

JTMT

Heat shrink joints for Medium Voltage

A Medium Voltage (MV) cable joint allows the connection of single or three-core cables with an operating voltage of up to 36 kV with extruded insulation, paper insulation, or a transition between the two types.

It consists of:

- a metal joint to connect the conductors;
- a double-layer insulating jacket for electric field control;
- copper braid to restore the shielding;
- external coating jacket for electrical and mechanical protection.

JTMT kits include:

- a non-linear impedance **heat shrink jacket** to distribute the electric field
- a double-layer **heat shrink jacket** to restore the primary insulator and the outer semiconductive layer
- a **tin-plated copper braid** to restore the shielding
- a thick wall **heat shrink outer sealant jacket** with high mechanical strength to ensure proper joint sealing and mechanical strength

Advantages

- Covers a wide range of cable sizes with a single product
- No need for special tools
- Reliability for installation in harsh environments
- Less bulky
- Reduced storage costs
- No expiry date
- Ready for use
- Line immediately operational

Kit choice factors

Choose the most suitable termination type according to:

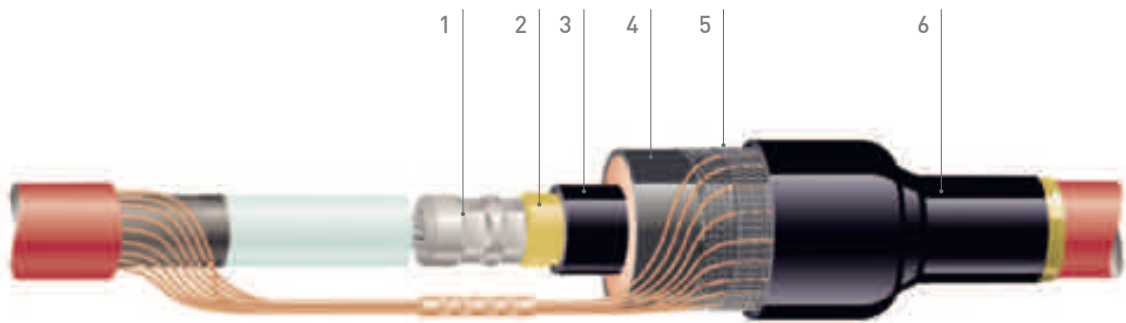
- **type of connection** (between cables with the same characteristics, or a transition between cables with different characteristics);
- specifications of the cables to be connected:
 - **type of insulation** (extruded or paper);
 - **number of cores** (individual single-core cables, 3-set single-core cables, three-core cables, three-core jacketed cables);
- **rated voltage** of the U_0/U , cable depending on insulation level;
- **conductor cross-section**.

Specifications

JTMT kits comply with the international CENELEC HD 629.1 S2 standard.

Components

1. **Metal connector** (not included in kit)
2. **Yellow tape** for electric field control
3. **Heat shrink tubing with non-linear characteristic impedance** for the distribution of the electric field in the area of the connector where the semiconductive shielding has been interrupted
4. **Double-wall heat shrink tubing** comprising an inner layer of elastomeric material on a conductive heat shrink outer layer for one-step reconstruction of the insulation and external shielding
5. **Tin-plated copper braid** covering the entire surface of the joint to restore electrical continuity in the metal shielding
6. Extra thick wall **heat shrink outer jacket** with high mechanical strength to resist impact and abrasion with a layer of hot melt adhesive sealant on the inner wall to ensure adhesion of the jacket, forming a protective seal against moisture and corrosion of the underlying cable



JTMT

Heat shrink joints for Medium Voltage cables with extruded insulation

Advantages

- Covers a wide range of cable sizes with a single product
- No need for special tools
- Reliability for installation in harsh environments
- Less bulky
- Reduced storage costs
- No expiry date

JTMT-1X

Heat shrink joint kits
for single-core MV cables up to 36 kV
non-armoured with extruded insulation

Applications

Connection of MV single-core non-armoured cables
with extruded insulation type:

(A)RG5H1R(M1),
(A)RG7H1R(M1)

Kit contents

Kit for **one single-core** connection:

- co-extruded double-layer insulating jackets
- tin-plated copper braid
- external coating jackets with sealant
- assembly instructions

