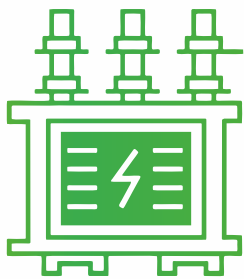
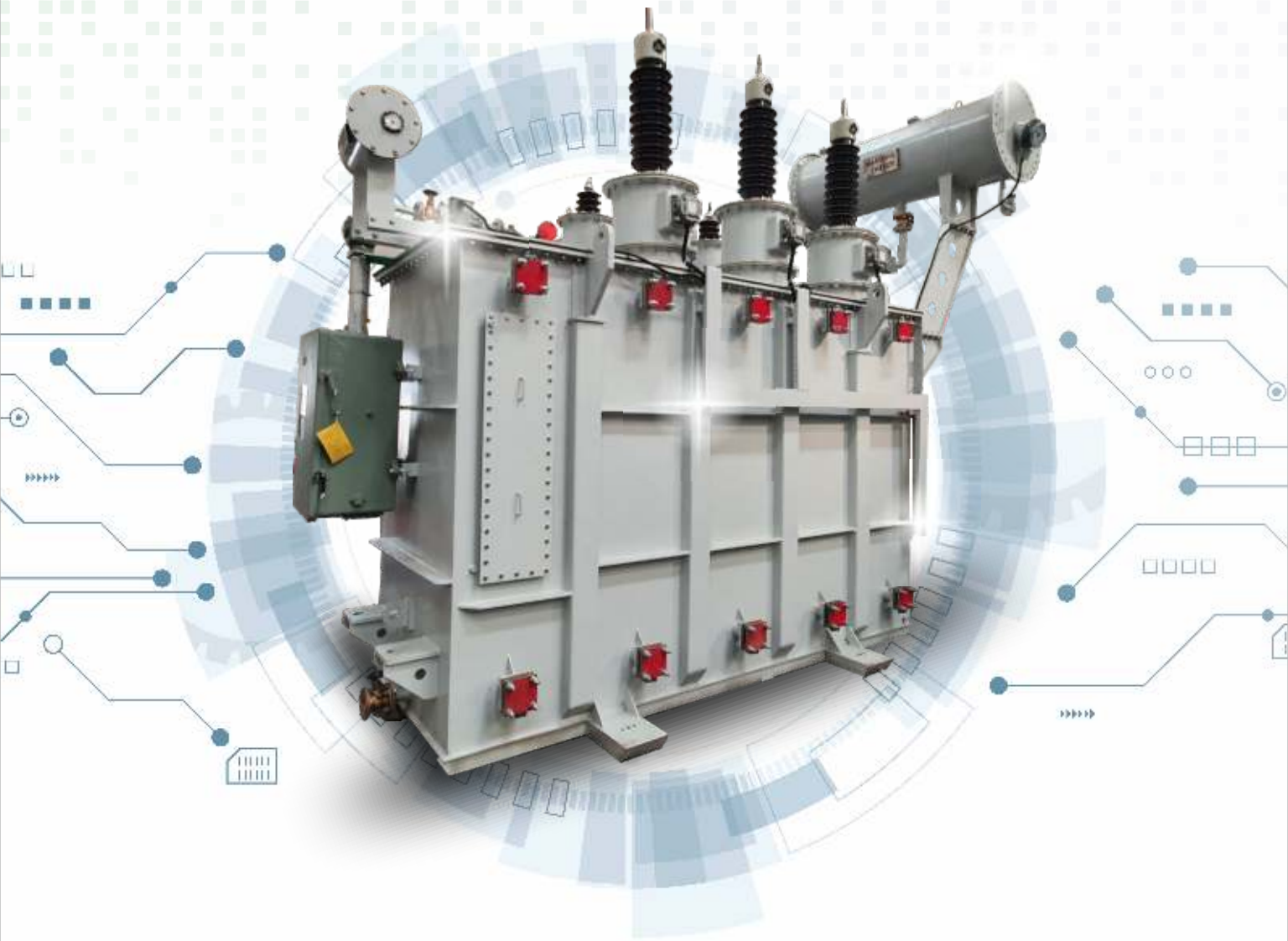


