



CABLING AND JUNCTION SOLUTION **SPECIALISTS**

Nexans
ELECTRIFY THE FUTURE

Consider Total Cost of C

Our Junction Solutions

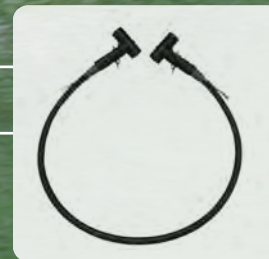
As a premium provider in the design and manufacture of junction solutions, the Nexans range of products brings certainty of increased operational efficiency with reduced capital expenditure. From our European testing and manufacturing facilities we design and build innovative junction solutions that provide technological and financial benefits to developers and installers.



JUNCTION CABINET



UNDERGROUND JUNCTION CHAMBER



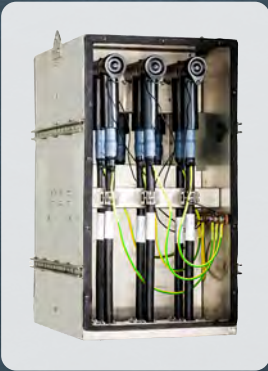
PACKAGE SUBSTATION PRE-TERMINATED LEADS

Ownership

PRE-TERMINATED LEADS



JUNCTION CHAMBER



JUNCTION FRAME



PRE-TERMINATED LEADS



JUNCTION FRAME

Cost

By decreasing distances between cable entry and equipment connection point, a cost reduction is ensured by minimizing the over pulling of array cable, the cable stripping and the termination.

Space

In conjunction with pre-terminated leads the compact solution will take care of the limited space in both offshore substations and transition pieces.

Commissioning

Junction solutions simplifies the array cable work, a project critical path activity influenced by external conditions, leading to delays.

Demarcation

By creating a specific and defined demarcation point, interface management is simplified due to improved off line planning with the developer.

Testing

An intermediate interface provides the possibility to test the array cable string ensuring quality post installation.

Dependant on the turbine manufacturer or the developers preference the transformers and switchgear can be located in a number of points within the turbine/transition piece, as a result these are not detailed in the diagrams. For your specific junction requirements, please contact Nexans for further details.

Junction Cabinet

ONJC-S

Designed, tested and manufactured for renewable projects, the junction cabinet acts as a disconnecting outlet between grid and application, or a branching and replicating outlet.



Specification features include:

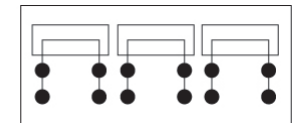
- For application with separable cable connectors up to 42 kV - 630A, according to CENELEC HD 629.1
- Pedestal type powder coated (RAL 7037) steel housing structure and base
- Ingress protection rated for outdoor use: IP43 (IEC60529/EN62262 ed1:2002-02).

Design features include:

- Per phase a two-way interface-C junction with stainless steel base and cover
- Cable cleats for up to 24 (12 x ONJC-S/24 x ONJC) single core cables for cable sizes up to 630 mm² (until 240 mm²-> 480TB), (from 300 mm²- 630 mm² -> 484TB). Higher cable sizes on request
- Earth bar with earth disconnection clamp

Unique product benefits ensuring:

- Suitable for outdoor conditions
- Ease of installation, reduction of footprint
- Test and demarcation point
- Time saved on installation and downtime
- Reduced capital costs



Junction Cabinet

ONJC

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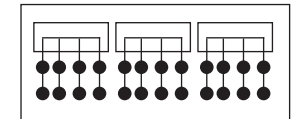
- For application with separable cable connectors up to 42 kV - 630A, according to CENELEC HD 629.1
- Pedestal type powder coated (RAL 7037) steel housing structure and base
- Ingress protection rated for outdoor use: IP43 (IEC60529/EN62262 ed1:2002-02).

