

CONTAINER REEL FOR SHORE-SIDE POWER SUPPLY

MCR TYPE LSV

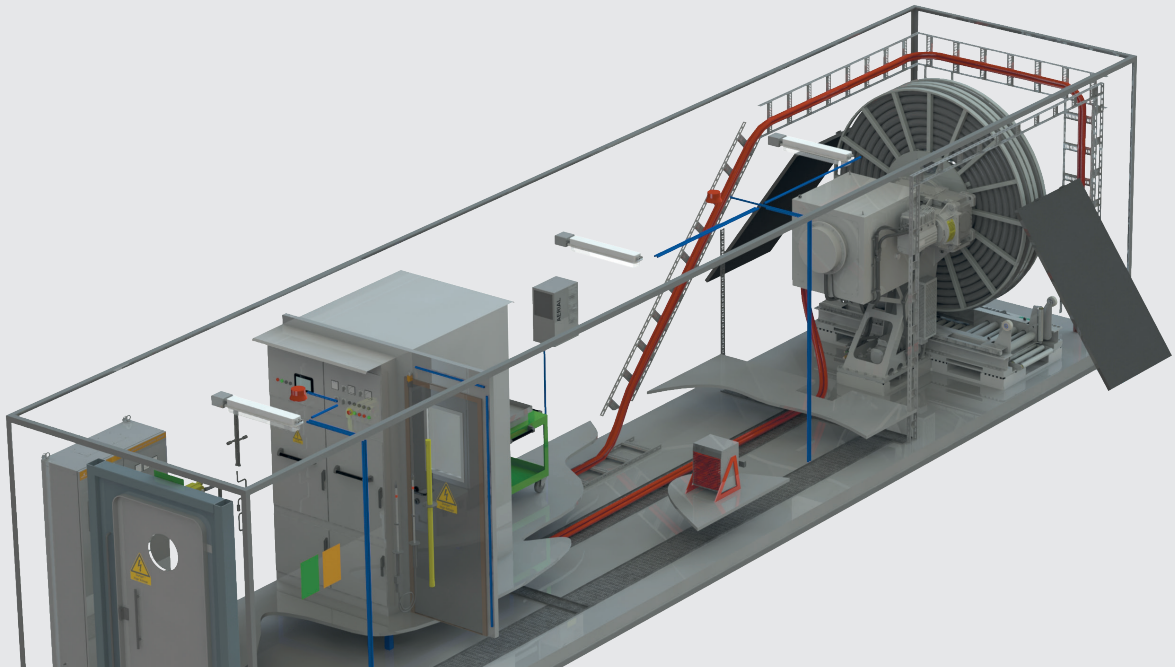


The introduction in recent years of stricter international environmental requirements and directives aimed at reducing ship emissions and noise pollution in harbours has helped bring about a rethink on the part of port operators. Up until now, most docked container ships and cruise liners have relied on diesel-powered generators on board to keep them operational during necessary maintenance and layover periods in port.

HARTMANN & KÖNIG DEVELOPS MOTORISED REEL FOR SHORE-SIDE POWER SUPPLY

Shore-side power supplies use land-based transformer stations and cables to the quay for guaranteeing the power supply to the ocean-going giants. For example, on board container ships, motorised cable reels can be installed inside a container on the lowest row (SAMCon solution), for which Hartmann & König offers customised product developments on request.





AN EFFICIENT CONTAINER SOLUTION BY WÄRTSILÄ

The container solution enables the owner to cover the electricity demand „on-shore“ whenever the diesel generators are switched off. All necessary components for the power supply are fitted in a standard (20 or 40 ft) container, which can be integrated in virtually any suitable place on board the ship.

The function of the motorised cable reel is to wind and unwind two cables specified by the customer in order to transfer the required power over a defined distance. It allows the fluctuating height difference (e.g. caused by tide, swell or the loading condition on the ship) between the installation height of the container and the shore-side connection to be regulated automatically.



