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Produkt!

## Chapter III High voltage cable joints

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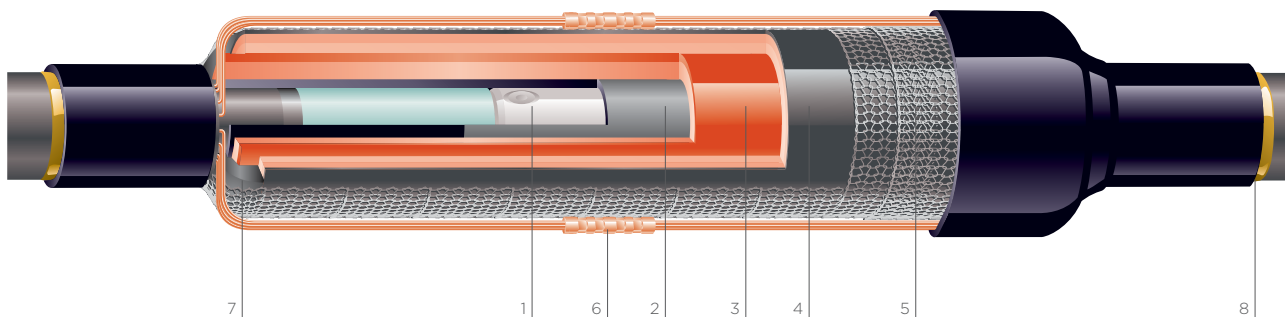
## Heat-Shrinkable Joints (EHVS-H)

### APPLICATION

- Polymeric insulated cables of various designs can be adapted with respect to shielding and metal sheath. Our heat shrink accessories have been used by utilities and industrial companies around the world for more than 50 years. This ongoing field experience has us a leader in materials science and technology for high voltage applications. Our materials technology is at the core of the development of our heat-shrinkable joints. The materials, used in TE Connectivity TE's Raychem cable accessories, have been extensively optimized with respect to product design and function, manufacturing, and expected service environments

### FEATURES

- Compact and modular design
- Heat-shrinkable stress control sleeves
- Torque-controlled connector
- Joint fits on all polymeric cable constructions
- Proven shield continuity concept
- Short cut-back dimension
- Cable size transition possible
- Water and corrosion-resistant
- Easy and fast to install
- No special or expensive tools required
- Lightweight components
- Unlimited storage life-time under normal conditions
- Reduced waste for disposal
- Wide installed base at international customers



- 1 Mechanical connector
- 2 Electrical stress control tube
- 3 Insulating tubing
- 4 Screened insulating tubing
- 5 Copper mesh
- 6 Solderless shield connection
- 7 Sealant/mastic
- 8 Outer protection with integrated moisture barrier

Max. operating voltage $U_m$ (kV)	52	72.5
Standards	IEC 60840	IEC 60840
Rated voltage U (kV)	45 - 47	60 - 69
Rated lightning impulse withstand voltage (BIL) (kV)	250	325



EHVS-52H



EHVS-72H

### Technical data

Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-52H	95 - 2500	30 - 86	100	1350	130	Inline / shield break / grounded
EHVS-72H	95 - 2500	30 - 86	100	1350	130	Inline / shield break / grounded

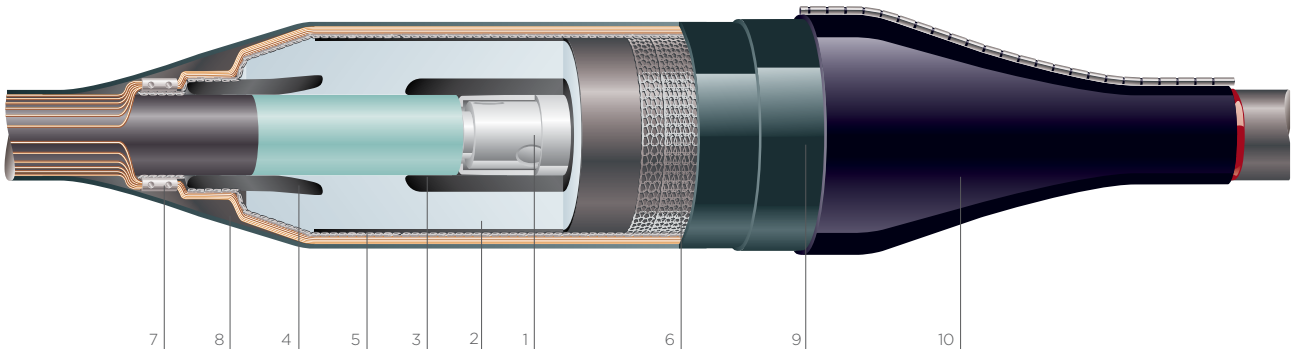
## One Piece Joints (EHVS-S)

