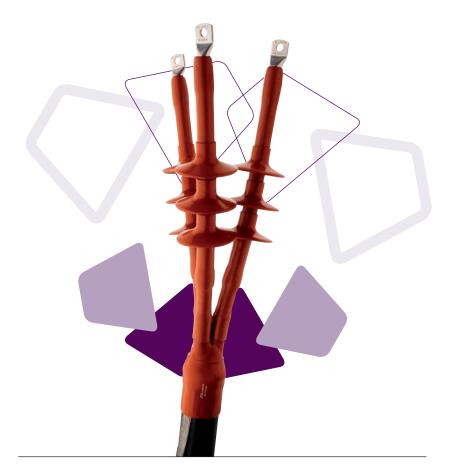
# **√**exans



Heat shrinkable medium voltage accessories

Catalogue 2009



# **NEXANS ITALY**COMPANY PRESENTATION







#### Introduction

Nexans power accessories include products applied to connect cables together (joints) or cables to various type of equipment (terminations).

As voltage levels increase, the technologies used demand complex solutions which require know how in numerous areas, such as electric field control as well as high mechanical and thermal strains.

#### Nexans power accessories manufacturing plant at Offida

The power accessories group of Nexans Italia S.p.a., established in October 1969, has commercial offices in Vimercate (near Milano) with a manufacturing plant for accessories and components in Offida.

Using today's most advanced technologies, Nexans produces and delivers power cables accessories for all levels up to 52 kV.

In the Offida plant, Nexans has the heat-shrink production unit to supply heat-shrinkable tubes to all corporate and customers requirements worldwide.

With wide experience in manufacturing power cable accessories Nexans has the ability to work with customers on a local level and to offer them solutions adapted to comply with national standards and therefore meeting country specific needs.

While every care is taken to ensure that the information contained in this publication is correct, no legal responsibility can be accepted for any inaccuracy. Nexans Italia S.p.a. reserves the right to alter or modify the characteristics of its products described in this catalogue as standards and technology evolve.



## HEAT-SHRINKABLE MEDIUM VOLTAGE ACCESSORIES

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**Application** 

## TTGI1

**HEAT-SHRINKABLE** 

Up to 36 kV

## SINGLE CORE XLPE **INDOOR TERMINATION**

Heat-shrinkable terminations for polymeric cables, are widely used by power utilities and in industrial applications. For use indoor in controlled environmental conditions.

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV

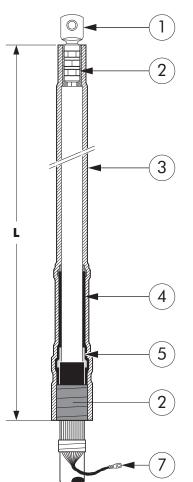
#### Design

- 1. Cable lug (supplied on request).
- 2. Water sealing mastic.
- 3. Anti-tracking heat-shrinkable
- 4. Stress control heat-shrinkable tube.
- 5. Stress control mastic.
- 6. Anti-tracking sheds (only for 36TTGI1).
- 7. Earthing lug.

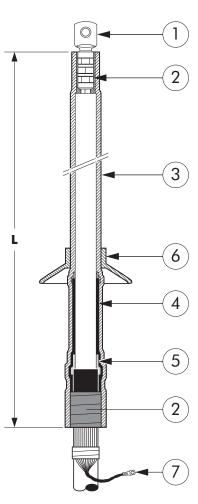
#### Specifications and standards

Meets the requirements of CENELEC HD 629.1 and IEC 60502-4.

### **17TTGI1 & 24TTGI1**



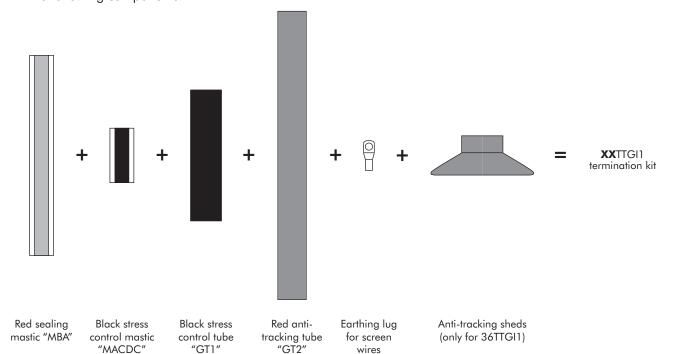
#### **36TTGI1**



Termination type	Voltage Um	Length "L"	Conductor sizes (mm²)	
.//٢٠	(kV)	(mm)	min	max
17TTGI1	12 & 17.5	480	25	630
24TTGI1	24	520	25	630
36TTGI1	36	620	35	630

The complete TTGI1 termination kit comprises the following components:

The kit also comprises installation instructions.



#### I Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

A set of 3 indoor terminations for a 24 kV, 150 mm<sup>2</sup> stranded aluminium cable with copper wire screen is requested, without cable lugs.

Order: 3 x 24TTGI1.240i.

Ordering part number	Voltage U <sub>o</sub> /U (kV)		r size range nm²)
	(/	min	max
17TTGI1.50i	6/10 & 6.35/11 & 8.7/15	25	50
17TTGI1.120i	6/10 & 6.35/11 & 8.7/15	70	120
17TTGI1.300i	6/10 & 6.35/11 & 8.7/15	150	300
17TTGI1.630i	6/10 & 6.35/11 & 8.7/15	400	630
24TTGI1.95i	12/20 & 12.7/22	25	95
24TTGI1.240i	12/20 & 12.7/22	50	240
24TTGI1.630i	12/20 & 12.7/22	300	630
36TTGI1.150i	18/30 & 19/33	35	150
36TTGI1.300i	18/30 & 19/33	150	300
36TTGI1.630i	18/30 & 19/33	400	630



For use with copper wire screened cables. An earthing lug is included.



For use with copper tape screened cables. Order: -Ai instead of -i (e.g. 24TTG11.240Ai).



For use with aluminium tape screened cables (C 33-226). Please contact our representative.



For use with three-core cables: see TTG13.



For use with other cables.
Please contact our representative.



Can be supplied with all common types of cable lugs.