MARSONS ENERGY

The Future of Energy



**TRANSFORMING
DISTRIBUTION
SOLUTIONS**

www.marsons.co.in



VISION



We are going to bring about a sustainable efficiency revolution in the electrical Transformer manufacturing business by adopting latest Design and manufacturing methods, training and developing highly skilled and motivated work-force, pursuing a total "Customer-centric Approach" and delivering most durable and cost-effective products & services to customers across the world in order to maximise their ROI on electrical infrastructure. Adopting to all international standards and new energy efficient specifications is our passion and we shall continue our research & Development efforts rigorously.

RAHUL JAIN / DEEPAK JAIN

Founders



WHO WE ARE

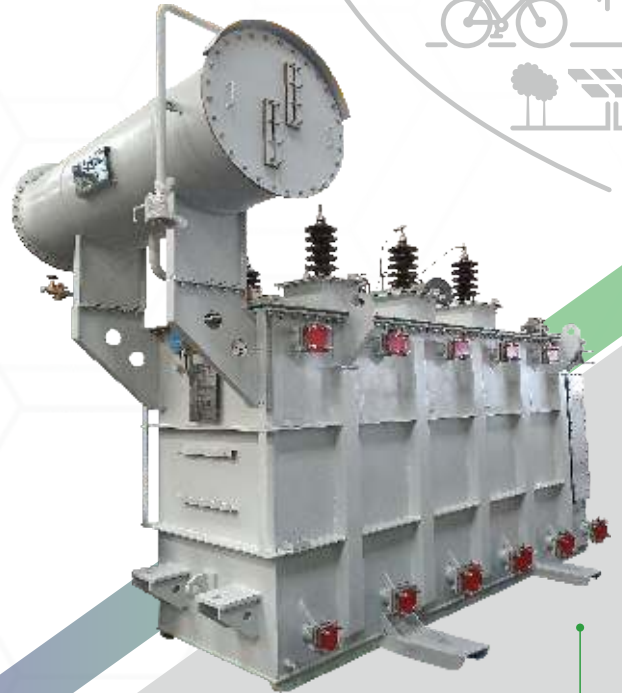


- ▶ Marsons Energy is a pioneer in manufacturing highest quality Power, Distribution, Inverter Duty and Special-Application electrical Transformers. Product Range- from **10 KVA upto 25 MVA within 66 kV Voltage-Class**.
- ▶ With over 30 years of experience, we use the latest designs, material and technologies to manufacture high quality & **LOW-LOSS, energy efficient Transformers**, while achieving the **lowest cost** possible for Customers.
- ▶ With a team of over **100 technicians and engineers**, we ensure that our Customers' experience is delightful as we entrench ourselves completely in customers' project achieving product quality as per customer specification, timely deliveries and support for Installation, Commissioning and Services.
- ▶ Transformers manufactured by Marsons Energy are used across industries for **Urban & Rural electrification, High-Voltage Distribution Systems, Solar & Wind farms, Commercial complexes, Metros and Railways**.
- ▶ All products are duly **Type Tested and NABL-accredited Laboratories** in India & Abroad in accordance to all standards like- **IEC, BS, IS, DIN, ANSI and EcoDesign of European Commission**.
- ▶ Manufacturing plant of Marsons Energy is located in **Jaipur (INDIA)**, a city of manufacturing excellence and low-cost resources. we are **ISO 9001 : 2015, ISO 14001 : 2015, ISO 45001 : 2018 Certified and Power Grid Corporation of India Limited (PGCIL) Approved vendor**.





