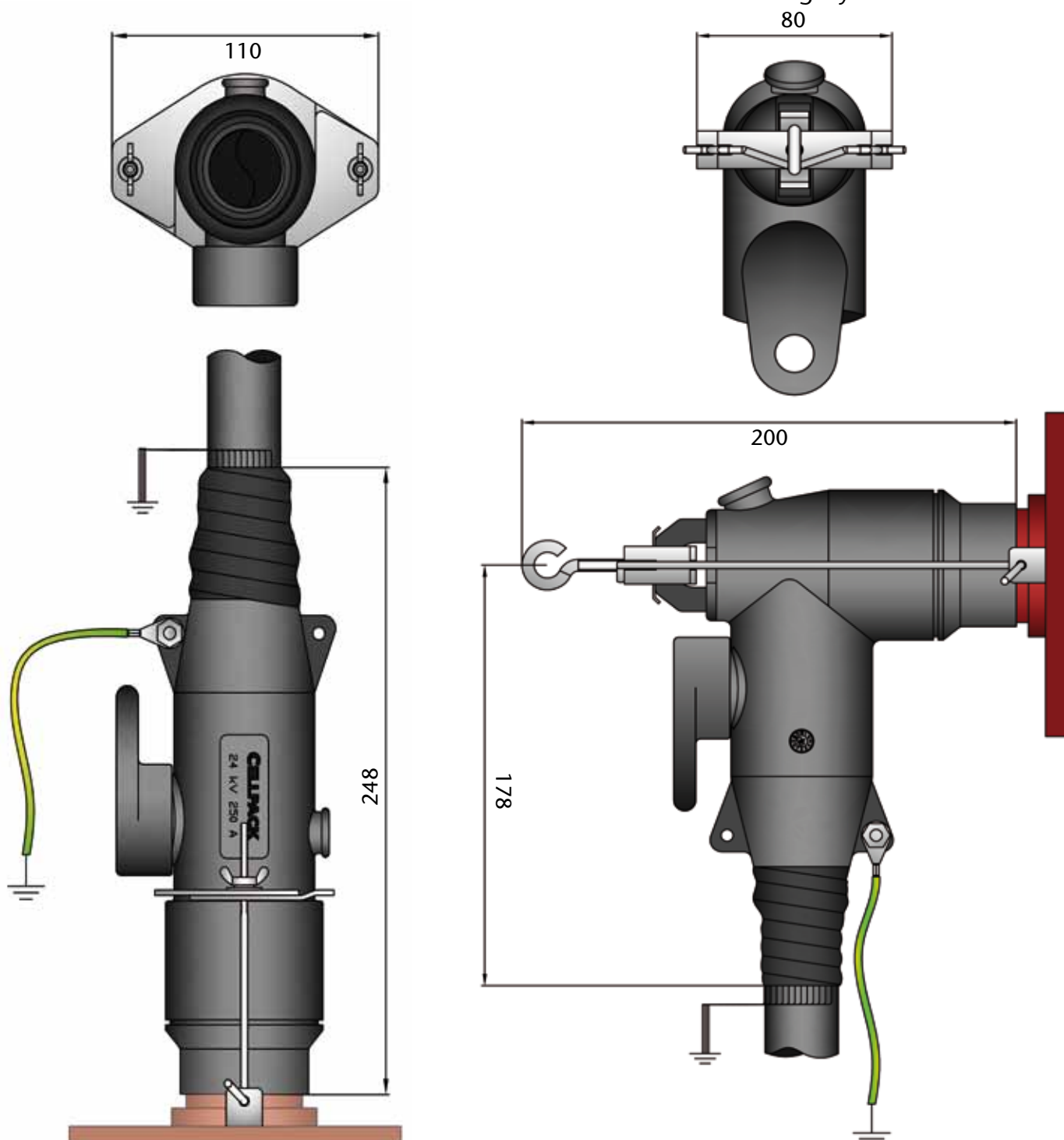


## Order data

Type	12 kV Q mm <sup>2</sup>	17,5 kV Q mm <sup>2</sup>	24 kV Q mm <sup>2</sup>	Ø1 mm	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 12.7/22 (24)kV</b>					
CWS 250A 24kV 16-95 M EGA	50 - 95	25 - 95	16 - 95	14.7	295167
CWS 250A 24kV 70-150 M EGA	120 - 150	95 - 150	70 - 150	19.9	293762
CGS 250A 24kV 25-95 M EGA	50 - 95	25 - 95	25 - 95	14.7	295283
CGS 250A 24kV 70-150 M EGA	120 - 150	95 - 150	70 - 150	19.9	293797

Q: nom. cross-section – for specific correlation see insulated diameter

Ø1: minimum insulated diameter after removal of the outer conducting layer



## CVS 250A 24 kV

### Plug-in connector piece

#### Application

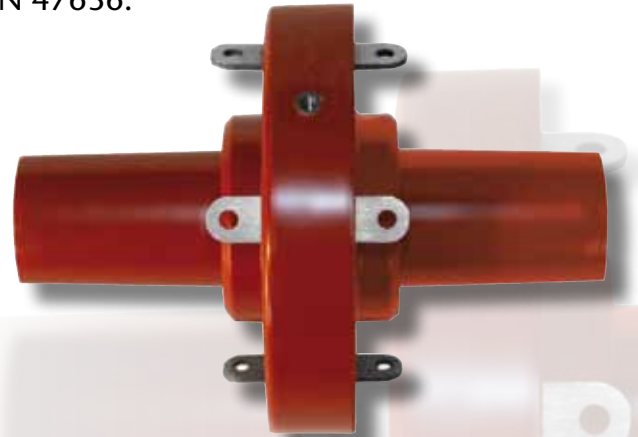
The CVS plug-in connector element is suitable for the connection of two elbow and/or straight separable CWS 250A or CGS 250A connectors. Its dimensions correspond to type A outer cone systems according to EN 50180, EN 50181 and DIN 47636.

#### Characteristics

- quick, safe and easy assembly
- few components
- submersible
- each piece pre-tested

