

INTRODUCTION

PENLÍNK

PENLINK SLIP RING FOR ELECTRIFICATION OF EXCAVATORS & MOBILE EQUIPMENT

Penlink's advanced slip ring solution is designed for the electrification of excavators, enabling efficient power transmission while addressing space constraints and the demands of harsh working environments.

Our slip ring supports mid-voltage transmission, making it ideal for both surface and underground operations, including those requiring external power supplies.

KEY FEATURES

- → Mid Level Voltage & Current Capacity
- → Compact & Durable Design
- ightarrow Sealing & Environmental Protection
- → Steady Operating Performance





PENLINK SOLUTION

CUSTOM DESIGNED SLIP RING SOLUTION

Penlink's slip ring designs for electrifying excavators and mobile equipment offer versatile, high-performance power transmission solutions tailored to meet the unique needs of each customer.

While our example slip ring features a mid-voltage rating of 3x250A (1000V), we have the capability to modify our designs to match specific customer requirements, whether for higher or lower voltage and current specifications. Built with durable SS 304 stainless steel, our slip rings can be adapted to provide varying degrees of environmental protection, from IP54 to IP65, ensuring reliability in harsh conditions.

With a compact form factor for easy integration into space-constrained areas, such as the rotor under an excavator's seating, Penlink is equipped to deliver the precise solution needed for any electrification project.

Technical Information	Values
Voltage Rating	1000VDC
Current Rating	Modifiable per application
Rotation Speed	1-10 RPM
Operating Temperature	-20°C to +40°C
Ingress Protection Rating	IP54 to IP65
Housing Material	SS 304 Stainless Steel
Maintenance	Low-maintenance, extended service life

- → Reliable performance in heavy-duty electrical applications, including mid-voltage transmission for machinery operating in harsh conditions.
- → Fits into space-limited areas, such as under-seat rotors, without sacrificing performance.
- → SS 304 stainless steel housing ensures the slip ring withstands corrosion and harsh environmental conditions, reducing maintenance and downtime.
- → Supports continuous 360° rotation with stable transmission of both power and signals, ensuring smooth excavator operation.

Applications Where Penlink's Slip Rings Excel

Penlink's slip ring design offers a flexible foundation that can be modified to meet the unique demands of various applications, from mining and construction to heavy-duty robotics and marine environments.

Whether adapting for higher power requirements, harsher environmental protection, or specialized compact configurations, we collaborate closely with customers to tailor each solution.

This modification capability ensures that our slip rings deliver consistent, reliable performance, maximizing operational efficiency across a diverse range of industries.

- → Excavators in Mining Operations
- → Construction Equipment Electrification
- → Offshore Drilling Rigs
- → Electric Mining Trucks and Loaders
- → Tunnel Boring Machines (TBMs)
- → Forestry Machinery
- → Heavy-Duty Industrial Robots
- → Railway Maintenance Equipment
- → Agricultural Machinery
- → Dredging Equipment
- ightarrow Recycling and Waste Handling Equipment

