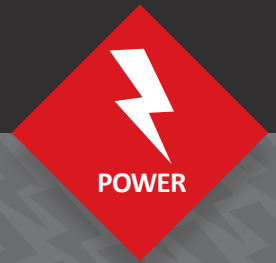


Compact Tunnel Substation (CTS)



Electrical substations capable of distribution over long distances

The CTS series of electrical substations has been designed to operate at medium voltages for construction projects.

Commonly used in mining and tunnelling applications the CTS series of power substations is capable of distribution over long distances. A robust design allows this unit to be mobilised into confined spaces.

Utilising standard voltages of 6.6kV, 11kV and 22kV the design enables the user to power remote machinery at great distances, enabling independent power from site/works. ♦

PBE Group acquired Rutherford Power Group in 2018, and now provide a global integrated solution for Power, Safety, Data & Communications for the mining and tunnelling industries.

Specifications

- Rated Voltage 6.6kV - 22kV
- Rated Power 315kVA - 2000kVA
- Weight 4T - 10T
- Length 4000mm - 9000mm
Height 1650mm - 1800mm
Width 1000mm - 1100mm

Manufacture

- 8mm mild steel plate welded skid design
- 2-5mm mild steel enclosure
- Continuous welded electrical enclosure
- Powder Coated
- Anti corrosive shell
- Stainless steel option available
- Suitably rated lifting points



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POWERING PRODUCTIVITY.

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Compact Tunnel Substation (CTS)

Manufacture

The CTS Substation is manufactured using 8mm mild steel plate welded skid design and 2-5mm mild steel, continuous welded electrical enclosure. Mild steel units are powder coated after being subjected to an anti-corrosive treatment. Stainless Steel construction is an available option.

Transformer

Our standard supply transformer is the cast resin dry type which is the most accepted worldwide. If other types of transformers are preferred we can tailor to meet customer requirements.

MV Electrical Design

Our medium voltage section is available in various coordinations. The most popular option is for an incoming, through and transformer supply. This allows for an increase in usability in the tunnel/site complex.

Optional Coordinations include:

- Class 24kV option is available in a similar coordination as -11 series
- Cable reeler integration
- Compact Substation on mobile trailer
- Blast shield coordination is ideal for drill and blast tunnelling method
- Custom designed bases for the applicable tunnelling specification

LV Electrical Design

1100V - 690V rated MCCBs are used for power distribution and protection with access to switching through the dead front LV doors.

Indications included as standard:

- Ammeter
- Alarm and trip indication
- Tx monitoring

Ratings and options include:

- 415V - MCCBs rated at 690V
- 1000V - MCCBs rated at 1000V - 1100V
- Power Factor Correction (PFC) module
- Exterior indication



Specifications

	315-6	315-11	500-6	500-11	800-6	800-11	1000-6	1000-11	1250-6	1250-11
Voltage input	6600V	11000V	6600V	11000V	6600V	11000V	6600V	11000V	6600V	11000V
Voltage class	7.2kV	12kV	7.2kV	12kV	7.2kV	12kV	7.2kV	12kV	7.2kV	12kV
Voltage output	110-1100	110-1100	110-1100	110-1100	110-1100	110-1100	110-1100	110-1100	110-1100	110-1100
Transformer rating	315kVA	315kVA	500kVA	500kVA	800kVA	800kVA	1000kVA	1000kVA	1250kVA	1250kVA

About Us

PBE Group ("PBE") provide an adaptive and flexible integrated solution where a reliance on safety and productivity is essential. PBE is a true global systems provider for the mining, tunnelling, construction and associated markets. Our specialised engineering team integrates our industry specific manufactured products and best in class 3rd party products to ensure a sophisticated, robust and commercially viable solution. Our growth in international markets is based on the key verticals of Technology, Power and Service Delivery – fundamental in any industrial project. Our experience in confined space and underground construction has enabled PBE to complete over 850 projects in more than 60 countries with 320 staff and 18 regional offices. ♦

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