

POWER CABLE ACCESSORIES FOR INSTALLATION ONBOARD ALL VESSELS CLASSED BY DNV GL

SHIPS, OFFSHORE UNITS AND HIGH SPEED AND LIGHT CRAFT

CATALOGUE 2019



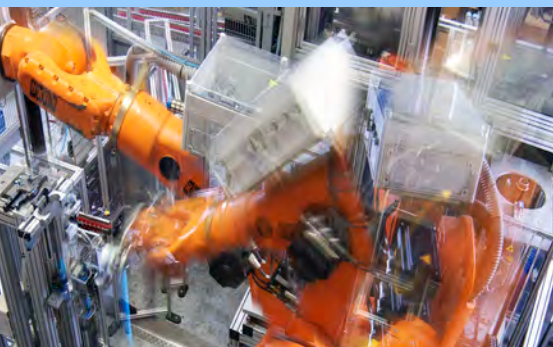
DNVGL.COM/AF



Nexans
BRINGS ENERGY TO LIFE

POWER ACCESSORIES BUSINESS GROUP

COMPANY PRESENTATION



POWER CABLE ACCESSORIES

Nexans is the leading European specialised designer, manufacturer and distributor of prefabricated cable accessories for medium voltage energy distribution. Under its trade names Nexans and Euromold, it provides a complete range of accessories for underground cables: pre-moulded EPDM rubber connectors and silicone terminations for cables and epoxy bushings for transformers and switchgear, as well as a large range of cold and heat shrinkable terminations and joints from 12 to 42 kV. Under the name GPH, a wide range of crimping connectors and lugs, mechanical connectors and lugs for aluminium and copper cables is ex-stock available. Thanks to our long experience, we can provide solutions for customer problems by designing and manufacturing special parts even in small quantities.

Separable connectors

Separable connectors are designed to connect polymeric insulated cable to equipment such as transformers, switchgear, motors... These products are suitable for indoor and outdoor use.

The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.

Cable jumpers

Cable jumpers are prefabricated lengths of cable on which a separable connector or a termination is installed on each end.

Surge arresters

Surge arresters are designed to protect medium voltage components, including transformers, equipment, cable and accessories from high voltage surges resulting from lightning and switching.

Terminations

Terminations are used to connect polymeric insulated cable to equipment and for the outdoor terminating onto overhead lines or bus bars. Indoor terminations are designed for use indoors in controlled environmental conditions and subject to light condensation. Outdoor terminations are for outdoor use and exposure to prolonged sunshine and other weather conditions.

Equipment bushings

Equipment bushings are moulded epoxy insulated parts for use in equipment insulated with oil fluid or gas, typically for transformers, switchgear, capacitors...

Joints

Straight joints are designed for jointing screened polymeric cable to be laid in air or directly buried. The product is fully screened and fully submersible. Transition joints are used to joint single and three core paper cables to three single core polymeric cables.

Ferrules and lugs

Nexans is also a manufacturer of ferrules and lugs to connect low and medium voltage power lines and cables. A wide range of crimping connectors and lugs, mechanical connectors and lugs for aluminium and copper cables are available.

Low voltage

In our product portfolio we also have a whole range of products for low voltage networks: terminations, straight and branch joints, gel or resin filled, heat shrink or cold shrink.

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 Network Solutions N.V. - Div. Euromold reserves the right to alter or modify the characteristics of its products described in this catalogue as standards and technology evolve.

POWER CABLE ACCESSORIES

FOR INSTALLATION ONBOARD ALL VESSELS CLASSED BY DNV GL
SHIPS, OFFSHORE UNITS AND HIGH SPEED AND LIGHT CRAFT

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DNV GL - TYPE APPROVAL CERTIFICATE

TECHNICAL INFORMATION

INTRODUCTION

We received a DNV GL certification for some of our products.

These pages aim at providing information on DNV GL certification and on the Nexans-Euromold products qualified according to this directive. Products approved by the DNV GL certificate are accepted for installation on all vessels classed by DNV GL.

DNV GL is an international accredited registrar and classification society headquartered near Oslo, Norway. It was created in 2013 as a result of a merger between two leading organizations in the field – Det Norske Veritas (Norway) and Germanischer Lloyd (Germany).

As a classification society, DNV GL sets standards for ships and offshore structures – known as Class rules. They comprise safety, reliability and environmental requirements that vessels and other offshore mobile structures in international waters must comply with.

To obtain DNV GL approval, DNV GL experts verify the manufacturing processes for compliance with the Classification rules and further relevant standards.

During this verification, the manufacturer has to demonstrate that:

- He has suitable facilities for manufacturing, testing and inspection;
- The manufacturing is carried out by qualified personnel;
- Constant monitoring of product quality has been established.

PRODUCTS

The products covered by this certificate are:

- 158LR
- 152SR
- 480TB
- 484TB
- 489TB
- 800PB
- 804PB
- 809PB
- 800SA
- 784TB
- 909TB
- 909PB
- 900SA
- AIN
- AFN

These products cover a whole range of applications. If you have requests for other products, please assure yourself the request cannot be covered with these products as the certification of a new product is a long process.

All kitting of these products must be done in Erembodegem (BE).

DNV GL products can never be sold in bulk.

CABLES

The application of these products covers the whole range of sections as described in the Nexans-Euromold catalogue.

It covers the use with cables with aluminium and copper conductors. It allows the use of all bolted and crimped contacts (hexagonal and deep indent).

The original dossier refers to single core XLPE insulated cables with a copper wire screen. For other cable types, please contact us first.

MARKING AND APPLICATION

Products that comply with the DNV GL Type Approval shall be marked for traceability to the Type Approval.

The marking shall be performed by the company holding the Type Approval, at the end of the production phase.



APPLICATION /LIMITATION

Installation has to be done in accordance with the installation instructions.

Use in net voltages above 15 (17,5) kV to be accepted case by case.

TYPE APPROVAL CERTIFICATE

The difference between a DNV GL Type Approval Certificate and a Product Certificate should be noted.

A DNV GL Type Approval Certificate states that the design of a product type is in conformity with specified requirements.



The certificate is valid for a specified period of time.

The Type Approval Certificate confirms compliance with the DNV GL Rules in force at the time of certificate issuance.

INFO

All valid TA certificates will be listed on the internet site Approval Finder <http://approvalfinder.dnvgl.com>

CERTIFICATE

DNV-GL	
TYPE APPROVAL CERTIFICATE	Certificate No: TAE00002HX Revision No: 1
This is to certify: That the Termination and Joint for Cable with type designation(s) 480TB, 484TB, 489TB, 800PB, 804PB, 809PB, 784TB, 909TB, 909PB, 152SR and 158LR Issued to NEXANS network solutions NV Halle, Belgium is found to comply with DNV GL rules for classification – Ships, offshore units, and high speed and light craft	
Application : Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.	
Issued at Høvik on 2019-04-08 This Certificate is valid until 2022-12-21 . DNV GL local station: Antwerp Approval Engineer: Nicolay Horn	<div><div>for DNV GL Digitally Signed By: Low, Hanwee Location: DNV GL Høvik, Norway on behalf of Trond Sjøvåg Head of Section</div></div>
<small>This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.</small>	
	Form code: TA 251 Revision: 2016-12 www.dnvgl.com Page 1 of 4 © DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

06/2019

Job Id: **262.1-026315-1**
 Certificate No: **TAE00002HX**
 Revision No: **1**

Product description

Medium Voltage Outdoor / Indoor Connectors for 10 (12) kV, 15 (17.5) kV, 20 (24) kV, 30 (36) kV & 36 (42) kV, **60-69 (72.5) kV**. Types: 480TB, 484TB, 489TB, 800PB, 804PB, 809PB, **909TB, 909PB**, 784TB, 152SR and 158LR

480TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir* (A)	Conductor size (mm ²)	
			min	max
480TB/G	12	630	35	300
K480TB/G	24	630	35	300
M480TB/G	36	630	50	300
P480TB/G	42	630	50	240

*When using a copper (CU-2) or a bolted (UN-5) connector contact Ir = 1250A

484TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
484TB/G	12	1250	50	630
K484TB/G	24	1250	35	630
M484TB/G	36	1250	35	630
P484TB/G	42	1250	35	630

489TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
489TB/G	12	1250	630	1250
K489TB/G	24	1250	630	1250
M489TB/G	36	1250	630	1250
P489TB/G	42	1250	630	1250

800PB Separate coupling connector

Termination type	Voltage Um (kV)	Current Ir* (A)	Conductor size (mm ²)	
			min	max
800PB/G	12	630	35	630
K800PB/G	24	630	35	630
M800PB/G	36	630	50	630
P800PB/G	42	630	50	630

*When using a copper (CU-2) or a bolted (UN-5) connector contact Ir = 1250A

804PB Separate coupling connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
804PB/G	12	1250	50	630
K804PB/G	24	1250	35	630
M804PB/G	36	1250	35	630
P804PB/G	42	1250	35	630

Job Id: **262.1-026315-1**
 Certificate No: **TAE00002HX**
 Revision No: **1**

809PB Separate coupling connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
809PB/G	12	1250	630	1250
K809PB/G	24	1250	630	1250
M809PB/G	36	1250	630	1250
P809PB/G	42	1250	630	1250

784TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
784TB/G	12	800	50	630
K784TB/G	24	800	35	630
M784TB/G	36	800	35	630
P784TB/G	42	800	35	630

909TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
909TB/G	12	2500	500	1200
K909TB/G	24	2500	400	1200
M909TB/G	36	2500	240	1200
P909TB/G	42	1250	240	1200
R909TB/G	72.5	1250*	95	1200

* When installed on an appropriate equipment bushing

909PB Separate coupling connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
909PB/G	12	2500	500	1200
K909PB/G	24	2500	400	1200
M909PB/G	36	2500	240	1200
P909PB/G	42	1250	240	1200
R909PB/G	72.5	1250*/1800**	95	1200

* When installed on an appropriate equipment bushing

** Daisy chain arrangement

152SR Separate straight connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
152SR/G	12	250	16	70
152SR	12	250	70	95
K152SR/G	24	250	16	25
K152SR	24	250	25	95

Job Id: **262.1-026315-1**
Certificate No: **TAE00002HX**
Revision No: **1**

158LR Separate elbow connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
158LR/G	12	250	16	70
158LR	12	250	70	95
K158LR/G	24	250	16	25
K158LR	24	250	25	95

Application/Limitation

Installation has to be done in accordance with the installation instructions.
Use in net with voltages above 15 (17.5) kV to be accepted case by case.

Type Approval documentation

Technical info:

909TB Interface F Tee Connector, 909PB Coupling connector for 909TB, 480TB, 484TB and 489TB Interface C Tee Connector, 800PB, 804PB, 809PB Coupling connectors for 480TB, 484TB & 489TB, 784TB Interface E-5/8" Tee Connector, 152SR Interface A Straight Connector and 158LR Interface A Elbow Connector, all datasheets from Nexans.

Test reports:

Electrical Testing Laboratory Test Reports nos. TE 213 09 14 dated 2010-05-17, TE 213 11 05 dated 2011-05-26, TE 213 14 12 dated 2015-01-27, TE 213 13 16 dated 2014-02-05, TE 213 15 16 dated 2016-04-05, TE 213 16 16 dated 2017-12-04 & TE 213 18 07 dated 2018-06-13. RWE Test Certificate no. 09.10.25.256-1 dated 2009-12-20.

Tests carried out

Tested according to CENELEC HD 629 and IEC EN 61442 Ed. 2 (03/2005).

Marking of product

Nexans – Factory Identification – Product Description– Voltage class.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE

CERTIFICATE

DNV GL

Certificate No:
TAE00003EB

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electrical Equipment

with type designation(s)
800SA and 900SA,

Issued to

NEXANS network solutions NV
Halle, Belgium

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Temperature
Humidity
Vibration

Issued at **Høvik** on **2019-04-08**

This Certificate is valid until **2022-12-21**.

DNV GL local station: **Antwerp**

Approval Engineer: **Nicolay Horn**



for **DNV GL**

Digitally Signed By: Low, Hanwee
Location: DNV GL Høvik, Norway
on behalf of

Trond Sjøvåg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Form code: TA 251

Revision: 2016-12

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Job Id: **262.1-026315-1**
Certificate No: **TAE00003EB**

Product description

Medium Voltage Outdoor / Indoor surge arrester for 10 (12) kV, 15 (17.5) kV, 20 (24) kV, 30 (36) kV 36 (42) kV, 45 kV & 51kV. Types: 800SA and 900SA.

800SA Interface C Surge Arrester

Surge arrester type	Nominal discharge current In (kA)	Rated voltage Ur(kV)	Max. cont.operating voltage Uc(kV)	Dimensions (mm)	
				min	max
800SA-10-6N	10	6	4.8	270	310
800SA-10-9N	10	9	7.2	270	310
800SA-10-12N	10	12	9.6	270	310
800SA-10-15N	10	15	12.0	270	310
800SA-10-18N	10	18	14.4	270	310
800SA-10-22N	10	22	17.6	270	310
800SA-10-24N	10	24	19.2	370	410
800SA-10-30N	10	30	24.0	370	410
800SA-10-33N	10	33	26.4	370	410
800SA-10-36N	10	36	28.8	370	410
800SA-10-45N	10	45	36.0	470	510
800SA-10-51N	10	51	40.8	470	510

900SA-CD Interface F Surge Arrester

Surge arrester type	Nominal discharge current In (kA)	Rated voltage Ur(kV)	Max. cont. operating voltage Uc(kV)	I _{sc} Rated short-circuit current (kA, 0.2s)
900SA-10-74-CD20	10	74	59.2	20
900SA-10-10-74-D31.5	10	74	59.2	31.5

Application/Limitation

Installation has to be done in accordance with the installation instructions.
Use in net with voltages above 15 (17.5) kV to be accepted case by case.

Type Approval documentation

Technical info:

"800SA SURGE ARRESTER FOR 480TB, 484TB, 489TB, 800PB, 804PB and 809PB CONNECTOR" and 900SA-CD Interface F Surge arrester", datasheets from Nexans.

Test reports:

800SA: CESI test reports nos. B8019069 dated 2018-10-29, A8033876 dated 2009-02-12, A9015078 dated 2009-05-22, B8019037 dated 2018-10-05, B5026525 dated 2016-04-04, B8019035 dated 2018-10-05, B8020552 dated 2018-11-05, B0035443 dated 2013-11-12 and B8019036 dated 2009-10-16.
900SA: CESI test reports nos. B5022909 dated 2016-04-04, B5007594 dated 2015-05-11, B5022910 dated 2016-04-04, B5022725 dated 2016-04-04, B5017853 dated 2015-10-05, B8019468 dated 2018-10-29, B5007609 dated 2015-05-11, B8021835 dated 2018-10-30 and VEIKI-VNL test report no. 8229/vNL dated 2014-11-11.

