



## Draka Industry & Specialty | Offshore

### Medium Voltage Subsea Cables for Offshore Renewable Energy

Draka's medium voltage subsea cables were developed from more than three decades of offshore cable experience.

They are designed and manufactured to meet the special requirements of offshore renewable energy, subsea power distribution and oil and gas applications.

All critical components of these cables, from the XLPE-insulated cores to the optical fibre units, are manufactured in-house by Draka, ensuring the highest level of quality control throughout the production process.

#### Reliable and long lifetime

- All electrical and fibre parts manufactured in house
- High-quality materials
- Easy to test during production, shipping and installation
- Heavy duty steel-wire armoured design
- Superior longitudinal water tightness of conductor

#### Easy to install

- Lightweight, flexible and coilable

#### Flexible design

- Conductor sizes from 120mm<sup>2</sup> to 800mm<sup>2</sup>
- Wide range of optical fibre counts and fibre types

#### Cable solutions for:

- Offshore windfarms
- Wave and tidal energy farms
- Oil and gas platforms
- Power utility medium voltage crossings

#### Conductor design

Conductor	Stranded, round and compacted copper acc. to IEC 60228 class 2, longitudinally waterblocked
Conductor screen	Extruded
Insulation	WTR crosslinked polyethylene
Insulation screen	Extruded bonded
Taping	Semi-conducting waterblocking tape
Screen	Copper tape
Outer sheath	Extruded polyethylene

#### Cable design

Optical fibres	Up to 3 OFC units with up to 24 fibres each, G652d, MM50, MM62.5, BendBrightXS™
Bedding layer	Tape and yarn bedding
Armouring	Galvanized steel wires acc. to EN 10257-2
Outer protection layer	Polypropylene yarns

## General specifications

	3x150mm <sup>2</sup>	3x185mm <sup>2</sup>	3x240mm <sup>2</sup>	3x300mm <sup>2</sup>	3x400mm <sup>2</sup>	3x500mm <sup>2</sup>	3x630mm <sup>2</sup>
Rated Voltage (kV)				18/30(36)			
Rated Frequency (Hz)	50						
Diameter (mm)	108	112	117	123	128	138	144
Weight in air/water (kg/m)	19/10	21/11	23/12	28/18	31/20	34/22	40/24
Core diameter (mm)	37.5	39.2	41.1	44.2	46.4	51.3	53.5
Max. Working Tension (kN)	32	33	43	50	60	63	68
Min. Bending Radius on Drum (mm)	1100	1120	1170	1230	1280	1380	1440
Conductor Resistance DC 20°C (Ω/km)	0.124	0.099	0.075	0.061	0.047	0.036	0.028
Conductor Resistance AC 90°C (Ω/km)	0.160	0.128	0.098	0.078	0.064	0.048	0.041
Capacitance (µF/km)	0.200	0.210	0.220	0.240	0.277	0.315	0.320
Current Rating in Subsea Section (2m burial, seabed TR 0.7 K*m/W, 20°C)	395	440	470	565	610	680	740
Impulse Voltage, acc. To IEC 60502-2 (kVp)				170			

## Accessories and Services

Draka co-operates with a network of professional and experienced partners to offer complete solutions, from cable grip to a full-turnkey cable network.



- Pulling heads and stockings
- Hang-offs
- Repair joints
- Connectors and terminations
- Fibre optical termination boxes
- Junction boxes



- Cable repair services
- Cable, fibre and accessory installation
- Commissioning
- Project management
- Cable laying services where required