

# Separable straight connector with mechanical conductor contact (interface A / 250 A)



For polymeric cables – Deadbreak operation

Generally meets the requirements of CENELEC HD 629.1 S2 - IEC 60502-4 - C 33-051 - C 33-001

Interfaces: CENELEC EN 50180 – EN 50181

Mechanical conductor contact: IEC 61238-1 class A



## Medium Voltage (MV)

Up to 12.7/22 (24) kV

MV separable connectors rating 250 A (interface A)

Reference : MSCS/EC-250-A

### Product Application and Design

#### Utilisation

- For connection of polymeric MV cables to transformers, switchgear units, motors, etc.
- Indoor and outdoor installation. The connector is entirely protected by a watertight conductive envelope connected to earth.
- Continuous 250 A rms overload 300 A rms (8 hours per 24-hour period).
- Dead-break operated.
- Voltage detection through an integrated capacitive voltage divider.

#### Cables

- Single core polymeric insulation (PE, XLPE, EPR ...).
- Copper or aluminium conductor, solid or stranded.
- Semi-conducting screen either extruded or taped.
- Metallic screen of copper tape, copper wires or polylam type.
- Insulation voltage up to 12.7/22 (24) kV.
- Conductor sizes: 25 to 95 mm<sup>2</sup>.

#### Packing

Supplied as a kit of 3 single connectors containing all the necessary components. Shipping weight and volume (approx) of kit : 3 kg / 0,006 m<sup>3</sup>.

#### Other products

- Associated products such as bushing FMB0m-250, FMB0h-250 for separable connectors 250 A and accessories interface A.
- Separable elbow connector MSCE/EC-250-A.



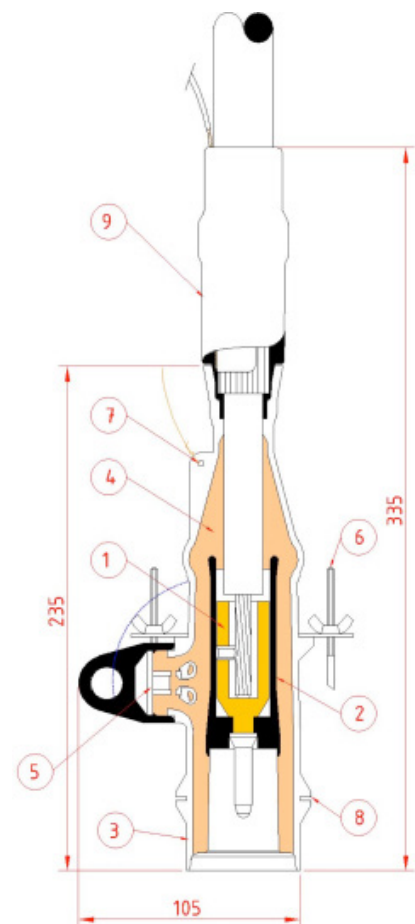
**INTERFACE  
A / 250 A**

## Installation features

- For voltage class 24kV, one product reference only allows to cover cross from 25 mm<sup>2</sup> to 95 mm<sup>2</sup>, copper or aluminium conductor.
- No need for special tools, no heating, taping or filling.
- Vertical, angled or inverted position.
- No minimum distance between phases.
- Individual clamping by stainless steel brace.
- The three phases may also be locked together and to the equipment by use of metallic rings (supplied on request, separately or already fitted onto the molded groove).
- Energizing may take place immediately after the connector is plugged on its mating bushing, dead-end plug ...
- An unplugged connector must never be energized.

