

CONTAINERISED SOLAR SUBSTATION

STANDARD FITTINGS

- M.S./ CRC Sheet fabricated Enclosure as per IS 14786
- Load Balancing Lifting Hooks
- Collapsible hinge mounted doors
- Rain water protection IP 54 for Breaker compartment
- IP 43 for Transformer / Invertors compartments
- For safety doors with alarm & tripping circuit
- Inter connecting MV & LV cables or bus bars from Invertors to Transformer, Transformer to MV Breaker
- Powder coated paint, for HV& LV equipments
- Epoxy / PU paint, Shade - RAL 9003 or as per customer request
- Illuminating lamps with MCB

SPECIAL FEATURES

- ➔ Completely Factory built
- ➔ Superior Aesthetics
- ➔ Convenience in portability
- ➔ Ready to install & Commission
- ➔ Compact in size
- ➔ Minimal maintenance
- ➔ Ideally Suitable for on Grid Solar Projects
- ➔ Tamper proof
- ➔ Numerical Reverse Power Protection Relay
- ➔ Numerical 3 pole Differential Relay

TECHNICAL SPECIFICATIONS

Medium Voltage Compartment

MV Switchgear	11 to 33 kV
Type of Switchgear	SFU / Circuit Breaker / RMU SF6
Insulation Medium	Gas or Vacuum
Tripping	Fuse / Relay
Short Circuit Rating	21 kA or as per customer requirement

Transformer Compartment

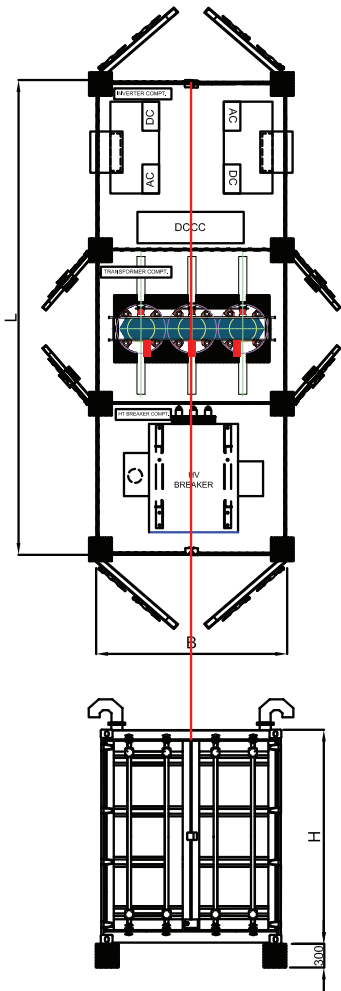
Type of cooling	Dry Type VPI / Cast Resin
Rating	Up to 2500 kVA
Voltage	11 or 33/0.350-0.350 kV or any specific
Phase / Frequency	3 Phase / 50 or 60 Hz.
Vector Group	YNd11d11 or Dy11y11 or any specific.

Low Voltage Compartment

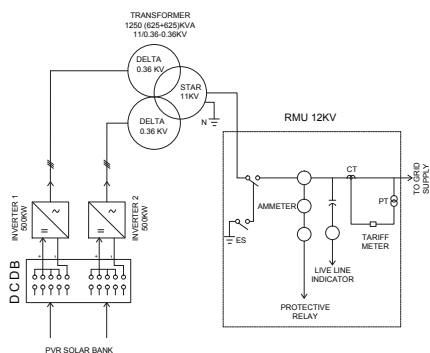
LV Switchgear	ACB's, MCCB's with DCDB
Current Rating	200A & above in multiple range
Voltage	300 to 440 Volts in multiple Inputs to Transformer.
No. of Poles	Single to Multiple. Robust & Compact Design
Short Circuit Rating	ABB or SMA or Bonfiglioli or any as per customer requirement



➔ PRODUCT DIAGRAM



➔ SINGLE LINE DIAGRAM



➔ GENERAL DETAILS

Containerised solar substation are designed for clustered solar parks where space and safety is a concern, and are of capacity 500KW to 20MW projects. Containerized substation is divided in three section or compartment– MV Breaker, Transformer and Inverters with DCDB. Containerised substations are designed in accordance with IS 14786 / IEC 61330 standards with degree of protection upto IP 43 for Transformer and Inverters compartments & upto IP 54 for MV breaker compartment.

Following are the dimensional and weight details for a typical 11kV, Containerized substation with off circuit type Dry / Oil Cooled Transformer.

SR. NO.	Rating (kVA)	Overall dimensions (mm)			Approx WT. (Tonnes)
		LENGTH (L)	BREADTH (B)	HEIGHT (H)	
1	500 to 1250	6000	2400	2450	10
2	Up to 2500	12000	2400	2450	15

**Dimensions and weight may vary for any specific or special requirement.*

➔ OPTIONAL FITTING

M.V. Compartments	Transformer Compartment	L.V. Compartment
MV RMU/ VCB/ SFU	Dry type (VPI / Resin Cast) / Oil Cooled.	L.T. microprocessor based trip unit
H.T. Metering/ Load manager	Copper wound or Aluminum wound	Output from 300 to 400 Volts
Annunciator & Power pack	Scanner with RS 485 port & Blower control, Alarm & Trip contact	RS-485/ MODBUS/ TCP,CAN,PROFIBUS
Earth fault, over current relay	3 or 4 winding transformers	Efficiency up 98.6%
Scada or P.L.C compatible	Input: 300 to 400 V or any as per requirement	Innovative two zone & Amb. Protection system

➔ APPLICATIONS

