

Mining Substation

AVAILABLE FROM
NEPEAN POWER



NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

NEPEAN Power's substations are customised to suit the individual requirements of our customers. The adaptation of our products is achieved through the use of the latest technology in SCADA control and the extensive experience of NEPEAN Power's Engineers.

Available in various combinations of input, output and size, NEPEAN Power's Substations can be configured to suit most situations dependant on our customers requirements. Mining substations are typically used for longwall, development, distribution and pumping applications. Our substations can be manufactured in either flameproof and or ingress protected (IP66) variations.

Typical Designs

Underground mining substations can be manufactured up to 7.5MVA with primary voltages as high as 22kV.

High Voltage

The high voltage end is constructed from sheet steel that has been fully folded and welded to a certified IP design. The design incorporates NEPEAN type tested arc fault containment. Safe touch potentials are maintained via separate compartments for all system voltages including operating and metering.

Transformer

Transformers may be gas, liquid filled or dry type, ranging from 50kVA in various combinations of primary and secondary voltages dependent upon customer specific needs.

Low Voltage

The low voltage end is fabricated from sheet steel, fully folded and welded to a certified IP rating. Construction depends on customer needs and requirements. Standard substation protection includes earth fault limitations on the star point of all secondary windings, earth leakage tripping is provided back to the high voltage circuit breaker. Each outlet can be protected by moulded case circuit breakers, fuses and or contactors, earth leakage protection, cable fault lockout protection, earth continuity, loss of vacuum, frozen contactor, overload, short circuit, with visible break isolation if specified etc.

Skid Base

NEPEAN Power's substation includes a skid base that by default is constructed to a robust and proven design ensuring they are capable of being towed or pushed into position in adverse conditions. The base is usually hot dipped galvanised and can be provided with towing bollards, floating axles, removable rubber wheels and fully plated bases to provide catchments of transformer oil.

Testing and Documentation

Each substation upon completion follows through a process of Factory Acceptance Testing, Compatibility Testing (where necessary) and Commissioning to ensure operational status on delivery. Manuals including a flameproof dossier and drawings are provided and options are available for ongoing support for each product including life cycle management.