Tests carried out

Tested according to IEC 60099-4 Ed. 3 (06/2014).

CERTIFICATE

Job Id: **262.1-026315-1**
Certificate No: **TAE00003EB**

Marking of product

Nexans – Factory Identification – Product Description– Voltage class.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Termination kit for Cable

with type designation(s)
AFN and AIN

Issued to

NEXANS network solutions NV
Erembodegem, Belgium

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Issued at Høvik on 2017-12-22

This Certificate is valid until 2022-12-21.

DNV GL local station: Antwerp

Approval Engineer: Nicolay Horn



for DNV GL

Digitally Signed By: Andreas Kristoffersen
Location: DNV GL Høvik, Norway

Andreas Kristoffersen
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



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Job Id: **262.1-026315-1**
Certificate No: **TAE00002HW**

Product description

Medium Voltage Indoor and Outdoor Termination kit FOR 10 (12) kV, 15 (17.5) kV, 20 (24) kV, 30 (36) kV & 36 (36) kV. Type: AFN & AIN

AFN Outdoor Terminations

Termination type	Voltage Um (kV)	Conductor size (mm)	
		min	max
AFN 10	12	25	1200
AFN 20	24	35	1200
AFN 30	36	50	1000
AFN 36	36	70	1000

AIN Indoor Terminations

Termination type	Voltage Um (kV)	Conductor size (mm)	
		min	max
AIN 10	12	25	1200
AIN 20	24	35	1200
AIN 30	36	50	1000
AIN 36	36	150	1000

Application/Limitation

Installation has to be done in accordance with the installation instructions.
Use in net with voltages above 15 (17.5) kV to be accepted case by case

Type Approval documentation

Technical info:

AFN Slip On Outdoor Termination and AIN Slip On Indoor Termination, datasheet from Nexans.

Test reports:

Elektrotechnisches Prüflaboratorium Test Certificates no. 00.10.24.560 dated 2000-11-02, 00.10.24.563 and 99.02.21..041 dated 199-04-26. IPH Type Test Report nos. 1569.0180.2.109 dated 2002- 07-29, 1569.660.9.526 dated 2002-04-23. Euromold – ELAB Test Report no. TE 113 01 08 dated 2002-10-18. Electrical Testing Laboratory Investigation Report no. TE 113 11 02 dated 2011-07-27

Tests carried out

Tested according to CENELEC HD 629.

Marking of product

Nexans – Factory Identification – Product Description– Voltage class.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance

Job Id: **262.1-026315-1**
Certificate No: **TAE00002HW**

- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE

APPLICATION

Separable elbow connector designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors...).

Also connects cable to cable, using the appropriate mating part.

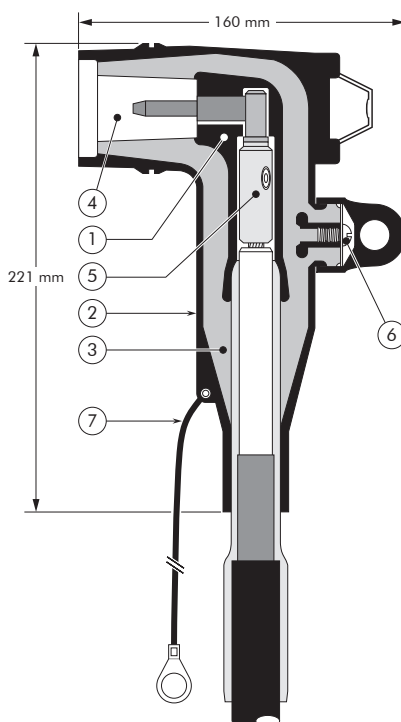
DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Type A - 250 A interface as described by CENELEC EN 50180 and 50181.
5. Conductor connector.
6. Voltage test point.
7. Earthing lead (-/G version only).

TECHNICAL CHARACTERISTICS

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



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

Up to 24 kV - 250 A

EUROMOLD®



SPECIFICATIONS AND STANDARDS

The separable connector 158LR meets the requirements of CENELEC HD 629.1.

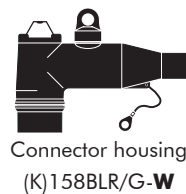
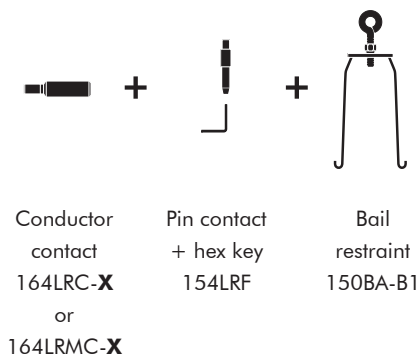
Certified for installation on all vessels classed by DNV GL.

Separable connector type	Voltage U_m (kV)	Current I_r (A)	Conductor sizes (mm ²)	
			min	max
158LR/G-DNV GL	12	250	16	95
158LR-DNV GL	12	250	70	95
K158LR/G-DNV GL	24	250	16	70
K158LR-DNV GL	24	250	25	95

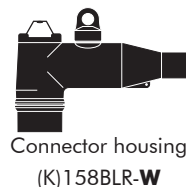
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KIT CONTENTS

The complete (K)158LR or (K)158LR/G elbow connector kit comprises the following components:



+ Cable reducer 211CA = (K)158LR/G-**W-X/DNV GL** connector kit for smaller sizes



+ Cable adaptor 11TL = (K)158LR-**W-X/DNV GL**+11TL connector kit for larger sizes

The kit also comprises lubricant, wipers, installation instructions and crimp chart.

ORDERING INSTRUCTIONS

Select the part number which gives the best centring to the cable core insulation diameter and substitute **X** using table X, according to the conductor size and type. Add a 'K' for use up to 24 kV.

EXAMPLE:

The copper wire screened cable is 24 kV, 50 mm² stranded aluminium with a diameter over core insulation of 20.4 mm. Order a K158LR-FG-50(K)M-12-2+11TL/DNV GL elbow connector kit.

For an option with a bolted conductor contact,

specify the ordering part number below.

TABLE W

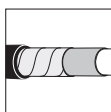
Ordering part number	Dia. over core insulation (mm)	
	min	max
158LR/G-11- X /DNV GL	12.6	16.1
158LR/G-13- X /DNV GL	14.6	18.7
158LR-FB- X +11TL/DNV GL	17.5	20.2
158LR-FG- X +11TL/DNV GL	18.4	21.2
158LR-GA- X +11TL/DNV GL	19.7	22.5
158LR-GAB- X +11TL/DNV GL	21.0	23.8
158LR-GH- X +11TL/DNV GL	23.6	26.4

TABLE X

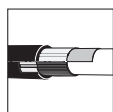
Conductor sizes (mm ²)	Aluminium		Copper
	DIN hexagonal	Deep indent	DIN hexagonal
16	-	-	16(K)M-11-2
25	25(K)M-12-2	25KM-12-1	25(K)M-11-2
35	35(K)M-12-2	35KM-12-1	35(K)M-11-2
50	50(K)M-12-2	50(K)M-12-1*	50(K)M-11-2
70	70(K)M-12-2	70(K)M-12-1*	70(K)M-11-2
95	95(K)M-12-2*	95(K)M-12-1*	95(K)M-11-2*

* The 158LR-FB is not compatible with these conductor contacts.

Ordering part number	Dia. over core insulation (mm)	Conductor sizes (mm ²)
158LR/G-13-25.95-14-5/DNV GL	14.6 - 22.7	35 - 70
158LR-GAS-50.95-14-5+11TL/DNV GL	19.7 - 25.4	25 - 95



For use with copper tape screened cables.
Order: Kit MT.



For use with Alupe or C 33-226 cables.
Please contact our representative.



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



For outdoor applications.
Order: +MWS.



For use on vessels classed by DNV GL.
Add -/DNV GL to part number

APPLICATION

Separable straight connector designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors...).

Also connects cable to cable, using the appropriate mating part.

TECHNICAL CHARACTERISTICS

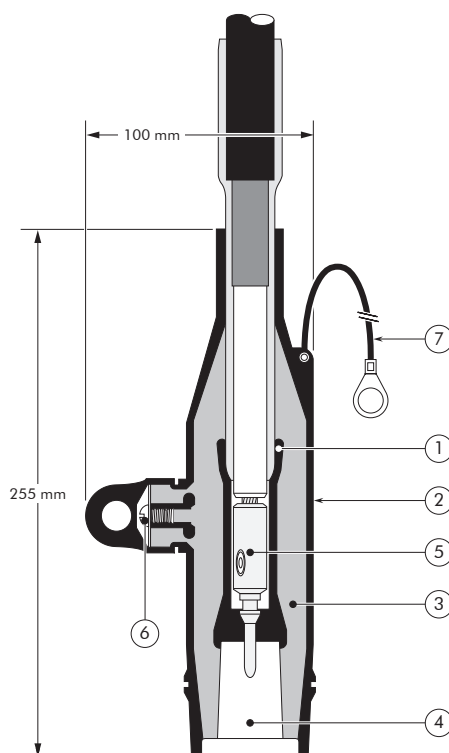
- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Type A - 250 A interface as described by CENELEC EN 50180 and 50181.
5. Conductor connector.
6. Voltage test point.
7. Earthing lead (-/G version only).



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

Up to 24 kV - 250 A

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SPECIFICATIONS AND STANDARDS

The separable connector 152SR meets the requirements of CENELEC HD 629.1.

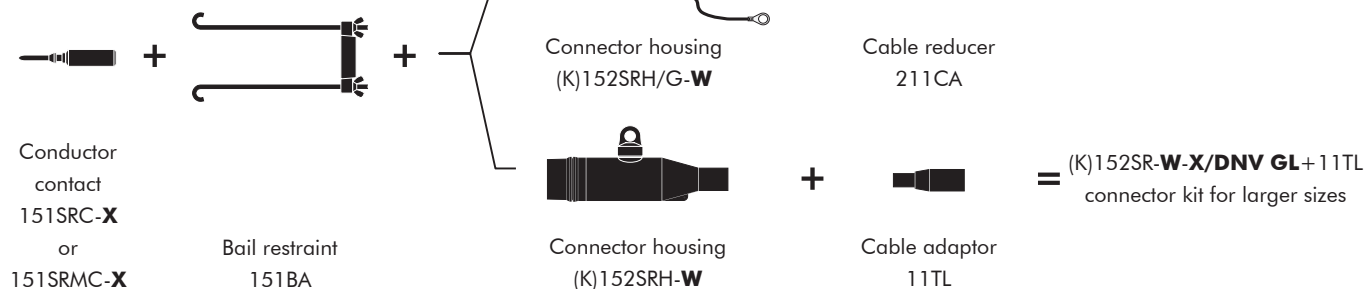
Certified for installation on all vessels classed by DNV GL.

Separable connector type	Voltage U_m (kV)	Current I_r (A)	Conductor sizes (mm ²)	
			min	max
152SR/G-DNV GL	12	250	16	70
152SR-DNV GL	12	250	70	95
K152SR/G-DNV GL	24	250	16	25
K152SR-DNV GL	24	250	25	95

06/2019

KIT CONTENTS

The complete (K)152SR or (K)152SR/G straight connector kit comprises the following components:



ORDERING INSTRUCTIONS

Select the part number which gives the best centring to the cable core insulation diameter and substitute **X** using table X, according to the conductor size and type.

Add a 'K' for use up to 24 kV.

EXAMPLE:

The copper wire screened cable is 24 kV, 50 mm² stranded aluminium with a diameter over core insulation of 20.4 mm. Order a K152SR-FG-50(K)M-12-2+11TL/DNV GL straight connector kit.

For an option with a bolted conductor contact, specify the ordering part number below.

TABLE W

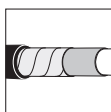
Ordering part number	Dia. over core insulation (mm)	
	min	max
152SR/G-11- X /DNV GL	12.6	16.1
152SR/G-13- X /DNV GL	14.6	18.7
152SR-FB- X +11TL/DNV GL	17.5	20.2
152SR-FG- X +11TL/DNV GL	18.4	21.2
152SR-GA- X +11TL/DNV GL	19.7	22.5
152SR-GAB- X +11TL/DNV GL	21.0	23.8
152SR-GH- X +11TL/DNV GL	23.6	26.4

TABLE X

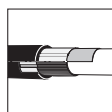
Conductor sizes (mm ²)	Aluminium		Copper
	DIN hexagonal	Deep indent	DIN hexagonal
16	-	-	16(K)M-11-2
25	25(K)M-12-2	25KM-12-1	25(K)M-11-2
35	35(K)M-12-2	35KM-12-1	35(K)M-11-2
50	50(K)M-12-2	50(K)M-12-1*	50(K)M-11-2
70	70(K)M-12-2	70(K)M-12-1*	70(K)M-11-2
95	95(K)M-12-2*	95(K)M-12-1*	95(K)M-11-2*

* The 152SR-FB is not compatible with these conductor contacts.

Ordering part number	Dia. over core insulation (mm)	Conductor sizes (mm ²)
152SR/G-13-25.95-14-5/DNV GL	14.6 - 22.7	35 - 70
152SR-GAS-50.95-14-5+11TL/DNV GL	19.7 - 25.4	25 - 95



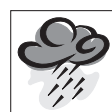
For use with copper tape screened cables.
Order: Kit MT.



For use with Alupear or C 33-226 cables.
Please contact our representative.



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



For outdoor applications.
Order: +MWS.



For use on vessels classed by DNV GL.
Add -/DNV GL to part number

APPLICATION

Separable tee shape connector designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors, ...).

Also connects cable to cable when using the appropriate mating parts.

TECHNICAL CHARACTERISTICS

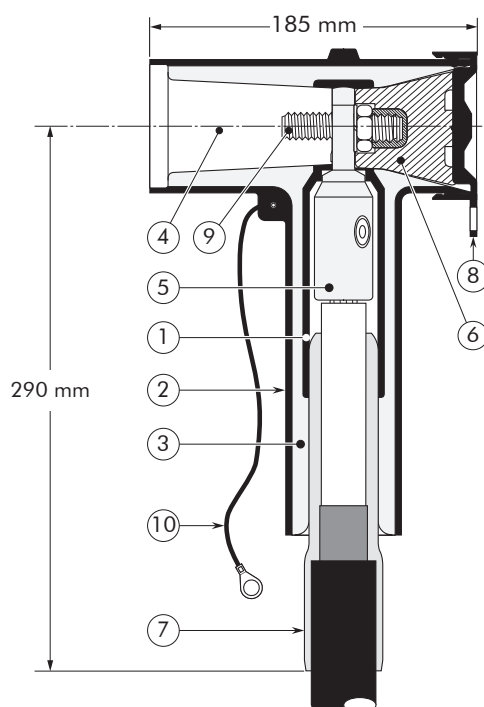
- A thick conductive EPDM jacket provides a total safe to touch screen.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.

DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Type C interface as described by CENELEC EN 50180 and 50181.
5. Conductor contact.
6. Basic insulating plug.
7. Cable reducer.
8. Conductive rubber cap.
9. Clamping screw.
10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.



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
20.8/36 (42) kV

Up to 42 kV
630 A -1250 A

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SPECIFICATIONS AND STANDARDS

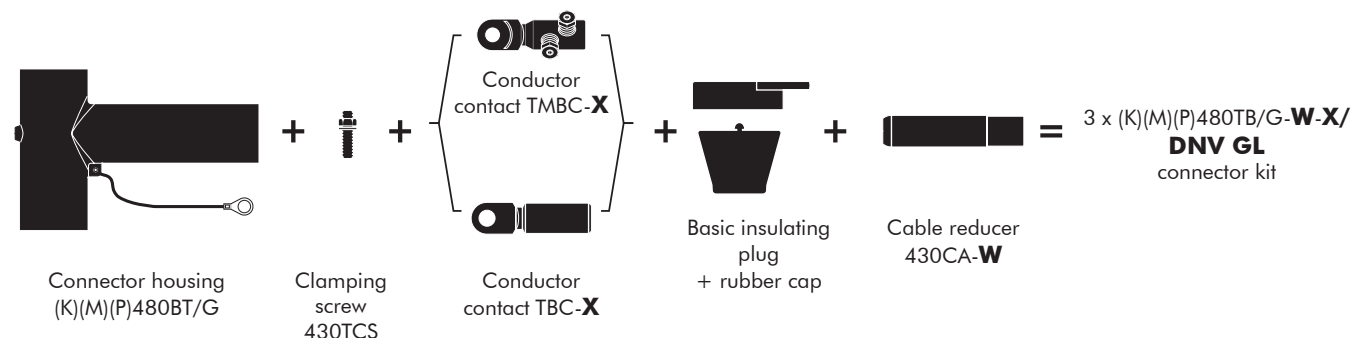
The 480TB separable connector meets the requirements of CENELEC HD 629.1. Certified for installation on all vessels classed by DNV GL.

Separable connector type	Voltage U_m (kV)	Current I_r (A)	Current I_r (A) When using a copper (CU2) or a bolted (UN5) conductor contact	Conductor sizes (mm ²)	
				min	max
480TB/G-DNV GL	12	630	1250	35	300
K480TB/G-DNV GL	24	630	1250	35	300
M480TB/G-DNV GL	36	630	1250	50	300
P480TB/G-DNV GL	42	630	1250	50	240

06/2019

KIT CONTENTS

The complete (K)(M)(P)480TB/G tee connector kit comprises 3x the following components:



The kit also comprises silicone grease, field control mastic, installation rod, gloves, wipers, roll adhesive tape, installation instructions and crimp chart.

ORDERING INSTRUCTIONS

To order the tee connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type. Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

TABLE W

Ordering part number	Dia. over core insulation (mm)	
	min	max
3 x 480TB/G-11-X/DNV GL	12.0	17.5
3 x 480TB/G-16-X/DNV GL	17.0	23.5
3 x 480TB/G-18-X/DNV GL	19.0	28.0
3 x 480TB/G-22-X/DNV GL	23.5	32.0
3 x 480TB/G-27-X/DNV GL	28.5	37.5
3 x 480TB/G-30-X*/DNV GL	34.5	40.5

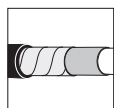
* will include an adapted installation instruction

EXAMPLE:

The cable is 24 kV, 185 mm² compact stranded copper with a diameter over core insulation of 27.5 mm. Order 3 x K480TB/G-22-95.240UN5/DNV GL tee connector kit.

TABLE X

Conductor sizes (mm ²)	Aluminium conductor		Aluminium and copper conductor	Copper conductor
	DIN hexagonal	Deep indent	Bolted	DIN hexagonal
35	35AL2	35AL1	16.95UN5	35CU2
50	50AL2	50AL1		50CU2
70	70AL2	70AL1		70CU2
95	95AL2	95AL1		95CU2
120	120AL2	120AL1	50.150UN5	120CU2
150	150AL2	150AL1		150CU2
185	185AL2	185AL1	95.240UN5	185CU2
240	240AL2	240AL1		240CU2
300	300AL2	—	120.300UN5	300CU2



For use with copper tape screened cables. Order: Kit MT.



This product can also be installed using a stud, nut & washer. Please contact our representative.



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



For applications outdoors and in humid climate. Order: +MWS.



For use on vessels classed by DNV GL. Add -/DNV GL to part number

APPLICATION

Separable tee shape connector designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors, ...).

Also connects cable to cable when using the appropriate mating parts.

DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Type C interface as described by CENELEC EN 50180 and 50181.
5. Conductor contact.
6. Basic insulating plug (with VD point).
7. Cable reducer.
8. Conductive rubber cap.
9. Stud+nut+washer.
10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.

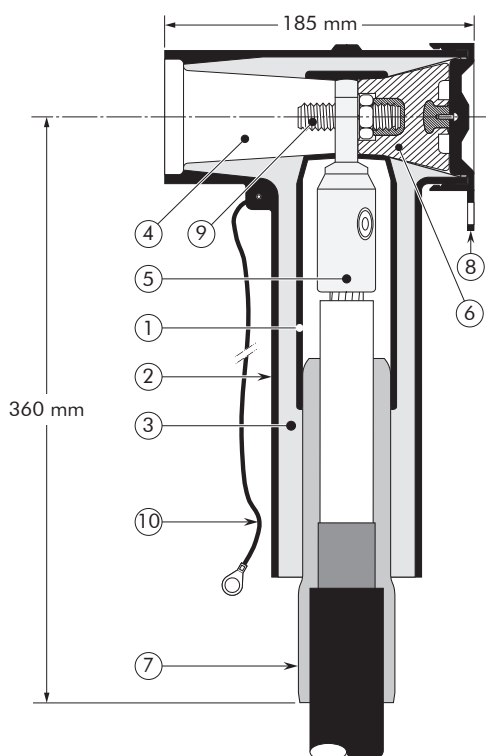
SPECIFICATIONS AND STANDARDS

The 484TB separable connector meets the requirements of CENELEC HD 629.1.

Certified for installation on all vessels classed by DNV GL.

TECHNICAL CHARACTERISTICS

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



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
20.8/36 (42) kV

Up to 42 kV
630 A -1250 A

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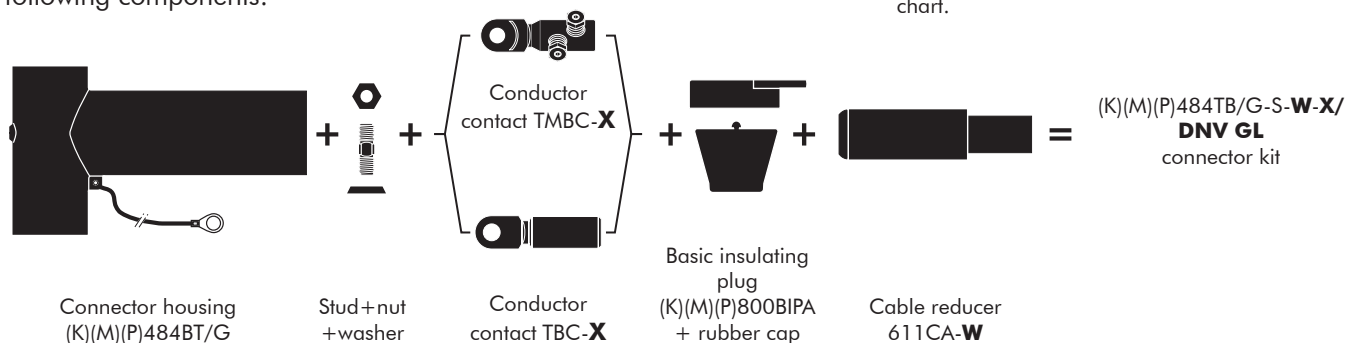


Separable connector type	Voltage Um (kV)	Current Ir (A)	Conductor sizes (mm ²)	
			min	max
484TB/G-DNV GL	12	1250	240	630
K484TB/G-DNV GL	24	1250	240	630
M484TB/G-DNV GL	36	1250	240	630
P484TB/G-DNV GL	42	1250	240	630

06/2019

KIT CONTENTS

The complete (K)(M)(P)484TB/G tee connector kit comprises 3x the following components:



The kit also comprises silicone grease, field control mastic, gloves, wipers, roll adhesive tape, installation instructions and crimp chart.

ORDERING INSTRUCTIONS

To order the tee connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type. Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

EXAMPLE:

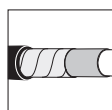
The copper wire screened cable is 36 kV, 240 mm² stranded aluminium with a diameter over core insulation of 37.0 mm. Order 3 x M484TB/G-S-32-240BI2/DNV GL tee connector kit.

TABLE W

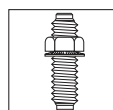
Ordering part number	Dia. over core insulation (mm)	
	min	max
3 x 484TB/G-S-19-X/DNV GL	20.0	26.5
3 x 484TB/G-S-22-X/DNV GL	23.5	31.0
3 x 484TB/G-S-27-X/DNV GL	28.5	37.5
3 x 484TB/G-S-32-X/DNV GL	34.0	42.5
3 x 484TB/G-S-37-X/DNV GL	39.0	48.5
3 x 484TB/G-S-43-X/DNV GL	45.5	56.0

TABLE X

Conductor sizes (mm ²)	Aluminium conductor		Aluminium and copper conductor	Copper conductor
	DIN hexagonal	Deep indent	Bolted	DIN hexagonal
240	240BI2	240BI1	240.400UN5	240CU2
300	300BI2	300BI1		300CU2
400	400BI2	400BI1	400.630UN5	400CU2
500	500BI2	500BI1		500CU2
630	—	630BI1		630CU2



For use with copper tape screened cables. Order: Kit MT.



This product can also be installed using a clamping screw. Please contact our representative.



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



For applications outdoors and in humid climate. Order: +MWS.



For use on vessels classed by DNV GL. Add -/DNV GL to part number

APPLICATION

Separable tee shape connector designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors, ...).

Also connects cable to cable when using the appropriate mating parts.

DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Type C - interface as described by CENELEC EN 50180 and 50181.
5. Conductor contact.
6. Basic insulating plug (with VD point).
7. Cable reducer.
8. Conductive rubber cap.
9. Stud+nut+washer.
10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.

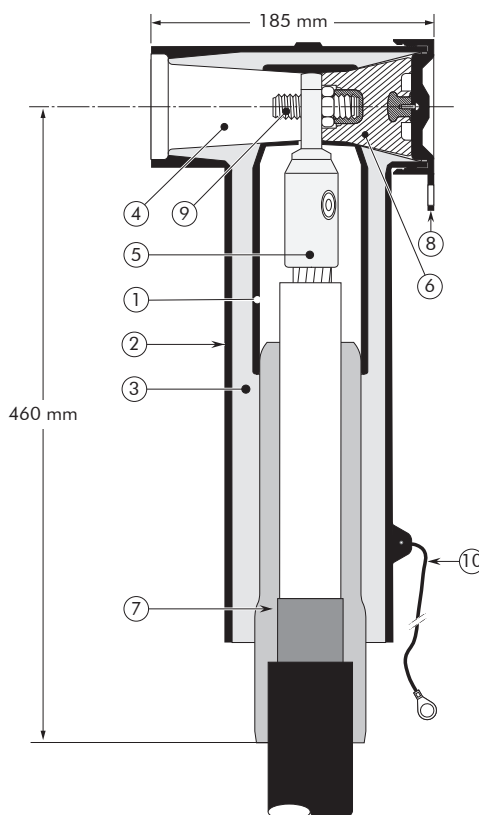
SPECIFICATIONS AND STANDARDS

The 489TB separable connector meets the requirements of CENELEC HD 629.1.

Certified for installation on all vessels classed by DNV GL.

TECHNICAL CHARACTERISTICS

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



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
20.8/36 (42) kV

Up to 42 kV
630 A - 1250 A

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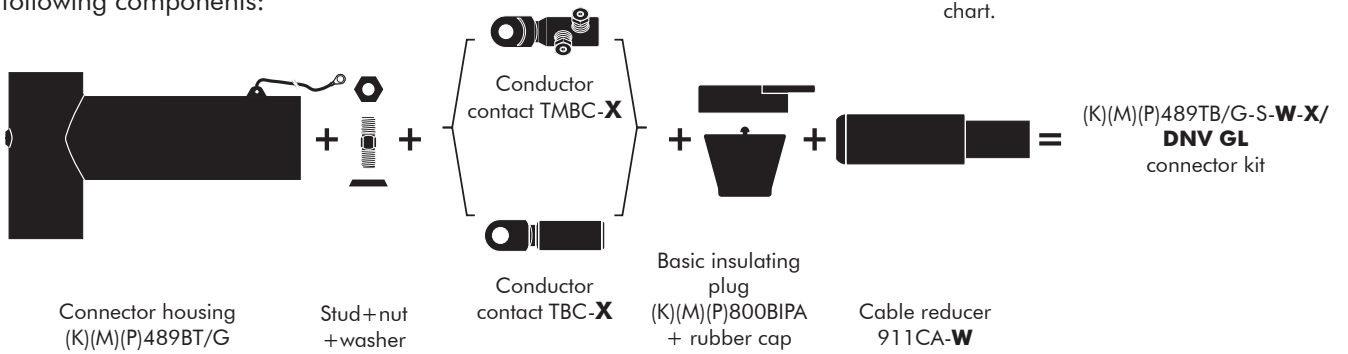


Separable connector type	Voltage Um (kV)	Current Ir (A)	Conductor sizes (mm ²)	
			min	max
489TB/G-DNV GL	12	1250	630	1200
K489TB/G-DNV GL	24	1250	630	1200
M489TB/G-DNV GL	36	1250	630	1200
P489TB/G-DNV GL	42	1250	630	1200

06/2019

KIT CONTENTS

The complete (K)(M)(P)489TB/G tee connector kit comprises 3x the following components:



The kit also comprises silicone grease, field control mastic, gloves, wipers, roll adhesive tape, installation instructions and crimp chart.

ORDERING INSTRUCTIONS

To order the tee connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type. Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

TABLE W

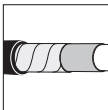
Ordering part number	Dia. over core insulation (mm)	
	min	max
3 x 489TB/G-S-37-X/DNV GL	40	48
3 x 489TB/G-S-43-X/DNV GL	46	54
3 x 489TB/G-S-50-X/DNV GL	53	59
3 x 489TB/G-S-53-X/DNV GL	56	62
3 x 489TB/G-S-56-X/DNV GL	59	65
3 x 489TB/G-S-59-X/DNV GL	62	68

EXAMPLE:

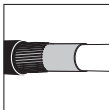
The copper wire screened cable is 36 kV, 1000 mm² stranded aluminium with a diameter over core insulation of 52 mm.
Order 3 x
M489TB/G-S-43-1000BI1/DNV GL tee connector kit.