## TTGE1

**HEAT-SHRINKABLE** SINGLE CORE XLPE **OUTDOOR TERMINATION** 

Up to 36 kV

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV

18/30 (36) kV 19/33 (36) kV

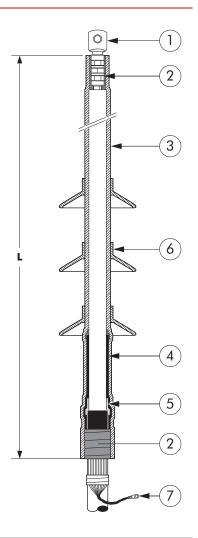
#### **Application**

Heat-shrinkable terminations for polymeric cables, are widely used by power utilities and in industrial applications. For use outdoors and exposed to prolonged sunshine and other weather conditions.

#### Design

- 1. Cable lug (supplied on request).
- 2. Water sealing mastic.
- 3. Anti-tracking heat-shrinkable
- 4. Stress control heat-shrinkable tube.
- 5. Stress control mastic.
- 6. Anti-tracking sheds.
- 7. Earthing lug.

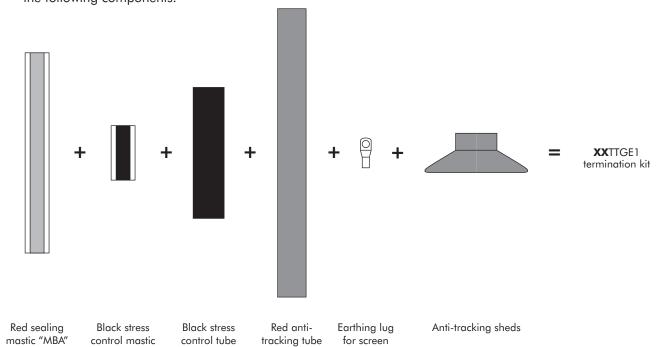
#### Specifications and standards



Termination type	Voltage Um	Length "L"		Conductor sizes (mm²)		Creepage length (mm)
71	(kV)	(mm)	min	max		
17TTGE1	12 & 17.5	480	25	630	2	600
24TTGE1	24	520	25	630	3	700
36TTGE1	36	620	35	630	3	800

The complete TTGE1 termination kit comprises the following components:

The kit also comprises installation instructions.



wires

"GT2"

#### Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

"MACDC"

"GT1"

#### **Example:**

An outdoor termination for a 12 kV, 240 mm<sup>2</sup> stranded aluminium cable with copper wire screen is requested, without cable lug. Order: 17TTGE1.300i.

Ordering part	Voltage U <sub>0</sub> /U	Conductor (mi	size range m²)
number	(kV)	min	max
17TTGE1.50i	6/10 & 6.35/11 & 8.7/15	25	50
17TTGE1.120i	6/10 & 6.35/11 & 8.7/15	70	120
17TTGE1.300i	6/10 & 6.35/11 & 8.7/15	150	300
17TTGE1.630i	6/10 & 6.35/11 & 8.7/15	400	630
24TTGE1.95i	12/20 & 12.7/22	25	95
24TTGE1.240i	12/20 & 12.7/22	50	240
24TTGE1.630i	12/20 & 12.7/22	300	630
36TTGE1.150i	18/30 & 19/33	35	150
36TTGE1.300i	18/30 & 19/33	150	300
36TTGE1.630i	18/30 & 19/33	400	630



For use with copper wire screened cables. Earthing lug is included.



For use with copper tape screened cables. Order: -Ai instead of -i (e.g. 17TTGE1.300Ai).



For use with aluminium tape screened cables (C 33-226).
Please contact our representative.



For use with three-core cables: see TTGE3.



For use with other cables.
Please contact our representative.



Can be supplied with all common types of cable lugs.





## TTGI3

HEAT-SHRINKABLE THREE CORE XLPE INDOOR TERMINATION

Up to 36 kV

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV

18/30 (36) kV 19/33 (36) kV

#### Application

Heat-shrinkable terminations for three core polymeric cables, are widely used by power utilities and in industrial applications.

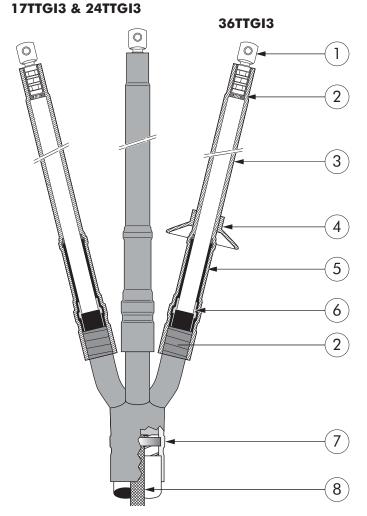
An earthing kit for both copper wires and copper tape screen, is included in the kit.

For use indoor in controlled environmental conditions.

#### Design

- 1. Cable lug (supplied on request).
- 2. Water sealing mastic.
- 3. Anti-tracking heat-shrinkable tube.
- 4. Anti-tracking sheds (only for 36TTGI3).
- 5. Stress control heat-shrinkable tube.
- 6. Stress control mastic.
- 7. Break-out.
- 8. Flexible tinned copper braid.

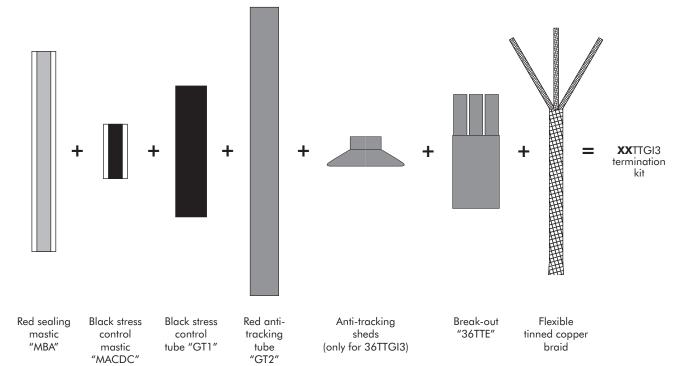
## Specifications and standards



Termination type	Voltage Um		tor sizes m²)
турс	(kV)	min	max
17TTGI3	12 & 17.5	25	630
24TTGI3	24	25	630
36TTGI3	36	35	400

The complete TTGI3 termination kit comprises the following components:

The kit also comprises installation instructions, roll springs, a metallic clamp and an earthing lug for copper screen wires



#### I Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

The cable is 12 kV, 3 x 150 mm<sup>2</sup> stranded aluminium, with an individual copper tape screen and a steel wire armour.

Order: 17TTGI3.300w.

