

36 kV GRID JUNCTION CABINET FOR OFFSHORE APPLICATIONS



Abstract

- Developed for offshore wind turbines
- Flexibility in construction, test, commissioning and operation of offshore installations



Design considerations

- Offshore environment
 Marine grade stainless steel AISI 316L,
 surface protected against corrosion by dip pickling
- Degree of protection Components selected for IP65



- Dimensions - example W 620 x H 1.100 x D 1.200 mm Weight 125 kg

Electrical interface

 Cable entry multidiameter technology, range of outer cable diameter 24 – 71 mm



- Cable fixing



- Cable connector
bushing according to DIN 47636,
EN 50180 and EN 50181,

630 A (type C1) or 1.250 A (type C2)





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Cable configurations

Up to 12 singlecore-cables
 (4 sets of conductors)



Partial assembling and disassembling of cables

- Section-wise assembly of bottom flange



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Parameters to be determined before ordering

- **Mechanical dimensions** must be coordinated with the type of cable connector in application
- Amplitude and duration of max. short-circuit current

Options

- Cabinet fixing arrangement



 Fixed points for application of earthing and short-circuiting device



- Warning signs and labels for cable-identification



- End covers prepared for locking device
- Glands for auxiliary equipment



Reference projects

- Horns Rev 2 (91 wind turbines)
- Gunfleet Sands 1+2 (30+18 wind turbines)
- Walney 1 (51 wind turbines)
- Walney 2 (51 wind turbines)

INSULATED SPECIAL TOOLS

For assembling and disassembling of high voltage cables and connectors in cabinets and switchgears



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Earthing rod with socket for T-pin

For assembling and disassembling of connectors and application of earthing and short-circuiting device.

Note! Long T-pin required

| Length | 1 m |
|------------------------------------|------------------|
| Torque: | Max. 50 Nm |
| Suitable for | ½" torque wrench |
| Туре | Article No. |
| Earthing rod with socket for T-pin | 769201/S2 |

Earthing adaptor

| Female thread | M12 | M12 | M16 | M16 | |
|--------------------------|------------------------------|-----------|---------------------------------|-----------------|--|
| Fixed ball point | ø20 | ø25 | ø25 | ø20 | |
| Total length | 128 mm | 139 mm | 139 mm | 168 mm | |
| For connector type | 630 A NKT | 630 A NKT | 1250 A NKT / Nexans-Euromold | Nexans-EuroMold | |
| I _{K1s} [kA] | 23,7 | 29,6 | 29,6 | 23,7 | |
| Type Article No. | | | | | |
| Earthing adaptor M12/ø20 | r M12/ø20 12055.009 | | | | |
| Earthing adaptor M12/ø25 | ng adaptor M12/ø25 12055.018 | | | | |
| Earthing adaptor M16/ø25 | adaptor M16/ø25 12055.020 | | | | |
| Earthing adaptor M16/ø20 |) | 120 |)55.007 | | |

Earthing adaptor

for Nexans/Euromold connectors

| Туре | Article No. | |
|---------------------------------|-------------|--|
| Earthing adaptor for 430TB, ø20 | 300GP-Bx20 | |
| Earthing adaptor for 400TB, ø20 | 400GP-Bx20 | |

Socket attachment for earthing rod

For mounting of earthing adaptor

| Туре | Article No. | |
|--------------------------------|-------------|--|
| Wrench socket with T-pin 19 mm | 12055.014 | |
| Wrench socket with T-pin 22 mm | 12055.024 | |
| Wrench socket with T-pin 24 mm | 12055.015 | |
| Wrench socket with T-pin 27 mm | 12055.021 | |

Hook for end cap

for removal of end cap

| Type | Article No. | |
|--------------------------------|-------------|--|
| Long hook for T-pin type SQL | 12055.017 | |
| Compact hook for T-pin type SQ | 12055.027 | |
| | | |



Earthing rod



Socket for T-pin





Earthing adaptor





Earthing adaptor for Nexans/Euromold



Socket attachment for earthing rod



Hook for removal of end cap