SEPARABLE STRAIGHT (FMCS) AND ELBOW CONNECTORS (FMCE)

CHARACTERISTICS

For polymeric cable up to 24kV
Non-loadbreak operation- Rating 250A

The Prysmian range of FORMFIT® Separable Connectors has a wide range of applications including connection to transformers, switchgear units, motors etc.

Suitable for indoor and outdoor installations, the connector is entirely protected by a watertight conductive envelope connected to earth. The connectors are rated for continuous operation at 250 Amp rms, with 300 Amp rms overload (8 hours per 24 hours).

FORMFIT®250 series of separable connectors are suitable for use with a wide range of polymeric medium voltage cables, including:

- Single core polymeric insulation (PE, XLPE, EPR etc.)
- Copper or aluminium conductors (16-95mm$^{2)}$
- Semi-conducting screen either extruded or taped
- Metallic screen, wire or polylam type
- Insulation voltage up to 24kV (Um)

FEATURES & BENEFITS

- No need for special tools, heating, taping or filling
- Vertical, angled or inverted position
- No minimum distance between phases
- Energising may take place immediately after the connector is plugged to its individual bushing, dead end plug etc.
- Individual clamping by stainless steel brace
- Connectors packed separately

SPECIALIST DISTRIBUTORS OF BICON
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DESCRIPTION

1a. Contact pin assembly
Tinned copper pin, screwed into the sized conductor fitting with the hexagonal wrench supplied in the kit.

1b. Contact piece
Compressed ferrule with tinned copper contact pin, designed with locking ring.

2. Semi-conducting inner screen
Insert of moulded semi-conducting EPDM, enclosing the connecting components, so that ionisation of any air remaining trapped is prevented.

3. Semi-conducting outer envelope
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 that the assembly is maintained at earth potential**.**

4. Insulating body
Moulded from insulating EPDM for integral reconstitution of insulation. It maintains a uniform contact pressure on the cable insulation and the bushing interface producing an excellent moisure seal.

5. Test point
Electronically protected by a cap made of semi-conducting EPDM. A capacitive voltage divider provides a means of checking that the item is not live before diconnection.

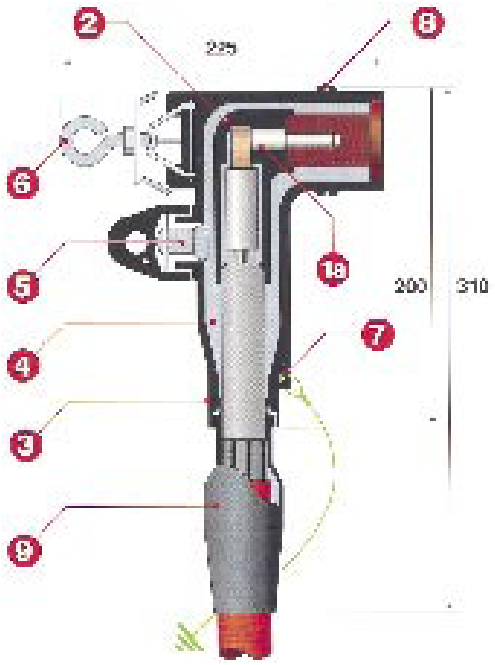
6. Locking brace
Stainless steel brace fastening the connector onto its mating bushing or other accessories.