Design features include:

- Per phase a screened four-way interface-C junction with stainless steel base and cover
- Cable cleats for up to 24 (12 x ONJC-S/24 x ONJC) single core cables for cable sizes up to 630 mm² (until 240 mm²-> 480TB), (from 300 mm²- 630 mm² -> 484TB). Higher cable sizes on request
- Earth bar with earth disconnection clamp

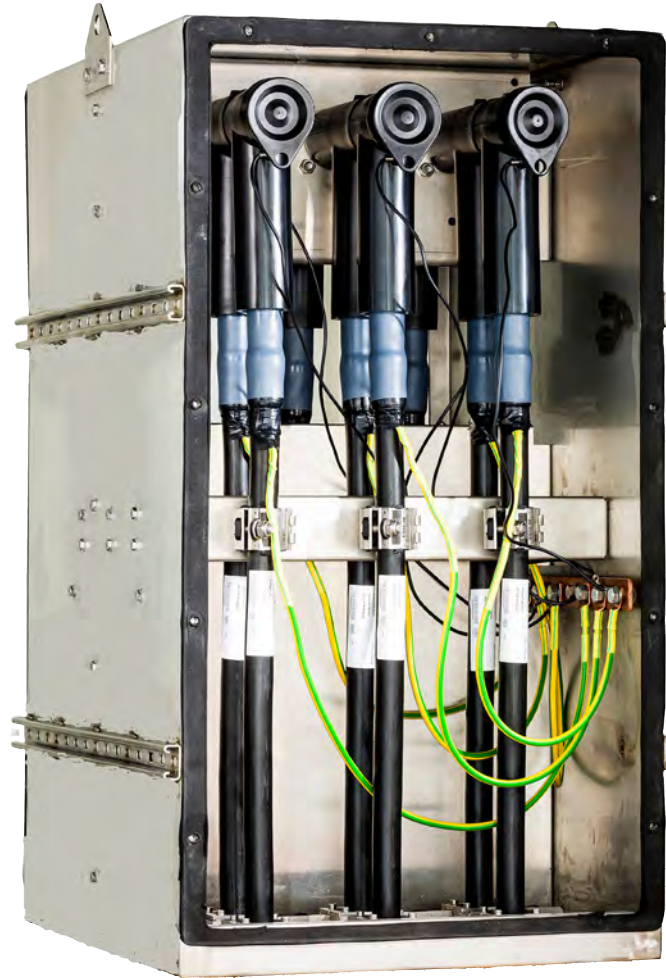
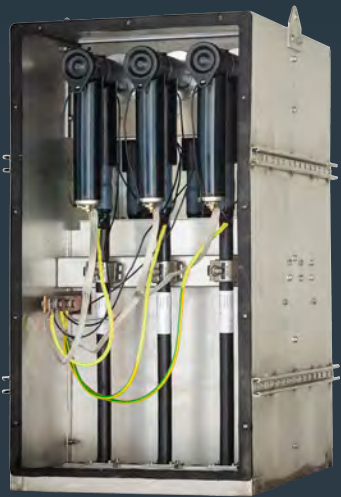
Unique product benefits ensuring:

- Suitable for outdoor conditions
- Ease of installation, reduction of footprint
- Test and demarcation point
- Time saved on installation and downtime
- Reduced capital costs



Junction Chamber

Developed, trialled and manufactured for wind projects, the junction chamber acts as a connection point between the internal tower cable and external subsea array cables.



Specification features include:

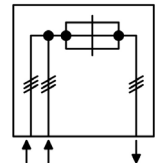
- For application with separable cable connectors up to 42 kV – 630 A, according to CENELEC HD 629.1. Higher current ratings on request
- Marine grade 316L stainless steel and A2/A4 grade fittings
- Robust design using screened separable cable connectors with IP67 ingress protection
- Short circuit tested acc. to DIN VDE 0278-626-1 (HD 629.1 S2:2006 + A1:2008): 2009-07: Thermal short-circuit 25 kA/1s, Dynamic short-circuit 62.5 kA

Design features include:

