



NG³ New Generation,
Natural Gas,
Natural Growth,



PLUG – Shore Power for RoPax versus IEC manual solution benchmarking

Overview

As soon as the vessel is secured alongside the quay, the crew has just to slide out above the quay a beam to which is attached the ship side power socket and lower down a chain toward the quay side connector.

The chain is equipped with a hook, which is inserted into the quay side self-mating connector. Getting further down, inside the connector, the hook gets locked with the connector.

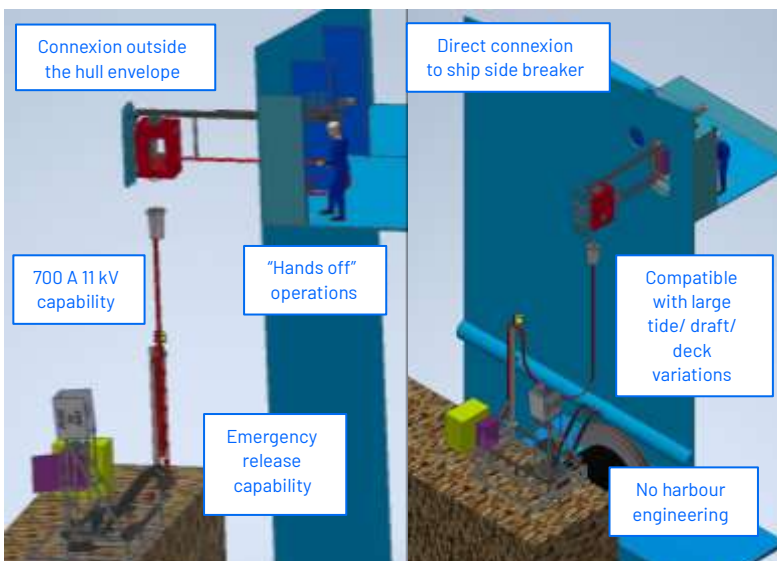
The quay side connector can now be hoisted towards the ship side socket.



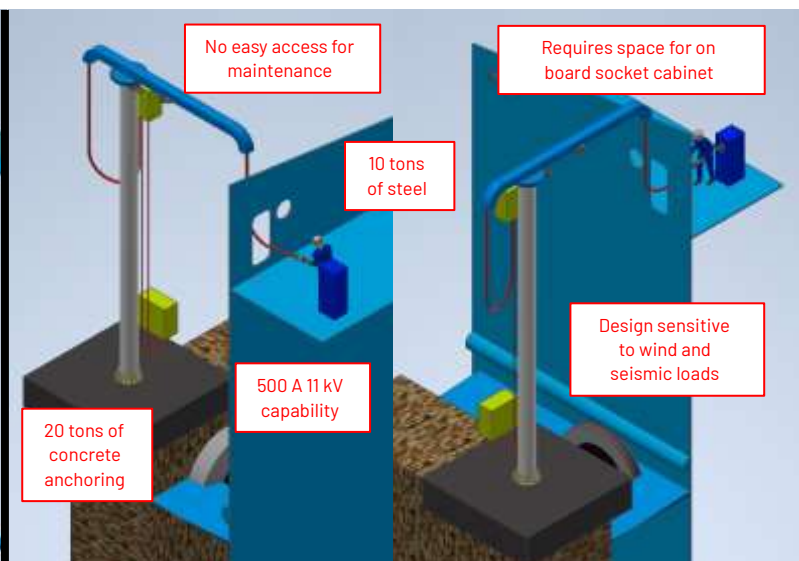
Ship side interface



Quay side interface while connected to ship



PLUG solution



IEC standard solution

Datasheet – PLUG – Shore Power – 2025
Contact: sales@ng3.eu



Benefits

- Compatible with large tide variations
- “Hands off” operation
- No handling of power cables
- Operation by a single crew member
- Compactness onboard
- No harbour engineering
- Installation within a week
- Connection in 1 min after docking
- Automated emergency release
- Compatible with arctic conditions

Connexion outside the hull envelope

Direct connexion to ship side breaker

700 A 11 kV capability

“Hands off” operations

Compatible with large tide/ draft/ deck variations

Emergency release capability

No harbour engineering

No easy access for maintenance

Requires space for on board socket cabinet

10 tons of steel

Design sensitive to wind and seismic loads

20 tons of concrete anchoring

500 A 11 kV capability

Options

- Automated operations for short crossing ferries
- Combined with automated mooring