500 kVA, 11/0.433 kV, ONAN,
Copper Wound Packaged Substation
Smart City Project



10 MVA, 33/11 kV, ONAN, Copper Wound Power Transformer
with MR Germany Make ON Load Tap Changer
2X10 MVA Substation in Africa



6 MVA, 0.800-0.800/33 kV, ONAN, Copper Wound,
3 Winding Inverter Duty Transformer with Off Load Tap Changer
Evacuation Substation 45 MW Solar Farm



6 MVA, 0.800-0.800/33 kV, ONAN, Copper Wound,
3 Winding Inverter Duty Transformer with Off Load Tap Changer
Evacuation Substation 45 MW Solar Farm



• POWER TRANSFORMERS



Marsons Energy's Power Transformers are designed with the objective of **strengthening the Sub-transmission** electrical networks of the distribution Utilities, Developers and users. Our products are capable of **withstanding maximum fault level Short Circuit** conditions and Lightning Impulse. We have the distinct design & manufacturing expertise to provide customers with **customised solutions** based on each customer's distinct requirement such as Incoming & outgoing Terminations, space Constraints, harmonic suppression and protection features etc.



10 MVA, 6/11 kV, ONAN, Copper Wound Power Transformer with MR G&many Make On Load Tap Changer





Manufacturing Standards	IS, ANSI, BS, IEC or as per customers' specification
Rated Power	3 MVA up to 25 MVA
Primary Voltages Typically	11, 22, 33, 66 kV or as per customers' specification
Secondary Voltages Typically	3.3, 6.6, 11, 33 kV or as per customers' specification
Phases	Three phase
Tappings Mechanism	On-load or Off-load
Rated Frequency	50 or 60 Hz

Vector Groups	Dyn11 or any other vector group as per IS 2026 or IEC 60076
Temperature Rise	As per customer requirement
Cooling Type	ONAN (or KNAN) or ONAF
HV & LV Terminals	As per customer requirement
Installations	Indoor or Outdoor
Sound Level	As per NEMA Tr1
Insulating Fluid	Mineral oil/silicon oil, Ester

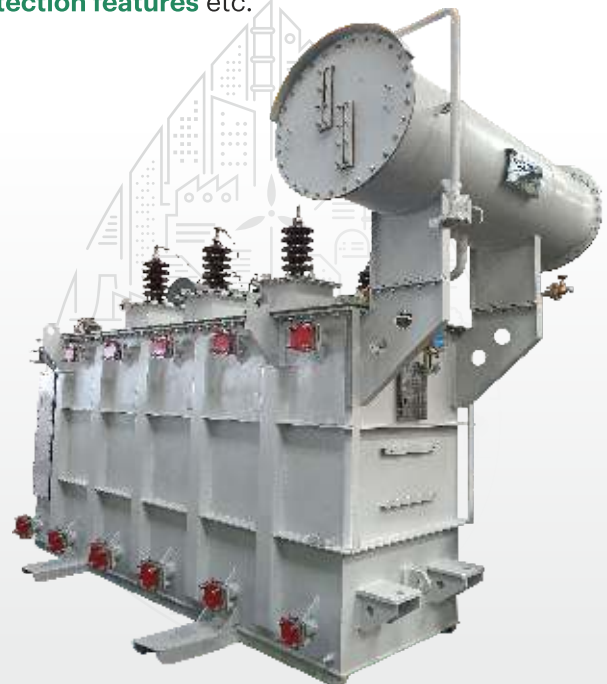
Salient Features



- **Health and Safety** features as per regulations.
- Tapping can be off-circuit tap changer or on-circuit tap changer depending on the variation and steps required.
- **Remote Terminal Control Panel (RTCC)** to control the tap changing remotely, to monitor performance with remotely placed alarm and trip features.
- Transformers are designed to **withstand maximum fault level**, short circuit conditions and capable of carrying its full normal rating continuously at any tap.
- Various customized solutions based on customers' requirement such as **space constraints, incoming and outgoing terminations, harmonics suppression, protection features** etc.
- **High durability**, Long hassle free operational life.



