

3M™ Compact Separable Connectors

Product Features

The versatile and compact design of the prefabricated one-piece T-body connectors allows quick installation on a wide range of cable sizes. 3M™ Compact Separable Connectors meets DIN 47636, EN 50180 and EN 50181 Type C bushing interface requirements.

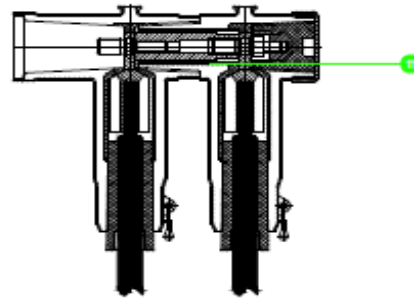
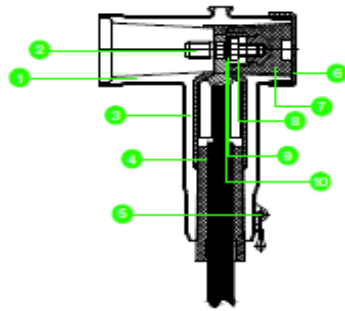
- Fully shielded and insulated, rated up to 42kV and 1250A continuous current.
- Molded using high quality EPDM Rubber.
- The 3-core kit comes with 3M™ Proprietary Cold Shrink breakout and silicone re-jacketing sleeve.
- The compact insulation plug comes with a sleeve wrench tool.
- Installation at temperatures ranging from 20°C to 50°C.

Application

- Suitable for XLPE or EPR insulated underground cable according to IEC 60502-2.
- Can be used to terminate medium-voltage underground cable to switchgear, RMU and 1250A junctions equipped with dead break bushings.
- For double connection (Fore-Tee Connector + Sub-Tee Connector), the total continuous rated current is 1250A.
- Suitable for main & back up cables or load capacity upgrade application.



3M™ 24kV Compact Separable Connector



Design

- | | |
|--------------------------------------|-------------------|
| 1 EPDM Tee Body | 7 Insulation Plug |
| 2 EN50180 and 50181 Type C interface | 8 M12 Nut |
| 3 Conductor Lugs | 9 Spring Washer |
| 4 Cable Adapter | 10 Flat Washer |
| 5 Earthing Lead | 11 Connecting Rod |
| 6 Protection Cap | |

Performance

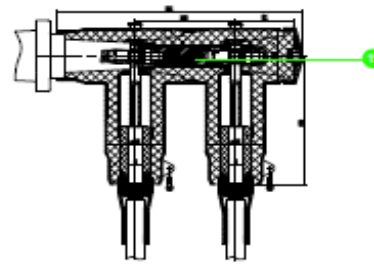
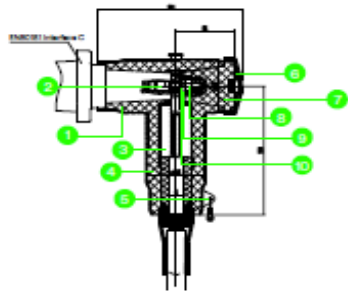
- Rating follow IEC 60502-4 : 2005
- 24kV Voltage class
- 125kV BIL - Impulse Voltage Withstand
- 57kV AC - 5 Minutes Withstand
- 51kV DC - 15 Minutes Withstand
- Partial Discharge <10pC @ 25kV & 32kV
- 630 Amp - Continuous
- Thermal Short Circuit, Conductor 21kA/ 2s at 185mm²

Product	Type	OD of Cable Insulation (mm)	Conductor Cross Section (mm ²)
24-FT-BI-A-70	Fore Connector	16.0 - 19.9	70
24-FT-BI-A-95			95
24-FT-BI-B-120		20.0 - 23.9	120
24-FT-BI-B-150			150
24-FT-BI-B-185			185
24-FT-BI-C-240		24.0 - 27.9	240
24-FT-BI-C-300			300
24-FT-BI-D-400		28.0 - 31.9	400
24-ST-BI-A-70	Sub Connector	16.0 - 19.9	70
24-ST-BI-A-95			95
24-ST-BI-B-120		20.0 - 23.9	120
24-ST-BI-B-150			150
24-ST-BI-B-185			185
24-ST-BI-C-240		24.0 - 27.9	240
24-ST-BI-C-300			300
24-ST-BI-D-400		28.0 - 31.9	400
FTST70-400	3 Core Accessories	16 - 31.9	70-400