### APPLICATION

- The joint is a pre-fabricated one-piece design for voltage classes up to 245 kV. Polymeric insulated cables of various designs can be adapted with respect to shielding and metal sheath. The silicone rubber joint body with integrated geometrical stress control, provides proven electrical function. The joint components combine electrical performance, stress control and moisture sealing to provide the important functions required for all high voltage products

### FEATURES

- Premoulded one-piece joint body
- Torque-controlled connector
- Choice of outer sealing and protection systems
- Joint fits on all polymeric cable constructions
- Proven shield continuity concept
- Factory-tested silicone-rubber body
- Special silicone rubber provides perfect compression force for optimised electrical performance
- Simple assembly
- No tension set of joint body
- Moulded thick outer conductive screen
- Geometrical electrical stress control by moulded conductive deflectors
- Type tested according to IEC 60840, IEC 62067 standards



- Mechanical connector
- Silicone rubber body
- Inner electrode/Faraday cage
- Deflector
- Outer screen
- Copper mesh
- Solderless shield connection
- Sealant/mastic
- Insulating tubes
- Outer protection with integrated moisture barrier

Max. operating voltage $U_m$ (kV)	145	245
Standards	IEC 60840	IEC 62067
Rated voltage $U$ (kV)	132 - 138	220 - 230
Rated lightning impulse withstand voltage (BIL) (kV)	650	1050

## One Piece Joints 145 kV

### Heat-shrink Rejacketing



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-145SW	500 - 2500	60 - 112	130	2400	220	Inline / shield break / grounded

### Copper Casing



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-145SC	500 - 2500	60 - 112	130	2400	280	Inline / shield break / grounded

### Coffin Box



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-145SB	500 - 2500	60 - 112	130	3000	350	Inline / shield break / grounded

### Heavy Duty (Copper Casing and Coffin Box)



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-145SH	500 - 2500	60 - 112	130	3000	350	Inline / shield break / grounded

## One Piece Joints 245 kV

### Heat-shrink Rejacketing



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-245SW	300 - 2500	71 - 119	150	2500	310	Inline / shield break / grounded

### Copper Casing



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-245SC	300 - 2500	71 - 119	150	2500	350	Inline / shield break / grounded

### Coffin Box



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-245SB	300 - 2500	71 - 119	150	3500	550	Inline / shield break / grounded

### Heavy Duty (Copper Casing and Coffin Box)



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-245SH	300 - 2500	71 - 119	150	3500	550	Inline / shield break / grounded

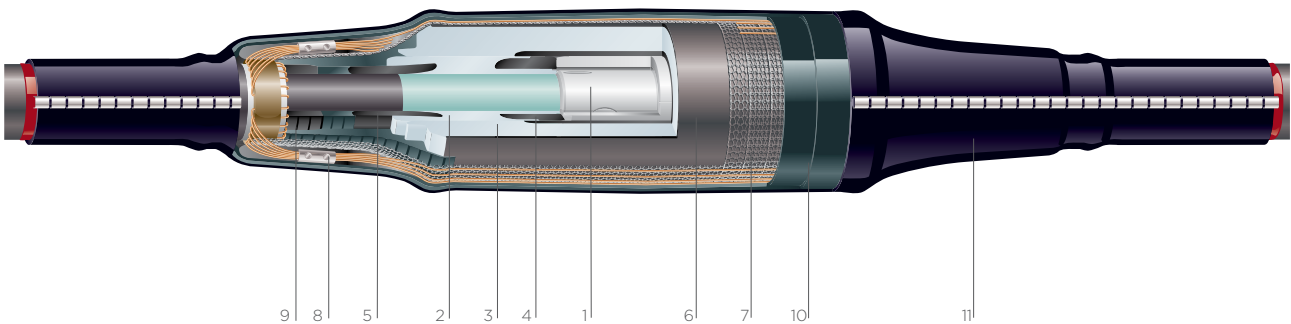
## Three Piece Joints (EHVS-T)

