

# Compact **Sub Station**

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## COMPARTMENTALIZATION

- HT Breaker Chamber
- Transformer Chamber
- LT Distribution Board Chamber

**CONCEPT**



HT Line



HT Breaker



HT Transformer

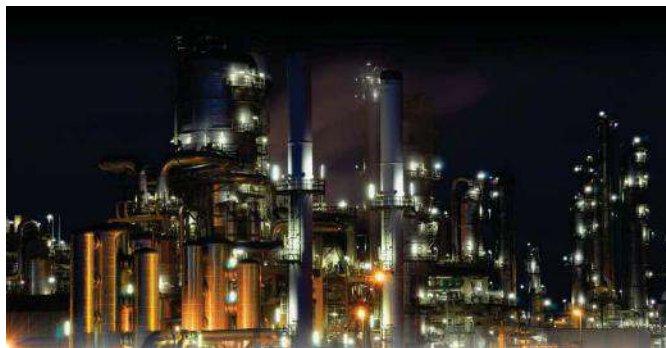


LT Board

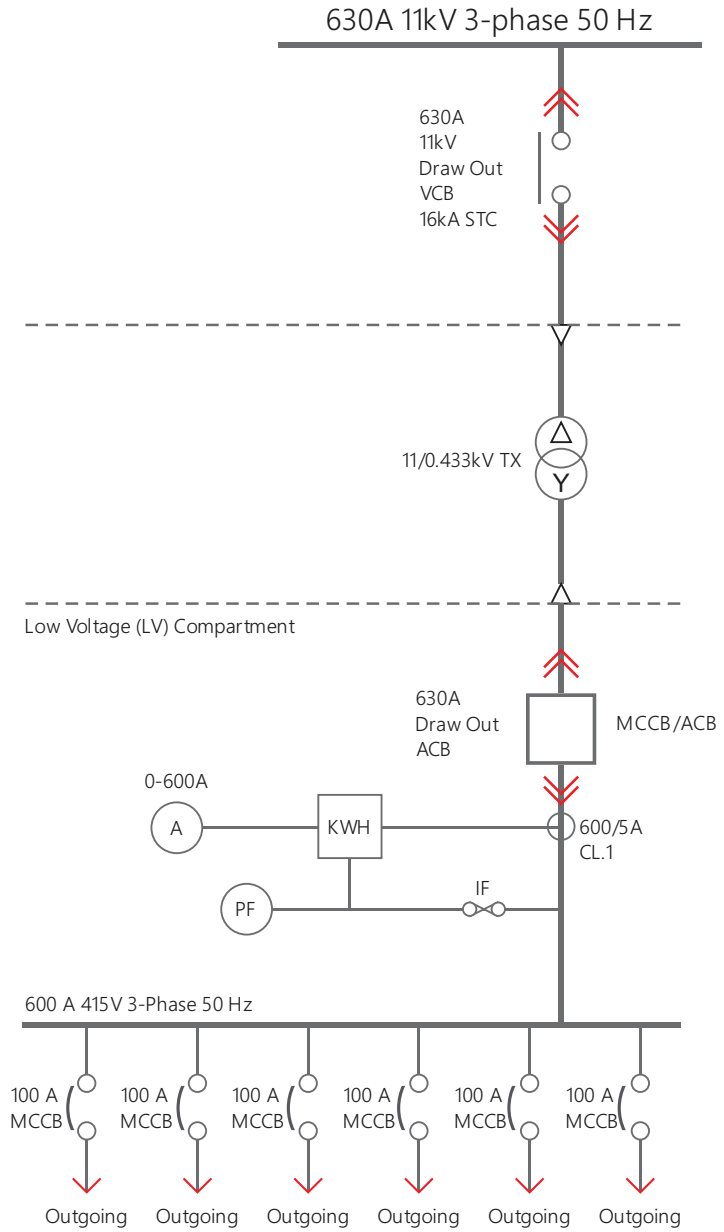


LT Distribution

Compact Sub Station



**TYPICAL SLD W/O PROTECTION**

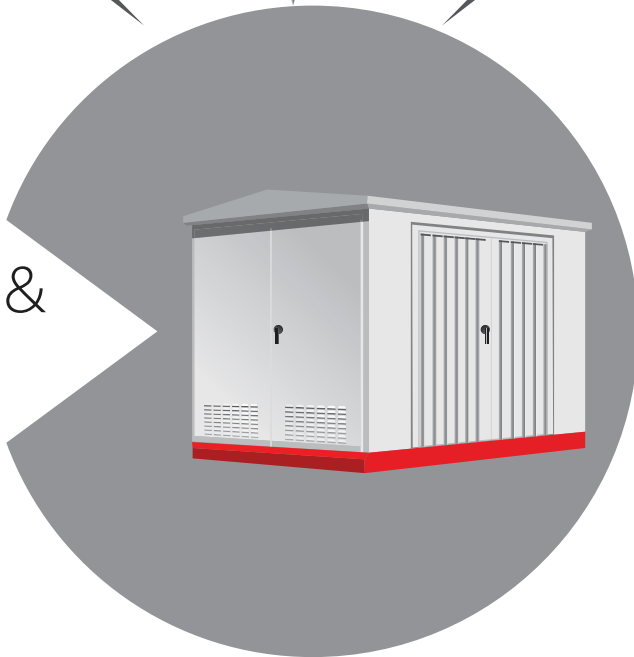


HT  
BREAKER  
CHAMBER

TRANSFORMER  
CHAMBER

LT  
DISTRIBUTION  
BOARD  
CHAMBER

We Design &  
Manufacture



- Structure
- Wall
- Roofs
- Doors
- HT Breaker
- Transformer
- LT Distribution

Compact Sub Station

Transformer  
Protection

HT & LV  
Metering

LV  
Distribution

## INTRODUCTION

- Installation where space is premium like Complexes, Airports, Malls, Industries etc.
- Designed to withstand surrounding temperature, humidity & condensation, rain, solar radiation.
- Designed keeping in mind the Dielectric & Thermal isolation.
- Indigenously designed & tested for fast & easy installations.
- High life expectancy under normal operating conditions.
- Maintenance free.