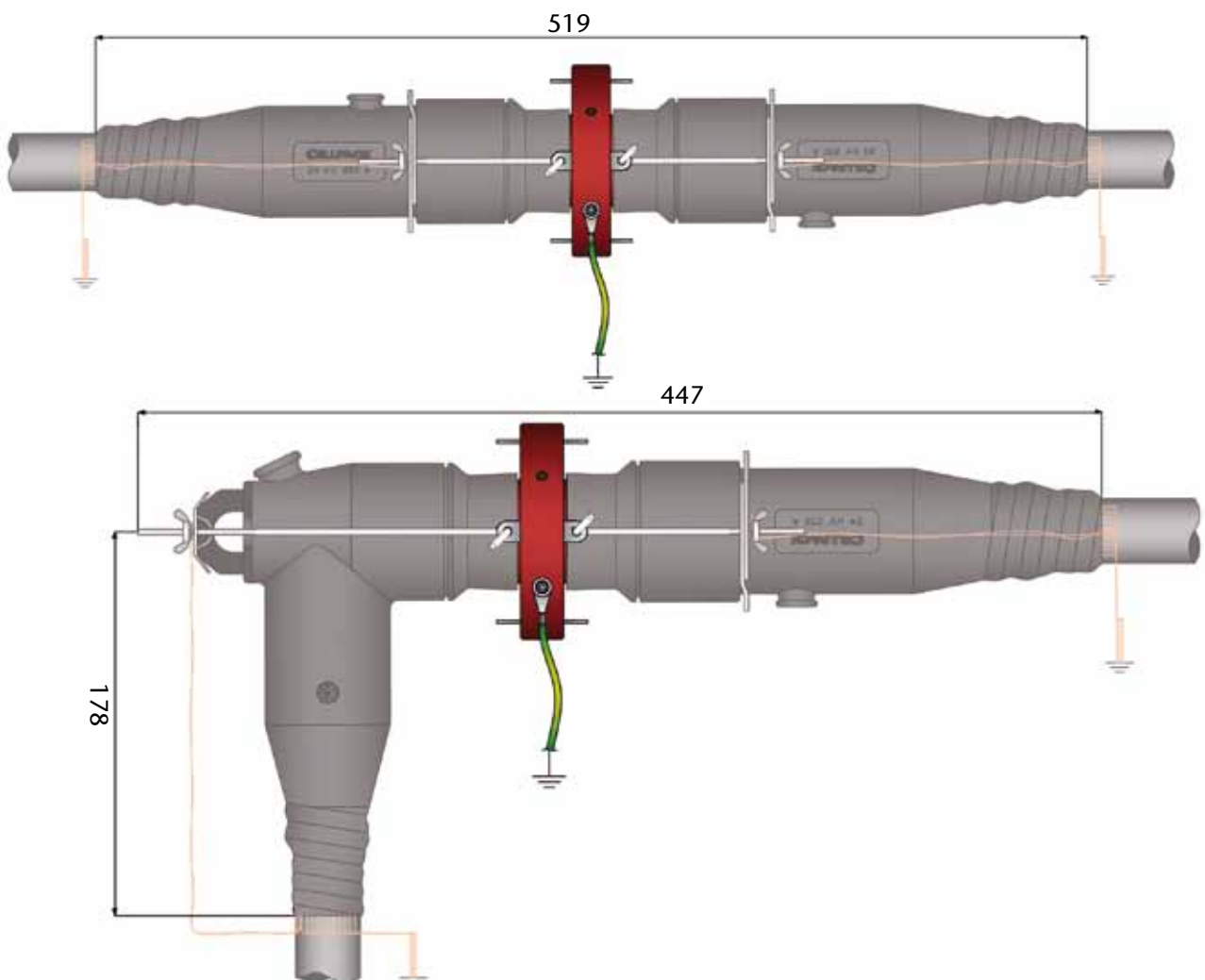
#### Scope of delivery

- set of 3 connector pieces, electrically tested
- ancillary components and assembly materials
- assembly instructions



#### Order data

Type	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12) - 12.7/22 (24) kV</b>	
<b>CVS 250A 24kV</b>	<b>225844</b>



**CWS 400A 24kV | CWS 400A 36kV**

**Elbow separable cable connectors for plastic-insulated single-core cables**

**Application**

Cellplux elbow separable cable connectors are suitable for connecting all plastic-insulated single-core cables (PVC, PE, XLPE, EPR), with different semi-conducting layers (graphited, pull-off or peelable) and shield designs (wire or strap shield), onto switching devices and transformers up to a maximum mains voltage of 36kV, with female connectors for type B bushings according to the standards EN 50180, EN 50181 and DIN 47636.

**Characteristics**

- quick, safe and easy assembly
- with capacitive measuring point
- each piece pre-tested
- outer semi-conducting layer made of semi-conductive EPDM provides protection from exposed electrical parts
- cable sheath insulation fault test may be performed under voltage
- for both copper and aluminium conductors
- suitable for a wide range of applications due to integrated screw cable lug

**Testing**

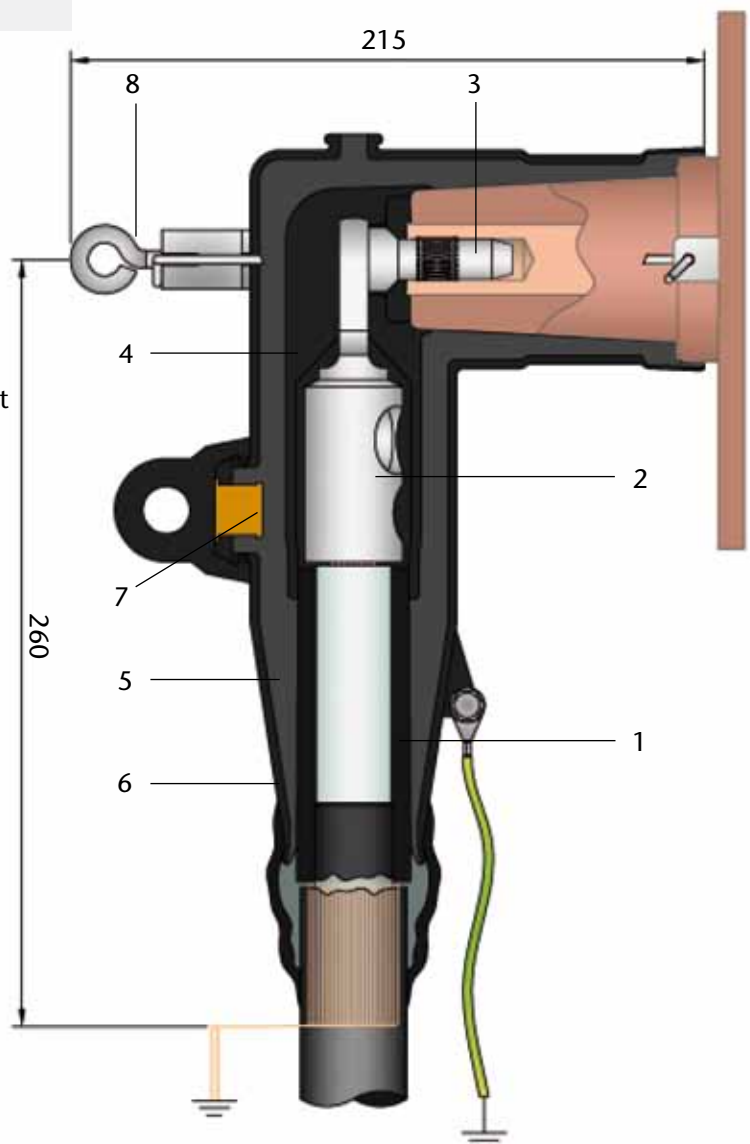
- plug-in connections, type-tested in accordance with CENELEC HD 629. 1 (DIN VDE 0278, part 629-1)

**Scope of delivery**

- set of 3 separable cable connectors
- silicone stress-control elements
- earthing kit
- assembly accessories
- screw cable lug for main conductor
- assembly instructions

**Primary elements**

1. silicone stress control element
2. shear bolt cable lug with integrated bracket
3. Contact pin (PIN)
4. Inner semiconducting layer
5. Main insulation body
6. Shielding
7. capacitive measuring point
8. Fastening device