Ordering part	Voltage U <sub>0</sub> /U		size range m²)
number	(kV)	min	max
17TTGI3.50w	6/10 & 6.35/11 & 8.7/15	25	50
17TTGI3.120w	6/10 & 6.35/11 & 8.7/15	70	120
17TTGI3.300w	6/10 & 6.35/11 & 8.7/15	150	300
17TTGI3.630w	6/10 & 6.35/11 & 8.7/15	400	630
24TTGI3.95w	12/20 & 12.7/22	25	95
24TTGI3.240w	12/20 & 12.7/22	50	240
24TTGI3.630w	12/20 & 12.7/22	300	630
36TTGI3.120w	18/30 & 19/33	35	120
36TTGI3.300w	18/30 & 19/33	150	300
36TTGI3.400w	18/30 & 19/33	240	400



For tail length 'X' of 1200 mm. Order: -1200 mm.



For use with copper tape screened cables. No further earthing device is necessary.



For use with copper wire screened cables. No further earthing device is necessary.



For use with other cable types.
Please contact our representative.



For use with single core cables: see TTG11.



Can be supplied with all common types of cable lugs.





## TTGE3

**HEAT-SHRINKABLE** THREE CORE XLPE **OUTDOOR TERMINATION** 

Up to 36 kV

6/10 (12) kV 6.35/11 (12)

8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV

18/30 (36) kV 19/33 (36) kV

#### **Application**

Heat-shrinkable terminations for three core polymeric cables, are widely used by power utilities and in industrial applications.

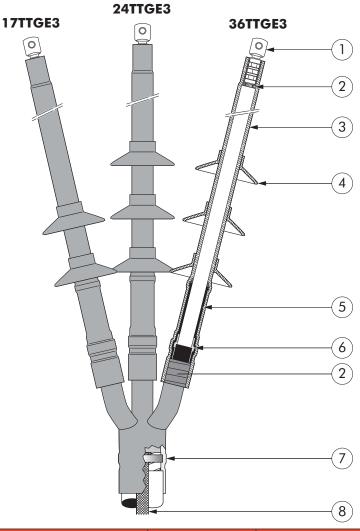
An earthing kit for both copper wires and copper tape screen, is included in the kit.

For use outdoors and exposed to prolonged sunshine and other weather conditions.

#### Design

- 1. Cable lug (supplied on request).
- 2. Water sealing mastic.
- 3. Anti-tracking heat-shrinkable tube.
- 4. Anti-tracking sheds.
- 5. Stress control heat-shrinkable tube.
- 6. Stress control mastic.
- 7. Break-out.
- 8. Flexible tinned copper braid.

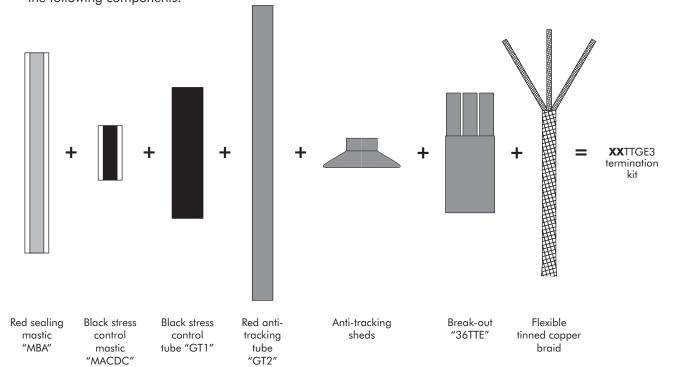
#### Specifications and standards



Termination type	Voltage Um	Conductor sizes (mm²)		Number of sheds	Creepage length	
(kV)		min	max		()	
17TTGE3	12 & 17.5	25	630	2	700	
24TTGE3	24	25	630	3	860	0000/
36TTGE3	36	35	400	3	1380	03 /0/

The complete TTGE3 termination kit comprises the following components:

The kit also comprises installation instructions, roll springs, a metallic clamp and an earthing lug for copper screen wires.



#### Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

The cable is 24 kV, 3 x 120 mm<sup>2</sup> stranded aluminium, with an individual copper tape screen and a steel wire armour.

Order: 24TTGE3.240w.

Ordering part	Voltage U <sub>o</sub> /U		size range m²)
number	(kV)	min	max
17TTGE3.50w	6/10 & 6.35/11 & 8.7/15	25	50
17TTGE3.120w	6/10 & 6.35/11 & 8.7/15	70	120
17TTGE3.300w	6/10 & 6.35/11 & 8.7/15	150	300
17TTGE3.630w	6/10 & 6.35/11 & 8.7/15	400	630
24TTGE3.95w	12/20 & 12.7/22	25	95
24TTGE3.240w	12/20 & 12.7/22	50	240
24TTGE3.630w	12/20 & 12.7/22	300	630
36TTGE3.120w	18/30 & 19/33	35	120
36TTGE3.300w	18/30 & 19/33	150	300
36TTGE3.400w	18/30 & 19/33	240	400



For tail length 'X' of 1200 mm. Order: -1200 mm.



For use with copper tape screened cables. No further earthing device is necessary.



For use with copper wire screened cables. No further earthing device is necessary.



For use with other cable types.
Please contact our representative.



For use with single core cables: see TTGE1.



Can be supplied with all common types of cable lugs.





## **17TTCI3**

**HEAT-SHRINKABLE** THREE CORE PILC **INDOOR TERMINATION** 

**Up to 17.5 kV** 

# **Application**

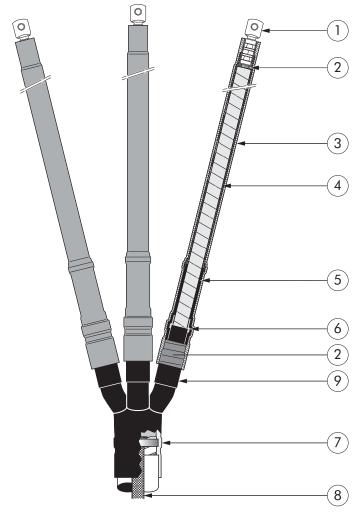
Heat-shrinkable terminations for three core PILC cables, both belted and Höchstädter cable, are used by power utilities and in industrial applications. For use indoor in controlled environmental conditions.

> 6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV

#### Design

- 1. Cable lug (supplied on request).
- 2. Water sealing mastic and tape.
- 3. Anti-tracking heat-shrinkable tube.
- 4. Barrier tube.
- 5. Stress control heat-shrinkable tube.
- 6. Stress control mastic.
- 7. Semi-conductive break-out.
- 8. Flexible tinned copper braid.
- 9. Semi-conductive tube.

