



S S ENGINEERING AND SERVICES

POWER ELECTRICAL
Word -class
Engineering Solution

COMPACT SUBSTATION (CSS UNIT)





About us

S S ENGINEERING AND SERVICES : One of the biggest manufacturers associate with NGG Power tech and NERM Industries for Power/Distribution Transformers, Dry Type Transformers, OLTC Transformers, Automatic Servo Voltage Controllers-(Linear Type Technology), HT AVR/LT AVR & Transformer with built in HT AVR, Electroplating Rectifiers & Anodizing Rectifiers, Isolation Transformers, Variable Transformers, and Special Purpose Transformers & Unitized Compact Substations. Every process regarding manufacturing & quality control of each equipment is being done by a team of qualified & experienced engineers under one roof to achieve better quality & to fulfill customer's requirements and get their 100% satisfactions. We believe in Quality Oriented products & with state-of-the-art technology. We have established a name as – **S S Engineering and Services Dehradun** that has made a major breakthrough in the field of **Engineering and Electricity Saving**. Our high-quality products and efficient services to our valued customers have enabled us with ample success. We at **S S Engineering and services** believe that, sale is not an end of a relationship, but just the beginning of our services. With this belief we destined to bring in products, which are customer oriented. We have the ability to offer you the best value products that meet or exceed expectations all at competitive prices.

We are engaged in **manufacturing** following products and are in a position to supply the same at a very competitive price and better technology with strong service after sales support:

ü Distribution/Power Transformers:	Up to 10 MVA 33 kV Class
ü Transformer with OLTC Arrangement	Up to 10 MVA OLTC 33kV Class
ü Furnace Transformer	Up to 10MVA (11/33 kV)
ü Earthing Transformers	Up to 2 MVA 11 kV Class
ü Variable Transformers	Up to 10 MVA 11 kV class
ü Isolation transformer/Ultra Isolation Transformers	Up to 5 MVA Low voltage class.
ü Special Purpose Transformers	Any kind of Step Up/Down
ü Unitized Substation (Package Substation)	Up to 6.3 MVA with oil cooled Trf.
	Up to 2.5 MVA with Dry cast resin Trf
ü Automatic Servo Voltage Stabilizer	Up to 8000 KVA for low voltage class (In Linear Technology)
ü Rectifiers for DC Applications	Up to 25000 DC Amps.
ü HT Automatic Voltage Stabilizer	Up to 15 MVA 11 & 33 kV class
ü Transformer with built in HT AVR	Up to 15 MVA 11 & 33 kV class
ü Skid Based Transformers with Cage	Up to 6.3 MVA 11 & 33 kV class

DUTY CYCLE: Our products are Heavy Duty in construction and are suitable for 100% load for the continuous duty cycle. Hence customers should install Servo Voltage Stabilizer as per their running load keeping some margin for future expansion.

STANDARD FITTINGS

M.S. / CRC Sheet fabricated
The enclosure as per IS 14786

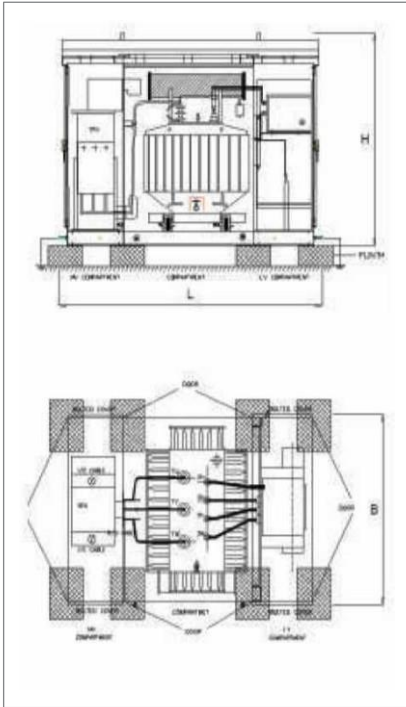
- Load Balancing Lifting Hooks
- Collapsible hinge-mounted doors
- Perforated sheet & Air Ventilation louvers in Transformer section
- Easily removable rainwater Protection canopy
- For safety doors with alarm & tripping circuit
- Interconnecting MV & LV cables & Bus bars
- Powder-coated paint, Shade-RAL 7032 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
- Suitable for rooftop & Basement
- Tamper proof

Medium Voltage Compartment	
MV Switchgear	3.3 to 33 kV
Type of Switchgear	LBS / SFU / Circuit Breaker / RMU
Insulation Medium	SF6 Gas or Vacuum
Tripping	Fuse / Relay
Short Circuit Rating	21 KA or as per customer requirement
Transformer Compartment	
Type of Cooling	Oil Immersed / Dry Type
Rating	100 to 2000 kVA
Voltage	3.3 to 33 / 0.433 kV or any specific
Phase / Frequency	3 Phase / 50 or 60 Hz
Vector Group	Dyn 1 to Dyn 5 or Dyn 11 or any specific
Low Voltage Compartment	
LV Switchgear	ACB's, MCCB's
Current Rating	Up to 4000 Amps
Voltage	440 Volts
No. of Poles	3 / 4
Short Circuit Rating	36 KA or as per customer requirement

PRODUCT DIAGRAM



GENERAL DETAILS

Unitised substations are designed for locations where space and safety is a concern, population density is high, such as urban centers. Unitised substation is divided in three sections or compartments - Medium Voltage, Transformer and Low Voltage Switchboard. Unitised substations are designed in accordance with IS

14786 / IEC 61330 standards with a degree of protection for IP 23 Transformer and IP 54 for MV & LV compartment or as per customer requirement.

Following are the dimensional and weight details for a typical 11kV, Unitized substation with off circuit type oil cooled Transformer.

SR.	Rating (kVA)	Overall dimension (mm)			Approx WT. (KGS)
		Length (L)	Breadth (B)	Height (H)	
1	100 to 250	2600	1800	2000	2500
2	315 to 630	2800	2000	2200	3800
3	750 to 1000	3000	2200	2400	5200
4	1250 to 2000	3200	2400	2600	7000

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

M.V. Compartments	Transformer Compartments	LV Compartments
MV RMU/VCB/SFU	On Load Tap Changer with R.T.C.C. panel & AVR	L.T. microprocessor-based trip unit
H.T. Metering/Load manager	Pressure Release Valve	L.T. MFM/Load manager
Annunciator & Power Pack	W.T.I. & O.T.I. with Alarm & Trip contacts	Feeder Pillar (HRC fuse /MCCB Based)
Earth fault, over current relay	Magnetic Oil Gauge with low level contacts	APFCR Panel with capacitor Bank
Scada or P.L.C. Compatible	Bucholz Relay with Alarm & Trip contacts	L.T. Earth fault & Overcurrent relay

Corr. Address:

**S S ENGINEERING AND SERVICES
IIP MOHKAMPUR OPPT SBI BANK
DEHRADUN, UK. – 248**

Works At:

**S S ENGINEERING AND SERVICES
KHASRA NO 168-171, BIR PALASI P.O
MANJHOLI NALAGARH. SOLAN HP
ssengineeringervices21@gmail.com**

Contact Person:

Mr. Ghanshyam (+91- 8755079888)
Mr. Anand Prakash (+91- 9650685505)