

## PENLINK

### INTRODUCTION

#### Enhancing Offshore Operations with Reliable Power Slip Rings

Offshore operations present unique challenges, including harsh environmental conditions, high levels of vibration, and the need for reliable power transmission. In such demanding environments, the selection of appropriate slip ring technology is critical to ensure the smooth and efficient operation of equipment and machinery.

Key benefits of using our power slip rings in offshore environments include:

**Continuous Power Transmission:** Power slip rings enable the uninterrupted transmission of electrical power from stationary sources to rotating equipment, such as winches, cranes, and rotary drilling systems, ensuring consistent operation even in challenging offshore conditions.

**Signal Integrity:** In addition to power transmission, slip rings also facilitate the transmission of control signals, sensor data, and communication signals between stationary and rotating parts, enabling real-time monitoring and control of critical offshore systems.

**Reliability and Longevity:** Power slip rings designed for offshore applications are engineered to withstand corrosive saltwater environments, extreme temperatures, and high levels of vibration, ensuring reliable performance and long service life even in the harshest offshore conditions.

**Customization and Integration:** Power slip rings can be customized to meet the specific requirements of offshore equipment and machinery, including the integration of fiber optic rotary joints for high-speed data transmission and isolation from electromagnetic interference.



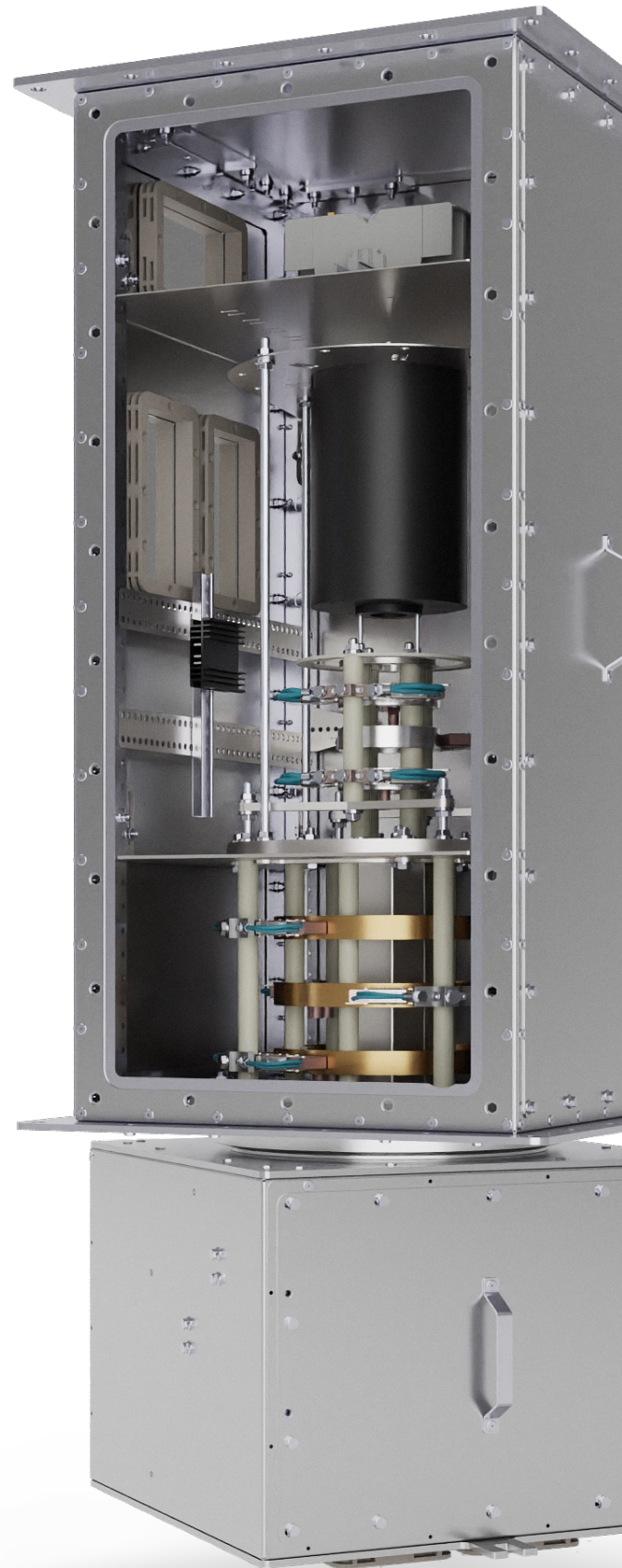
## POWER SLIP RINGS

### Design for Offshore Power Slip Rings

When selecting power slip rings for offshore applications, it's essential to consider several key factors to ensure optimal performance and reliability in challenging environments.

At Penlink, we understand your unique requirements, and we're here to assist you in finding the right solution for your specific application. We offer a wide range of different solutions tailored to meet various offshore needs.

- **Material Selection:** The choice of materials for slip ring components, including rings, brushes, and housing, is critical for ensuring resistance to corrosion, wear, and extreme environmental conditions commonly encountered offshore. Our solutions encompass materials such as stainless steel, aluminum alloys, and corrosion-resistant coatings, providing robust protection against the harsh offshore environment.