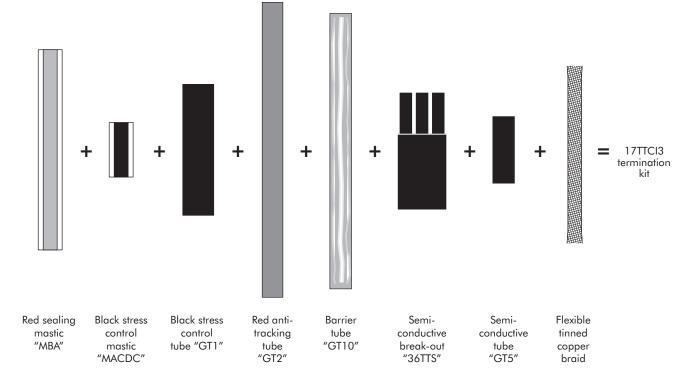
#### Specifications and standards



Termination type	Voltage Um		Diameter over outer sheath (mm)		er over ation (mm)		tor sizes m²)
	(kV)	min	max	min	max	min	max
17TTCl3	12 & 17.5	35.0	100.0	13.0	42.0	25	400

The complete 17TTCI3 termination kit comprises the following components:

The kit also comprises silicone tape "NGASG" and installation instructions.



#### Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

The cable is 12 kV, 3 x 150 mm<sup>2</sup> stranded aluminium, paper insulation, common lead sheath and a steel wire armour.

Order: 17TTCI3.300w.

Ordering part	Voltage U <sub>0</sub> /U	Conductor (mi	
number	(kV)	min	max
17TTCl3.50w 17TTCl3.120w	6/10 and 8.7/15 6/10 and 8.7/15	25 50	50 120
17TTCl3.300w	6/10 and 8.7/15	120	300
17TTCl3.400w	6/10 and 8.7/15	300	400



For tail length 'X' of 1200 mm. Order: -1200 mm.



For use with PICAS cables.
Please contact our representative.



For use with other sizes and cable types. Please contact our representative.



For use with single core cables: please contact our representative.



For use with XLPE cables: see TTG11 and TTG13.



Can be supplied with all common types of cable lugs.





## TTGIC3

**HEAT-SHRINKABLE** THREE CORE PILC **INDOOR TERMINATION** 

Up to 36 kV

## **Application**

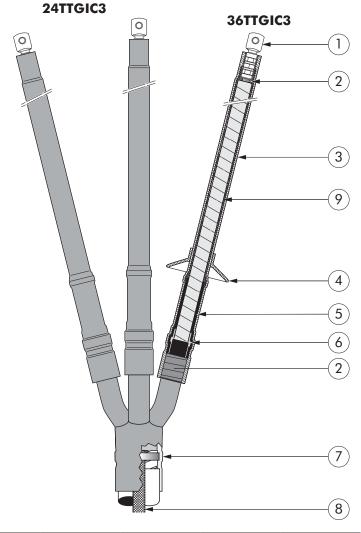
Heat-shrinkable terminations for three core PILC cables, individual lead cover, are used by power utilities and in industrial applications. For use indoor in controlled environmental conditions.

12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV

#### Design

- 1. Cable lug (supplied on request).
- 2. Water sealing mastic and tape.
- 3. Anti-tracking heat-shrinkable
- 4. Anti-tracking sheds (only for 36TTGIC3).
- 5. Stress control heat-shrinkable tube.
- 6. Stress control mastic.
- 7. Break-out.
- 8. Flexible tinned copper braid.
- 9. Barrier tube.

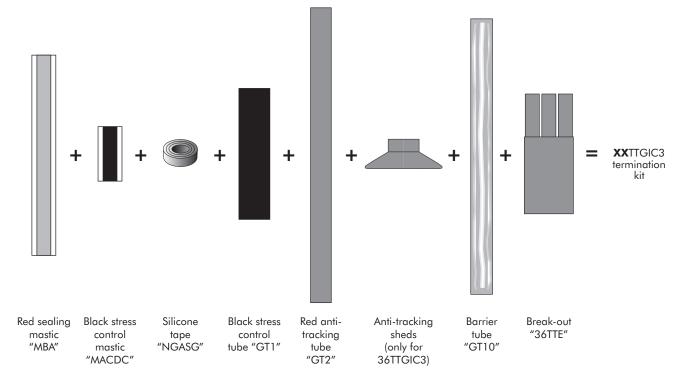
#### Specifications and standards



Termination type	Voltage Um	Diameter over outer sheath (mm)			ter over ation (mm)		tor sizes m²)	
.,,,,,	(kV)	min	max	min	max	min	max	
24TTGIC3	24	45.0	110.0	17.0	45.0	25	400	0000
36TTGIC3	36	55.0	120.0	23.0	45.0	25	400	70/00

The complete TTGIC3 termination kit comprises the following components:

The kit also comprises a flexible tinned copper braid and installation instructions.



#### Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

The cable is 36 kV, 3 x 120 mm<sup>2</sup> stranded aluminium, paper insulation, common lead sheath and a steel wire armour.

Order: 36TTGIC3.300w.

Ordering part	Voltage U <sub>0</sub> /U	Conductor size range (mm²)	
number	(kV)	min	max
24TTGIC3.95w	12/20	25	95
24TTGIC3.240w	12/20	50	240
24TTGIC3.400w	12/20	185	400
36TTGIC3.120w	18/30	35	120
36TTGIC3.300w	18/30	120	300
36TTGIC3.400w	18/30	240	400



For tail length 'X' of 1200 mm. Order: -1200 mm.



For use with PICAS cables.
Please contact our representative.



For use with individual screened, common lead sheathed cable.
Please contact our representative.



For use with single core cables: please contact our representative.



For use with XLPE cables: see TTG11 and TTG13.



Can be supplied with all common types of cable lugs.





## **17TTCE3**

**HEAT-SHRINKABLE** THREE CORE PILC **OUTDOOR TERMINATION** 

**Up to 17.5 kV** 

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV

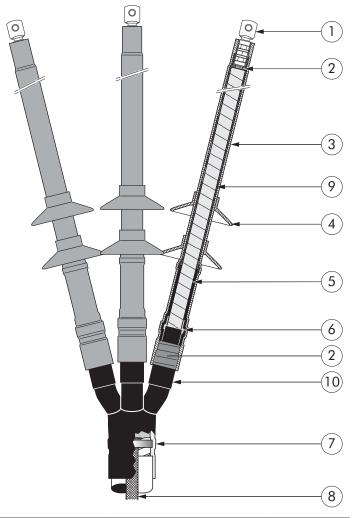
## **Application**

Heat-shrinkable terminations for three core PILC cables, both belted and Höchstädter cable, are used by power utilities and in industrial applications. For use outdoors and exposed to prolonged sunshine and other weather conditions.