## DESIGN & STRUCTURE

Every unit is factory-tested and contains the following:

- CRCA / GI metal enclosure with compartments.
- 11kV/12kV/ VCB for connection to the 11kV/12kV network and also the protection circuits for the (HV/LV) transformers.
- Hermitically sealed transformer .
- LV switchboard with required rating.
- HV/LV Terminals.
- Appropriate Ventilations.
- 4 point locking doors.
- Walkway (optional).
- Insulated Busbars.

## CUSTOMIZED DESIGN

Our Compact Substation can be designed and customized to different sizes and configurations to fulfill the customer's requirements.



## INTERNAL ARRANGEMENT

Inside our compact substation's enclosure, there are 3 separate compartments for safety purposes.

Access to HT - Separate door

Access to LT - Separate door

Access to Transformer - Separate door

The arrangements within are as follows:

- A compartment for the HT Breaker & Protection Circuits.
- A compartment for the Distribution Transformer.
- A compartment for the low voltage (LV) distribution board

The protection degree between each compartment is IP3X.

### COMPARTMENTS

#### HT BREAKER

- *The HT Breaker is a type-tested, metal enclosed, VCB switchgear.*
- *Transformer protection.*
- *High degree of personnel safety*
- *High degree of reliability*
- *Maintenance-free*
- *Operation not affected by environmental effect*
- *Compact & small in size*
- *Conforms to IS standards*
- *Equipped with shunt release & auxiliary switch for remote operation and indication*

#### DISTRIBUTION TRANSFORMER

- *Epoxy Insulated Dry Type*
- *Connected with insulated busbar with H.T. breaker and L.T. distribution board*

#### LV DISTRIBUTION BOARD

*The LV panel is equipped with Incoming Switchgear, copper / Aluminum bus bars, outgoing MCCB's and instrument panel for metering, indication and site work's auxiliary supply.*

## MAIN TECHNICAL PARAMETER

	Items	Unit	Data	
System HV unit	Rated voltage	kV	7.2 / 12	
	Rated frequency	Hz	50	
	Rated power frequency withstand voltage (1 min)	phase	kV	35
	Rated lighting impulse withstand voltage	To earth, between phase	kV	75
	Rated current	Main circuit	A	630
	Virtual value of rated short time withstand current (3s)		kA	16
	Rated peak value withstand current		kA	40
	Rated break current		kA	16
LV unit	Rated voltage	V	440	
	Rated current	A	600	
	Virtual value of rated short time withstand current-secs (1/3)		kA	25 / 50
Transformer unit	Rated capacity	KVA	250-1000 KVA	
	Voltage H.T.	kV	11	
	Voltage L.T.	V	440	
	Rated off Load Tap	%	+/-2.5% & +/-5%	
	Vector Group		Dy11	



## Our Product Range

- |   |   |  |   |
|---|---|--|---|
| <ul style="list-style-type: none"> <li>• Shelter</li> <li>• Mosaic Desk</li> <li>• Console Desk</li> <li>• Bare Panel IP-65</li> <li>• PLC Panel</li> <li>• Mosaic Mimic Panel</li> <li>• Local Control Station</li> <li>• FRP Box</li> </ul> | <ul style="list-style-type: none"> <li>• LIE - LIR</li> <li>• Power Distribution Box</li> <li>• Purge &amp; Ex-proof</li> <li>• Acrylic Mimic</li> <li>• NG / LAVT Cubicle</li> <li>• Generator Control Panel</li> <li>• MCC / PCC</li> <li>• CT Box</li> </ul> | <ul style="list-style-type: none"> <li>• Synchronization Panel</li> <li>• HT Panel</li> <li>• Large Video Screen</li> <li>• Networking Panel</li> <li>• Bare Panel IP-55</li> <li>• Junction Box</li> <li>• Control &amp; Relay Panels</li> <li>• Alcosy Control Desk</li> </ul> | <ul style="list-style-type: none"> <li>• Metering Panel</li> <li>• Metering Box</li> <li>• Marshalling Panels</li> <li>• EMI/RFI Compliant Panel</li> <li>• Universal Test Bench</li> <li>• Push Button Station</li> <li>• 19" Racks</li> <li>• Control Room Interiors</li> </ul> |
|---|---|--|---|



PYROTECH ELECTRONICS PVT. LTD. - UNIT II



SOLAR PLANT



PYROTECH ELECTRONICS PVT. LTD. - UNIT IV

Pyrotech Electronics Pvt. Ltd was established in 1976 at Udaipur, Rajasthan having more than 35 years experience in Turnkey control room interiors, Mosaic Panels & Desks, Control Panels & Desks, other Industrial Panels, Junction Boxes & Racks and more than 10 years experience of Supply, Installation & Commissioning in video wall market. We have our reach to the Power , Energy G/D/T, Oil & Gas, Metal, Transport, Defense & Cement industries etc. .



An ISO 9001, EMS 14001, OHSAS 18001 Company

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