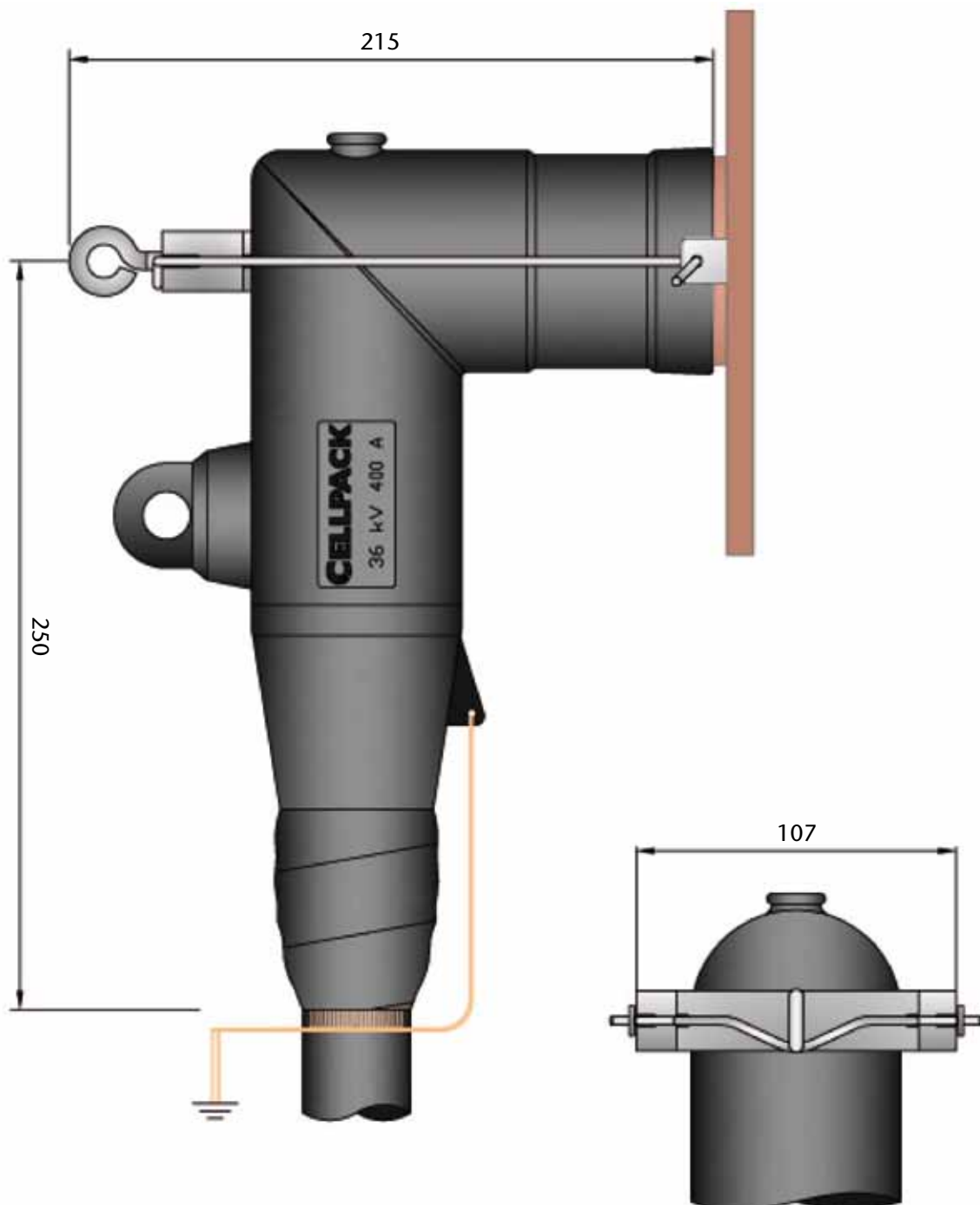


**Order data**

Type	12 kV Q mm <sup>2</sup>	17,5 kV Q mm <sup>2</sup>	24 kV Q mm <sup>2</sup>	36 kV Q mm <sup>2</sup>	Ø1 mm	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 12.7/22 (24)kV</b>						
CWS 400A 24kV 25-70/EGA	50 - 95	25 - 95	25 - 70	---	14.7	250720
CWS 400A 24kV 95-240/EGA	150 - 240	120 - 240	95 - 240	---	22	246176
<b>U<sub>0</sub>/U (U<sub>m</sub>) 12/20 (24)kV - 19/33 (36)kV</b>						
CWS 400A 36kV 50-95/EGA	---	---	95	50 - 95	22	250726
CWS 400A 36kV 150-240/EGA	---	---	240	150 - 240	30.8	247102

Q: nominal cross section – for clear assignment, see diameter over core insulation

Ø1: minimum diameter over core insulation after removal of the outer semi-conducting layer



**CTS 630A 24 kV | CTS 630A 36 kV**

**T-separable cable connectors for polymeric insulated single-conductor cables**

**Application**

CTS shear bolt Cellplux separable cable connectors are advantageous for connecting all polymeric insulated single-conductor cables (PVC, PE, XLPE, EPR) with various types of semi-conducting layers (graphitized, fully bonded or peel-off) as well as shield designs (wire or tape shield) to switching equipment and transformers having plug-in connections for type C outer cone system terminals (per EN 50180, EN 50181) up to a maximum network voltage of 36 kV.

**Characteristics**

- quick, safe and easy assembly
- with capacitive measuring point
- each piece pre-tested
- outer semi-conducting layer made of semi-conductive EPDM provides protection from exposed electrical parts
- cable sheath insulation fault test may be performed under voltage
- for both copper and aluminium conductors
- suitable for a wide range of applications due to integrated screw cable lug