TABLE X

Conduc- tor sizes (mm ²)	Aluminium conductor	Aluminium and copper conductor	Copper conductor
	Deep indent	Bolted	DIN hexagonal
630	630BI1	400.630UN5	630CU2
800	800BI1	800.1000UN5	800CU2
1000	1000BI1		1000CU2
1200	1200BI1	1200UN5	-



For use with
copper tape
screened cables.
Order: Kit MT.



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



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



For applications
outdoors and in
humid climate.
Order: +MWS.



For use on vessels
classed by DNV GL.
Add -/DNV GL to part
number

APPLICATION

Separable coupling connector for dual cable arrangement. It has been designed to be used with 480TB, 484TB and 489TB separable tee connectors. Can also be installed on any 8-series coupling connector for a multiple cable arrangement.

TECHNICAL CHARACTERISTICS

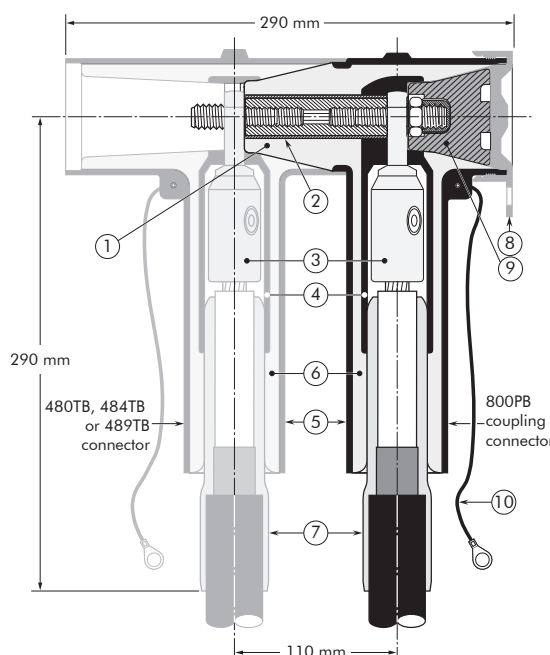
- A thick conductive EPDM jacket provides a total safe to touch screen.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



DESIGN

1. Interface designed to fit 480TB, 484TB and 489TB connectors.
2. Contact rod for 800PB.
3. Conductor contact.
4. Conductive EPDM insert.
5. Conductive EPDM jacket.
6. Insulating EPDM layer moulded between the insert and the jacket.
7. Cable reducer.
8. Conductive EPDM cap.
9. Basic insulating plug.
10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.



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
20.8/36 (42) kV

Up to 42 kV
630A - 1250 A

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SPECIFICATIONS AND STANDARDS

The 800PB coupling connector meets the requirements of CENELEC HD 629.1. Certified for installation on all vessels classed by DNV GL.

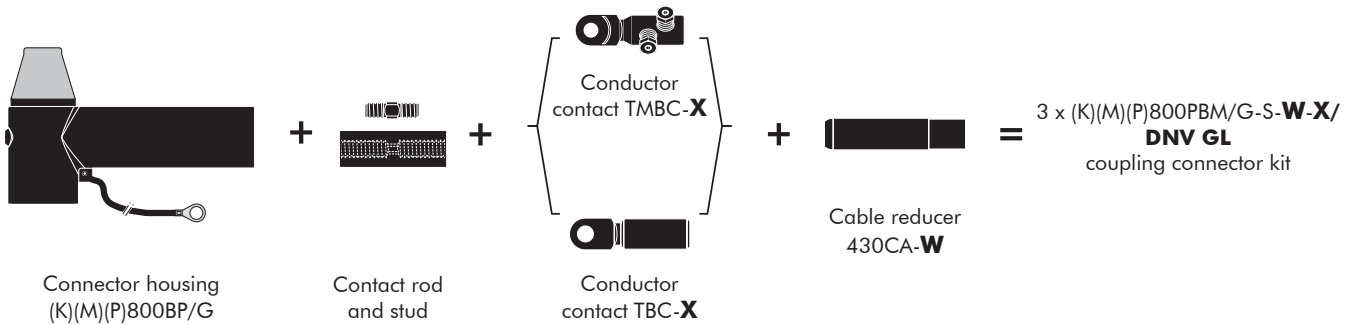
Separable connector type	Voltage Um (kV)	Current Ir (A)	Current Ir (A) When using a copper (CU2) or a bolted (UN5) conductor contact	Conductor sizes (mm²)	
				min	max
800PB/G-DNV GL	12	630	1250	35	300
K800PB/G-DNV GL	24	630	1250	35	300
M800PB/G-DNV GL	36	630	1250	50	300
P800PB/G-DNV GL	42	630	1250	50	240

06/2019

KIT CONTENTS

The complete (K)(M)(P) 800PB/G coupling connector kit comprises 3x the following components:

The kit also comprises silicone grease, field control mastic, installation rod, gloves, wipers, roll adhesive tape, installation instructions and crimp chart.



ORDERING INSTRUCTIONS

To order the coupling connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type.
Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

TABLE W

Ordering part number	Dia. over core insulation (mm)	
	min	max
3 x 800PB/G-S-11-X/DNV GL	12.0	17.5
3 x 800PB/G-S-16-X/DNV GL	17.0	23.5
3 x 800PB/G-S-18-X/DNV GL	19.0	28.0
3 x 800PB/G-S-22-X/DNV GL	23.5	32.0
3 x 800PB/G-S-27-X/DNV GL	28.5	37.5
3 x 800PB/G-S-30-X*/DNV GL	34.5	40.5

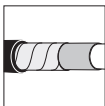
* will include an adapted installation instruction

TABLE X

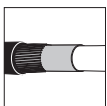
Conductor sizes (mm ²)	Aluminium conductor		Aluminium and copper conductor	Copper conductor
	DIN hexagonal	Deep indent	Bolted	DIN hexagonal
35	35AL2	35AL1	16.95UN5	35CU2
50	50AL2	50AL1		50CU2
70	70AL2	70AL1		70CU2
95	95AL2	95AL1		95CU2
120	120AL2	120AL1	50.150UN5	120CU2
150	150AL2	150AL1		150CU2
185	185AL2	185AL1	95.240UN5	185CU2
240	240AL2	240AL1		240CU2
300	300AL2	—	120.300UN5	300CU2

EXAMPLE:

The cable is 24 kV, 185 mm² compact stranded copper with a diameter over core insulation of 27.5 mm.
Order 3 x K800PB/G-S-22-95.240UN5/DNV GL coupling connector kit.



For use with copper tape screened cables.
Order: Kit MT.



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



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



For outdoor applications.
Order: +MWS.



For use on vessels classed by DNV GL.
Add -/DNV GL to part number

APPLICATION

Separable coupling connector for dual cable arrangement. It has been designed to be used with 480TB, 484TB and 489TB separable tee connectors. Can also be installed on any 8-series coupling connector for a multiple cable arrangement.

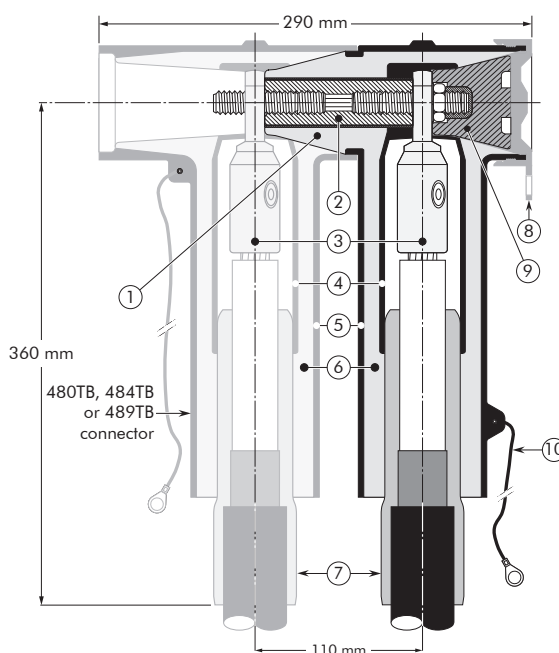
TECHNICAL CHARACTERISTICS

- A thick conductive EPDM jacket provides a total safe to touch screen.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



DESIGN

1. Interface designed to fit 480TB, 484TB and 489TB connector.
2. Contact rod for 804PB.
3. Conductor contact.
4. Conductive EPDM insert.
5. Conductive EPDM jacket.
6. Insulating EPDM layer moulded between the insert and the jacket.
7. Cable reducer.
8. Conductive EPDM cap.
9. Basic insulating plug (with VD point).
10. Earthing lead.



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
20.8/36 (42) kV

Up to 42 kV
1250 A

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The screen break design enables cable outer sheath testing without removing or dismantling the connector.

SPECIFICATIONS AND STANDARDS

The 804PB coupling connector meets the requirements of CENELEC HD 629.1. Certified for installation on all vessels classed by DNV GL.

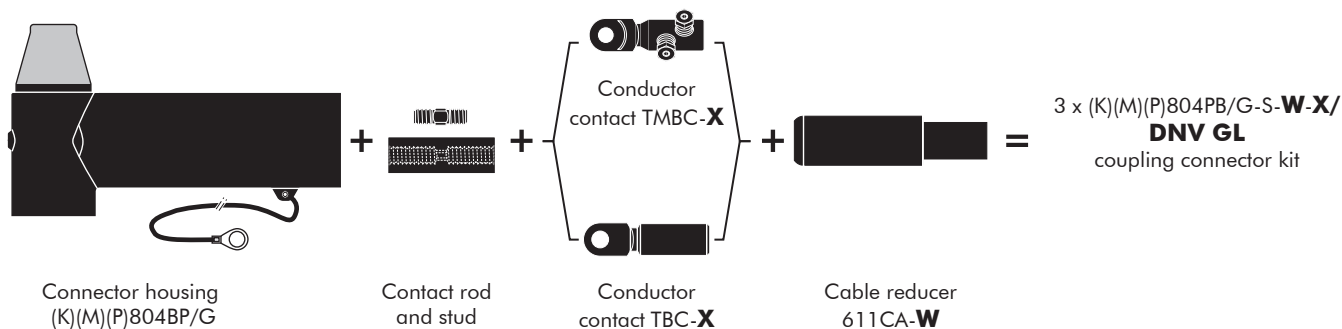
Separable connector type	Voltage Um (kV)	Current Ir (A)	Conductor sizes (mm ²)	
			min	max
804PB/G-DNV GL	12	1250	240	630
K804PB/G-DNV GL	24	1250	240	630
M804PB/G-DNV GL	36	1250	240	630
P804PB/G-DNV GL	42	1250	240	630

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KIT CONTENTS

The complete (K)(M)(P)804PB/G coupling connector kit comprises 3 x the following components:

The kit also comprises silicone grease, field control mastic, gloves, wipers, roll adhesive tape, installation instructions and crimp chart.



ORDERING INSTRUCTIONS

To order the coupling connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type.

Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

EXAMPLE:

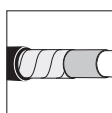
The copper wire screened cable is 36 kV, 240 mm² stranded aluminium with a diameter over core insulation of 37.0 mm. Order 3 x M804PB/G-S-32-240BI2/DNV GL coupling connector kit.

TABLE W

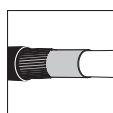
Ordering part number	Dia. over core insulation (mm)	
	min	max
3 x 804PB/G-S-19-X/DNV GL	20.0	26.5
3 x 804PB/G-S-22-X/DNV GL	23.5	31.0
3 x 804PB/G-S-27-X/DNV GL	28.5	37.5
3 x 804PB/G-S-32-X/DNV GL	34.0	42.5
3 x 804PB/G-S-37-X/DNV GL	39.0	48.5
3 x 804PB/G-S-43-X/DNV GL	45.5	56.0

TABLE X

Conductor sizes (mm ²)	Aluminium conductor		Aluminium and copper conductor	Copper conductor
	DIN hexagonal	Deep indent	Bolted	DIN hexagonal
240	240BI2	240BI1	240.400UN5	240CU2
300	300BI2	300BI1		300CU2
400	400BI2	400BI1		400CU2
500	500BI2	500BI1	400.630UN5	500CU2
630	—	630BI1		630CU2



For use with copper tape screened cables. Order: Kit MT.



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



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



For applications outdoors and in humid climate. Order: +MWS.



For use on vessels classed by DNV GL. Add -/DNV GL to part number

APPLICATION

Separable coupling connector for dual cable arrangement. It has been designed to be used with 480TB, 484TB and 489TB separable tee connectors. Can also be installed on any 8-series coupling connector for a multiple cable arrangement.

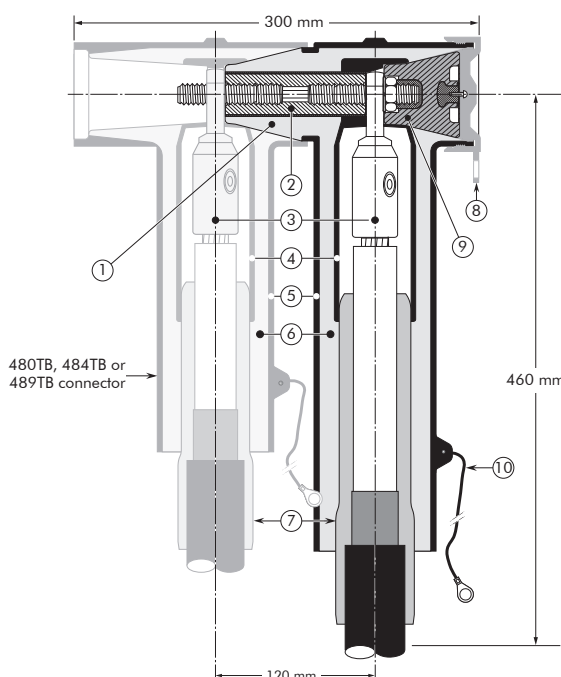
TECHNICAL CHARACTERISTICS

- A thick conductive EPDM jacket provides a total safe to touch screen.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



DESIGN

1. Interface designed to fit 480TB, 484TB and 489TB connector.
2. Contact rod for 809PB.
3. Conductor contact.
4. Conductive EPDM insert.
5. Conductive EPDM jacket.
6. Insulating EPDM layer moulded between the insert and the jacket.
7. Cable reducer.
8. Conductive EPDM cap.
9. Basic insulating plug (with VD point).
10. Earthing lead.



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
20.8/36 (42) kV

Up to 42 kV
1250 A

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SPECIFICATIONS AND STANDARDS

The 809PB coupling connector meets the requirements of CENELEC HD 629.1. Certified for installation on all vessels classed by DNV GL.

