



mayfield

**Power on with Australian
designed and fabricated
kiosk substations.**

Switch on with Mayfield for total kiosk substation confidence.

For decades, Mayfield's modular kiosk substations have unfailingly delivered for Australian mining, utilities and heavy industries in the most demanding environments.

Our proven designs, materials and specifications prevent wind driven water ingress, minimise dust entry and ensure sufficient airflow for extreme ambient temperatures – all combining to deliver optimal protection for critical electrical equipment. Whether using our kiosk substations for short term emergency response or a long term fix to existing plant, customers can be certain their critical upstream and downstream electrical equipment will be protected and safe.

We provide turnkey solutions incorporating LV and MV switchboards, with all equipment installed in our manufacturing facilities and extensively tested before deployment to site, reducing on-site disruption and costs. The modular construction of our kiosk substations ensures segregation of equipment and allows for flexibility in sizing, layout, application, inspection and maintenance.

At Mayfield, we welcome tight deadlines. Our end-to-end manufacturing and installation allows us to maintain total control over quality while eliminating the delays that come with outsourcing to others.



DESIGN

The standard Mayfield modular kiosk substations includes:

- Ingress protection \leq IP66
- Natural and Mechanical ventilation solutions
- Detailed design and fabrication
- MV switchgear (RMU and Transformer)
- LV switchboards
- Cabling between MV/TX/LV
- Pre-commissioning and testing completed before factory dispatch.

Additional options include:

- Interconnecting cabling
- Internal/external power and lighting
- Transportation of kiosk to site
- Site installation and commissioning.

STANDARD FEATURES

Features include:

Modular construction, allowing design and specification flexibility; each compartment can be sized to accommodate the specific equipment.

Removable wall and roof panels, providing:

- Easy access to critical equipment for maintenance
- An internal structural framework for rigidity and easy cladding attachment
- Transformer oil bund containment, avoiding the need for additional site works.

External walls and roof

The internal structural frame is manufactured from 2mm sheet steel.

Walls, roofing and doors are manufactured from 2mm sheet steel.

Marine-grade aluminium or stainless steel is also available as an option.

Doors

Doors are designed and sized for easy passage and installation of electrical equipment.

Stainless steel hinges, latches and locks are available as an option.

Protective treatment

Kiosks substations are epoxy polyester powder coated to a minimum DFT of 70 microns.

Coatings are applied in accordance with the manufacturer's instructions.

Base treatment (galvanising) is available as an option.

Lighting and power

Kiosk substation light and power sub-circuits and earthing comply with Standard AS/NZS 3000.

Cable installations comply with AS/NZS 3008.

Signage

The following signage is included, in accordance with AS/NZS 3000:2007:

- Resuscitation chart
- High voltage warning sign at each entrance
- Extinguisher signage.

STANDARDS AND CODES

Our customised kiosk substation designs comply with Australian Standards and Australia's mining WHS requirements for each of the individual states and territories.

Equipment and materials supplied conform to the current Australian Standard.

High-voltage/low-voltage prefabricated kiosk substation conforms to AS 62271.202:2019

Construction conforms to AS 4100-1998 Rec:2016

Structural steel conforms to AS 3678:2016 & 3679.2:2016

In the absence of an Australian Standard, our kiosk substations comply with the relevant ISO, DIN, British or American Standard.

TECHNICAL OPTIONS

Range

- 200 – 3000 kVA
- Primary voltages 3.3 kV, 6.6 kV, 11 kV, 22 kV, 33 kV

High voltage end

- RMU SF6 gas circuit breaker
- RMU vacuum circuit breaker
- RMU load break switch
- RMU circuit breaker
- RMU load break switch fuse
- RMU motorised closer (remote operation)
- Vacuum circuit breaker
- Load break switch fuse
- Transformer terminal box enclosure

- Protection relay
- Form 2 to Form 4a
- VSD or soft starter
- Metering where specified
- DYN 11 (customised on request)

Transformer

- Oil transformer
- Dry type transformer
- Tap changer Off Load
- Oil level indicator
- Temperature RTDs
- Buchholz relay
- Pressure transducer
- External cooling radiators
- Cooling fans
- Custom specifications

Low voltage end

- Busbar in enclosure
- Vacuum circuit breaker (3200 Amp, 5200 Amp)
- Generator ATS
- LV switchgear (standard type tested)
- Form 2 to Form 4a (single or double-sided switchboard configuration)
- VSD or soft starter
- Metering where specified

Enclosure

- IP 4X up to IP 55
- Mild steel (powder coated)
- 3 CR 12
- Galvanising



FOR BUSINESS ENQUIRIES

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