5 MVA, 33/11 kV, ONAN, Copper Wound Power Transformer with Off Load Tap Changer



10 MVA, 33/11 kV, ONAN, Copper Wound Power Transformer with MR Germany Make On Load Tap Changer



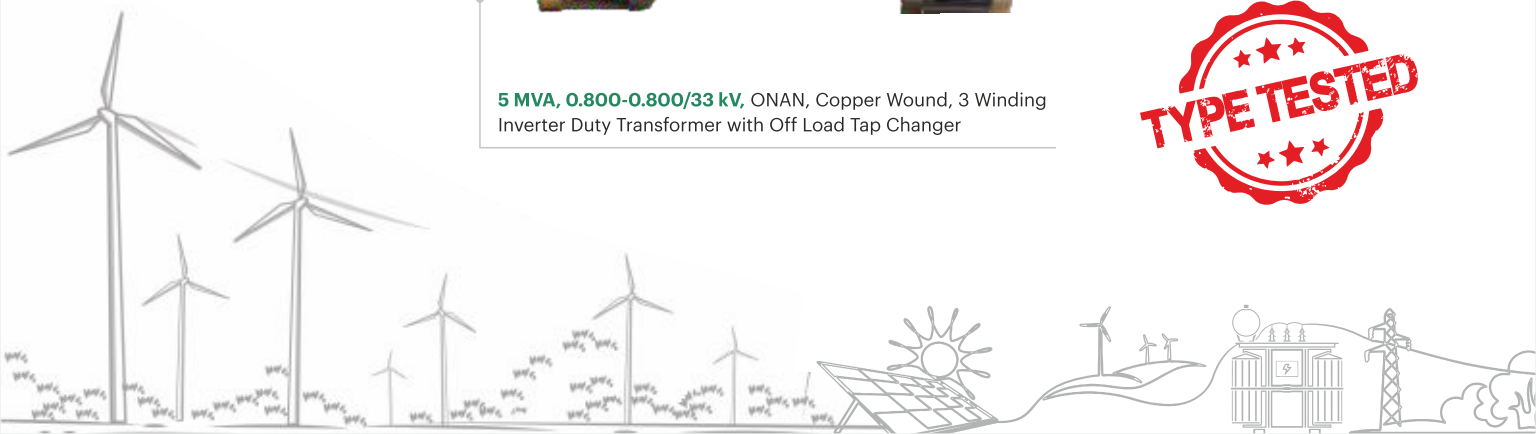
• INVERTER DUTY TRANSFORMERS



Marsons Energy's INVERTER-DUTY transformers are robustly designed to operate in synchronisation with all kinds Of Inverters installed in the power evacuation substations of Solar and Wind Farms. **RELIABILITY & Maintenance-free Power supply** forms the key underlying philosophy in the Design and Quality standards. **ADAPTABILITY to the varying load curve** of Solar & Wind farms is achieved by using best material and workmanship.



5 MVA, 0.800-0.800/33 kV, ONAN, Copper Wound, 3 Winding
Inverter Duty Transformer with Off Load Tap Changer



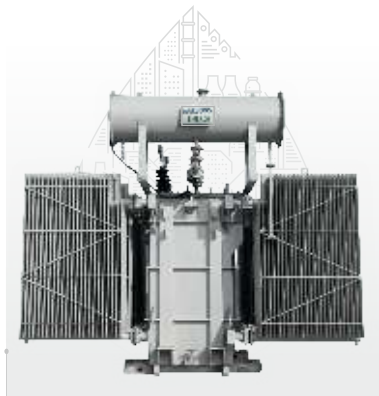


Manufacturing Standards	IS 2026 or IEC 60076 or as per customers' specification
Rated Power	up to 18.2 MVA
Primary Voltages Typically	11, 22, 33 kV or custom specification
Secondary Voltages Typically	0.600, 0.630, 0.660, 0.800 kV or er specification
Winding	2/3/4/5 Winding