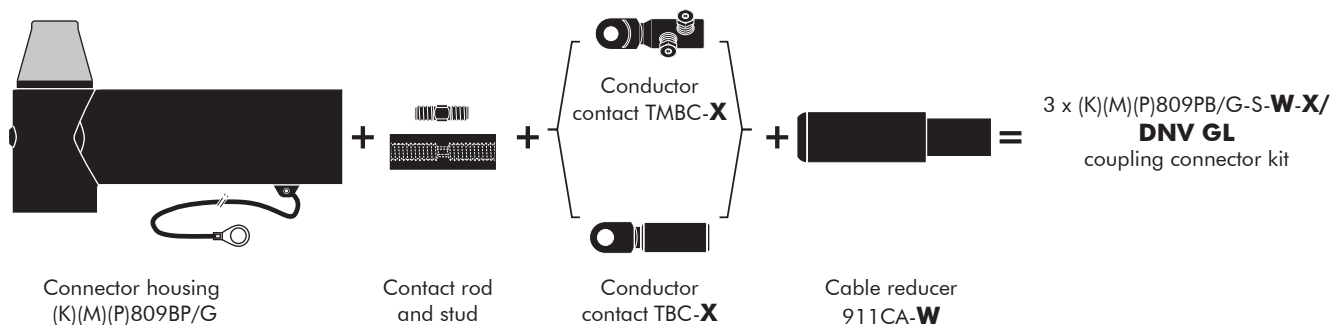
Separable connector type	Voltage Um (kV)	Current Ir (A)	Conductor sizes (mm ²)	
			min	max
809PB/G-DNV GL	12	1250	630	1200
K809PB/G-DNV GL	24	1250	630	1200
M809PB/G-DNV GL	36	1250	630	1200
P809PB/G-DNV GL	42	1250	630	1200

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KIT CONTENTS

The complete (K)(M)(P)809PB/G coupling connector kit comprises 3x the following components:

The kit also comprises silicone grease, field control mastic, gloves, wipers, roll adhesive tape, installation instructions and crimp chart.



ORDERING INSTRUCTIONS

To order the coupling connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type.

Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

EXAMPLE:

The copper wire screened cable is 36 kV, 1000 mm² stranded aluminium with a diameter over core insulation of 52 mm.

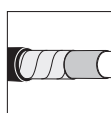
Order 3 x M809PB/G-S-43-1000BI1/DNV GL coupling connector kit.

TABLE W

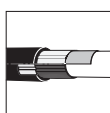
Ordering part number	Dia. over core insulation (mm)	
	min	max
3 x 809PB/G-S-37- X /DNV GL	40	48
3 x 809PB/G-S-43- X /DNV GL	46	54
3 x 809PB/G-S-50- X /DNV GL	53	59
3 x 809PB/G-S-53- X /DNV GL	56	62
3 x 809PB/G-S-56- X /DNV GL	59	65
3 x 809PB/G-S-59- X /DNV GL	62	68

TABLE X

Conductor sizes (mm ²)	Aluminium conductor	Aluminium and copper conductor	Copper conductor
	Deep indent	Bolted	DIN hexagonal
630	630BI1	400.630UN5	630CU2
800	800BI1	800.1000UN5	800CU2
1000	1000BI1		1000CU2
1200	1200BI1	1200UN5	-



For use with copper tape screened cables.
Order: Kit MT.



For use with AluPe or C 33-226 cables.
Please contact our representative.



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



For applications outdoors and in humid climate.
Order: +MWS.



For use on vessels classed by DNV GL.
Add -/DNV GL to part number

APPLICATION

Surge arrester designed to protect 12, 24, 36 and 42 kV class components, including transformers, equipment, cable and accessories from high voltage surges resulting from lightning or switching. It has been designed to be used with the 480TB, 484TB and 489TB separable tee connectors.

DESIGN

Surge arrester comprising:

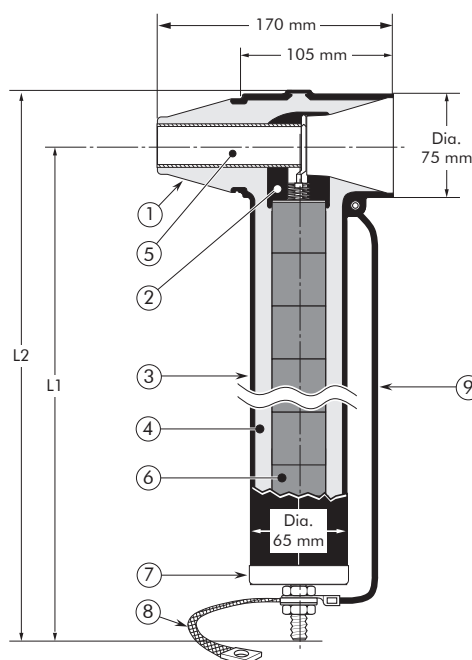
1. Interface designed to fit the 480TB, 484TB and 489TB tee connector.
2. Conductive EPDM insert.
3. Conductive EPDM jacket.
4. Insulating EPDM layer moulded between the insert and the jacket.
5. Receptacle for contact rod.
6. Metal oxide valve elements.
7. Steel cap.
8. Earth connection.
9. Earthing lead.

SPECIFICATIONS AND STANDARDS

The 800SA surge arresters meet the test requirements of IEC 60099-4. Certified for installation on all vessels classed by DNV GL.

TECHNICAL CHARACTERISTICS

- This surge arrester is a metal oxide varistor surge arrester in an elbow configuration.
- Each arrester is tested for AC withstand, partial discharge and critical voltage prior to leaving the factory.
- DNV GL - certification.



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
20.8/36 (42) kV

Up to 42 kV

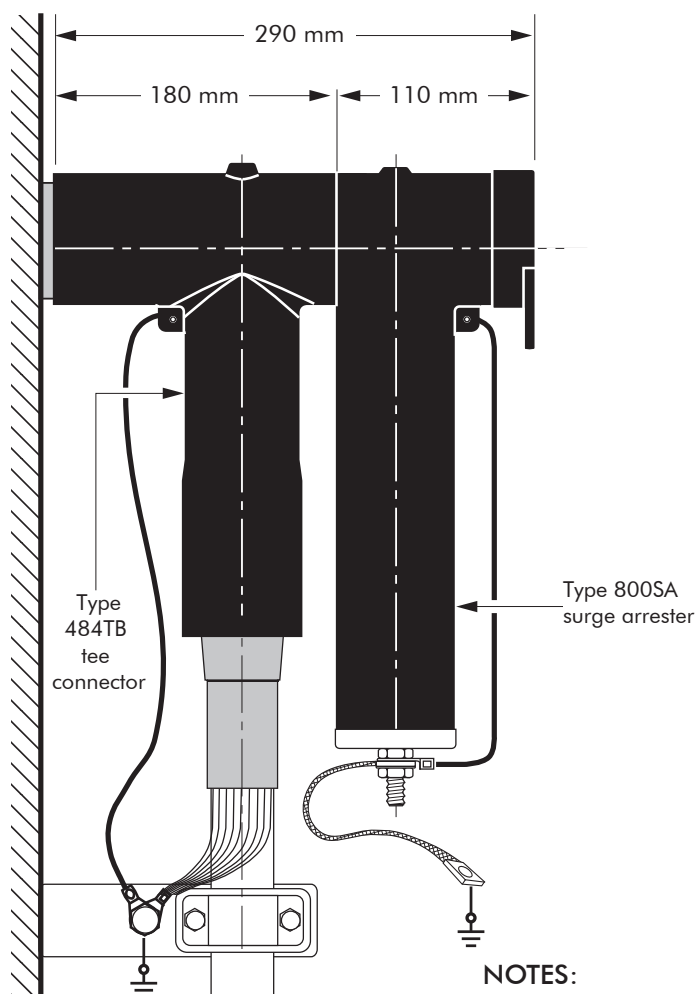
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Surge arrester type	Nominal discharge current I_n (kA)	Rated voltage U_r (kV)	Max. continuous operating voltage U_c (kV)	Dimensions (mm)	
				L1	L2
800SA-10-6N-DNV GL	10	6	4.8	270	310
800SA-10-9N-DNV GL	10	9	7.2	270	310
800SA-10-12N-DNV GL	10	12	9.6	270	310
800SA-10-15N-DNV GL	10	15	12.0	270	310
800SA-10-18N-DNV GL	10	18	14.4	270	310
800SA-10-22N-DNV GL	10	22	17.6	270	310
800SA-10-24N-DNV GL	10	24	19.2	370	410
800SA-10-30N-DNV GL	10	30	24.0	370	410
800SA-10-33N-DNV GL	10	33	26.4	370	410
800SA-10-36N-DNV GL	10	36	28.8	370	410
800SA-10-45N-DNV GL	10	45	36.0	470	510
800SA-10-51N-DNV GL	10	51	40.8	470	510

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TYPICAL APPLICATION AND DIMENSIONS



NOTES:

- The surge arrester body needs to be positioned vertically after installation.
- Prior to cable testing, the surge arrester shall be removed.

ORDERING INSTRUCTIONS

To order the surge arrester, specify the surge arrester type, as described on previous page.

EXAMPLE:

For a maximum continuous operating voltage (r.m.s.) of 24 kV and a nominal discharge current of 10 kA.

Order a 800SA-10-30N-DNV GL surge arrester.

TECHNICAL DATA

Surge arrester type	Steep current residual voltage @ 10 kA [1/20 μ s] (kV)	Lightning current residual voltage [8/20 μ s] (kV)			Switching impulse residual voltage [36/90 μ s] (kV)		High current impulse withstand (kA)
		@ 5 kA	@ 10 kA	@ 20 kA	@ 125 A	@ 500 A	
800SA-10-6N-DNV GL	20.4	16.8	18.3	20.5	12.9	13.7	100
800SA-10-9N-DNV GL	28.5	23.5	25.6	28.7	18.0	19.2	100
800SA-10-12N-DNV GL	38.0	31.4	34.2	38.3	24.1	25.7	100
800SA-10-15N-DNV GL	48.1	39.7	43.2	48.4	30.5	32.5	100
800SA-10-18N-DNV GL	58.1	48.0	52.2	58.5	36.8	39.2	100
800SA-10-22N-DNV GL	70.1	57.9	63.0	70.6	44.4	47.3	100
800SA-10-24N-DNV GL	77.0	63.6	69.2	77.6	48.8	52.0	100
800SA-10-30N-DNV GL	97.0	80.1	87.2	97.7	61.5	65.5	100
800SA-10-33N-DNV GL	103.4	85.4	93.0	104.2	65.6	69.9	100
800SA-10-36N-DNV GL	115.9	95.7	104.2	116.8	73.5	78.3	100
800SA-10-45N-DNV GL	144.1	119.0	129.5	145.1	91.3	97.3	100
800SA-10-51N-DNV GL	166.0	137.1	149.2	167.2	105.2	112.1	100

APPLICATION

Separable tee shape connector (bolted type) designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors, ...).

Also connects cable to cable when using the appropriate mating parts.

DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Type E 5/8" interface as described by IEEE 386.
5. Conductor contact.
6. Basic insulating plug 858 BIPA (with VD point).
7. Cable reducer.
8. Conductive rubber cap.
9. Stud/nut/washer 5/8".
10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.

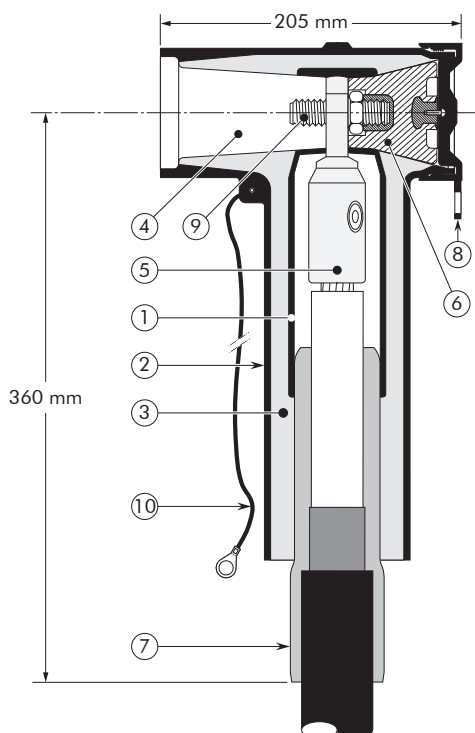
SPECIFICATIONS AND STANDARDS

The 784TB separable connector meets the requirements of CENELEC HD 629.1.

Certified for installation on all vessels classed by DNV GL.

TECHNICAL CHARACTERISTICS

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



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
20.8/36 (42) kV

Up to 42 kV
Up to 800 A

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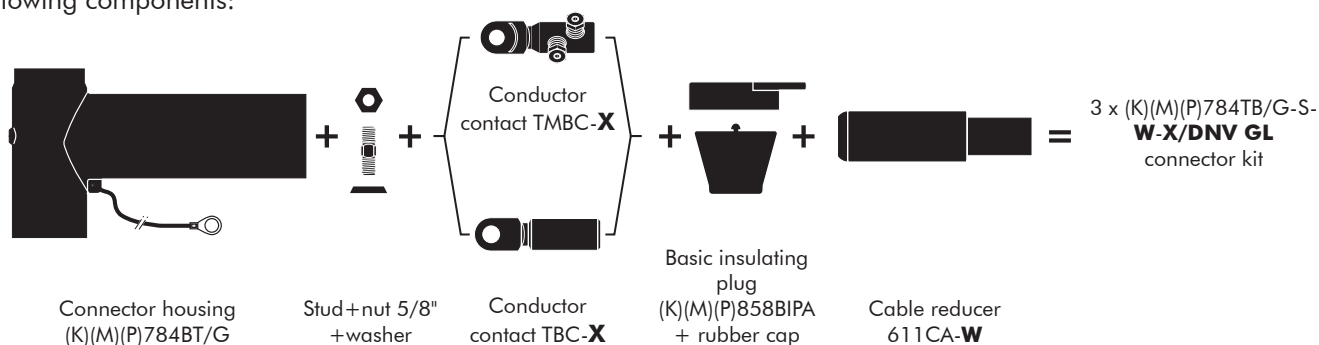
Separable connector type	Voltage U_m (kV)	Current I_r (A) When installed on an appropriate equipment bushing	Conductor sizes (mm ²)	
			min	max
784TB/G-DNV GL	12	800	50	630
K784TB/G-DNV GL	24	800	35	630
M784TB/G-DNV GL	36	800	35	630
P784TB/G-DNV GL	42	800	35	630

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KIT CONTENTS

The complete (K)(M)(P)784TB/G tee connector kit comprises 3x the following components:

The kit also comprises silicone grease, field control mastic, gloves, wipers, roll adhesive tape, installation instructions, venting rod and crimp chart.



ORDERING INSTRUCTIONS

To order the tee connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type. Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

EXAMPLE:

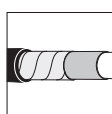
The copper wire screened cable is 36 kV, 240 mm² stranded aluminium with a diameter over core insulation of 37.0 mm. Order 3 x M784TB/G-S-32-240AL2/DNV GL.