**Testing**

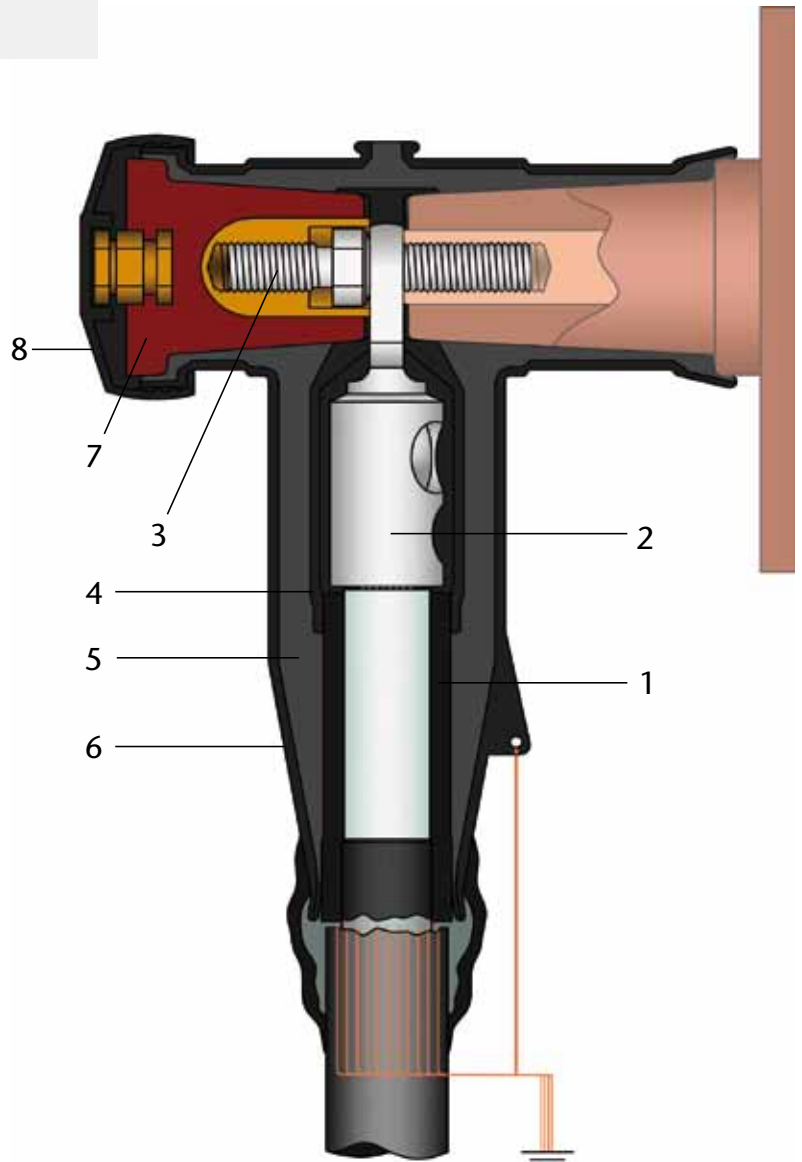
- plug-in connection type-tested per CENELEC HD 629. 1

**Scope of delivery**

- set of 3 separable cable connectors
- silicone stress-control elements
- earthing kit
- assembly accessories
- screw cable lug for main conductor
- assembly instructions

**Primary elements**

1. silicone stress control element
2. shear bolt cable lug with shear-off screw and integrated holder
3. contact bolt with shear-off screw
4. inner electrode
5. primary insulation
6. shield
7. screw isolating plug with capacitive test point
8. protective cap

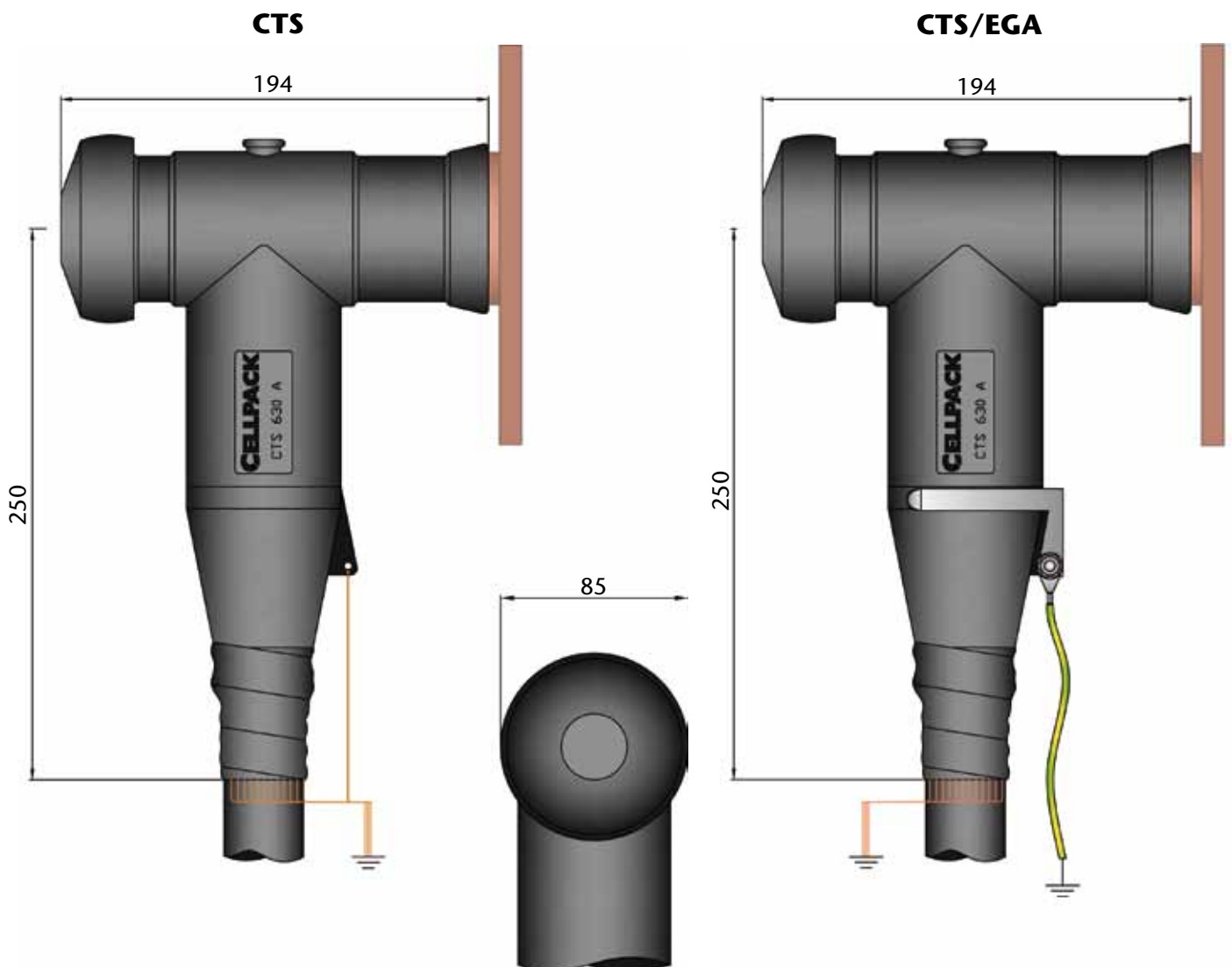


**Order data**

Type	12 kV Q mm <sup>2</sup>	17,5 kV Q mm <sup>2</sup>	24 kV Q mm <sup>2</sup>	36 kV Q mm <sup>2</sup>	Ø1 mm	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 12.7/22 (24)kV</b>						
CTS 630A 24kV 25-70 EGA	50 - 95	25 - 95	25 - 70	---	14.7	250711
CTS 630A 24kV 95-240 EGA	150 - 240	120 - 240	95 - 240	---	22	220775
CTS 630A 24kV 240-300 EGA	240 - 400	240 - 300	240 - 300	---	23.7	302732
<b>U<sub>0</sub>/U (U<sub>m</sub>) 12/20 (24)kV - 19/33 (36)kV</b>						
CTS 630A 36kV 50-95 EGA	---	---	95	50 - 95	22	250715
CTS 630A 36kV 95-150 EGA	---	---	95 - 240	95 - 150	22	256010
CTS 630A 36kV 150-240 EGA	---	---	240	150 - 240	30.8	224826
CTS 630A 36kV 240-400 EGA	---	---	300 - 400	240 - 400	31.5	256328

Q: nom. cross-section – for specific correlation see insulated diameter

Ø1: minimum insulated diameter over insulation after removal of the outer semi-conducting layer



## CKS 630A up to 24 kV

### Coupling connector

#### Application

The CKS Coupling connector is intended for the connection of two CTS separable cable connectors up to 24 kV at up to a rated current of 630A. The dimensions of the longer outer cone corresponds to type C outer cone systems per EN 50180, EN 50181.