#### Design

- 1. Cable lug (supplied on request).
- 2. Water sealing mastic and tape.
- 3. Anti-tracking heatshrinkable tube.
- 4. Anti-tracking sheds.
- 5. Stress control heatshrinkable tube.
- 6. Stress control mastic.
- 7. Semi-conductive break-out.
- 8. Flexible tinned copper braid.
- 9. Barrier tube.
- 10. Semi-conductive tube.

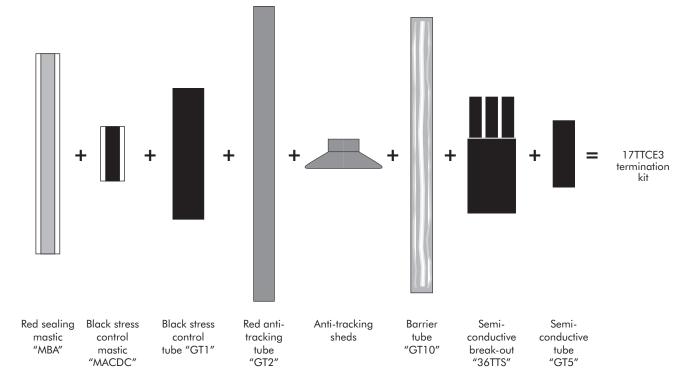
#### Specifications and standards



Termination type	Voltage Um		Diameter over Diameter over Conductor si outer sheath (mm) core insulation (mm) (mm²)				
<b>,</b> ,	(kV)	min	max	min	max	min	max
17TTCE3	12 & 17.5	35.0	100.0	13.0	42.0	25	400

The complete 17TTCE3 termination kit comprises the following components:

The kit also comprises a flexible tinned copper braid, silicone tape "NGASG" and installation instructions.



#### I Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

The cable is 12 kV, 3 x 150 mm<sup>2</sup> stranded aluminium. It has an individual copper tape screen and a steel wire armour.

Order: 17TTCE3.300w.

Ordering part	Voltage U <sub>0</sub> /U	Conductor size range (mm²)	
number	(kV)	min	max
17TTCE3.50w 17TTCE3.120w 17TTCE3.300w 17TTCE3.400w	6/10 and 8.7/15 6/10 and 8.7/15 6/10 and 8.7/15 6/10 and 8.7/15	25 50 120 300	50 120 300 400



For tail length 'X' of 1200 mm. Order: -1200 mm.



For use with PICAS cables.
Please contact our representative.



For use with other sizes and cable types. Please contact our representative.



For use with single core cables: please contact our representative.



For use with XLPE cables: see TTGE1 and TTGE3.



Can be supplied with all common types of cable lugs.





## TTGEC3

HEAT-SHRINKABLE THREE CORE PILC OUTDOOR TERMINATION

Up to 36 kV

## I Application

Heat-shrinkable terminations for three core PILC cables, both individual and common lead cover, are used by power utilities and in industrial applications.

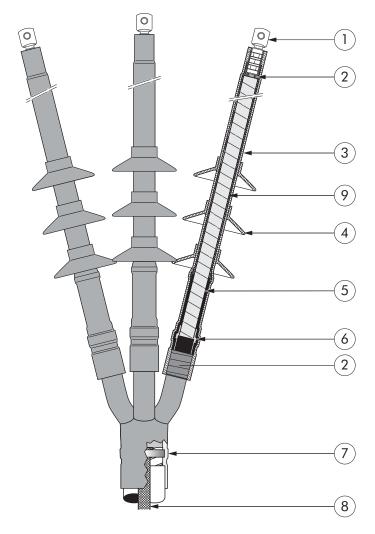
For use outdoors and exposed to prolonged sunshine and other weather conditions.

12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV

#### Design

- 1. Cable lug (supplied on request).
- 2. Water sealing mastic.
- 3. Anti-tracking heat-shrinkable tube.
- 4. Anti-tracking sheds.
- 5. Stress control heat-shrinkable tube.
- 6. Stress control mastic.
- 7. Break-out.
- 8. Flexible tinned copper braid.
- 9. Barrier tube.

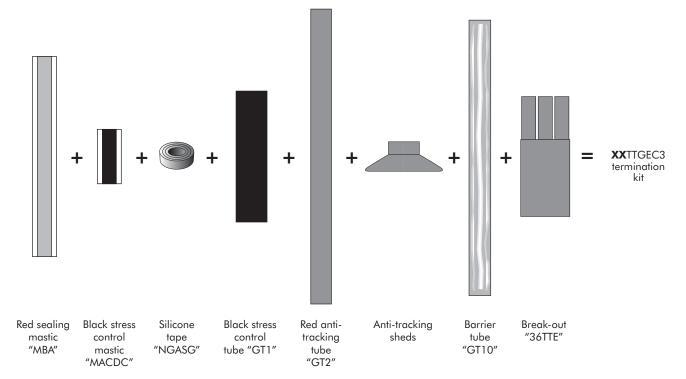
## Specifications and standards



	Termination type	Voltage Um (kV)		ctor sizes nm²)	Number of sheds	Creepage length
	24TTGEC3	24	25	400	3	820
24TTGEC3 24 25 400 3 820 3	36TTGEC3	36	25	400	3	960

The complete TTGEC3 termination kit comprises the following components:

The kit also comprises a flexible tinned copper braid and installation instructions.



#### Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

The cable is 24 kV, 3 x 120 mm<sup>2</sup> stranded aluminium. It has an individual copper tape screen and a steel wire armour.

Order: 24TTGEC3.240w.

Ordering part	Voltage U <sub>0</sub> /U	Conductor size range (mm²)	
number	(kV)	min	max
24TTGEC3.95w	12/20	25	95
24TTGEC3.240w	12/20	50	240
24TTGEC3.400w	12/20	185	400
36TTGEC3.120w	18/30	35	120
36TTGEC3.300w	18/30	120	300
36TTGEC3.400w	18/30	240	400



For tail length 'X' of 1200 mm.
Order: -1200.