- A floor standing cabinet secured by four M12 internal or external base fixings
- Support plate with per phase integrated feed through bushings
- Front and back access panel for array cable and turbine connections
- Bottom entry with split gland plate incorporating nine feed through or compression glands
- Earth bar on insulated stand offs and earth cable compression gland
- Cable cleat arrangements for up to nine single core cables
- Lifting eyes
- Channels for mounting of external accessories

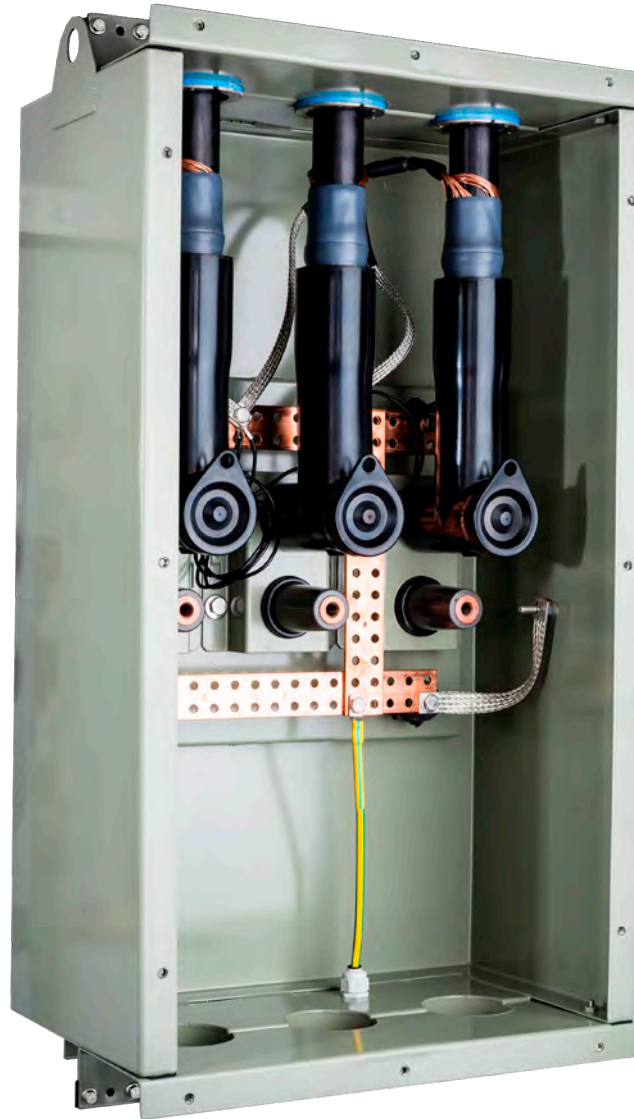
Unique product benefits ensuring:

- Suitable to be installed within the transition piece awaiting installation of the tower
- A simplified interface management by creating a clear division of responsibility
- Creating a test and demarcation point
- Onshore prepared and tested pre-terminated leads allows for ready plug and play solutions, saving time, space and reducing complexity of installation



Junction Frame

Manufactured for wind applications, the junction frame performs as a connecting point to the subsea array cables.



Specification features include:

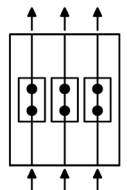
- For application with IP67 ingress protection separable cable connectors up to 42 kV – 630 A, according to CENELEC HD 629.1
- Marine grade 316L stainless steel and A2/A4 grade fittings
- Robust design with ingress protection rating IP54 category 2

Design features include:

- A wall mounted enclosure in closed (IP54) to be secured by four fixings on a frame structure
- An assembly with per phase a screened two-way interface C junction with stainless steel base and cover
- Front access panel for array cable and turbine connections
- Top and bottom entry with split gland plate incorporating six feed through glands
- Earth bar on insulated stand offs and earth cable compression gland
- External cable cleat arrangements and frame for up to six single core cables (optional)
- Lifting eyes