#### Characteristics

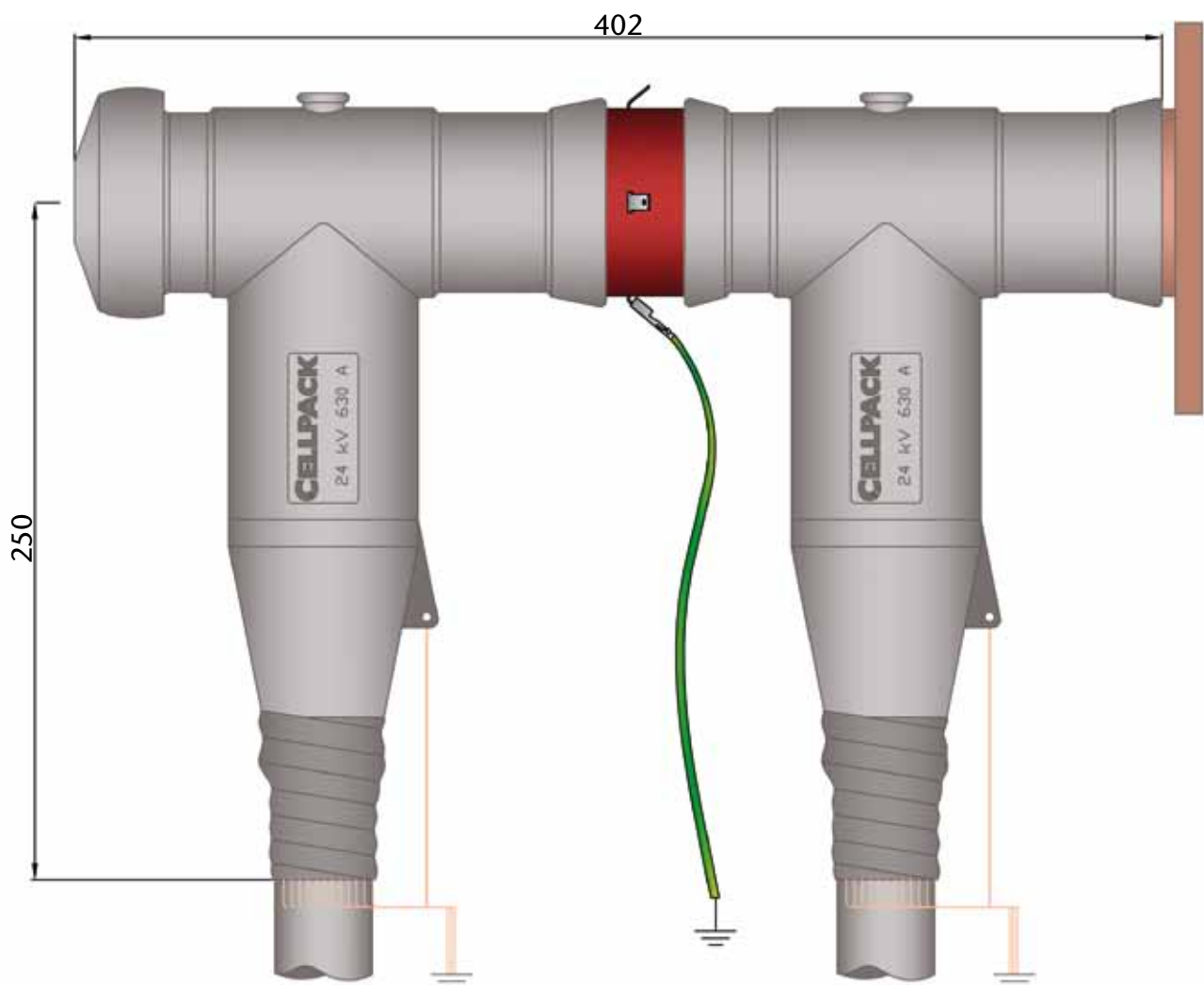
- quick, safe and easy assembly
- few components
- submersible
- each piece pre-tested

#### Scope of delivery

- set of 3 coupling pieces, electrically tested
- assembly accessories
- assembly instructions

#### Order data

Type	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 12.7/22 (24)kV</b>	
<b>CKS 630A 24 kV</b>	<b>224853</b>



**CTKS 630A 24kV | CTKS 630A 36kV****T-separable coupling connector****Application**

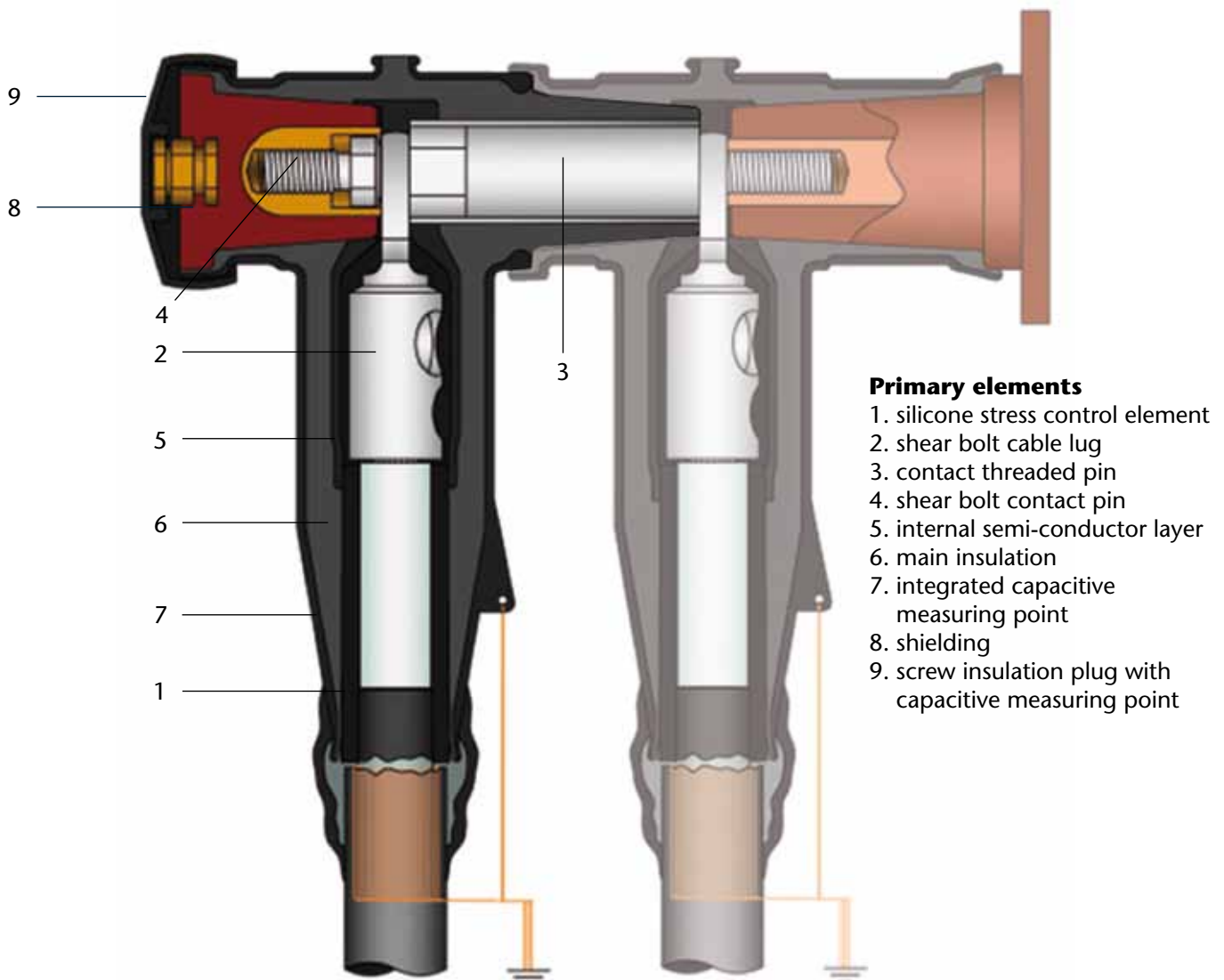
The CTKS coupling connectors are suitable for connecting all plastic-insulated single-core cables (PVC, PE, XLPE, EPR), with different semi-conducting layers (graphited, pull-off or peelable) and shield designs (wire or strap shield), to the back of Cellplux separable cable connectors, model CTS 630A 24 kV and 36 kV.