For use with PICAS cables.
Please contact our representative.



For use with individual screened, common lead sheathed cable.
Please contact our representative.



For use with single core PILC cables: please contact our representative.



For use with XLPE cables: see TTGE1 and TTGE3.



Can be supplied with all common types of cable lugs.





#### GTS1 **HEAT-SHRINKABLE** SINGLE CORE XLPE **STRAIGHT JOINT**

Up to 36 kV

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV

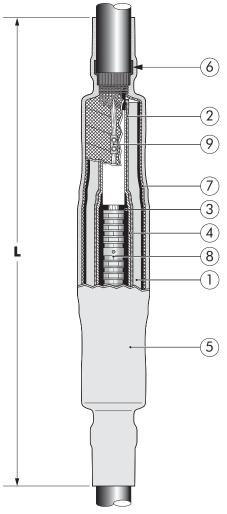
## Application

For jointing polymeric cable to be laid in air or directly buried. The product is fully screened and fully submersible.

#### Design

- 1. Dual wall tube.
- 2. Stress control tube.
- 3. Stress control mastic.
- 4. Non-tracking tube (only for 36GTS1).
- 5. Overall protection tube.
- 6. Sealing mastic.
- 7. Screen continuity (copper mesh).
- 8. Conductor connector (supplied on request).
- 9. Ferrule for screen wires.

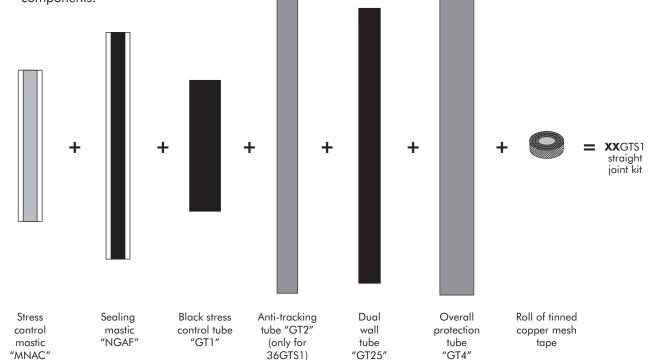
#### Specifications and standards



Straight Joint type	Voltage Um	Length "L"	Conductor sizes (mm²)	
.//-	(kV)	(mm)	min	max
17GTS1	12 & 17.5	750	25	630
24GTS1	24	750	25	630
36GTS1	36	750 - 1000	35	630

The complete GTS1 joint kit comprises the following components:

The kit also comprises installation instructions, semi-conductive tape, adhesive tape, a copper braid and a ferrule for the screen wire connection.



### Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

The copper wire screened cable is 12 kV, 150 mm<sup>2</sup> stranded aluminium.

Order: 17GTS1.240w.

Ordering part	U <sub>0</sub> /U (mm²)		_
number	(kV)	min	max
17GTS1.50w	6/10 & 6.35/11 & 8.7/15	25	50
17GTS1.95w	6/10 & 6.35/11 & 8.7/15	50	95
17GTS1.240w	6/10 & 6.35/11 & 8.7/15	95	240
17GTS1.630w	6/10 & 6.35/11 & 8.7/15	240	630
24GTS1.50w	12/20 & 12.7/22	25	50
24GTS1.240w	12/20 & 12.7/22	50	240
24GTS1.400w	12/20 & 12.7/22	150	400
24GTS1.630w	12/20 & 12.7/22	400	630
36GTS1.95i	18/30 & 19/33	35	95
36GTS1.240i	18/30 & 19/33	70	240
36GTS1.400i	18/30 & 19/33	120	400
36GTS1.630i	18/30 & 19/33	400	630



For use with copper wire screened cables. No further earthing device is necessary.



For use with copper tape screened cables.
Order: -Aw/-Ai instead of -w/-i (e.g. 17GTS1.240Aw).



For use with other cable types. Please contact our representative.



For use with three-core cables: see GTS3.



When jointing cables of different sizes, please contact our representative.



Can be supplied with all common types of conductor connectors.





GTS3 **HEAT-SHRINKABLE** THREE CORE XLPE **STRAIGHT JOINT** 

Up to 36 kV

6/10 (12) kV 6.35/11 (12) 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV

19/33 (36) kV

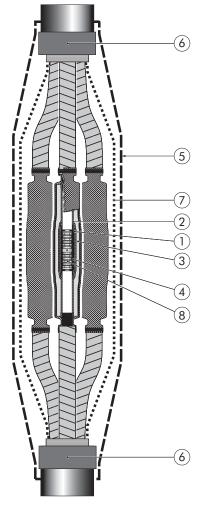
## **I** Application

For jointing three core polymeric cable to be directly buried. The product is fully screened and fully submersible.

#### Design

- 1. Dual wall tube type.
- 2. Stress control tube.
- 3. Screen continuity (copper mesh).
- 4. Stress control mastic.
- 5. Overall protection tube.
- 6. Sealing mastic.
- 7. Canister.
- 8. Conductor connector (supplied on request).
- 9. Non-tracking tube (only for 36GTS3 - not shown).

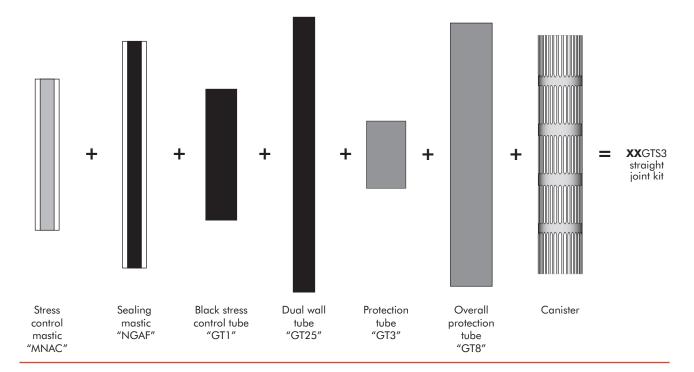
#### Specifications and standards



Straight Joint type	Voltage Um	Length "L"	Conductor sizes (mm²)	
.,,,,,	(kV)	(mm)	min	max
17GTS3	12 & 17.5	1200	25	400
24GTS3	24	1200	25	400
36GTS3	36	1400 - 2300	35	400

The complete GTS3 joint kit comprises the following components:

The kit also comprises installation instructions, semi-conductive tape, adhesive tape, a copper braid, tinned copper mesh tape, armour continuity roll springs and a ferrule for the screen wire connection.