TABLE W

Ordering part number	Dia. over core insulation (mm)	
	min	max
3 x 784TB/G-S-15-X/DNV GL	16.0	22.0
3 x 784TB/G-S-19-X/DNV GL	20.0	26.5
3 x 784TB/G-S-22-X/DNV GL	23.5	31.0
3 x 784TB/G-S-27-X/DNV GL	28.5	37.5
3 x 784TB/G-S-32-X/DNV GL	34.0	42.5
3 x 784TB/G-S-37-X/DNV GL	39.0	48.5
3 x 784TB/G-S-43-X/DNV GL	45.5	56.0

TABLE X

Conductor sizes (mm ²)	Aluminium conductor		Aluminium and copper conductor	Copper conductor
	DIN hexagonal	Deep indent	Bolted	DIN hexagonal
35	35AL2	35AL1		35UN2
50	50AL2	50AL1		50UN2
70	70AL2	70AL1		70UN2
95	95AL2	95AL1		95UN2
120	120AL2	120AL1		120UN2
150	150AL2	150AL1		150UN2
185	185AL2	185AL1		185UN2
240	240AL2	240AL1		240UN2
300	300AL2	300AL1		300UN2
400	400AL2	400AL1		400UN2
500	500AL2	500AL1		500UN2
630	630AL2	630AL1		630UN2



For use with copper tape screened cables. Order: Kit MT.



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



For applications outdoors and in humid climate. Order: +MWS.



For use on vessels classed by DNV GL. Add -/DNV GL to part number

APPLICATION

Separable tee shape connector (bolted type) designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors, ...).

Also connects cable to cable when using the appropriate mating parts.

TECHNICAL CHARACTERISTICS

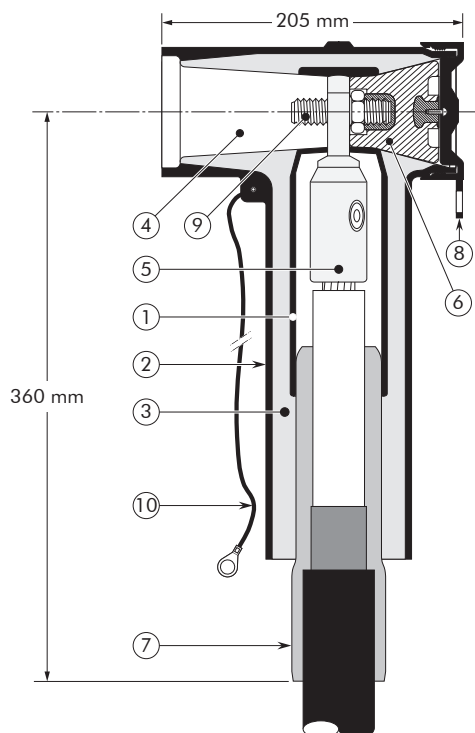
- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.

DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Type E 5/8" interface as described by IEEE 386.
5. Conductor contact.
6. Basic insulating plug 858 BIPA (with VD point).
7. Cable reducer.
8. Conductive rubber cap.
9. Stud/nut/washer 5/8".
10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.



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
20.8/36 (42) kV

Up to 42 kV
Up to 1250 A

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SPECIFICATIONS AND STANDARDS

The 784TB separable connector meets the requirements of CENELEC HD 629.1.

Certified for installation on all vessels classed by DNV GL.

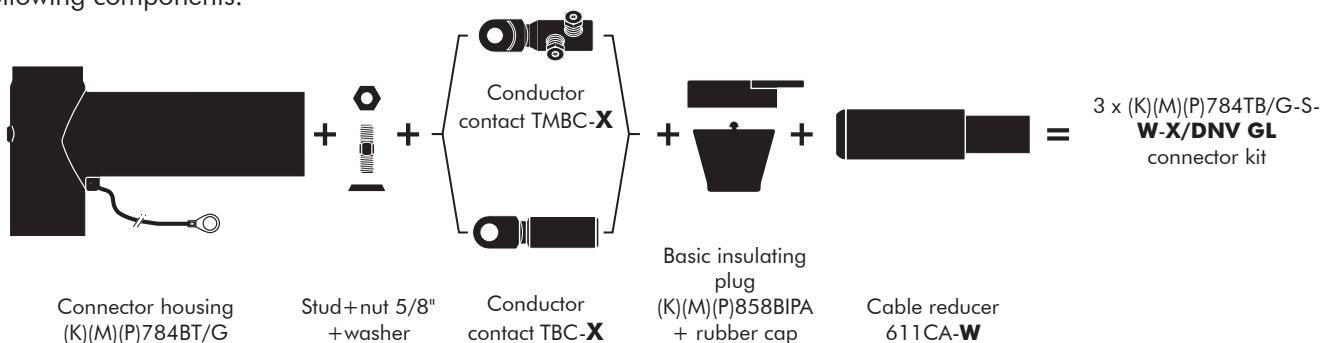
Separable connector type	Voltage Um (kV)	Current Ir (A) When installed on an appropriate equipment bushing	Conductor sizes (mm ²)	
			min	max
784TB/G-DNV GL	12	800	50	630
K784TB/G-DNV GL	24	800	35	630
M784TB/G-DNV GL	36	800	35	630
P784TB/G-DNV GL	42	800	35	630

06/2019

KIT CONTENTS

The complete (K)(M)(P)784TB/G tee connector kit comprises 3x the following components:

The kit also comprises silicone grease, field control mastic, gloves, wipers, roll adhesive tape, installation instructions, venting rod and crimp chart.



ORDERING INSTRUCTIONS

To order the tee connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type. Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

EXAMPLE:

The copper wire screened cable is 36 kV, 240 mm² stranded aluminium with a diameter over core insulation of 37.0 mm.

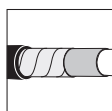
Order 3 x M784TB/G-S-32-240(K)MBI2/DNV GL.

TABLE W

Ordering part number	Dia. over core insulation (mm)	
	min	max
3 x 784TB/G-S-15-X/DNV GL	16.0	22.0
3 x 784TB/G-S-19-X/DNV GL	20.0	26.5
3 x 784TB/G-S-22-X/DNV GL	23.5	31.0
3 x 784TB/G-S-27-X/DNV GL	28.5	37.5
3 x 784TB/G-S-32-X/DNV GL	34.0	42.5
3 x 784TB/G-S-37-X/DNV GL	39.0	48.5
3 x 784TB/G-S-43-X/DNV GL	45.5	56.0

TABLE X

Conductor sizes (mm ²)	Aluminium conductor		Aluminium and copper conductor	Copper conductor
	DIN hexagonal	Deep indent	Bolted	DIN hexagonal
35	35BI2	35BI1		35CU2
50	50BI2	50BI1		50CU2
70	70BI2	70BI1		70CU2
95	95BI2	95BI1		95CU2
120	120BI2	120BI1		120CU2
150	150BI2	150BI1		150CU2
185	185BI2	185BI1		185CU2
240	240BI2	240BI1		240CU2
300	300BI2	300BI1		300CU2
400	400BI2	400BI1		400CU2
500	500BI2	500BI1		500CU2
630	-	630BI1		630CU2



For use with copper tape screened cables.
Order: Kit MT.



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



For applications outdoors and in humid climate.
Order: +MWS.



For use on vessels classed by DNV GL.
Add -/DNV GL to part number

APPLICATION

Separable tee shape connector (bolted type) designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors, ...). Also connects cable to cable when using the appropriate mating parts.

DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Type F interface, as described by CENELEC EN 50180 and 50181.
5. Conductor contact.
6. Basic insulating plug.
7. Cable reducer.
8. Conductive rubber cap.
9. Stud+nut+washer.
10. Earthing lead.

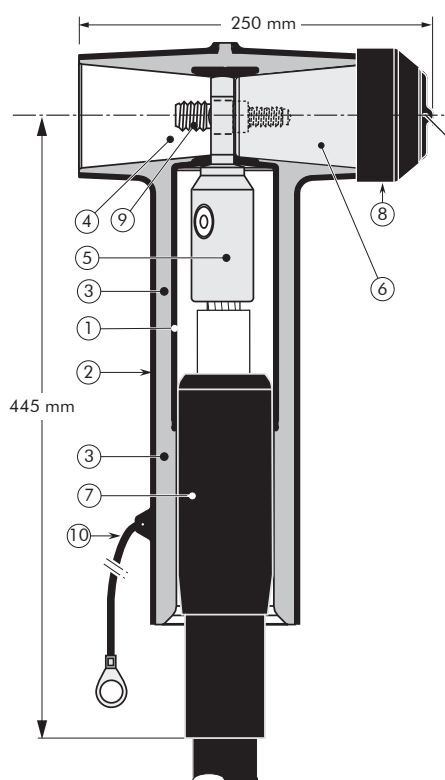
The screen break design enables cable outer sheath testing without removing or dismantling the connector.

SPECIFICATIONS AND STANDARDS

The 909TB separable connector meets the requirements of CENELEC HD 629.1. Certified for installation on all vessels classed by DNV GL.

TECHNICAL CHARACTERISTICS

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



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
20.8/36 (42) kV

Up to 42 kV - 2500 A

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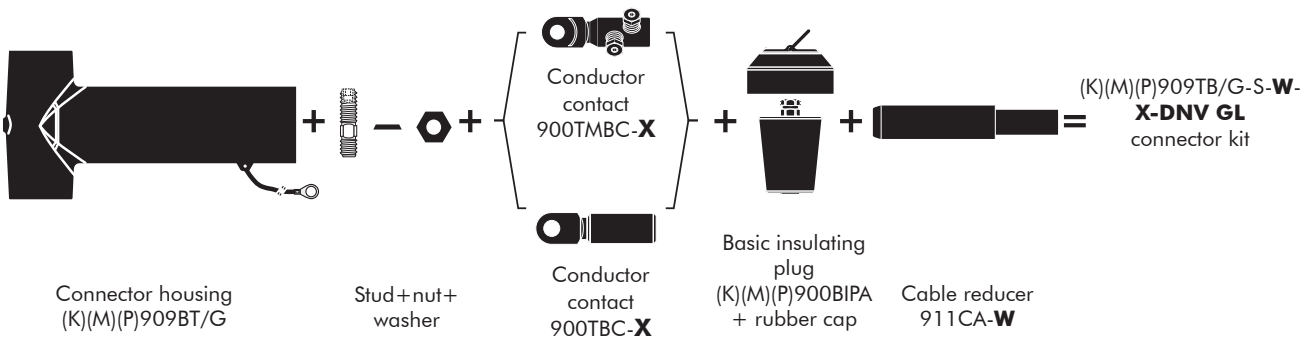


Separable connector type	Voltage Um (kV)	Current Ir (A)	Conductor sizes (mm²)	
			min	max
909TB/G-DNV GL	12	630 - 1250 - 2500	500	1200
K909TB/G-DNV GL	24	630 - 1250 - 2500	400	1200
M909TB/G-DNV GL	36	630 - 1250 - 2500	240	1200
P909TB/G-DNV GL	42	630 - 1250	240	1200

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KIT CONTENTS

The complete (K)(M)(P)909TB/G tee connector kit comprises the following components:



The kit also comprises silicone grease, field control mastic, gloves, roll adhesive tape, installation instructions and crimp chart.

ORDERING INSTRUCTIONS

To order the tee connector, select the ordering part number which gives the best centring of the core insulation diameter and substitute **X** using table X, according to the conductor size and type. Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

EXAMPLE:

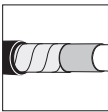
The copper wire screened cable is 36 kV, 1000 mm² stranded aluminium with a diameter over core insulation of 52 mm. Order M909TB/G-S-43-1000AL1/DNV GL tee connector kit.

TABLE W

Ordering part number	Dia. over core insulation (mm)	
	min	max
909TB/G-S-32-X/DNV GL	35	43
909TB/G-S-37-X/DNV GL	40	48
909TB/G-S-43-X/DNV GL	46	54
909TB/G-S-50-X/DNV GL	53	59
909TB/G-S-53-X/DNV GL	56	62
909TB/G-S-56-X/DNV GL	59	65
909TB/G-S-59-X/DNV GL	62	68

TABLE X

Conductor sizes (mm ²)	Aluminium conductor		Aluminium and copper conductor	Copper conductor
	Deep indent	DIN hexagonal	Bolted	DIN hexagonal
240	240BI1	240BI2	240.300UN5	240CU2
300	300BI1	300BI2		300CU2
400	400BI1	400BI2		400CU2
500	500BI1	500BI2	400.630UN5	500CU2
630	630BI1	630BI2		630CU2
800	800BI1	-	800.1000UN5	800CU2
1000	1000BI1	-		1000CU2
1200	1200BI1	-	On request	-



For use with copper tape screened cables.
Order: Kit MT.



For applications outdoors and in humid climate.
Order: +MWS.



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



For use on vessels classed by DNV GL.
Add -/DNV GL to part number



When installed on an appropriate equipment bushing:
2500 A in dual cable arrangement

APPLICATION

Separable tee shape connector designed to connect polymeric insulated cable to equipment (transformers, switchgears, ...). Also connects cable to cable when using the appropriate mating parts.

DESIGN

1. Conductive EPDM insert
2. Conductive EPDM jacket
3. Insulating EPDM layer moulded between insert and jacket
4. Type F interface ref. CENELEC EN 50180 and 50181
5. Conductor connector (hexagonal crimping or bolted type)
6. Basic insulating plug
7. Cable reducer
8. Conductive EPDM cap
9. Stud + nut + washer
10. Earthing lead
11. Heat-shrinkable sleeve

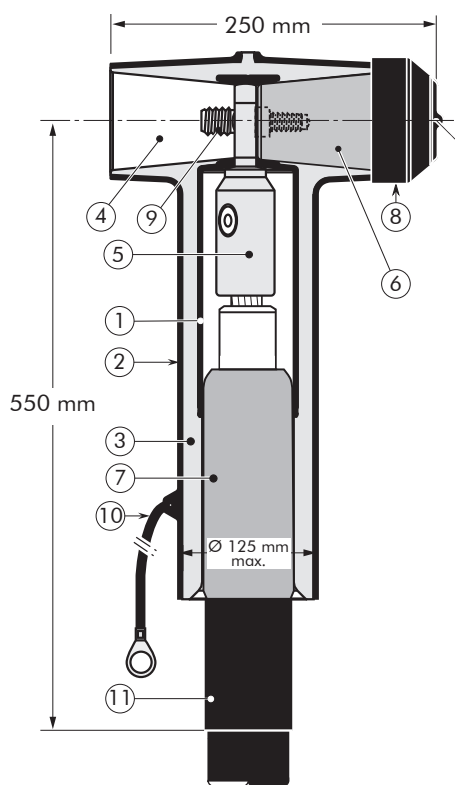
The screen break design enables cable outer sheath testing without removing or dismantling the connector.