Kit Content

Single Core (Inclusive)	3-Core Accessories (Add On)
<ol style="list-style-type: none"> 1. Scotch Rubber Splicing Tape 23 2. Temflex Vinyl Electrical Tape 1710 3. Constant Force Spring 4. Earthing Braid 5. Cleaning Wipe 6. Abrasive Paper 7. Mastic Strip 	<ol style="list-style-type: none"> 1. Rejacketing Sleeve 2. Breakout Boot 3. Constant Force Spring

3M™ 35kV Compact Separable Connector



Design

- | | |
|--------------------------------------|-------------------|
| 1 EPDM Tee Body | 7 Insulation Plug |
| 2 EN50180 and 50181 Type C interface | 8 M12 Nut |
| 3 Conductor Lugs | 9 Spring Washer |
| 4 Cable Adapter | 10 Flat Washer |
| 5 Earthing Lead | 11 Connecting Rod |
| 6 Protection Cap | |

Performance

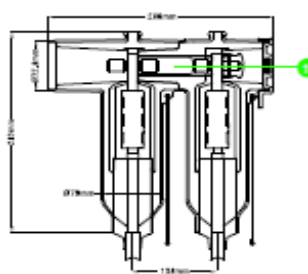
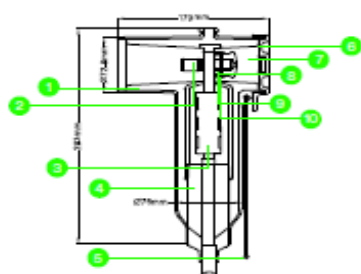
- Rating follow IEC 60502-4
- 35kV Voltage class
- 150kV BIL and Full Wave Crest – Impulse Withstand
- 81kV AC – 5 Minutes Withstand
- Partial Discharge $\leq 10\text{pC}$ @ 30kV
- 630 Amp – Continuous

Product	Type	OD of Cable Insulation (mm)	Conductor Cross Section (mm ²)
36-FT-BI-C-70	Fore Connector	25.5 - 29.0	70
36-FT-BI-C-95			95
36-FT-BI-D-120		28.5 - 32.0	120
36-FT-BI-D-150			150
36-FT-BI-E-185		31.5 - 36.0	185
36-FT-BI-E-240			240
36-FT-BI-F-300		35.5 - 40.0	300
36-FT-BI-G-400			400
36-FT-BI-H-500	Sub Connector	41.5 - 46.0	500
36-ST-BI-C-70			25.5 - 29.0
36-ST-BI-C-95		95	
36-ST-BI-D-120		28.5-32.0	120
36-ST-BI-D-150			150
36-ST-BI-E-185		31.5-36.0	185
36-ST-BI-E-240			240
36-ST-BI-F-300		35.5 - 40.0	300
36-ST-BI-G-400	400		
36-ST-BI-H-500	41.5 - 46.0	500	
FTST70-240		3-Core Accessories	70-240

Kit Content

Single Core (Inclusive)	3-Core Accessories (Add On)
<ol style="list-style-type: none"> 1. Scotch Rubber Splicing Tape 23 2. Temflex Vinyl Electrical Tape 1710 3. Constant Force Spring 4. Earthing Braid 5. Cleaning Wipe 6. Abrasive Paper 7. Mastic Strip 	<ol style="list-style-type: none"> 1. Rejacketing Sleeve 2. Breakout Boot 3. Constant Force Spring

3M™ 42kV Compact Separable Connector



Design

- | | |
|--------------------------------------|-------------------|
| 1 EPDM Tee Body | 7 Insulation Plug |
| 2 EN50180 and 50181 Type C interface | 8 M12 Nut |
| 3 Conductor Lugs | 9 Spring Washer |
| 4 Cable Adapter | 10 Flat Washer |
| 5 Earthing Lead | 11 Connecting Rod |
| 6 Protection Cap | |

Performance

- Rating follow IEC 60502-4
- 42kV Voltage class
- 200kV BIL and Full Wave Crest – Impulse Withstand
- 117kV AC – 5 Minutes Withstand
- Partial Discharge $\leq 10\text{pC}$ @ 45kV
- 1250 Amp – Continuous