Tappings Mechanism	On-load or Off-load
Cooling Type	ONAN or KNAN
Installations	Indoor or Outdoor
Vector groups	As per IEC 60076/ IS : 2026 or customers' requirement
Winding Material	Copper/Aluminum

Salient Features

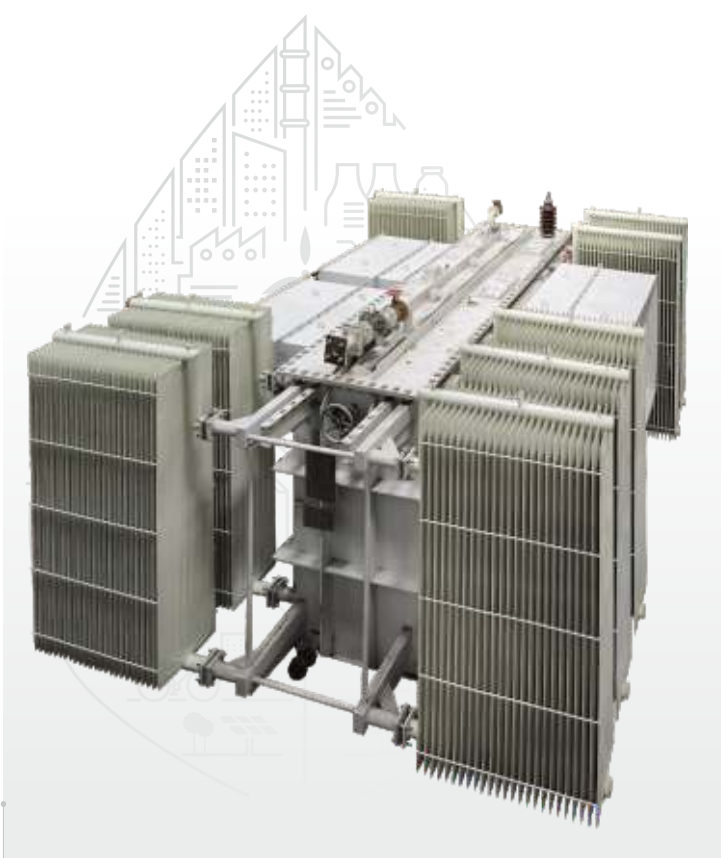
- ▶ Transformers are designed for durability and to withstand maximum fault level, short circuit conditions and capable of carrying its full normal rating continuously at any tap.
- ▶ Design suitable to handle un-steady / Variable loads.
- ▶ Designed to suppress Harmonics for better Power quality.
- ▶ Neutral may be Float type or solid earthing to suit Inverter requirement.
- ▶ Capable to design and manufacture 2/3/4/5/6 winding Solar Transformers.



6 MVA, 0.800-0.800/33 kV, ONAN, Copper Wound, 3 Winding Inverter Duty Transformer with Off Load Tap Changer



2.5 MVA, 0.630-0.630/33 kV, ONAN, Copper Wound, 3 Winding Inverter Duty Transformer with Off Load Tap Changer



12.5 mVA 33/0.66 x 4, Aluminium Wound Inverter Duty Transformer for Solar Application



• DISTRIBUTION TRANSFORMERS



Marsons Energy Distribution Transformers are highly energy-efficient ensuring extremely low power consumption at the Users' end, hence, low energy cost. We understand the harsh site conditions in remote areas and, hence, design & manufacture our products 100% protected from line faults, surges, overloading, theft & lightning. Protection features like Oil-immersed circuit breakers and MCCB box ensure transformers safety. Marsons Energy Distribution transformers are SMART and able capture operational and maintenance data of transformers while under operation and relay them to remote location or devices of the clients managing the networks.