SPECIFICATIONS AND STANDARDS

The R909TB/G separable tee connector is type tested acc. to IEC 60840. Comply with DNV GL rules for classification-ships and offshore units.

TECHNICAL CHARACTERISTICS

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



72.5 kV
1250 A*

U (U_m)
60-69 (72.5) kV

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Separable connector type	Max. operating voltage U _m (kV)	Continuous current I _n (A)	Conductor cross-section** (mm ²)	
			min	max
R909TB/G-DNV GL	72.5	1250*	95	1200

* When installed on an appropriate equipment bushing.

** Indicative for cables with 10 mm insulation wall thickness.

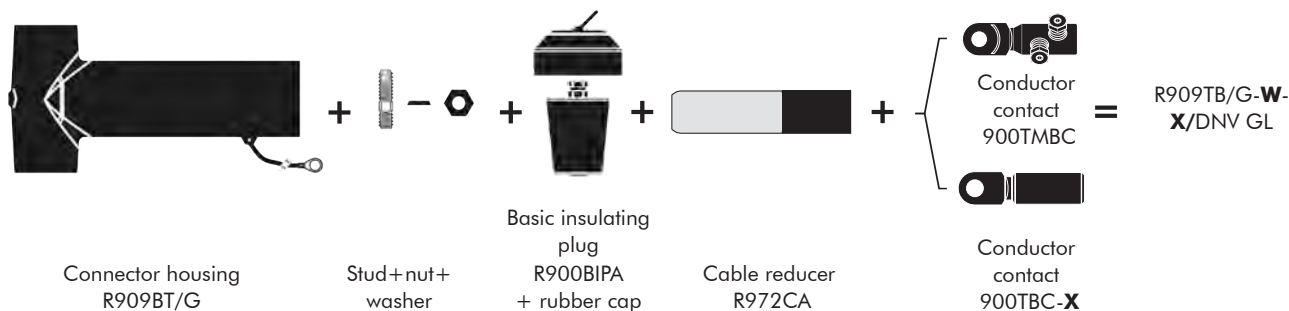
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Kit contents

The complete R909TB/G tee connector kit comprises 1x the following components:

The kit also comprises:
 + installation instructions
 + silicone grease
 + sealing mastic
 + gloves

+ roll adhesive tape
 + heat-shrinkable sleeve



Ordering instructions

To order the tee connector, select the ordering part number which gives you the best centering of your core insulation diameter and substitute **X** using **Table X**, according to your conductor size and type.

Order example:

The copper wire screened cable is 72.5 kV, 800 mm² round stranded aluminium with a diameter over XLPE core insulation of 58 mm after preparation and 50 mm² copper wire screen.

Order

R909TB/G-50-800.1200-14-5 + 50x10KU-V/DNV GL tee connector kit.

Table W

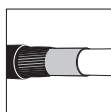
Ordering part number	Ø over core insulation* (mm)	
	min.	max.
3 x R909TB/G-25- X /DNV GL	27	33.5
3 x R909TB/G-30- X /DNV GL	32.5	41
3 x R909TB/G-37- X /DNV GL	40	48
3 x R909TB/G-43- X /DNV GL	46.5	51
3 x R909TB/G-46- X /DNV GL	49.5	55
3 x R909TB/G-50- X /DNV GL	54	59
3 x R909TB/G-53- X /DNV GL	57	64
3 x R909TB/G-58- X /DNV GL	62.5	68

* after cable preparation

Table X

Conductor size (mm ²)	Aluminium and Copper conductor (RMV)		Copper conductor (RMV)
	Bolted		DIN hexagonal
95	95.240-14-5		95(K)M-11-2
120			120(K)M-11-2
150			150(K)M-11-2
185			185(K)M-11-2
240	400.630-14-5	185.400-14-5	240(K)M-11-2
300			300(K)M-11-2
400			400(K)M-11-2
500			500(K)M-11-2
630	800.1200-14-5		630(K)M-11-2
800			800(K)M-11-2
1000			1000(K)M-11-2
1200			1200(K)M-11-2

RMV: round stranded compacted conductors



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 on vessels classed by DNV GL. Add -/DNV GL to part number



When installed on an appropriate equipment bushing: 1250 A continuously.

APPLICATION

Separable coupling connector (bolted type) for dual cable arrangement. It has been designed to be used with 909TB separable tee connectors.

TECHNICAL CHARACTERISTICS

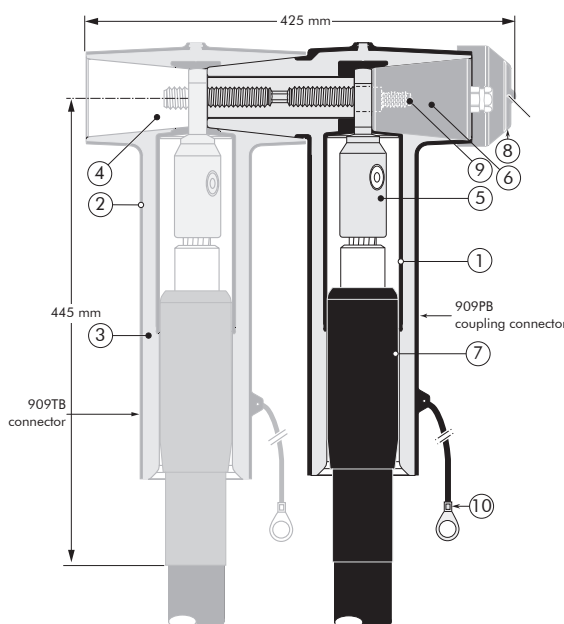
- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.

DESIGN

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. Insulating EPDM layer moulded between the insert and the jacket.
4. Interface to fit 909TB.
5. Conductor contact.
6. Basic insulating plug.
7. Cable reducer.
8. Conductive rubber cap.
9. Stud+nut+washer.
10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.



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
20.8/36 (42) kV

Up to 42 kV - 2500 A

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SPECIFICATIONS AND STANDARDS

The 909PB separable connector meets the requirements of CENELEC HD 629.1. Certified for installation on all vessels classed by DNV GL.

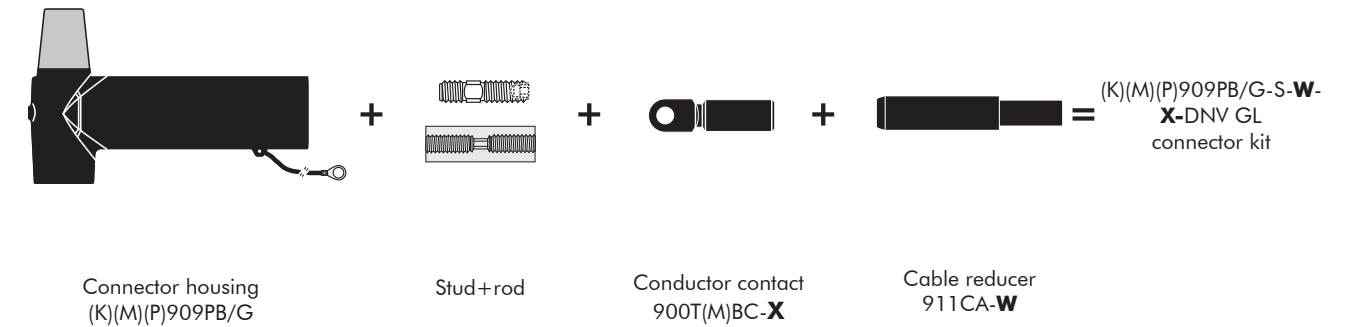
Separable connector type	Voltage U_m (kV)	Current I_r (A)	Conductor sizes (mm ²)	
			min	max
909PB/G-DNV GL	12	630 - 1250 - 2500	500	1200
K909PB/G-DNV GL	24	630 - 1250 - 2500	400	1200
M909PB/G-DNV GL	36	630 - 1250 - 2500	240	1200
P909PB/G-DNV GL	42	630 - 1250	240	1200

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KIT CONTENTS

The complete (K)(M)(P)909PB/G tee connector kit comprises the following components:

The kit also comprises silicone grease, field control mastic, gloves, roll adhesive tape, installation instructions and crimp chart.



ORDERING INSTRUCTIONS

To order the tee connector, select the ordering part number which gives the best centring of the core insulation diameter and substitute **X** using table X, according to the conductor size and type. Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

TABLE W

Ordering part number	Dia. over core insulation (mm)	
	min	max
909PB/G-S-32- X /DNV GL	35	43
909PB/G-S-37- X /DNV GL	40	48
909PB/G-S-43- X /DNV GL	46	54
909PB/G-S-50- X /DNV GL	53	59
909PB/G-S-53- X /DNV GL	56	62
909PB/G-S-56- X /DNV GL	59	65
909PB/G-S-59- X /DNV GL	62	68

EXAMPLE:

The copper wire screened cable is 36 kV, 1000 mm² stranded aluminium with a diameter over core insulation of 52 mm. Order M909PB/G-S-43-1000AL1/DNV GL tee connector kit.

TABLE X

Conduc- tor sizes (mm ²)	Aluminium conductor		Aluminium and copper conductor	Copper conductor
	Deep indent	DIN hexagonal	Bolted	DIN hexagonal
240	240BI1	240BI2	240.300UN5	240CU2
300	300BI1	300BI2		300CU2
400	400BI1	400BI2		400CU2
500	500BI1	500BI2	400.630UN5	500CU2
630	630BI1	630BI2		630CU2
800	800BI1	-	800.1000UN5	800CU2
1000	1000BI1	-		1000CU2
1200	1200BI1	-	On request	-

For use with copper tape screened cables.
Order: Kit MT.

For use on vessels classed by DNV GL.
Add -/DNV GL to part number

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

For applications outdoors and in humid climate.
Order: +MWS.

When installed on an appropriate equipment bushing:
2500 A in dual cable arrangement

APPLICATION

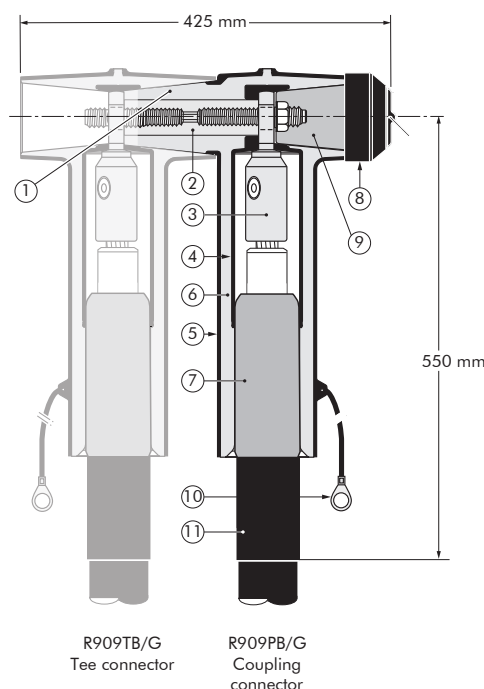
Separable coupling connector (bolted type) for dual cable arrangement. It has been designed to be used with R909TB/G separable tee connector. The arrangement might be extended by multiple coupling connectors.

DESIGN

- Interface designed to fit R909TB/G
 - Bus for R909PB/G (contact rod and stud)
 - Conductor connector (hexagonal crimping or bolted type)
 - Conductive EPDM insert
 - Conductive EPDM jacket
 - Insulating EPDM layer moulded between the insert and the jacket
 - Cable reducer
 - Conductive EPDM cap
 - Basic insulating plug
 - Earthing lead
 - Heat-shrinkable sleeve
- The screen break design enables cable outer sheath testing without removing or dismantling the connector.

TECHNICAL CHARACTERISTICS

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.
- DNV GL - certification.



72.5 kV
1250 A*

1800 A**

U (U_m)

60-69 (72.5) kV

EUROMOLD®



SPECIFICATIONS AND STANDARDS

The R909PB/G coupling connector is type tested acc. to IEC 60840. Comply with DNV GL rules for classification-ships and offshore units.

Separable connector type	Max. operating voltage U _m (kV)	Continuous current I _n (A)	Conductor cross-section*** (mm ²)	
			min	max
R909PB/G-DNV GL	72.5	1250*/1800**	95	1200

* When installed on an appropriate equipment bushing.

** Daisy chain arrangement.

*** Indicative for cables with 10 mm insulation wall thickness.

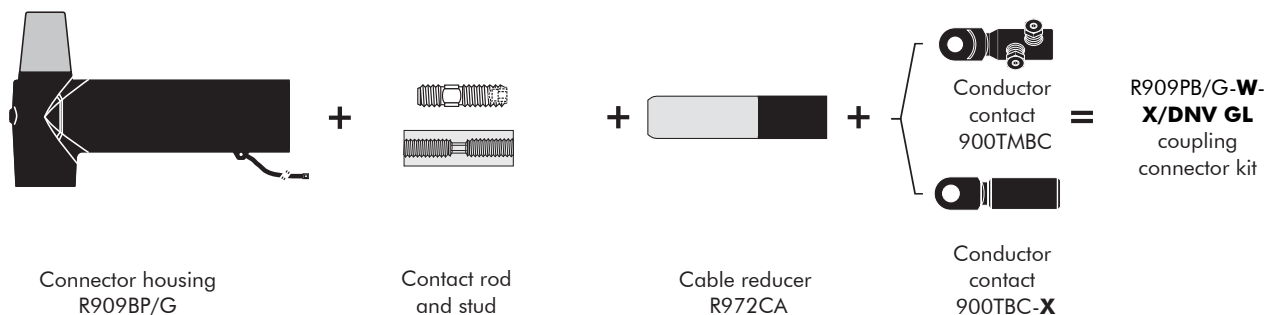
06/2019

KIT CONTENTS

The complete R909PB/G coupling connector kit comprises 1x the following components:

The kit also comprises:
 + installation instructions
 + silicone grease
 + sealing mastic
 + gloves

+ roll adhesive tape
 + heat-shrinkable sleeve



ORDERING INSTRUCTIONS

To order the coupling connector, select the ordering part number which gives you the best centering of your core insulation diameter and substitute **X** using **Table X**, according to your conductor size and type.

Order example:

The copper wire screened cable is 72.5 kV, 800 mm² round stranded aluminium with a diameter over XLPE core insulation of 58 mm after preparation and 50 mm² copper wire screen.

Order
 R909PB/G-50-800.1200-14-5
 + 50x10 KU-V/DNV GL coupling connector kit.

