

# Armoured Substations

**Ampcontrol's armoured substations have been developed specifically to power heavy plant and machinery in hard rock mining and tunnelling operations.**

The robust standard design and construction reduces turnaround time and costs. The modular design can also incorporate customised elements to meet specific requirements for customers, including side or bottom entry options, along with glanded or plugged entries.

The enclosures are manufactured to meet Australian Standards for metalliferous mining and are delivered with fully type tested HV and LV switchgear and are built with;

- 6.6kV, 11kV or 22kV primary voltage
- 1050V or 433V secondary voltage

The enclosures are engineered to protect against arduous conditions including dust and moisture ingress in both underground (Non-flameproof) and surface applications and are environmentally safe.

Strong, intelligent and reliable power equipment.

## Features

- + Robust enclosure
- + Short delivery time
- + Reduced site installation time
- + Easy access to compartments
- + Remote operation for operator safety



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## Product Detail

The armoured substations include the following:

### IPM Relays

The IPM Integrated Protection Relay is an intelligent microprocessor based relay providing protection and control of electrical outlets supplying machinery, particularly where trailing cables are involved. The relay combines a number of protection, recognition and alarm features into a single versatile relay and is designed for the metalliferous industry.

### Dry Type Transformers

Ensuring safety and reducing environmental hazards the dry type transformer is utilised as a standard component. We supply dry type transformers to the following specifications:

- Voltage options: 6.6kV/1050V, 6.6kV/433V, 11kV/1050V, 11kV/433V, 22kV/1050V and 22kV/433V
- kVA ranges: 500, 750, 1000, 1500, 2000
- Frequency: 50Hz or 60Hz
- 11kV Ring Main Unit

Incorporates highly reliable SF6 insulated type tested switchgear, isolators and circuit breakers which are mechanically interlocked with earth switches to reduce the risk of erroneous operation such as earthing a live supply or opening unearthed HV compartments. Substation transformer and low voltage sections can be isolated from 11kV supply and earthed for safer maintenance. The LV switchboards are fitted with IPM relays for advanced protection. Standard protection options are also available.

### LV Switchboard

Certified type tested switchboards, fitted with main circuit breaker and configurable electronic protection relays. Feeder outlets are fitted with IPM relays for advanced protection. Standard protection options are also available.