500 kVA, 11/0.433 kV, ONAN, Copper Wound Hermetically Sealed Distribution Transformer with Off Load Tap Changer





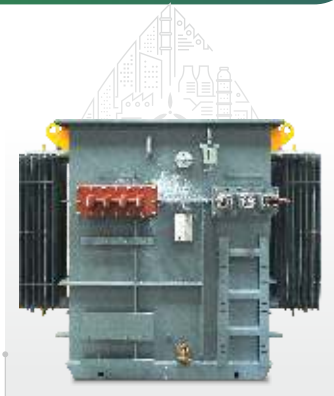
Manufacturing Standards	IS, ANSI, BS, IEC or as per customers' specification
Rated Power	10 kVA to 2.5 MVA
Primary Voltages Typically	11, 22, 33 kV or as per customer specification
Phases	Single or three phase
Tappings Mechanism	On-load or Off-load

Cooling Type	ONAN (or KNAN)
Installations	Indoor or Outdoor
Insulating Fluid	Mineral oil/silicon oil, both inhibited & uninhibited / Ester
Rated frequency	50 or 60 Hz
Vector groups	Copper/Aluminum

Salient Features



- Anti Vandal features to deter unauthorized opening and siphoning of oil, breakage of parts etc.
- Completed Self Protected (CSP) features to protect against Line faults / surges, overloading, lightning etc. Oil immersed circuit breaker provided for tamper-free operation.
- Designed to minimize the risk of accidental short circuit caused by animals, birds or vermin.
- Pole Mounting arrangement for sturdy mounting on pole or mounting structure.
- In-built metering option available to monitor consumption.
- Mountable Distribution Box to provide consumer connections.
- Transformers are designed to withstand maximum fault level, short circuit conditions and capable of carrying its full normal rating continuously at any tap.
- Corrugated Fin Radiators or Pressed Steel Radiators.
- Sealed type or Breathing type with Conservator.
- DGPT2/ DMCR protection device for sealed type transformers.
- Termination: Porcelain / Cycloaliphatic / Epoxy / Touch Proof Plug-in type Bushings with option of Cable Box / Bus Duct.
- Tanks: Usually made of Mild Steel but also available in Stainless Steel.
- Paint options for tanks such as Flow Painting (PU Paint), Powder Coating or Metallizing / Galvanization.



USS Ground Mounted Transformers
Eco Design Tier - 2 Compliant



Pad mount transformers compliant to
IEEE standards for US market



63 kVA, 11/0.433 kV, ONAN, Aluminium Wound Distribution Transformer with Completed Self Protected (CSP) features



100 kVA, 33/0.433 kV, ONAN, Copper Wound Distribution/Station Transformer with Off Load Tap Changer



250 kVA, 33/33 kV, ONAN, Copper Wound Auxiliary Transformer with Off Load Tap Changer



• PACKAGED SUBSTATION



Designed to ensure minimum space utilisation, Marsons Energy's packaged substations are state - of - the - art Distribution solution. PLUG & PLAY construction methodology ensures energisation of customers' site within minutes of delivery and powered by MARSONS ENERGY transformers, the packaged substation provides maintenance-free electricity supply for years.

Basic Technical Data •



Applicable Standards	IEC 62271-202
Ambient Temperature	Normal Operating Conditions -5 Deg C to 50 Deg C
Standard Color	RAL 7032 / 7035
Installation	Indoor/ Outdoor

Degree of Protection	IP 54 / 55 / 23 / 34 or as per customers' specification
Enclosure Class	K5 - K10
Construction	Compartmentalised
Ventilation	Natural Air Cooled



