

CTS MV/LV Compact Transformer Substation

CTS MV/LV Compact Substation

- Manufactured for outdoor and tunnel installations;
- Free-standing, easy to move and ready for use;
- Contains M.V. compartment, transformer and L.V. compartment; fitted with safety devices;
- Substation may be designed to be mobile with M.V. cable reel;
- Designed to suit the customer's requirements.

Standards and Certifications

CTS containerized compact substation is designed to comply with European and International Standards for Medium Voltage and Low Voltage Switchgears (IEC/CEI).

Main Electrical Features

Transformer Compartment

The transformer substation is supplied with a cast resin transformer; oil or air insulated transformers are also available on request. The transformer conforms to CEI/IEC standards.

M. V. Switchgear Main Electrical Features

Rated voltage	12 kV	17,5 kV	24 kV
Power frequency withstand voltage (50-60 Hz 1 min.) towards the ground and between phases	28 kV	38 kV	50 kV
Rated lightning impulse withstand voltage towards the ground and between phases	75 kV	95 kV	125 kV
Rated current	400÷ 1250 A	400÷ 1250 A	400÷ 1250 A
Short term withstand current 1 sec on main circuits and earth circuits	12,5÷ 20 kA	12,5÷ 20 kA	12,5÷ 20 kA



L.V. Switchgear Main Electrical features

Rated voltage up to	1000 Vca
Rated current	2500 A
Rated short circuit current	40 kA
Rated peak withstand current	1000 kA
Rated impulse voltage	12 kV
Rated frequency	50-60 Hz

Approximate dimensions of cabin on the basis of transformer power rate

Size	1	2	3	4
Power rate(kVA)	100/250	315/630	800/1000	1250/1600
Length (mm)	3500	3800	4000	4800
Height (mm)	2000	2000	2000	2300
Width (mm)	1200	1200	1200	1400

Clear reserves the right to change technical specifications without notice.

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Features of Construction

Service and environmental conditions

Type of installation	for tunnel and outdoor
Maximum ambient temperature	+ 45° C
Minimum ambient temperature	- 5° C
External protection class	IP 54

Fittings & Accessories

Accessory electrical equipment

- External cabinet sockets up to 800A
- PFC switchgear for transformer
- UPS (Uninterruptable Power Supply)
- APFC switchgear (optional)
- Fire detection and extinguishing system (optional)
- Plug protection cover (optional)

External cabinet accessories

- Warning horn (IP66), suitable for long term continuous activation
- Flashing warning light (IP55)
- Emergency pushbutton (under glass)

Movable compact transformer substations

Skid mounted compact transformer substation

The skid is made of galvanized metal, highly resistant to oxidation and attacks by external agents under heavy duty conditions.

Skid mounted compact transformer substation with cable reel



Compact substation with wheel mounted and cable reel