## Ordering instructions

Select the part number corresponding to both system voltage and cable dimensions.

#### **Example:**

The cable is 24 kV, 3 x 120 mm<sup>2</sup> stranded aluminium with an individual copper tape screen and a steel wire armour.

Order: 24GTS3.240k.

Ordering part	Voltage U <sub>o</sub> /U	Conductor size range (mm²)		
number	(kV)	min	max	
17GTS3.50k	6/10 & 6.35/11 & 8.7/15	25	50	
17GTS3.95k	6/10 & 6.35/11 & 8.7/15	50	95	
17GTS3.300k	6/10 & 6.35/11 & 8.7/15	95	300	
17GTS3.400k	6/10 & 6.35/11 & 8.7/15	240	400	
24GTS3.50k	12/20 & 12.7/22	25	50	
24GTS3.240k	12/20 & 12.7/22	50	240	
24GTS3.400k	12/20 & 12.7/22	150	400	
36GTS3.95k	18/30 & 19/33	35	95	
36GTS3.240k	18/30 & 19/33	70	240	
36GTS3.400k	18/30 & 19/33	150	400	



For use with copper wire screened cables. No further earthing device is necessary.



When jointing cables of different sizes, please contact our representative.



For use with other cable types.
Please contact our representative.



For use with single core cables: see GTS1.



Different types of screen continuity kits can be supplied. Please contact our representative.



Can be supplied with all common types of conductor connectors.





# GTM3 HEAT-SHRINKABLE THREE CORE TRANSITION JOINT

Up to 36 kV

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV

#### Application

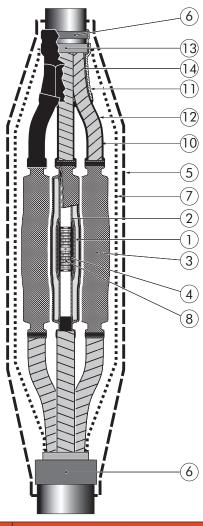
For jointing three-core paper cables (draining and non-draining) to three core polymeric cables. For use with belted or screened (Höchstädter) cables with a common lead sheath. This transition joint is fully screened, submersible and suitable to be directly buried.

#### Design

- 1. Dual wall tube.
- 2. Stress control tube.
- 3. Screen continuity (copper mesh).
- 4. Stress control mastic.
- 5. Overall protection tube.
- 6. Sealing mastic.
- 7. Canister.
- Conductor connector (supplied on request).
- 9. Non-tracking tube (only for 36GTM3 not shown).
- 10. Barrier tube.
- 11. Semi-conductive break-out.
- 12. Semi-conductive tubes.
- 13. Stress control mastic.
- 14. Semi-conductive tape.

# Specifications and standards

Meets the requirements of CENELEC HD 629.2 and IEC 60502-4.

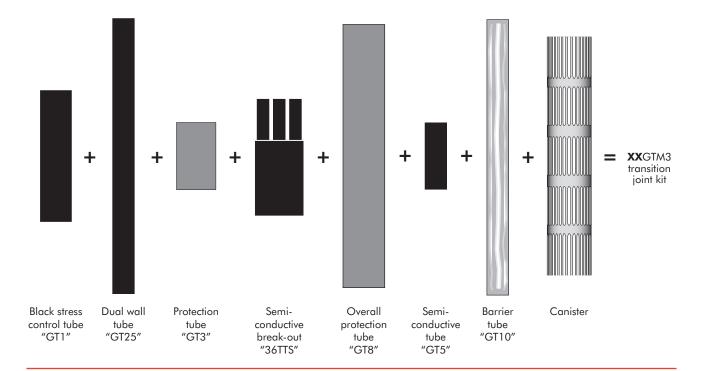


Straight Joint	Voltage Um	Length "L"		tor sizes m²)	
.,,,,,	(kV)	(mm)	min	max	
17GTM3	12 - 17.5	1600 - 1800	25	400	
24GTM3	24	1600 - 1800	25	400	
36GTM3	36	1800 - 2100	35	400	3

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The complete GTM3 joint kit comprises the following components:

The kit also comprises installation instructions, semi-conductive tape, Hi-K mastic, sealing mastic "NGAF", adhesive tape, copper braid, tinned copper mesh tape, armour continuity and roll springs.



## Ordering instructions

Select the part number corresponding to both system voltage and cable dimensions.

#### **Example:**

The three core belted cable is 12 kV, 3 x 150 mm², non-draining, armoured and must be jointed to a three core 12 kV, 150 mm² XLPE cable.

Order: 17GTM3.300K.

Ordering part	Voltage U <sub>0</sub> /U	Conductor (mi	_
number	(kV)	min	max
17GTM3.50K	6/10 and 8.7/15	25	50
17GTM3.95K	6/10 and 8.7/15	50	95
17GTM3.300K	6/10 and 8.7/15	95	300
17GTM3.400K	6/10 and 8.7/15	240	400
24GTM3.50K	12/20	25	50
24GTM3.240K	12/20	50	240
24GTM3.400K	12/20	150	400
36GTM3.95K	18/30	35	95
36GTM3.240K	18/30	70	240
36GTM3.400K	18/30	150	400



When jointing cables of different sizes, please contact our representative.



For use with PICAS cables.
Please contact our representative.



Different armour connections are available. Please contact our representative.



For use with other cable types.
Please contact our representative.



For transition to three single core XLPE cables: see GTM.3.1.



Can be supplied with all common types of conductor connectors.





#### **GTM3.1 HEAT-SHRINKABLE THREE CORE TRANSITION JOINT**

Up to 36 kV

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV

19/33 (36) kV

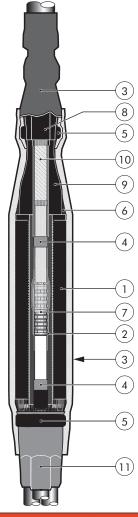
#### **Application**

For jointing three-core paper cables (draining and nondraining) to three single core polymeric cables. For use with belted or screened (Höchstädter) cables with a common lead sheath. This transition joint is fully screened, submersible and suitable to be directly buried.

#### Design

- 1. Dual wall tube.
- 2. Stress control tube.
- 3. Protection tube.
- 4. Hi-K mastic.
- 5. Sealing mastic.
- 6. Screen continuity (copper braid and mesh).
- 7. Conductor connector (supplied on request).
- 8. Semi-conductive break-out.
- 9. Semi-conductive tubes.
- 10. Barrier tube.
- 11. Break-out.