Technical features

General features

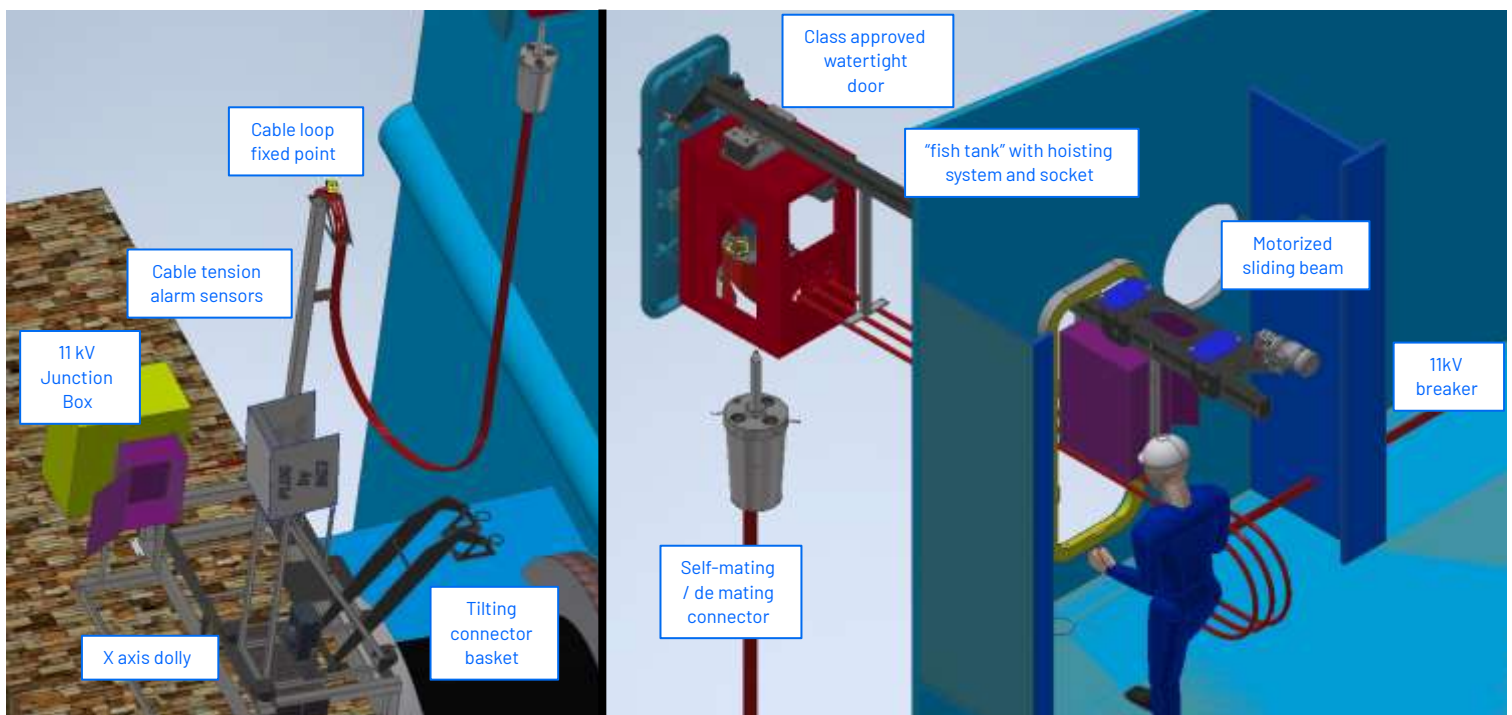
Class approved	Yes
IEC 80005 general requirements	Compliant
CE marked	Yes
Hands off operations by a single crew member	Yes
Emergency release capability	Yes
Compatible with large tide/ draft variation	Yes
Connection time	1 min after docking (typical)

Electrical features

Power exchange capability	11 kV/ 700 A or 1 kV/ 2000 A
Connector	3 phases + 6 pilot pins
Aux power required	4kW at 230V
Operation	Remotely from a tablet

Mechanical features

Alignment along the quay	From 1 meter to 15 meter
Tide and deck adjustment	Fixed point on a mast for cables to compensate tide, draft and deck variations
Ship side mechanical interface	8 M20 bolts
Quay side mechanical interface	24 M20 bolts (no concrete foundation needed)
Class approved watertight door	Included



Quay side interface

Ship side interface