TABLE W

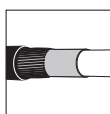
Ordering part number	Ø over core insulation* (mm)	
	min.	max.
3 x R909PB/G-25- X /DNV GL	27	33.5
3 x R909PB/G-30- X /DNV GL	32.5	41
3 x R909PB/G-37- X /DNV GL	40	48
3 x R909PB/G-43- X /DNV GL	46.5	51
3 x R909PB/G-46- X /DNV GL	49.5	55
3 x R909PB/G-50- X /DNV GL	54	59
3 x R909PB/G-53- X /DNV GL	57	64
3 x R909PB/G-58- X /DNV GL	62.5	68

* after cable preparation

TABLE X

Conductor size (mm ²)	Aluminium and Copper conductor (RMV)		Copper conductor (RMV)
	Bolted		DIN hexagonal
95	95.240-14-5		95(K)M-11-2
120			120(K)M-11-2
150			150(K)M-11-2
185			185(K)M-11-2
240		185.400-14-5	240(K)M-11-2
300			300(K)M-11-2
400			400(K)M-11-2
500	400.630-14-5		500(K)M-11-2
630			630(K)M-11-2
800		800.1200-14-5	800(K)M-11-2
1000			1000(K)M-11-2
1200			1200(K)M-11-2

RMV: round stranded compacted conductors



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 on vessels classed by DNV GL. Add -/DNV GL to part number



When installed on an appropriate equipment bushing: 1250 A continuously.



When in a daisy chain arrangement or similar: 1800 A continuously.

APPLICATION

Surge arrester designed to protect 72.5 kV class components, including transformers, equipment, cable and accessories from high voltage surges resulting from lightning or switching. It has been designed to be used with the 909TB and 909PB separable tee connectors.

TECHNICAL CHARACTERISTICS

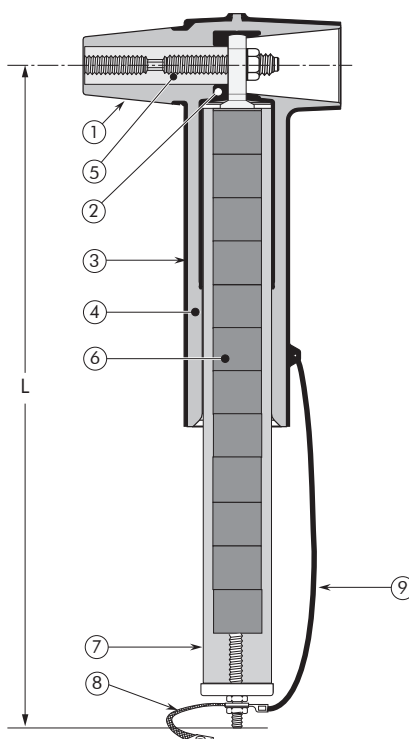
- A ZnO varistor screened, separable surge arrester in an elbow configuration.
- 100% routine tested.
- DNV GL - certification.



DESIGN

Surge arrester comprising:

1. Interface designed to fit the 909TB and 909PB tee connector.
2. Conductive EPDM insert.
3. Conductive EPDM jacket.
4. Insulating EPDM layer moulded between the insert and the jacket.
5. Receptacle for contact rod.
6. ZnO varistors.
7. ZnO module.
8. Earth connection.
9. Earth lead.



Up to 72.5 kV

EUROMOLD®



SPECIFICATIONS AND STANDARDS

The 900SA-CD31.5 surge arresters meet the test requirements of IEC 60099-4-2014. Comply with DNV GL rules for classification-ships and offshore units.

Rated data	
Nominal Discharge Current I_N	10 kA
Charge transfer rating Q_{rs}	1,2 C
Rated thermal energy W_{th}	5 kJ/kV _{Ur}
Arrester Class	SL
Short circuit current I_s	31,5 kA
High current impulse 4/10 μ s	100 kA
Long duration current impulse (2 ms)	600 A

Dimensions and weight	
Length L (bushing to grounding terminal)	745 mm
Weight	25 kg

ORDERING INSTRUCTIONS

To order the surge arrester specify the surge arrester type.

KIT CONTENT

- Surge arrester type 900SA-CD31.5/DNV GL
- Contact rod
- Stud
- Nylon vent rod
- Silicone grease+wipers
- Set of gloves
- Installation instruction

TECHNICAL DATA

Ordering part number	Rated voltage Ur (kV)	Max. continuous operating voltage Uc (kV)	Steep current residual voltage @ 10 kA [1/2 μs] (kV)	Lightning current residual voltage [8/20 μs] (kV)			Switching impulse residual voltage [30/70 μs] (kV)	
				@ 5 kA	@ 10 kA	@ 20 kA	@ 250 A	@ 500 A
900SA-10-74-CD31.5/DNV GL	74	59.2	213	187	197	213	160	163



APPLICATION

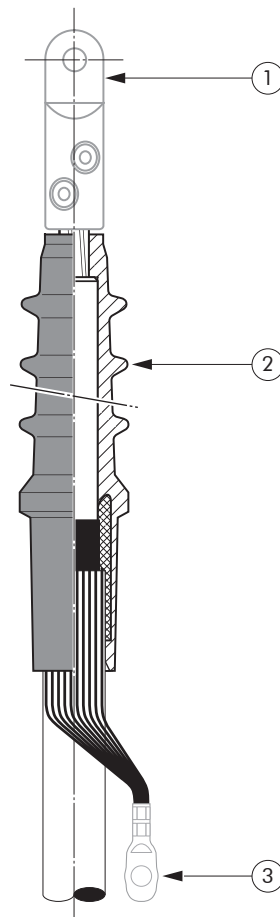
A kit of 3 terminations for use indoors in controlled environmental conditions and subject to light condensation. Provides a simple and quick method of stress relieving on screened polymeric cables.



DESIGN

Indoor termination comprising:

1. Mechanical cable lug.
2. High flexibility silicone rubber housing, allowing larger tolerances on cable insulation diameters, with integrated conductive rubber insert, providing stress relief.
3. Earthing lug (not included in the standard kit).



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

Up to 36 kV

SPECIFICATIONS AND STANDARDS

Meets the requirements of CENELEC HD 629.1 and IEC 60502-4.
Certified for installation on all vessels classed by DNV GL.



Termination type	Voltage Um (kV)	Conductor sizes (mm ²)	
		min	max
AIN 10-DNV GL	12	25	1200
AIN 20-DNV GL	24	35	1200
AIN 30-DNV GL	36	50	1000
AIN 36-DNV GL	36	150	1000

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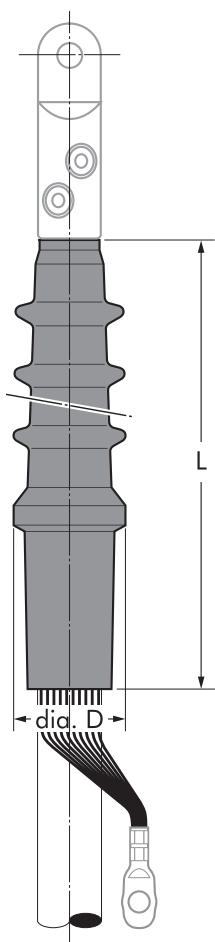
KIT CONTENTS

A kit always comprises
3 termination housings,
mechanical cable lugs,
installation instructions, special
lubricant, wiper, adhesive tape,
field control mastic, ...

Earthing lugs are not included
in the standard kit, but can be
ordered separately.

ORDERING INSTRUCTIONS

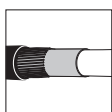
Select the part number
corresponding to both the system
voltage and the cable dimensions
in mm.



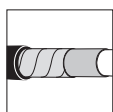
Voltage Um (kV)	Conductor sizes (mm ²)		Diameter over core insulation (mm)		Number of sheds	L (mm)	Dia. D (mm)	Ordering part number
	min	max	min	max				
12	25	95	12.7	21.0	2	150	37	3 x AIN 10-1/DNV GL
	120	240	19.0	28.5	2	150	43	3 x AIN 10-2/DNV GL
	300	500	27.0	37.0	2	150	60	3 x AIN 10-3/DNV GL
	630	800	34.0	46.0	3	225	68	3 x AIN 20-4/DNV GL
	1000		39.0	50.0	7	405	98	3 x AIN 36-5/DNV GL
	1200		46.0	58.0	7	405	98	3 x AIN 36-6/DNV GL
24	35	70	18.0	23.5	3	225	47	3 x AIN 20-1/DNV GL
	95	240	22.5	33.0	3	225	56	3 x AIN 20-2/DNV GL
	300	500	31.0	41.0	3	225	68	3 x AIN 20-3/DNV GL
	400	630	34.0	46.0	3	225	68	3 x AIN 20-4/DNV GL
	630	800	39.0	50.0	7	405	98	3 x AIN 36-5/DNV GL
	1000	1200	46.0	58.0	7	405	98	3 x AIN 36-6/DNV GL
36	50	70	23.5	29.0	6	300	74	3 x AIN 30-1/DNV GL
	95	240	27.0	38.0	6	300	74	3 x AIN 30-2/DNV GL
	240	400	32.0	43.0	6	300	81	3 x AIN 30-3/DNV GL
	400	630	39.0	50.0	7	405	98	3 x AIN 36-5/DNV GL
	630	1000	46.0	58.0	7	405	98	3 x AIN 36-6/DNV GL

EXAMPLE:

A set of 3 indoor terminations
for a 24 kV - 240 mm² stranded
aluminium cable with copper wire
screen. The diameter over core
insulation is 30.4 mm.
Order a 3 x AIN 20-2+C95-
240x12/DNV GL
termination kit.



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



For use with
copper tape
screened cables.
Order: -/MT.



For use with
three-core cables.
Please contact our
representative.



No heating or flame
is required.



For use on vessels
classed by DNV GL.
Add -/DNV GL to part
number

APPLICATION

A kit of 3 terminations for use outdoors and exposed to prolonged sunshine and other weather conditions.

To connect polymeric insulated cable to equipment and for the outdoor terminating on to overhead lines or busbars.

DESIGN

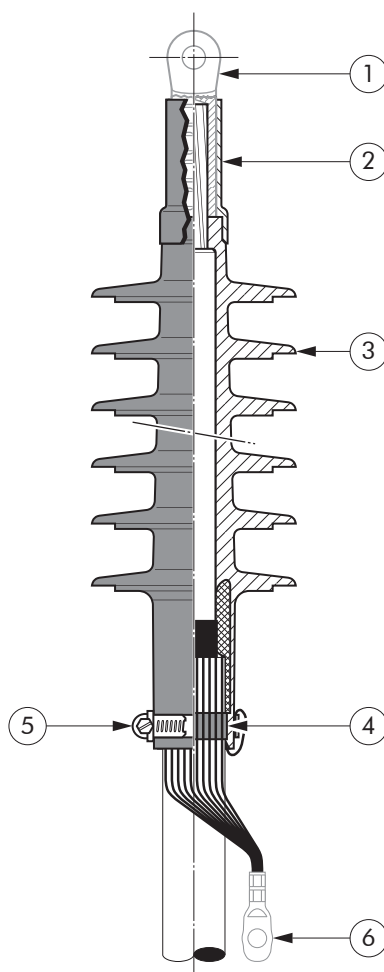
Outdoor termination comprising:

1. Mechanical cable lug.
2. Water sealing silicone sleeve.
3. Silicone housing with sheds and integrated conductive silicone rubber insert providing stress relief for the cable.
4. Water sealing mastic.
5. Earthing clamp.
6. Earthing lug (not included in the standard kit).

SPECIFICATIONS AND STANDARDS

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

Certified for installation on all vessels classed by DNV GL.



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



Termination type	Voltage Um (kV)	Conductor sizes (mm ²)	
		min	max
AFN 10-DNV GL	12	25	1200
AFN 20-DNV GL	24	35	1200
AFN 30-DNV GL	36	50	1000
AFN 36-DNV GL	36	70	1000

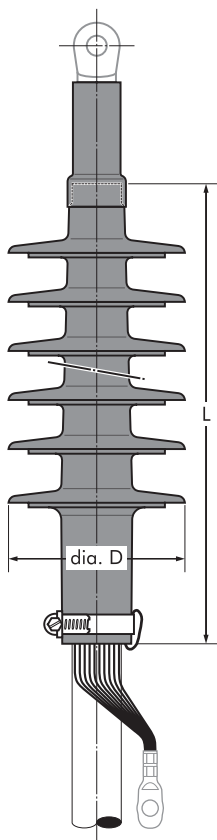
06/2019

KIT CONTENTS

A kit always comprises
3 termination housings,
mechanical cable lugs,
water sealing sleeve, the
installation instructions, special
lubricant, wiper, earthing clamp,
water sealing mastic, adhesive
tape, field control mastic, ...

ORDERING INSTRUCTIONS

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

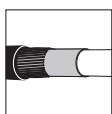


Earthing lugs are not included
in the standard kit, but can be
ordered separately.

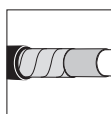
Voltage Um (kV)	Conductor sizes (mm ²)		Diameter over core insulation (mm)		Number of sheds	L (mm) (max)	Dia. D (mm)	Creepage distance (mm)	Ordering part number
	min	max	min	max					
12	25	95	12.7	21.0	3	210	90	369	3 x AFN 10-1/DNV GL
	120	240	19.0	28.5	3	210	96	365	3 x AFN 10-2/DNV GL
	300	500	27.0	37.0	3	210	105	360	3 x AFN 10-3/DNV GL
	630	800	34.0	46.0	4	240	118	462	3 x AFN 20-4/DNV GL
	1000		39.0	50.0	7	405	127	755	3 x AFN 36-5/DNV GL
	1200		46.0	58.0	7	405	127	755	3 x AFN 36-6/DNV GL
24	35	70	18.0	23.5	4	240	100	480	3 x AFN 20-1/DNV GL
	95	240	22.5	33.0	4	240	112	499	3 x AFN 20-2/DNV GL
	300	500	31.0	41.0	4	240	118	462	3 x AFN 20-3/DNV GL
	400	630	34.0	46.0	4	240	118	462	3 x AFN 20-4/DNV GL
	630	800	39.0	50.0	7	405	127	755	3 x AFN 36-5/DNV GL
	1000	1200	46.0	58.0	7	405	127	755	3 x AFN 36-6/DNV GL
36	50	70	23.5	29.0	6	300	115	695	3 x AFN 30-1/DNV GL
	95	240	27.0	38.0	6	300	115	694	3 x AFN 30-2/DNV GL
	240	400	32.0	43.0	6	300	127	718	3 x AFN 30-3/DNV GL
	400	630	39.0	50.0	7	405	127	755	3 x AFN 36-5/DNV GL
	630	1000	46.0	58.0	7	405	127	755	3 x AFN 36-6/DNV GL

EXAMPLE:

A set of 3 outdoor terminations
for a 24 kV - 240 mm² stranded
aluminium cable with copper wire
screen. The diameter over core
insulation is 30.4 mm.
Order a 3 x AFN 20-2+C95-
240x12/DNV-GL
termination kit.



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



For use with
copper tape
screened cables.
Order: -/MT.



For use with
three-core cables.
Please contact our
representative.



No heating or flame
is required.



For use on vessels
classified by DNV GL.
Add -/DNV GL to part
number

NOTES



Nexans Power Accessories
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www.nexans.com/power_accessories