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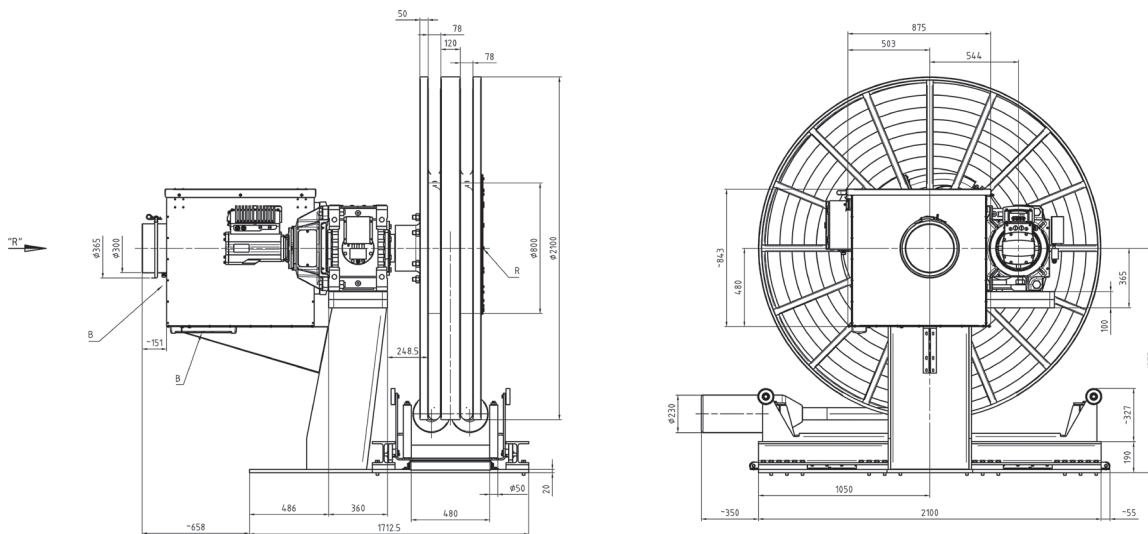


SRA 330 A, 6.6 kV

BESPOKE INTEGRATED SOLUTION

- Customised for minimum installation space owing to the narrow opening of the container doors
- Easy positioning and installation of the cable reel within the container; good accessibility and straightforward installation of the fasteners at the interfaces
- Sturdy, double-bearing design of the slip ring assembly
- Connection technology of the slip ring assembly and brush device designed to allow easy connection of the individual wires
- Interfering contours (e.g. slip ring cover) can be completely removed when connecting the cable and replacing wear parts if necessary
- Innovative drive concept: high motor efficiency, enclosed motor design without fans
- Reel position may be rotated 90 degrees along its vertical axis if necessary

SPECIFICATIONS FOR MOTORISED CABLE REEL TYPE LSV



Functionality and components

Application	The cable reel and all necessary components for supplying power to the ship are fitted in a standard (20 or 40 ft) container.
Reel function	Two cables specified by the customer are wound and unwound spirally between the shipping container and the shore-side connection in order to regulate the varying height difference between the installation height of the container and the quay.
Main components of the cable reel	Reel body; drive train; slip ring assembly; housing; console; cable bridge
Drive train	Consisting of an industrial gearbox in conjunction with a controlled DRC electronic motor (frequency converter with factory-set parameters)
Operating state:	Operating state 1 – Manual operation: for basic cable positioning for shore-side connection to the power supply upon arrival of the ship Operating state 2 – Automatic operation: when the cable is connected, the reel is used in automatic operation. The cable is pulled off the reel body by tensile force and automatically reeled back on by motor power.

Performance cable reel

Max. speed	Reel: 15 m/min; outward speed of the cable bridge is approx. 4.2 m/min (approx. 10–12 s).
Acceleration	0.1 m/s ²
Temperature range	-15 to +40 °C
Output	The 3 kW DRC motor is connected via 3 phases to a nominal mains frequency of 50–60 Hz ±5 % and a supply voltage of 3x 380–500 V -5 % / +10 %.
Slip ring assembly	3x2 pins + PE 330 A, 6.6 kV
Cable	2x35 m (845m) cable length, cross section: 3x 185 mm ² + 1x 95 mm ² + 1x (5x 2,5 mm ² + 4x 3 FO) C
Material	Reel body, slip ring assembly housing, console and cable bridge made of sheet steel
Corrosion protection	Hot-dip galvanised reel body without any paint finish. Other components in powder-coated design in accordance with C3 corrosion category.
Protection class	IP55

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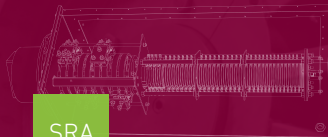
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MOTORISED
CABLE REELS



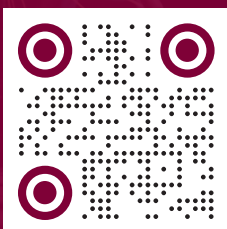
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SPRING
CABLE REELS



SRA

SLIP RING
ASSEMBLIES



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