

# CTE MV/LV Containerised Transformer Substation

## CTE MV/LV Outdoor Containerised Substation:

- Manufactured for outdoor and construction site installation;
- Free-standing containerised unit, easy to move and turnkey installed;
- Provided with M.V. switchgear, transformer and L.V. switchgear and possibly APFC;
- Equipped with safety equipment;
- Designed to suit the customer's requirements;
- Doesn't require a building permit.

## Safety and reference standards

According to specific needs, the CTE substations can be equipped with:

- permanent CSC certificate for international transport
- certified for ABS / RINA marine applications
- internal arc certified up to 20kA / 1sec.

The panels installed inside comply with the IEC International standards.

## Electrical Features

### Transformer compartment

The MV/LV transformer substation is supplied with a cast resin transformer; oil or air insulated transformers are also available on request. The transformer installed may be from 100kVA to 4500kVA.

### L.V. Switchgear Main Electrical Features

Operating voltage	400 Vac
Rated current	6300 A
Insulation voltage	1000 V
Rated short-term withstand current	105 kA
Rated peak withstand current	231 kA
Rated impulse voltage	12 kV
Rated frequency	50-60 Hz



### Medium Voltage Switchgear Main Electrical Features

Rated voltage	12 kV	17,5 kV	24 kV	36 kV
Power frequency withstand voltage (50-60 Hz 1 min.) towards the ground and between phases	28 kV	38 kV	50 kV	70 kV
Rated lightning impulse withstand voltage towards the ground and between phases	75 kV	95 kV	125 kV	170 kV
Rated current	400 ÷ 1250 A	400 ÷ 1250 A	400 ÷ 1250 A	400 ÷ 800 A
Short time withstand current 1 sec on main circuits and earth circuits	12,5 ÷ 20 kA	12,5 ÷ 20 kA	12,5 ÷ 20 kA	16 ÷ 20 kA
Internal arc withstand 1 sec	20 kA	20 kA	20 kA	

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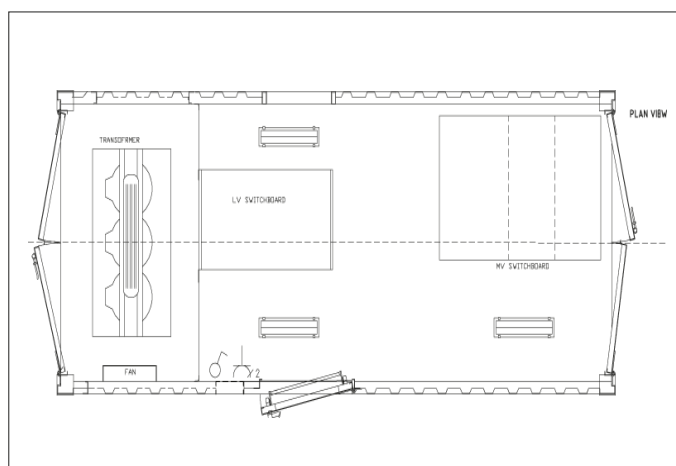
## Features of Construction

### Service and environmental conditions

External temperature (min/max)	-20° ÷ +50° C
Irradiation	500 w/m <sup>2</sup>
Maximum wind speed	140 km/h
Maximum snow load on the horizontal projection at 1000 m	220 Kg/m <sup>2</sup>
Severe seismic activity	AF 5
External Protection class	IP 54

**STANDARD DIMENSIONS (ISO)** Other dimensions available on request and High Cube version for 20 and 40 feet size.

Container (feet)	10	15	20	25	30	40
Length (mm)	2990	4590	6055	7500	9125	12190
Height (mm)	2635	2635	2635	2635	2635	2635
Width (mm)	2435	2435	2435	2435	2435	2435



## Fittings & Accessories

### Accessory electrical equipment

- Fixed PFC;
- UPS (Uninterruptable Power Supply);
- Automatic PFC (optional);
- Fire detection and extinguishing (optional).

### Internal accessories and auxiliary installations

- Lighting installation with electric switch;
- Interlocked socket 230 Volt - 16A;
- Accident prevention accessories: powder extinguisher, recharging emergency lighting, insulated carpet, warning notice, substation electrical drawing.

### External cabinet accessories

- Warning horn (IP66) suitable for long time continuous activation;
- Flashing warning light (IP55);
- Emergency pushbutton under glass.