## Description

- ① **Mechanical conductor contact Al/Cu 25/95 mm<sup>2</sup>**  
Mechanical conductor contact with copper contact pin, designed with locking ring. One conductor contact only covers the cross sections from 25 mm<sup>2</sup> to 95 mm<sup>2</sup>, copper or aluminium conductor. No need for special tools.
- ② **Semi-conducting inner screen**  
Insert of molded semi-conducting EPDM enclosing the metallic contact piece so that the air inside is prevented.
- ③ **Semi-conducting outer envelope (thickness 3 mm)**  
Jacket made of semi-conducting EPDM. Its design provides relief of electrical stress as does a cable screen. Its connection to the cable screen ensures the assembly is maintained at earth potential. It allows to evacuate the fault currents.
- ④ **Insulating body**  
Molded from insulating EPDM, for integral reconstitution of insulation. It maintains a uniform contact pressure on the cable insulation and on the bushing interface, providing an excellent moisture seal.
- ⑤ **Test point**  
Electrically protected by a cap made of semi-conducting EPDM. A capacitive voltage divider allows to check the absence of voltage before disconnecting the connector.
- ⑥ **Locking brace**  
Stainless steel brace fastening the connector onto its mating bushing or other accessories.
- ⑦ **Earthing eye**  
For connection of the outer envelope to the metallic cable screen.
- ⑧ **Groove for locking ring**  
For the fitting of a metallic ring (supplied on request) when 3 phase locking is required.
- ⑨ **Earth cover**  
Molded semi-conducting EPDM. Ensures watertight protection of the earthing device.

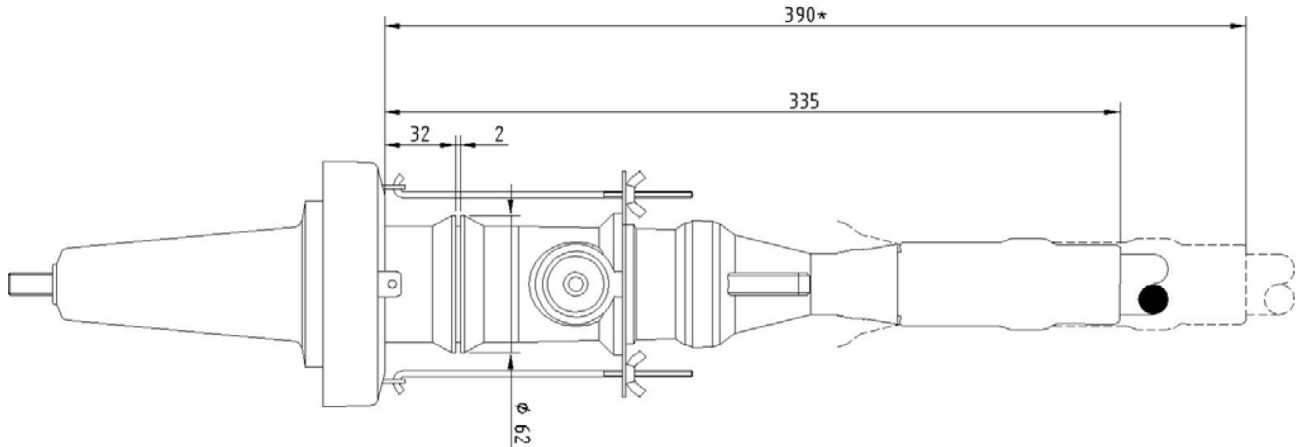


**INTERFACE  
A/250 A**

**100% of the separable connector bodies are individually tested in factory industrial power frequency and partial discharges.**

## Selection guide

### Overall dimensions (installed on bushing) in mm



(\* ) Minimum dimension required for disconnection

1- Select in the table below the kit site corresponding to the insulation voltage  $U_m$  in kV and to the diameter over cable insulation.

Voltage $U_m$	Diam. Over insulation in mm		Conductor size in mm <sup>2</sup> (for guidance only)		Kit reference
	min	max	min	max	
12 kV	11,8	23,2	25	95	<b>MSCS/EC-250-A-12-25/95*</b>
17 kV	11,8	23,2	25	95	<b>MSCS/EC-250-A-17-25/95*</b>
24 kV	17,2	25,0	25	95	<b>MSCS/EC-250-A-24-25/95</b>

\* models with adapters

For cables with other cross-sections, please contact us.

2- Select suitable earthing device in the table below.

Earthing Device Reference	Type of Metallic Screen of Cable
T1	polylam
T2	Copper tape
T3	Copper wires

### Example of order

1x 50 mm<sup>2</sup> , 20 kV polymeric cable, diameter over insulation 21.5 mm, with copper wire screen, aluminium conductor: **MSCS/EC -250-A-24-T3-25/95**.