Metal cable lug not included

Complies with international CENELEC HD 629.1 S2 standard

Selection table

item	Max voltage U _m (kV)	Conductor cross-section min – max (mm ²)	Joint length (mm)
Joints for single-core cables 3.6/6 kV			
JTMT-7/70-1X	7.2	10 – 70	400
Joints for single-core cables 8.7/15 kV			
JTMT-17/50-1X	17.5	25 – 50	600
JTMT-17/120-1X		50 – 120	
JTMT-17/240-1X		120 – 240	
JTMT-17/300-1X		300	
Joints for single-core cables 12/20 kV			
JTMT-24/95-1X	24	25 – 95	650
JTMT-24/240-1X		95 – 240	700
JTMT-24/500-1X		240 – 500	800
Joints for single-core cables 18/30 kV			
JTMT-36/150-1X	36	50 – 150	1000
JTMT-36/300-1X		150 – 300	
JTMT-36/630-1X		400 – 630	
For armoured cables see page 175 (ARMT armour restoration kit)			



Extruded
single-core cable



Extruded
single-core cable

JTMT-3X

Heat shrink joint kits
for single-core MV cables up to 24 kV
non-armoured with extruded insulation

Applications

Connection of MV three-core non-armoured cables
with extruded insulation type:

(A)RG5H1R(M1),
(A)RG7H1R(M1)

Kit contents

Kit for **three single-core** connection:

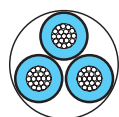
- co-extruded double-layer insulating jackets
- tin-plated copper braid
- external coating jackets with sealant
- assembly instructions

Metal cable lug not included

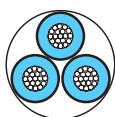
Complies with international CENELEC HD 629.1 S2 standard

Selection table

item	Max voltage U_M (kV)	Conductor cross-section min – max (mm ²)	Joint length (mm)
Joints for single-core cables 8.7/15 kV			
JTMT-17/50-3X	17.5	25 – 50	1250
JTMT-17/120-3X		50 – 120	1300
JTMT-17/240-3X		120 – 240	1500
Joints for single-core cables 12/20 kV			
JTMT-24/95-3X	24	25 – 95	1500
JTMT-24/240-3X		95 – 240	1600
JTMT-24/400-3X		300 – 400	
For armoured cables see page 175 (ARMT armour restoration kit)			



Extruded
three-core cable



Extruded
three-core cable

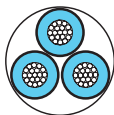
Heat shrink transition joints

JTMT-3X-1X

Heat shrink transition joint kit for extruded three-core cable and set of three extruded single-core cables up to 24 kV

item	Max voltage U_M (kV)	Conductor cross-section 3X cable min – max (mm ²)	Conductor cross-section 1X cable min – max (mm ²)
JTMT-24/95-3X-1X	24	25 – 95	25 – 95
JTMT-24/240-3X-1X		95 – 240	95 – 240
JTMT-24/500-3X-1X		240 – 500	240 – 500

Kits do not include metal connectors



Extruded three-core cable
(A)RG7H10R



3 extruded single-core cables
(A)RG7H1R

JTMT-1X-1C

Heat shrink transition joint kit between an extruded single-core cable and a paper single-core cable up to 24 kV

item	Max voltage U_M (kV)	Conductor cross-section 1X cable min – max (mm ²)	Conductor cross-section 1C cable min – max (mm ²)
JTMT-24/25-1X-1C	24	25	25
JTMT-24/240-1X-1C		50 – 240	35 – 185
JTMT-24/400-1X-1C		240 – 400	240 – 400

Kits do not include metal connectors



Extruded single-core cable
(A)RG7H1R(X)



Paper single-core cable
(A)RC1HLR(X)

JTMT-1X-3C

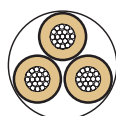
Heat shrink transition joint kit between a set of three extruded single-core cables and paper three-core cable up to 24 kV

item	Max voltage U_M (kV)	Conductor cross-section 1X cable min – max (mm ²)	Conductor cross-section 3C cable min – max (mm ²)
JTMT-24/25-1X-3C	24	25	25
JTMT-24/240-1X-3C		50 – 240	35 – 185
JTMT-24/400-1X-3C		300 – 400	240 – 400

Kits do not include metal connectors



3 extruded single-core cables
(A)RG7H1R



Paper three-core cable
(A)RC1HLR(X)

JTMT-3CC-1X

Heat shrink transition joint kit between belted three-core cable with insulating paper and a set of three extruded single-core cables up to 17.5 kV

item	Max voltage U_M (kV)	Conductor cross-section 3CC cable min – max (mm ²)	Conductor cross-section 1X cable min – max (mm ²)
JTMT-17/70-3CC-1X	17.5	25 – 70	25 – 70
JTMT-17/150-3CC-1X		50 – 150	50 – 150
JTMT-17/300-3CC-1X		240 – 300	240 – 300
JTMT-17/500-3CC-1X		400 – 500	400 – 500

Kits do not include metal connectors



Belted paper three-core cable
(A)SCOLR



3 extruded single-core cables
(A)RG7H1R