7. Earthing Eye
Eye provided for connection of the outer envelope to the cable screen.

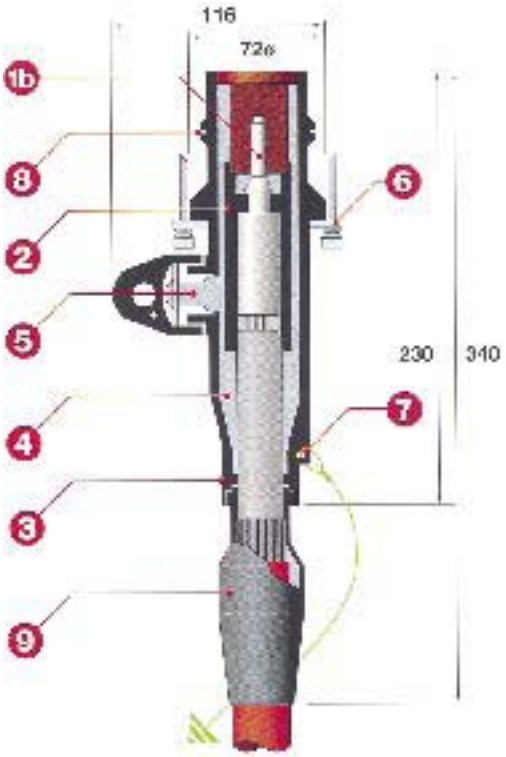
8. Groove for locking ring
Groove intended for fitting of a metallic ring (supplied on request) when 3-phase locking is required.

9. Earth cover
Made of moulded EPDM, ensuring watertight protection of the earthing device.

FMCE-250 Elbow Connector



FMCS-250 Straight Connector



All dimensions in mm.

SELECTION GUIDE

1. Select from **TABLE A** on the right the kit model corresponding to the diameter over the insulation table.

2. Specify insulation voltage U_m in kV:
12 - 17.5 - 24

3. Select from the **TABLE B** (bottom right) the earthing device to suit the cable

4. Select the model of connection end-fitting[(1)] according to:

- Conductor material **C: Copper** **A: Aluminium**
- Conductor Size **In mm²**

(1) Can be crimped or indented by usual tools

TABLE A

Separable Tee Connector

Diameter over insulation mm		Kit Reference		Conductor size mm² (for guidance only) Highest Voltage		
MIN	MAX			12kV	17.5kV	24kV
10.0	12.6	FMCS-250-A*	FMCE-250-A*	16		
11.8	14.5	FMCS-250-B*	FMCE-250-B*	25		
13.7	16.3	FMCS-250-C*	FMCE-250-C*	35	25	
15.3	17.9	FMCS-250-D*	FMCE-250-D*	50	35	
17.0	19.5	FMCS-250-E*	FMCE-250-E*	70	50	
18.6	21.3	FMCS-250-F	FMCE-250-F	95	70	35
20.2	23.0	FMCS-250-G	FMCE-250-G		95	50
22.5	25.3	FMCS-250-H	FMCE-250-H			70
23.4	26.0	FMCS-250-J	FMCE-250-J			95

** Models with reducers*

EXAMPLE ORDER

Example of order for Elbow Connector
Cable 20kV, 50mm², insulation diameter 21.2mm, aluminium conductor, copper wire screen:
FMCE-250-G-24-T3-A50

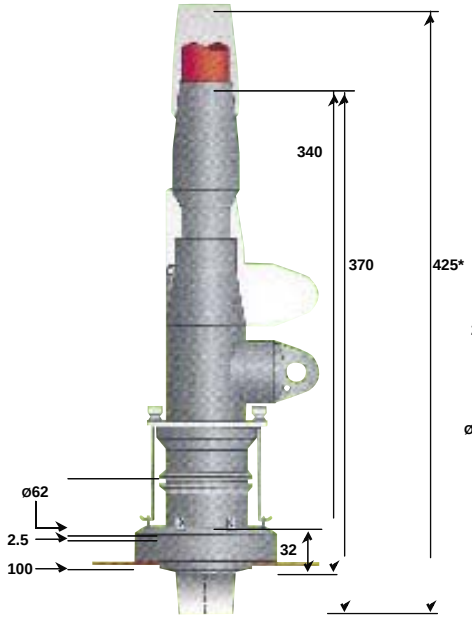
Example of order for sStraight Connector
Cable 20kV, 50mm², insulation diameter 21.2mm, aluminium conductor, copper wire screen:
FMCS-250-G-24-T3-A50