### APPLICATION

- The joint is a pre-fabricated three piece design for voltage classes up to 170 kV. Polymeric insulated cables of various designs can be adapted with respect to shielding and metal sheath. The silicone rubber joint parts with integrated geometrical stress control provides proven electrical function. The joint components combine electrical performance, stress control, and moisture sealing to provide the important functions required for all high voltage products

### FEATURES

- Premoulded three piece joint design
- Torque-controlled connector
- Joint fits on all polymeric cable constructions
- Proven shield continuity concept
- Factory-tested silicone rubber bodies
- Special silicone rubber provides perfect compression force for optimized electrical performance
- Short cut-back dimensions
- No special tools required to install the joint
- Cable size transition possible
- No tension set of joint body
- Moulded outer conductive screen
- Geometrical electrical stress control by moulded conductive deflectors
- Type tested according to IEC60840 standards



- Mechanical connector
- Silicone rubber adapter body
- Silicone rubber main body
- Inner electrode/Faraday cage
- Deflector
- Outer screen (moulded)
- Copper mesh
- Solderless shield continuity
- Sealant/mastic
- Insulating tubes
- Outer protection with integrated moisture barrier

Max. operating voltage $U_m$ (kV)	145	170
Standards	IEC 60840	IEC 60840
Rated voltage $U$ (kV)	132 - 138	150 - 161
Rated lightning impulse withstand voltage (BIL) (kV)	650	750

## Three Piece Joints 145 kV

### Heat-shrink Rejacketing



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-145TW	185 - 1600	43 - 83	105	2000	200	Inline / shield break / grounded
EHVS-145TW	1600 - 2500	60 - 112	130	2000	250	Inline / shield break / grounded

### Copper Casing



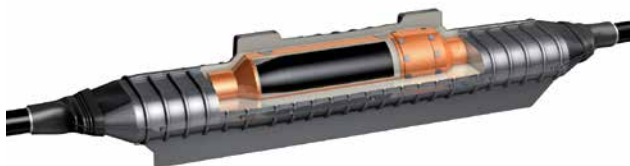
Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-145TC	185 - 1600	43 - 83	105	2500	250	Inline / shield break / grounded
EHVS-145TC	1600 - 2500	60 - 112	130	2500	250	Inline / shield break / grounded

### Coffin Box



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-145TB	185 - 1600	43 - 83	105	3000	350	Inline / shield break / grounded
EHVS-145TB	1600 - 2500	60 - 112	130	3000	450	Inline / shield break / grounded

### Heavy Duty (Copper Casing and Coffin Box)



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-145TH	185 - 1600	43 - 83	105	3000	350	Inline / shield break / grounded
EHVS-145TH	1600 - 2500	60 - 112	130	3000	450	Inline / shield break / grounded



## Three Piece Joints 170 kV

### Heat-shrink Rejacketing



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-170TW	240 - 2500	60 - 112	130	2000	250	Inline / shield break / grounded

### Copper Casing



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-170TC	240 - 2500	60 - 112	130	2500	300	Inline / shield break / grounded

### Coffin Box



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-170TB	240 - 2500	60 - 112	130	3000	450	Inline / shield break / grounded

### Heavy Duty (Copper Casing and Coffin Box)



Product description	Conductor cross section (mm <sup>2</sup> )	Diameter over cable insulation (prepared) (mm)	Max. diameter over outer cable sheath (mm)	Length (mm)	Diameter (mm)	Screen treatment
EHVS-170TH	240 - 2500	60 - 112	130	3000	450	Inline / shield break / grounded



## Fibre-Optic Add-On Kit for HV Cable Joints

### APPLICATION

- The TE's Raychem fibre-optic add-on kit is designed to connect the glass fibres integrated in HV cables. The kit includes all components required to seal the cable jacket and the fibre-optic outlet securely and to protect the sensitive optical fibres that are housed inside the steel pipes
- The standard add-on kit is suitable for connecting two individual steel pipes each with a maximum of 24 optical fibres

### FEATURES

- The splice box is suitable for cross-bonding and straight-through joints
- Gel-sealing technology ensures reliable operation even when buried joints are used
- Enhanced fibre management
- The splice box is easy to open and close without the use of special tools
- The kits are available for all TE's Raychem joints