1600 kVA, 11/0.433 kV, ONAN, Copper Wound Packaged Substation

Electrical Characteristics



Rated Voltage (kV)	12	24	33
Rated Insulation Level	28 kV rms, 50 Hz 1 Min., 75 kV impulse, 1.2/50 micro secs.	50 kV rms,	70 kV rms, 50 Hz 1 Min., 170 kV impulse, 1.2/50 micro secs.
Rated Frequency (Hz)	50	50	50
Rated Current of MV Switchgear/ CBs (A)	630	630	630
Maximum Allowable Impulse Current Withstand	21 kA rms - 1 Sec, 50 kA peak	21 kA rms - 1 Sec , 40 kA peak	21 kA rms - 1 Sec, 63 kA peak
Maximum LV Current (A)	3200	3200	3200
LV Current Withstand (kA)	50/65	50/65	50/65

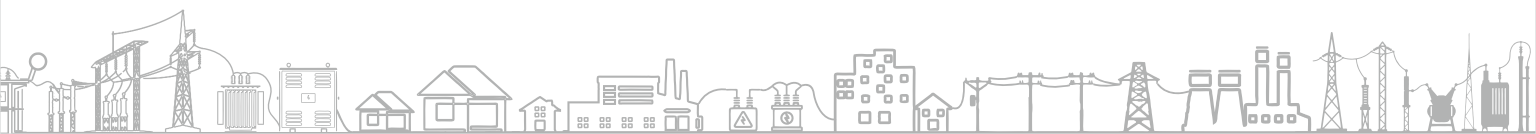
Salient Features



- Pressure Relief Flaps
- Separate RMU Compartment
- Corrugated / Non Corrugated Enclosure
- Separate LV Compartment
- Strong Concealed door hinges.
- Transformer Compartment has doors on both sides.
- Four Clamps help in uniform load Balancing
- Padlocking arrangement for all doors.
- Dedicated epoxy seal off bushing for Neutral.
- Detachable Roof
- Transformer Compartment Fitted with Arc reflectors



500 kVA, 11/0.433 kV, ONAN, Copper Wound Packaged Substation



• DESIGN AND TECHNOLOGY



At Marsons Energy we believe in continuous improvement and product innovation. Our **In-House R&D Department** with its constant innovation in designs is able to cater successfully to the changing needs of the industry over the years.



Our designs are **type tested in NABL accredited laboratories** such as **CPRI** and **ERDA**, India and in VEIKI-VNL Electric Large Laboratories, Hungary.



Our entire range of **transformers manufactured are type tested**. These tests include Temperature Rise, Lightning Impulse Short Circuit Test and others as required.



We are approved vendor in most of the **Distribution Utilities in India and abroad** and this is because of our compliance with customers' specifications coordinated with latest versions Of international standards like **IEC, BS, ANSI, IS and EN** etc.



Marsons Energy is supplying transformers as per **Tier 2 of the new ECODESIGN** Specifications from the European Commission (EN 50588 — 1)



Marsons Energy Transformers are **BIS** and **BEE certified**.





• SERVICES



**24 X 7
WARRANTY
SUPPORT**

Every minute & downtime in power supply due to transformers fault has multiplier effect as financial loss is incurred by not only customer but also power supplier.

Our dedicated team of technicians supports the breakdown maintenance in minimum response time. Through network of engineers & channel partners, this support is available 24x7 in India and across the globe.



• INFRASTRUCTURE



• CO₂ EMISSION DISCLOSURE



At Marsons Energy, we recognize that **sustainability is a collective effort** and we are committed to working closely with our partners, suppliers, and customers to create a greener, more sustainable world.

The Zero Carbon Project is not just a milestone: it is a testament to our long-term vision of balancing **industrial growth with environmental responsibility**.

Tons	Base Year - 2016	Most recent Year -2023
Scope 1 emission in Tons	24.7	33.1
Scope 2 emission in Tons	250.9	91.2

We are proud to announce that, as of **2023**, we have successfully reduced our **CO₂ emissions** per unit of sales by **72.49%**. This significant achievement underscores our dedication to making a **positive impact on the environment** while continuing to deliver **high-quality transformers** to our customers.



• CLIENTS



...and More





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