TABLE B

Earthing Device Reference	Type of Metallic Screen of Cable
T1	polylam
T2	copper tapes
T3	copper wires

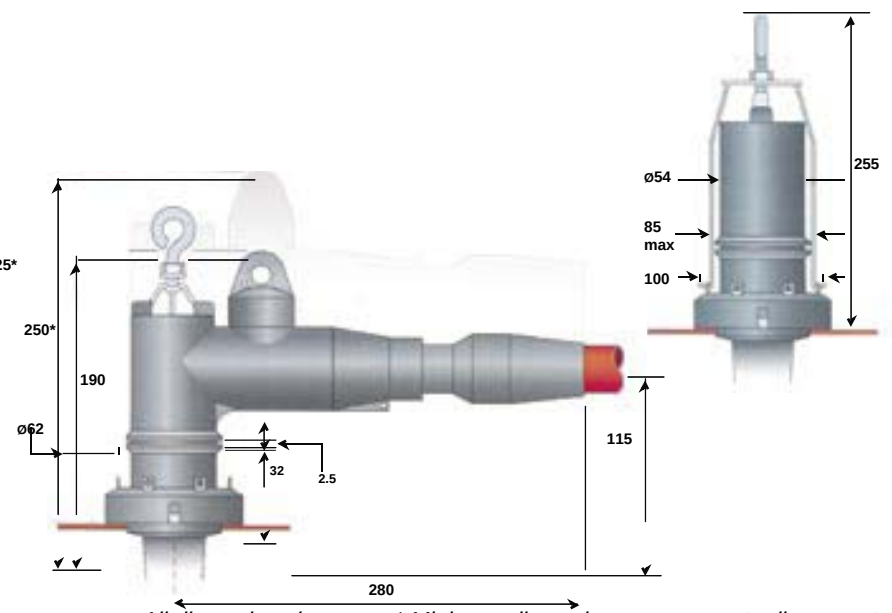
FMCS-250 Straight Connector

Overall dimensions
(mounted on bushing)



FMCE-250 Elbow Connector

Overall dimensions
(mounted on bushing)



All dimensions in mm. ** Minimum dimensions necessary to disconnect.*

ACCESSORIES FOR 250A SEPARABLE CONNECTORS

FMR-250 Dead-End Receptacle

- EPM moulding with semi-conducting EPDM jacket, which provides a dead-end facility for insulating bushings.
- Operated when de-energised.
- Watertight, slipped on with silicone grease.
- Supplied with its locking brace.
- References: **12kV - FMPD-250-12**
  24kV - FMPD-250-24
- Packing: Single Unit

FMPD-250 Dead-End Plug

- EPDM moulding which plugs into connector to provide dead-end facility.
- Operated when de-energised.
- References: **12kV - FMPD-250-12**
  24kV - FMPD-250-24
- Packing: Single Unit

FMPS-250 Stand-Off Plug

- EPDM moulding designed to support and dead-end separable connectors when removed from the equipment.
- The stand-off plug is fittted with a metallic mounting. A part moulded-in, semi- conducting EDPM provides electrical continuity with the connector jacket.
- Operated when de-energised.
- References: **12kV - FMPS-250-12**
  24kV - FMPS-250-24
- Packing: Single Unit

FMPE-250 Earthing Plug

- EPDM moulding designed to support and earth separable connectors when removed from the equipment.
- The earthing plug is equipped with a metallic mounting
- Operated when de-energised.
- References: **FMPE-250**
- Packing: Single Unit

STANDARDS

Master specification PRYSMIAN SP.5 Generally meet the requirements of IEC 540 - EDF HN 52-S-61 - ANSI/IEE 386 - NF C 33-051 - NFS 33- 001 - DIN 52 278.

QUALITY ASSURANCE

Certified to ISO 9001

OTHER PRODUCTS

We also supply other accessories from the 400 series
Details avalible on request

Make the right connection...

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