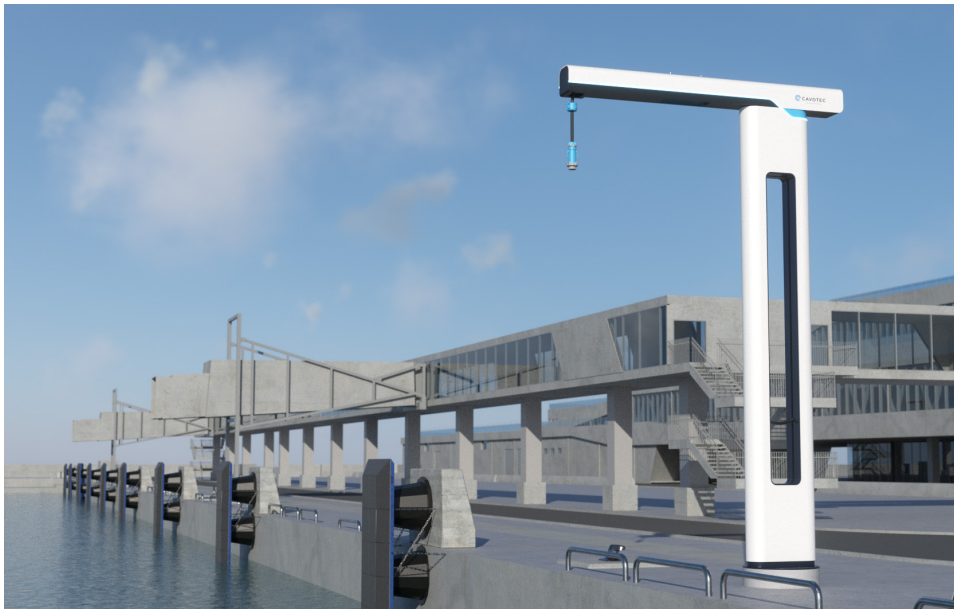


PowerReachNxG HV



Cavotec is a leading cleantech company that designs and delivers connection and electrification solutions to enable the decarbonization of ports and industrial applications.

Cavotec pioneered ShorePower technology in the 80s. We design, manufacture and deliver innovative turnkey ShorePower solutions that allow our customers to take charge of their own futures.

Overview

Power**ReachNxG** is a jib-crane solution that connects high-voltage (HV) vessels, (typically Ro-Ro and Ro-Pax), to shoreside electrical grids quickly and securely.

Power**ReachNxG** is featured by an evolved, modern and innovative aesthetic that has been developed with public environments and urban contexts in mind.

The system performs rapid pay out and retrieval of power cables and HV plugs, (with pilots and fiberoptics if required), with a dedicated cable dragging unit. Power**ReachNxG** has a minimal quayside footprint, and its arm can be rotated and "parked" when not in use. The system is manoeuvred using Cavotec's robust, lightweight and ergonomic push-button MC-2-3 Radio Remote Control (RRC) unit.

Safety features include operator alerts that are triggered when cables are fully payed in or payed out and high-voltage (HV) shut-off in the event of excessive cable traction.

Benefits

- Access ship connection points quickly and accurately irrespective of water level or vessel displacement (high or low tide)
- Rapid connection to vessels with Cavotec PC5 or PC6 push-pull plugs that can also be integrated with fibre optics
- Ratings up to 15kV available
- Rapid arm rotation and cable release
- Detailed system status monitoring: local and remote alerts for supervision
- Arm sizing highly customizable to the distance ships are moored from the quay
- High degree of flexibility in column size
- Anti-corrosion coatings
- Cast iron motors
- HV cables supplied with cable grip
- HV plugs anodized and treated with clearcoat for harsh environments
- HV power junction boxes supplied with conductor bars for connection to yard HV cables from substations
- Arm rotation 120°

Features

- MC-2-3 RRC for remote operation: multiple RRC units available for multiple-vessel applications
- Extended length of cables on shore side to avoid HV junction box on the Power**ReachNxG**
- C5M coating
- Ultrasound sensor detecting vessel distance
- Cavotec touch panel or remote control available
- Status LED lighting that illustrates machine status
- Cavotec Connect

Technical features

Electrical features

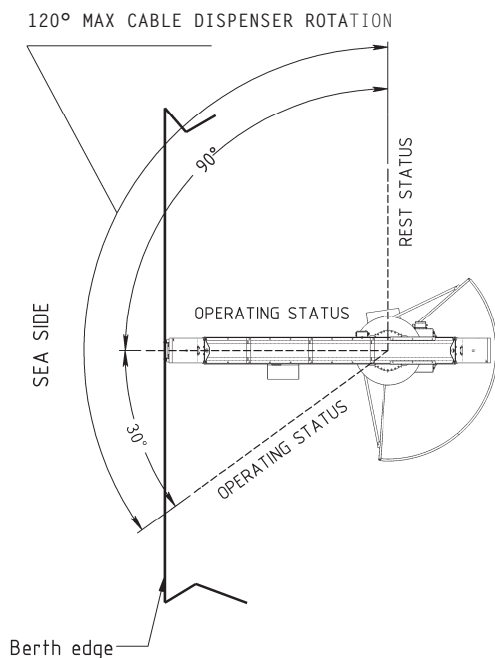
Operating voltage	11kV (Typical)
Connector	PC6 connector according IEC 80005:1 2 pilot pins + 5 auxiliary pin Maximum amperage: 500A
Fiber Optic	Available on request 4 channels multimode according IEC 80005:1
Cable	70 or 185 sqmm with up to seven conductor signals, depending on project requirements
Power	4 to 8 MVA with one cable
IP rate	IP56 - HV junction box and control panel (with anticondensation heaters)
Aux power required	5kW at 400V
Additional Features	- emergency stop for safe operation - cable position sensing devices

Mechanical features

Column height	4m, 6m, 8m and 10m (other height on request)
Column arm	2m, 5m, 8m and 10m (other length on request)
Active Cable length	up to 17.6m active length to compensate tide and vessel displacement (proportional to the dispenser height)
Cable traction	motorised cable dispenser with belts optimised to reduce cable wear (for high column design available with double traction); controlled by frequency converter

Relation between height and active cable length

Height plug level	4m	6m	8m	10m
Active cable length	5.6m	9.6m	13.6m	17.6m



Approvals

Power**ReachNxG** complies with Cable Management System (CMS) requirements of IEC/ISO/IEEE 80005:1 Utility connections in port – Part 1: High Voltage Shore Connection (HVSC) Systems – General requirements.

Please contact your local Cavotec Sales Office for further information at cavotec.com. Disclaimer: specifications are subject to change without notice.