



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

PowerMove is a tyre solution that can be moved by autonomous electrical traction or towed by motor vehicle, that connect easily high-voltage (HV) vessels (typically Cruise Ships), to the shoreside electrical grids quickly and securely.

The system is composed by a robust trailer and an articulated or telescopic crane, that performs a rapid pay out and retrieval of power cables and HV plugs, shore side and ship side. **PowerMove** is equipped with a Shore Power supply Reel with electronic drive system to regulate the cable tension and with two auxiliary Cable Reels for the LV supply and signals connection.

The system is maneuvered using Cavotec's robust, lightweight and ergonomic push-button MC-2-3 Radio Remote Control (RRC) unit.

Benefits

- High flexibility: position of the shore connection hatch up to 50m, with possibility of connection of a broad range of cruise vessels
- Reduced civil work: no trenches all along the berth
- Possibility to disconnect and store the system out of the berth when not used
- Safe lifting of the power cables
- Quick and accurate access to ship connection points, irrespective of water level or vessel displacement (high or low tide)
- Ratings up to 15kV available
- HV cables supplied with cable grip
- Quick connection of auxiliary LV power supply and feedback signals from fix Junction Box, with auxiliary cable reels and dedicated plugs
- Alarms and signals on machine and for remote supervision: reeling in-out, automatic mode, emergency stop, last two turns of cable on the reels



Options

- Lithium Battery Pack and electric motor for autonomous traction, with BMS (Battery Management System)
- MC-2-3 Radio Remote Control for remote operation: multiple RRC units available for maneuvering the Power**Move** from distance
- Special paint or color if required
- Cable reserve parked under the crane without ship supply reel (Mini Power**Move**)
- Stabilizers in case of elevate length of the crane
- Power**Feed** for the power connection on the quay side

Technical features

Electrical features

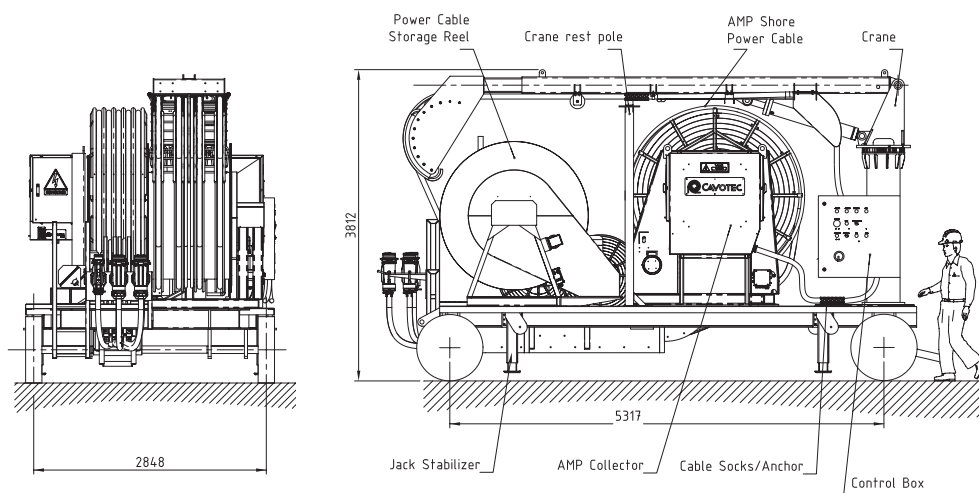
Operating system voltage	6,6kV or 11kV (Typical)
Connectors	PC6 connector according IEC 80005:1 2 pilot pins + 1 auxiliary pin Maximum amperage: 500A
Fiber optic	Available on request 4 channels multimode according IEC 80005:1
Cable	Up to 240sqmm, typically n.4 power cables with 3 pilots, n.1 neutral cable and n.1x24 signal cable
Power	Up to 20 MVA with four cables
IP rate	IP56 - HV junction box and control panel (with anticondensation heaters)
Aux power required	20kW at 400V
Battery System for traction (Optional)	- Charging system controlled by an electrical panel (available also with BMS) - Autonomy up to 1500 meters for the movement (customized design for required distances)
Additional features	- Emergency stop for safe operation - MC-2-3 RRC for remote operation

Mechanical features

Length of the telescopic boom retracted	6m + cable guide (from the center of rotation)
Inclination angle of the telescopic boom	from 0° to 70°
Slew rotation angle	0° (rest position) +/- 90°
Max outreach of the telescopic boom	10m + cable guide (from the center of rotation)
Extension technology	Hydraulic extension booms activated by means of telescopic cylinders
Slewing system	Hydraulic movement
Shore side cable reel type	5-Monospiral reel with collector (4 power cables + 1 neutral cable), up to 50m cable length
Signal cable reel type	1-Monospiral reel with signal cable and Cavotec multipin plug
Auxiliary supply reel type	1-Monospiral reel with LV three-phase cable and 5-poles low voltage plug
Storage reel type	Designed to store the MV cables, control cable and plugs at the end of boom crane
Additional features	Traction with battery system (Optional)

Technical dimensions (example)

Unit: Millimeters



Approvals

Power**Move** 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.