- **Sealing and Protection:** Offshore power slip rings must be adequately sealed and protected against the ingress of water, salt, dust, and other contaminants to maintain optimal performance and prevent premature failure. We offer IP54 or higher-rated enclosures specifically designed to withstand the rigors of offshore environments, ensuring reliable operation under demanding conditions.
- **Temperature and Environmental Rating:** Our power slip rings are meticulously engineered to operate reliably within the wide temperature range and environmental conditions prevalent in offshore installations. From exposure to salt spray and UV radiation to high humidity environments, our solutions are designed to withstand the harshest offshore conditions, ensuring consistent performance and longevity.
- **Maintenance and Serviceability:** We recognize the importance of ease of maintenance and serviceability for offshore equipment. Our power slip rings are designed with accessibility in mind, facilitating easy access, inspection, and replacement of components as needed. By minimizing downtime and reducing the need for costly offshore interventions, our solutions help optimize operational efficiency and productivity.



**PENLINK SOLUTION****Technical Brilliance**

At Penlink, our specification offering introduces a customized solution crafted for offshore applications, showcasing power slip rings that can be tailored to the specific demands of each project.

Leveraging our expertise and success from previous endeavors, we provide a more cost-effective solution based on proven designs. With a core focus on flexibility and adaptability, our solutions are meticulously engineered to accommodate a diverse spectrum of voltage, current, and signal transmission requirements. This ensures effortless integration with your existing equipment and systems, guaranteeing seamless operation in offshore environments.

Our power slip ring specification offers extensive flexibility, enabling customization in voltage, amperage, and cable size to precisely match specific power transmission requirements. Whether you require low or high voltage, our solutions are tailored to meet your needs, with the capability to transmit power ranging from 1kV to 1mV. This ensures precise and reliable power delivery for your application.

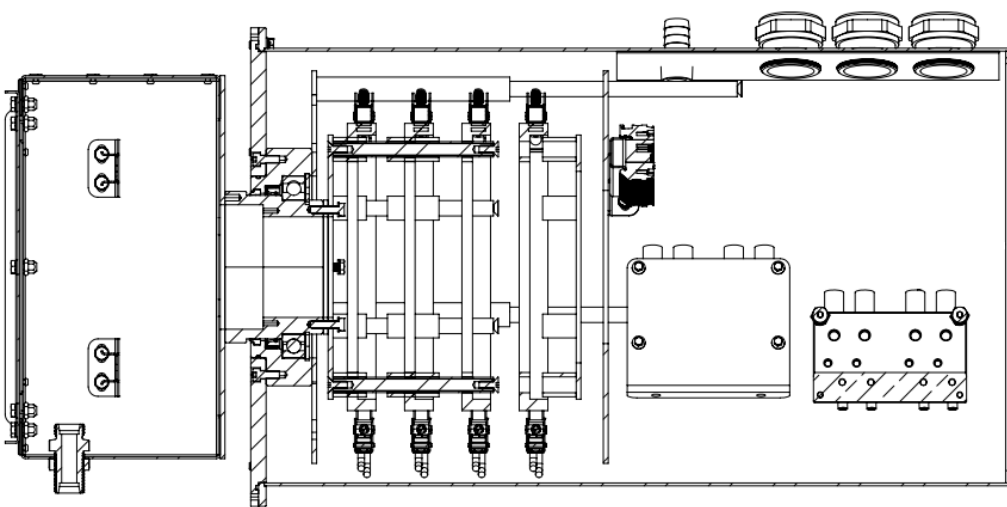
Certified and extensively tested, our products meet industry standard requirements, ensuring reliability and performance. Our solutions incorporate separate chambers for critical power supply, maximizing redundancy and ensuring uninterrupted operation. Third-