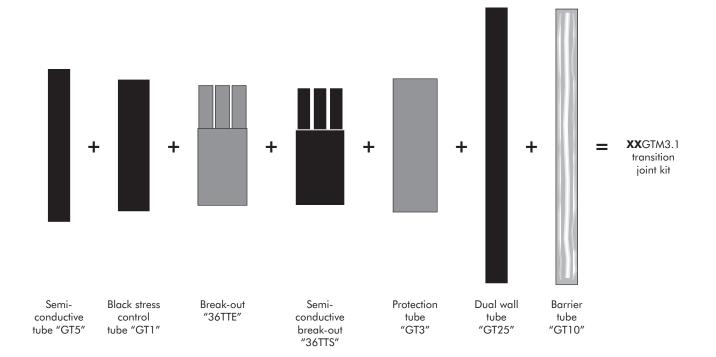
#### Specifications and standards



Straight Joint	Voltage Um	Length "L"		tor sizes m²)
.,,,,,	(kV)	(mm)	min	max
17GTM3.1	12 - 17.5	1800	25	400
24GTM3.1	24	1800	25	400
36GTM3.1	36	1800 - 2300	35	400

The complete GTM3.1 joint kit comprises the following components:

The kit also comprises installation instructions, semi-conductive tape, Hi-K mastic, stress control mastic, sealing mastic "NGAF", adhesive tape, copper braid, tinned copper mesh tape, armour continuity and roll springs.



#### I Ordering instructions

Select the part number corresponding to both system voltage and cable dimensions.

#### **Example:**

The three core belted cable is 12 kV, 3 x 150 mm<sup>2</sup>, non-draining, armoured and must be jointed to a three single core 12 kV, 150 mm<sup>2</sup> XLPE cables. Order: 17GTM3.1.300i.

Ordering part	Voltage U <sub>0</sub> /U (kV)	Conductor size range (mm²)	
number		min	max
17GTM3.1.50i	6/10 and 8.7/15	25	50
17GTM3.1.95i	6/10 and 8.7/15	50	95
17GTM3.1.300i	6/10 and 8.7/15	95	300
17GTM3.1.400i	6/10 and 8.7/15	240	400
24GTM3.1.50i	12/20	25	50
24GTM3.1.240i	12/20	50	240
24GTM3.1.400i	12/20	150	400
36GTM3.1.95i	18/30	35	95
36GTM3.1.240i	18/30	70	240
36GTM3.1.400i	18/30	150	400



When jointing cables of different sizes, please contact our representative.



For use with PICAS cables.
Please contact our representative.



Different armour connections are available. Please contact our representative.



For use with other cable types, please contact our representative.



For transition to three core XLPE cables: see GTM3.



Can be supplied with all common types of conductor connectors.





# GTC3 HEAT-SHRINKABLE THREE CORE PILC STRAIGHT JOINT

Up to 36 kV

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV

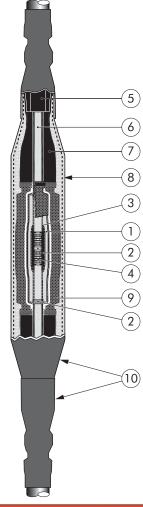
## Application

For jointing three-core paper cables (draining and non-draining). For use with belted or screened (Höchstädter) cables with a common lead sheath. This joint is fully screened, submersible and suitable to be directly buried.

#### Design

- 1. Dual wall tube.
- 2. Hi-K mastic.
- 3. Stress control tube.
- 4. Conductor connector (supplied on request).
- Semi-conductive breakout.
- 6. Barrier tube.
- 7. Semi-conductive tubes.
- 8. Canister.
- 9. Screen continuity (copper braid and mesh).
- 10. Overall protection tubes.

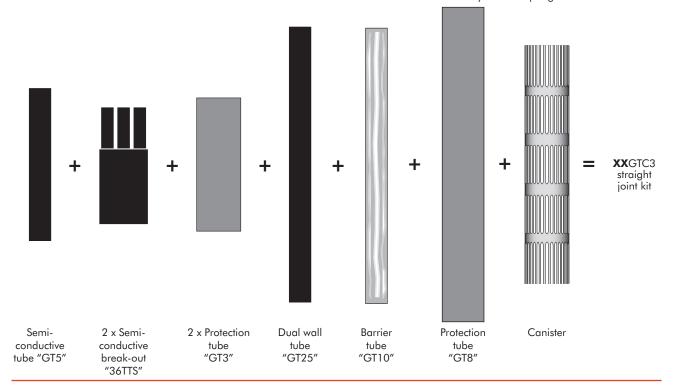
## Specifications and standards



Straight Joint type	Voltage Um	Length Conductor sizes "L" (mm²)		
.,,,,,,	(kV)	(mm)	min	max
17GTC3	12 - 17.5	1600 - 1800	25	400
24GTC3	24	1800	25	400
36GTC3	36	1800 - 2100	35	400

The complete GTC3 joint kit comprises the following components:

The kit also comprises installation instructions, semi-conductive tape, Hi-K and stress control mastic, sealing mastic "NGAF", adhesive tape, copper braid, tinned copper mesh tape, armour continuity and roll springs.



#### Ordering instructions

Select the part number corresponding to both system voltage and conductor size.

#### **Example:**

The cable is 24 kV, 3 x 120 mm<sup>2</sup> stranded aluminium, with non-draining paper insulation. It has an individual tape screen and a steel wire armour. Order: 24GTC3.240k.

Ordering part	Voltage U <sub>0</sub> /U (kV)	Conductor size range (mm²)		
number		min	max	
17GTC3.50k	6/10 and 8.7/15	25	50	
17GTC3.95k	6/10 and 8.7/15	50	95	
17GTC3.300k	6/10 and 8.7/15	95	300	
17GTC3.400k	6/10 and 8.7/15	240	400	
24GTC3.50k	12/20	25	50	
24GTC3.240k	12/20	50	240	
24GTC3.400k	12/20	150	400	
36GTC3.95k	18/30	35	95	
36GTC3.240k	18/30	70	240	
36GTC3.400k	18/30	150	400	



When jointing cables of different sizes, please contact our representative.



For use with PICAS cables.
Please contact our representative.



For use with single core cables, please contact our representative.



For use with individual lead screened cables, please contact our representative.



For use with XLPE cables: see GTS3.



Can be supplied with all common types of conductor connectors.

