

Longwall Electrical Systems



NEPEAN Power provides engineering design, project management, manufacturing, commissioning, training and ongoing lifestyle management services. Our extensive experience in engineering and design as well as the ability to manufacture quality equipment, allows us to provide solutions from minor projects through to large turnkey infrastructure.

From concept stage, we engage and listen to your requirements. Through our proven industry experience NEPEAN Power ensures getting the best possible solution for your requirements, not just for today, but for the life of the site.

ELECTRICAL & ELECTRONIC DESIGN & MANUFACTURING EXPERIENCE BUILT UP SINCE 1994

Complete Inhouse Capability - Makes Things Simple

NEPEAN has developed an extensive range of longwall electrical equipment. Our product range has evolved through listening to and engaging with our customers, and exceeding their expectations through the design of fit for purpose equipment.

NEPEAN Power is able to offer complete engineered designed equipment for a complete longwall system ranging from IP 56/flameproof transformers, flameproof distribution control boxes to control and monitoring enclosures that are certified and compliant to all relevant standards.



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The NEPEAN Power flameproof longwall DCB is available in various combinations up to 8 outlets at 3.3kV. The equipment is designed and manufactured with an emphasis on safety, reliability and accessibility for normal maintenance.

The DCB has separate enclosures for the main incomer supply, 3.3kV outlets, gas detection and PLC/control.

The isolator serves two functions, firstly it protects against overloads or short circuits, and the second is to provide a means of isolating power from the control enclosure. The control enclosure houses contactors and protection relays for each outlet, arranged in easily maintained modular sections. It is both electrically and mechanically interlocked to the isolator compartment, to ensure that it can only be opened while the power is isolated.

NEPEAN Powers Longwall Control & Monitoring Enclosure is designed to complement NEPEAN Power's longwall substation range utilising the PLC and SCADA systems to display all operating functions and fault conditions for the face supports, shearer, face drives, pumps station, substation, signalling and communication system, gas monitoring and mine included projects i.e. conveyor system.

The NEPEAN Power Longwall Substation can be manufactured in either flameproof or ingress protection versions up to 7.5MVA and typically 11KV/3.3KV.

Benefits of NEPEAN Longwall Electrical Systems

- A high tension custom built enclosure incorporating the 11KV. The design is type tested to IP56 as per the requirements of AS60529:2004 and type tested for arc fault containment to AS62271.200
- The main transformer, rated for an incoming voltage of 11000V, 3 phase 50Hz and will be configured to provide a secondary voltage of 3300V up to 7.5MVA
- The 3.3kV supply compartments, fully welded construction type tested to IP56 as per the requirements of AS60529:2004. The enclosure is a multi-compartment segregated distribution board incorporating outlets and is configured to meet the requirements of AS4871.2012. For ease of movement around the site the custom manufactured skid can be mounted on a motorised track



NEPEAN IS AUSTRALIA'S LARGEST

70% of Australian mines have invested in NEPEAN equipment and services across our Longwall, Power and Conveyor product offerings. NEPEAN Power is the large scale electrical and electronic projects arm of NEPEAN Mining, NEPEAN Mining is a division of NEPEAN™, Australia's largest privately owned engineering, mining services and industrial manufacturing organisation. NEPEAN Conveyors, NEPEAN Power and NEPEAN Longwall provide an extensive portfolio of products and services to independently deliver unique, high quality results, or united, NEPEAN offers a one stop mining solution.



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For more information please contact:

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