party certification validates our adherence to industry standards, providing assurance and trust in our solutions.

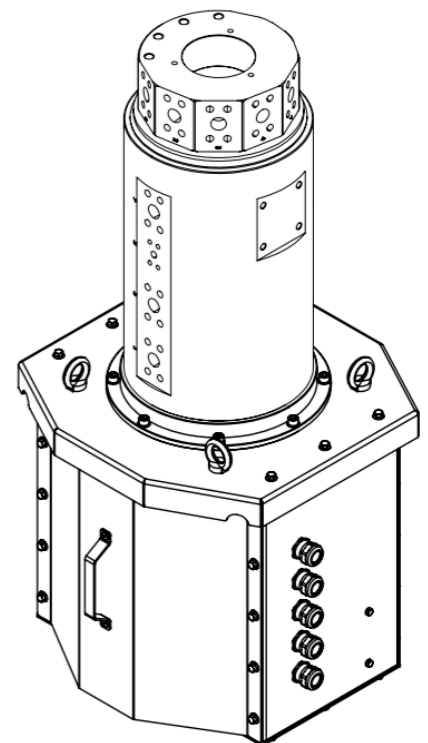
In addition to power transmission, our solutions offer customizable signal transmission features, including PA/GA loops, fire detection, HVAC shutdown, emergency stop, and spare loops. This provides comprehensive control and monitoring capabilities tailored to your specific needs.

Furthermore, our solutions can be seamlessly integrated with a cooling system, leveraging a water swivel design for efficient heat dissipation. This ensures optimal operating temperatures for critical components, enhancing system performance and longevity in demanding offshore environments.

Committed to compliance and certification, we ensure that our solutions meet regulatory requirements, providing peace of mind and reliability for your offshore operations. For further inquiries or to discuss customization options, please contact us at [info@penlink.se](mailto:info@penlink.se). We look forward to collaborating with you to deliver customized power slip ring solutions that precisely meet your project requirements and performance expectations.



*Example of Power Slip Ring Drawing, contact our sales team for more in-depth information.*







# PENLINK

## CONCLUSION

### Optimizing Offshore Operations: Customized Power Slip Ring Solutions from Penlink

In conclusion, our power slip ring solutions offer unparalleled flexibility, reliability, and performance for offshore applications. With the ability to customize voltage, amperage, and signal transmission features, our solutions are tailored to meet the unique requirements of each project. Certified and extensively tested, our products ensure compliance with industry standards and regulatory requirements, providing peace of mind and assurance of quality.

The integration of separate chambers for critical power supply and customizable signal transmission features enhances operational redundancy and control capabilities, ensuring uninterrupted

operation and comprehensive monitoring. Moreover, our solutions can be seamlessly integrated with cooling systems, utilizing a water swivel design for efficient heat dissipation and optimal component performance.

At Penlink, we are committed to delivering customized power slip ring solutions that precisely meet your project's requirements and performance expectations. For further inquiries or to discuss customization options, please contact us at [info@penlink.se](mailto:info@penlink.se). We look forward to partnering with you to optimize your offshore operations with reliable and innovative power transmission solutions.

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## CONTACT INFORMATION

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