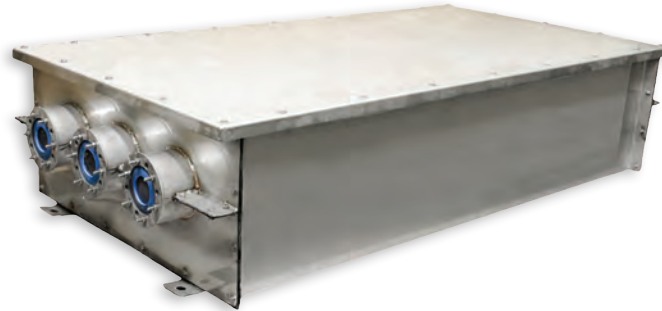
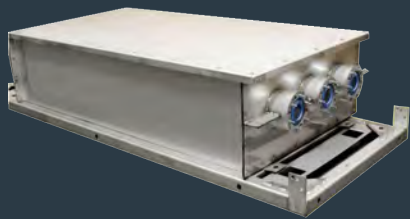
Unique product benefits ensuring:

- Unique modular design for varying configurations
- A simplified interface management by creating a clear division of responsibility
- Creating a test and demarcation point
- Onshore prepared and tested pre-terminated leads allows for ready plug and play solutions, saving time, space and reducing complexity of installation



Underground Junction Chamber

For onshore renewable power parks, the underground junction chamber will be used as a connecting point for cable-jointing and branching applications.



Specification features include:

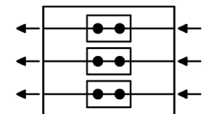
- For application with IP67 ingress protection separable cable connectors up to 42 kV – 630 A, according to CENELEC HD 629.1
- Burial type 3162 stainless steel housing with A2/A4 grade fittings
- Robust design with IP67 degree of protection

Design features include:

- A floor mounted enclosure in closed (IP67) to be secured by four fixings on a frame structure
- An assembly with per phase a screened two-way interface C junction with stainless steel base and cover
- Top access panel for array cable and turbine connections
- Left and right (IN & OUT) entry with split gland plate incorporating six feed through glands
- Earth bar on insulated stand offs and earth cable compression gland
- External cable cleat arrangements and frame for up to six single core cables (optional)
- Lifting eyes

Unique product benefits ensuring:

- The chamber is specifically designed to be installed in underground conditions
- Reduction of land footprint
- Joining/branching cables with different cross-sections
- High reliability of installation
- Good test and demarcation point
- Caters for installation of monitoring equipment



Pre- Terminated Leads

Designed to complement and enhance our range of junction family solutions, Nexans has also developed a range of pre-terminated medium voltage jumper leads which have considerable installation benefits.



- Pre-assembled in ideal conditions
- Can be pre-tested in accordance with CENELEC
- No special tools required on site
- Reduced commissioning time on site
- No loss of time due to weather conditions
- Reduction of direct and indirect consequences due to possible failure provided installed correctly
- Ready to install. Providing Plug and Play system



To find out how Nexans can transform your SPECIFIC requirements and increase operational performance contact the team on:

United Kingdom
NEXANS POWER ACCESSORIES UK Ltd
+44 (0) 1977 669966
www.nexans.co.uk/poweraccessories

Belgium
NEXANS NETWORK SOLUTIONS NV - div. EUROMOLD
+32 (0) 5385 0220
www.nexans.be/poweraccessories

France
NEXANS POWER ACCESSORIES FRANCE SAS
+33 (0)3 34 27 78 50
www.nexans.fr/poweraccessories

Germany
NEXANS POWER ACCESSORIES GERMANY GmbH
+49 (0) 9281 83060
www.nexans.de/poweraccessories

Italy
NEXANS ITALIA S.p.a.
+39 02 92910
www.nexans.it/poweraccessories

U.A.E (Middle-East & Asia)
NEXANS DUBAI
+971 4 447 0253
www.nexans.ae/poweraccessories

Australia
NEXANS POWER ACCESSORIES AUSTRALIA
+61 3 9205 8400
www.nexans.com.au/poweraccessories

South-Africa
ISO-TECH SYSTEMS
+27 11 466 3701
www.iso-tech.co.za