Product	Type	OD of Cable Insulation (mm)	Conductor Cross Section (mm ²)
42-FT-BI-F-70	Fore Connector	24.90-28.30	70
42-FT-BI-G-95		26.40-29.90	95
42-FT-BI-H-120		27.80-31.50	120
42-FT-BI-J-150		29.50-33.20	150
42-FT-BI-K-185		31.00-34.90	185
42-FT-BI-L-240		32.60-35.40	240
42-FT-BI-M-300		34.40-38.60	300
42-FT-BI-P-400		38.90-41.70	400
42-FT-BI-R-500		42.30-45.30	500
42-FT-BI-S-630		44.60-47.60	630
42-ST-BI-F-70	Sub Connector	24.90-28.30	70
42-ST-BI-G-95		26.40-29.90	95
42-ST-BI-H-120		27.80-31.50	120
42-ST-BI-J-150		29.50-33.20	150
42-ST-BI-K-185		31.00-34.90	185
42-ST-BI-L-240		32.60-35.40	240
42-ST-BI-M-300		34.40-38.60	300
42-ST-BI-P-400		38.90-41.70	400
42-ST-BI-R-500		42.30-45.30	500
42-ST-BI-S-630		44.60-47.60	630
FTST70-240	3-Core Accessories		70-240

Kit Content

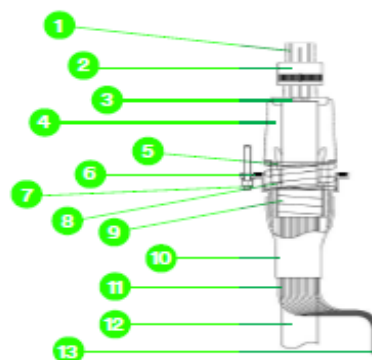
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<ol style="list-style-type: none"> 1. Scotch Rubber Splicing Tape 23 2. Temflex Vinyl Electrical Tape 1710 3. Constant Force Spring 4. Earthing Braid 5. Cleaning Wipe 6. Abrasive Paper 7. Mastic Strip 	<ol style="list-style-type: none"> 1. Rejacketing Sleeve 2. Breakout Boot 3. Constant Force Spring

3M™ 35kV Inner Cone GIS Connector

Structure

- | | | |
|-------------------|---------------------|----------------|
| 1 Clamp | 6 Sealing Ring | 11 Ground Wire |
| 2 Connector | 7 Bolt | 12 Cable |
| 3 Stop Disk | 8 Flange Assembly | 13 Earth Clamp |
| 4 Stress Control | 9 Tape | |
| 5 Pressure Spring | 10 Heat Shrink Tube | |

3M™ TG25/TG45 GIS connector is used for cable termination at GIS switchgear, transformer, motor and generator.



Product	Size	OD of Cable Insulation (mm)	Conductor Cross Section (mm ²)
TG25-50	2	30.8-34.0	50
TG25-70		30.8-34.0	70
TG25-95		33.9-37.2	95
TG25-120		33.9-37.2	120
TG25-150		36.9-40.7	150
TG25-185		36.9-40.7	185
TG45-50	3	30.8-34.0	50
TG45-70		30.8-34.0	70
TG45-95		33.9-37.2	95
TG45-120		33.9-37.2	120
TG45-150		36.9-40.7	150
TG45-185		36.9-40.7	185
TG45-240		39.1-42.7	240
TG45-300		41.4-45.1	300
TG45-400		44.3-48.2	400
TG45-500		47.5-51.2	500
TG45-630	51.9-54.3	630	
DY25	2	GIS dummy termination	
DY45	3	GIS dummy termination	

Product Features

- Integrated structure, easy for installation, and fit for the various cable sizes
- Compacted design with high quality insulation material
- Can be used for solid insulation material cables, XLPE and EPR rubber

Application

TG25 and TG45 GIS terminations with plug-in technology connect the cable to the electrical equipment with sealing insulation system, and can match the bushing following DIN EN 50180 or DIN EN 50181. Can be installed on 26/35kV cable with the rated temperature at 90°C, and emergency temperature at 250°C. Can be used for the cable with solid insulation, such as Polyethylene, XLPE, and EPR. Applied for both indoor and outdoor environment.