**Characteristics**

- quick, safe and easy assembly
- with capacitive measuring point
- each piece pre-tested
- outer semi-conducting layer made of semi-conductive EPDM provides protection from exposed electrical parts
- cable sheath insulation fault test may be performed under voltage
- for both copper and aluminium conductors
- suitable for a wide range of applications due to integrated screw cable lug

**Scope of delivery**

- set of 3 separable cable connectors
- silicone stress-control elements
- earthing kit
- assembly accessories
- screw cable lug for main conductor
- coupling device
- assembly instructions

**Primary elements**

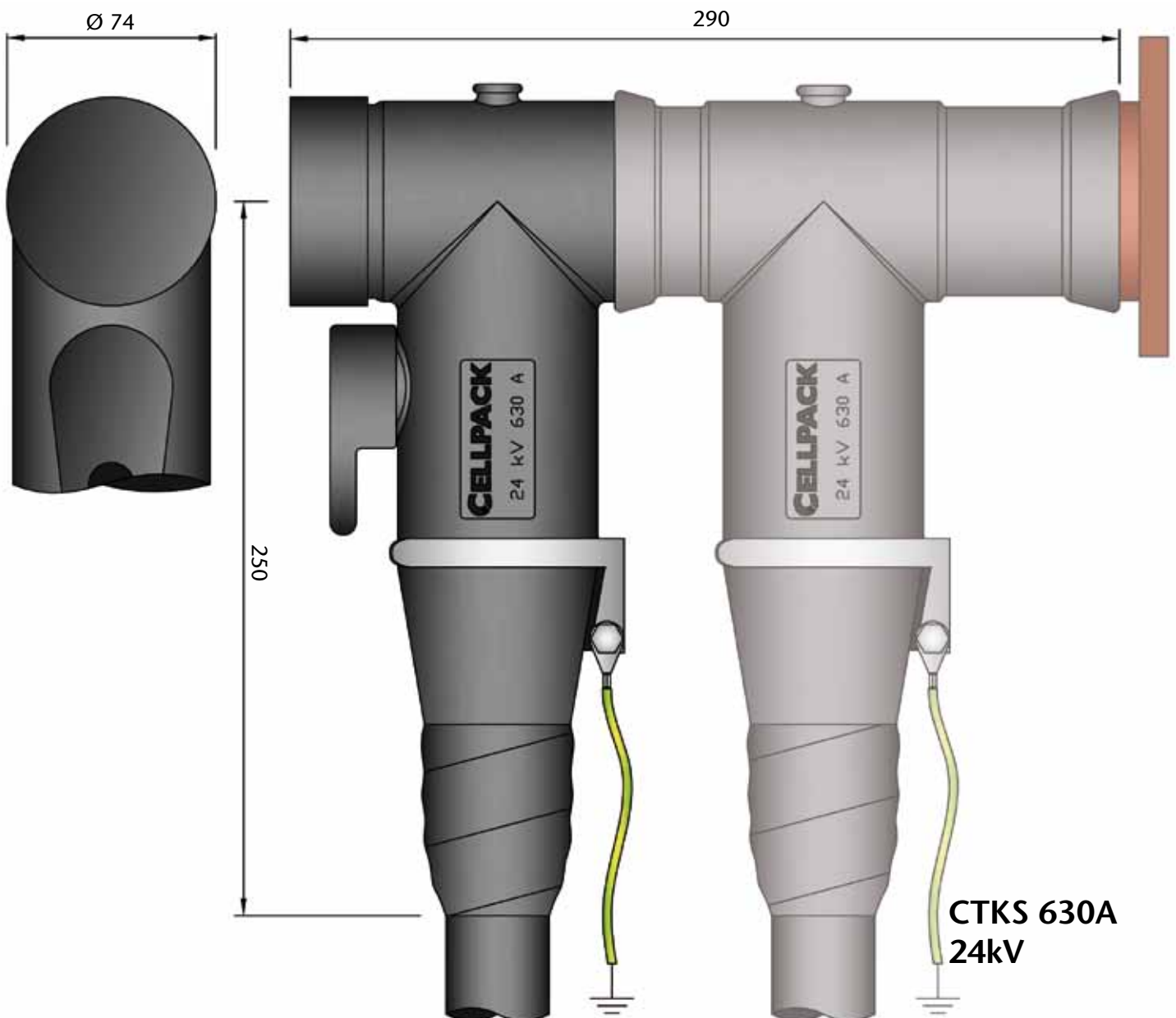
1. silicone stress control element
2. shear bolt cable lug
3. contact threaded pin
4. shear bolt contact pin
5. internal semi-conductor layer
6. main insulation
7. integrated capacitive measuring point
8. shielding
9. screw insulation plug with capacitive measuring point

## Order data

Type	12 kV Q mm <sup>2</sup>	17,5 kV Q mm <sup>2</sup>	24 kV Q mm <sup>2</sup>	36 kV Q mm <sup>2</sup>	Ø1 mm	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 12.7/22 (24)kV</b>						
CTKS 630A 24kV 25-70 EGA	50 - 95	25 - 95	25 - 70	---	14.7	256838
CTKS 630A 24kV 95-240 EGA	150 - 240	120 - 240	95 - 240	---	22	256839
<b>U<sub>0</sub>/U (U<sub>m</sub>) 12/20 (24)kV - 19/33 (36)kV</b>						
CTKS 630A 36kV 50-95	---	---	95	50 - 95	22	257581
CTKS 630A 36kV 150-240	---	---	240	150 - 240	30.8	257582

Q: nominal cross section – for clear assignment, see diameter over core insulation

Ø1: minimum diameter over core insulation after removal of the outer semi-conducting layer



