



# Power Built on Precision



**MONARCH**  
TRANSFORMERS

[www.monarchtransformers.com](http://www.monarchtransformers.com)



Energy systems are evolving. Grids are expanding to integrate renewable energy. