

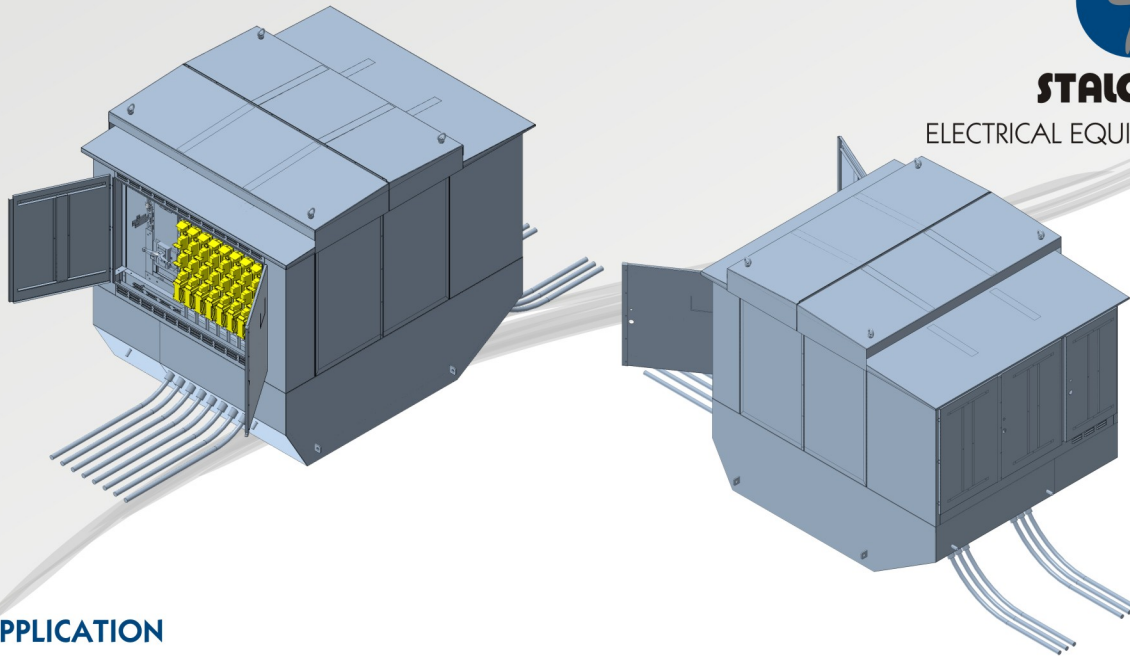
Compact Medium Voltage Outdoor Distribution Substations

250, 400, 630, 1000kVA



STALCO S.A.

ELECTRICAL EQUIPMENT INDUSTRY



APPLICATION

STALCO SA has been producing Compact Outdoor Distribution Substations for the Greek Market for over fifteen years. STALCO is actually the only supplier that was able to meet the strict demands and specifications of the Greek Power Company for all those years. Our Substations are part of the backbone of the Greek distribution network and have been in operation in the harshest conditions imaginable with no reported problems whatsoever.

Our products have successfully passed all the relevant type tests including the internal arc test, which are available on demand and our company has been awarded EN ISO 9001:2008 certificate for the manufacture of such products.

DESCRIPTION

The Substations are equipped with the following compartments:

- (a) Medium Voltage Compartment.
- (b) Transformer (TF) compartment of adequate space to accommodate TFs up to 1000kVA.
- (c) Low Voltage Compartment.
- (d) Remote Terminal Unit (RTU) Compartment.

The basic dimensions of the substation are (W) 2300mm X (L) 2825mm X (H) 2500mm

The Substations can be installed outdoors in direct exposure to snow, rain, sun and wind ($P=70\text{kp/m}^2$) without any sort of base required. They can simply rest on the ground. In fact, the design is such that part of the Substation (0,8m) can be underground, therefore minimizing the perceived size of the substation in order to blend better with the city surroundings. It can withstand the force of the wind without any support or anchoring being necessary. The bottom part of the Substation, on which all the equipment is fixed, is specially made using 3mm, 85 μm hot dip galvanized steel sheet with special endurance paint and primer coatings to allow such an installation. The top part is made using 2mm, 40 μm galvanized steel sheet, specially formed to increase its strength, with high endurance RAL 1020 paint and primer coatings.

Each compartment is fully accessible through double door (RTU has a single door) that can open to more than 90 degrees and can be locked securely.

The TF compartment roof can be detached to allow the loading of the TF. When the TF compartment roof is detached the roofs of the rest of the compartments are fixed in place for rain protection. All parts of the roof are insulated, rain and moisture proof.

The substation can be transported and set in place fully assembled (without the TF installed). It can be directly lifted through special rings on the roof using a crane. The rings are connected to steel pillars that transport the load to the reinforced base. The TF rests on a special grill, under which rests gravel that fill the oil-overflow-basin. The Substations can be provided with or without transformers.

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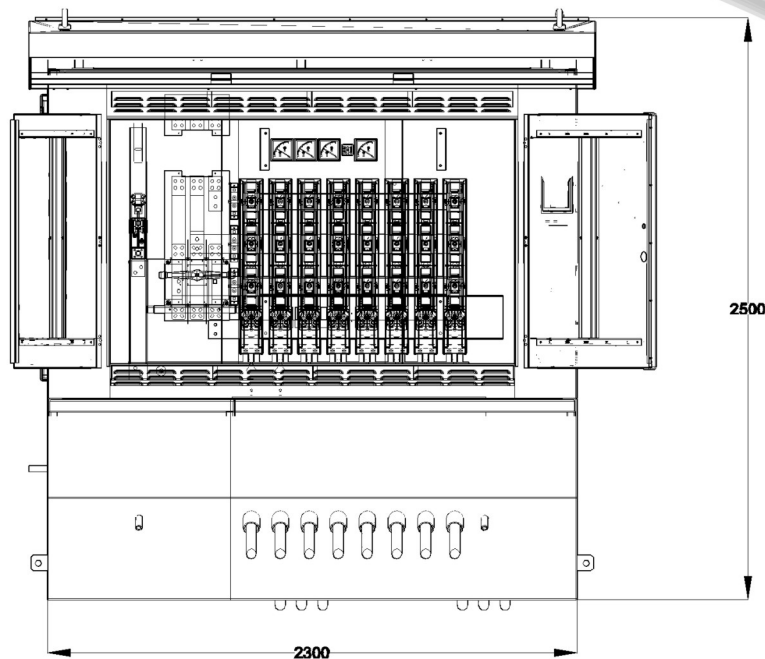
The Substation is cooled using natural air circulation through special rain and tamper proof louvers that exist on the doors and right below the roof.

The Medium Voltage Compartments is equipped with a compact 24kV RMU unit with SF6 insulation that can be remotely operated.

The Low Voltage Compartment is equipped with a load break switch, eight outgoing 400A fuse rails and a single isolator.

Furthermore, this type of substation is ideal for Photovoltaic Parks due to the ease of installation. Please note that there is no need for any kind of base (concrete) in order to install the substation. It can simply be installed on the ground. There is also more than enough space in the low voltage compartment to add all the necessary LV equipment (even extremely bulky ones).

Finally, please note that the design and specifics of the Compact Substation can be altered according to our customer's demands.



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