**CTKSA Class1 | CTKSA Class2**

**Coupling surge arrester**

**Application**

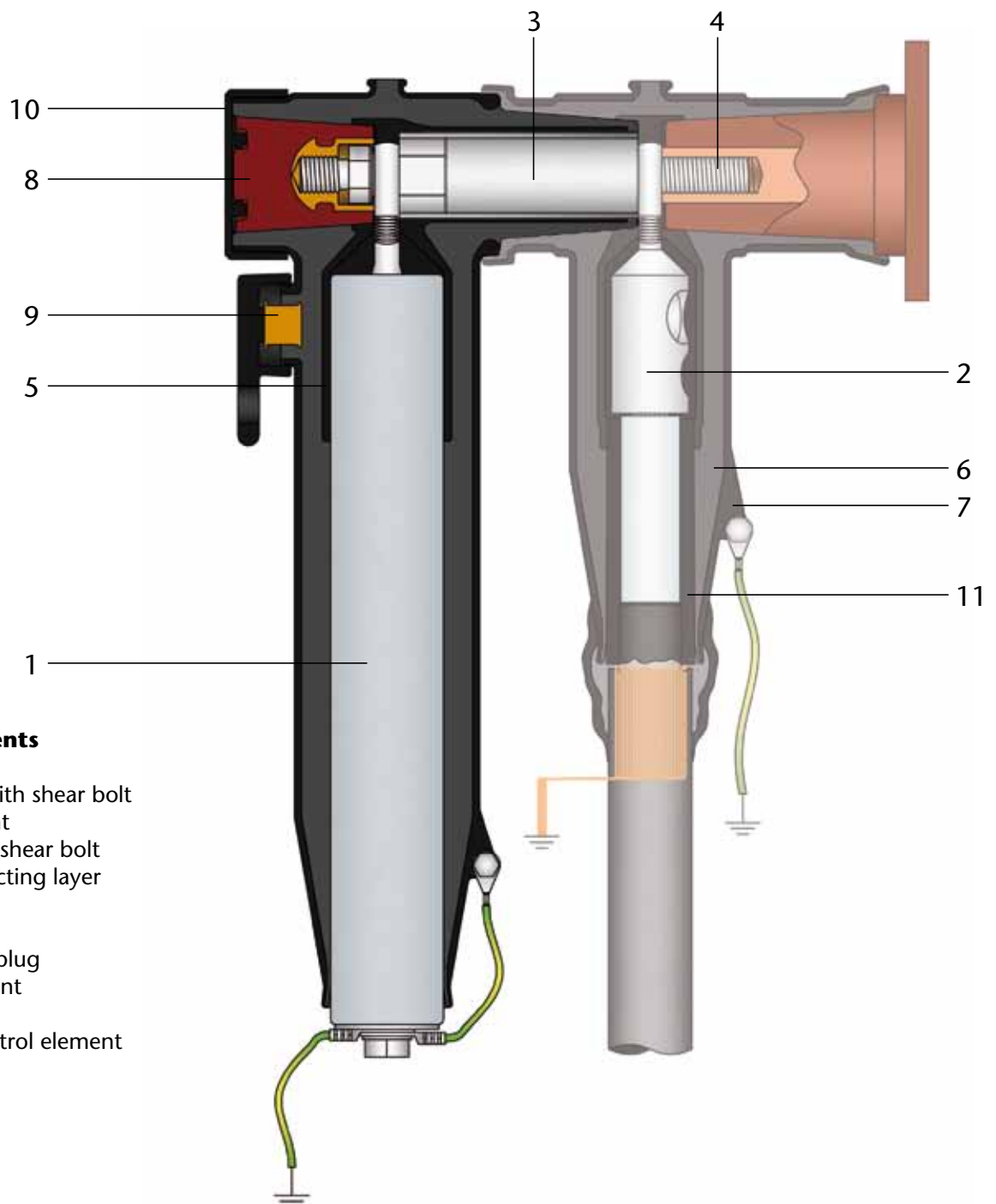
The CTKSA surge arrester is designed for the protection of encapsulated medium voltage installations with a maximum operating voltage of 34kV. Its compact design allows direct connection to double-row CTS 630A screw plugs and complies with International Standard IEC 60099-4.

**Characteristics**

- quick, safe and easy assembly
- with capacitive measuring point
- each piece pre-tested
- outer semi-conducting layer made of semi-conductive EPDM

**Scope of delivery**

- set of three surge arresters, electrically tested
- assembly accessories
- secondary components
- assembly instructions



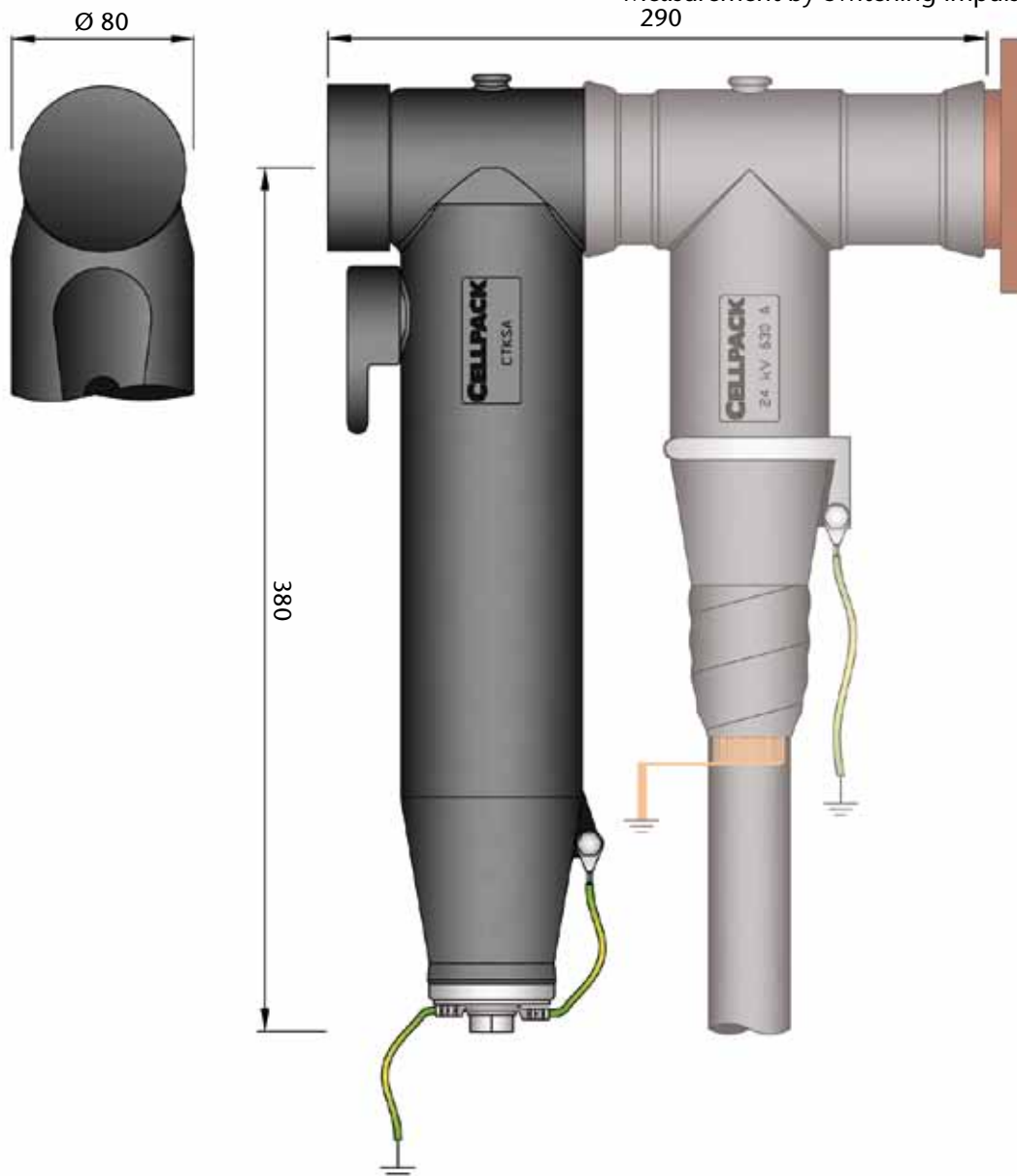
**Primary Components**

1. surge arester
2. screw cable lug with shear bolt
3. connector element
4. contact pins with shear bolt
5. inner semi-conducting layer
6. main insulation
7. shielding
8. screw-in dummy plug
9. capacitive test point
10. protective cap
11. silicon stress control element

## Order data

	CTKSA 12kV	CTKSA 17kV	CTKSA 19,5kV	CTKSA 24kV	CTKSA 34kV
Art.-No.	262054	262055	262816	262056	301492
Class	1	1	1	1	2
Nominal leakage current I [kA]	10	10	10	10	10
Rated voltage Ur [kV]	15	21	24	30	42
Maximum Operating Voltage Uc [kV]	12.7	17	19.5	24	34
Partial discharge Uc [pC]	< 5	< 5	< 5	< 5	< 5
Residual voltage [kV] at:					
Steep current impulse 1/20 $\mu$ s	53	74.2	84.8	105.9	120.4
Switching impulse current 125 A	35.8	50.1	57.3	71.7	84*
Switching impulse current 500A	38.2	53.5	61.2	76.5	89.6
Lightning impulse current 8/20 $\mu$ s	49.5	69.3	79.2	99	108.5

\*Measurement by Switching impulse current 250 A  
290



## CIK

### Voltage-proof insulating cap

#### Application

The CIK voltage-proof insulation cap provides electrical insulation for types A 250A and C 630A bushings in encapsulated substations and transformers up to 36kV, in compliance with EN 50180 and EN 50181.

#### Characteristics

- easy assembly
- protection from exposed electrical parts
- submersible

#### Scope of delivery

- 3x voltage-proof insulating caps
- assembly accessories
- assembly instructions

#### Order data

Type	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 12.7/22 (24)kV</b>	
CIK 250A 24kV	265023
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 19/33 (36)kV</b>	
CIK 630A 36kV	265024



## ZS - CTS

### Accessory kit for type CTS 630A Cellplux separable cable connectors

#### Application

The ZS-CTS accessory kit is designed for the reinstallation of separable cable connectors in substations and transformers with bushings for type C outer cone systems complying with EN 50180, EN 50181. The inclusion of the tried and tested contact pin with shear bolt in this kit eliminates the possibility of faulty assembly of cable systems.

#### Application

- reinstallation of type CTS separable cable connector

#### Scope of delivery

- set of 3 contact pins with shear bolt
- assembly accessories
- assembly instructions

#### Order data

Type	Art.- No.
ZS - CTS	257622



## CPES

### Test and earthing kit

#### Application

The test and earthing kit is designed for the establishment of galvanic connections between cable conductors and is compatible with all type CTS and CTKS Cellplux T-plugs.

#### Application

- earthing for work
- cable fault location
- cable testing
- phase compensation

#### Scope of delivery

- 1x test adapter
- 3x earthing adapter
- 1x case
- assembly instructions

#### Order data

Type	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 19/33 (36)kV</b>	
CPES	<b>259101</b>



## CPS

### Test-kit

#### Application

The Test-kit is designed for the establishment of galvanic connections between cable conductors and is compatible with all type CTS and CTKS Cellplux T-Plugs.

#### Application

- cable fault location
- cable testing
- phase compensation

#### Scope of delivery

- 3x test adapter
- 1x case
- assembly instructions

#### Order data

Type	Art.- No.
<b>U<sub>0</sub>/U (U<sub>m</sub>) 6/10 (12)kV - 19/33 (36)kV</b>	
CPS	<b>302227</b>



## Mounting Ring

### Application

The mounting ring is designed to secure CWS 250A and CGS 250A Cellplux separable cable connectors to a special bushing for type A outer cone systems. The mounting ring is simply placed in the prefabricated groove in the cable connector. The two components may then be mounted on the bushing together.

### Characteristics

- easy assembly
- secure connection to special type A bushing

### Scope of delivery

- 1 x Mounting Ring

### Order data

Type	Art.- No.
Mounting Ring	264366



**Cellpack AG Electrical Products**

Anglikerstrasse 99  
5612 Villmergen  
Schweiz  
Tel. +41 56 618 12 34  
Fax +41 56 618 12 45  
verkauf.ep@cellpack.com

**Cellpack GmbH**

Carl-Zeiss-Straße 20  
79761 Waldshut-Tiengen  
Deutschland  
Tel. +49 7741 6007-0  
Fax +49 7741 64989  
electrical.products@cellpack.com

**Cellpack Benelux B.V.**

Keersluisweg 13  
1332 EE Almere Buiten  
Nederland  
Tel. +31 36 549 03 36  
Fax +31 36 532 74 99  
info@cellpack.nl

**Behr Bircher Cellpack Ibérica, S.A.**

C/.Mas Pujol, nr. 47 – Nave 4  
Pol. Ind. Sector V  
08520 – Les Franqueses del Vallès  
Barcelona – España  
Tel. +34 93 846 63 76  
Fax +34 93 849 12 06  
comercial@cellpackiberica.com

**Behr Bircher Cellpack BBC France s.à.r.l.**

277, Boulevard des Technologies  
54710 Ludres  
France  
Tel. +33 3 83 25 60 07  
Fax +33 3 83 25 88 27  
info@cellpack-ep.fr

**Cellpack Polska Sp. z o.o.**

ul. Matuszewska 14,  
03-876 Warszawa  
Polska  
Tel. +48 022 853 53 54  
Fax +48 022 853 53 56  
biuro@cellpack.pl

**Cellpack Far East (PTE) LTD.**

128 Joo Seng Road # 06 – 01  
Singapore 368356  
Tel. +65 6747 7024  
Fax +65 6841 4554  
info@cellpack.com.sg

**Behr Bircher Cellpack BBC Malaysia  
Sdn. Bhd.**

No. 8, Jalan TU 50  
Taman Tasik Utama  
Ayer Keroh  
75450 Melaka  
Malaysia  
Tel. + 60 6 251 95 30  
Fax + 60 6 251 95 31  
info@cellpack.com.my  
www.cellpack.com.my

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Electrical Products

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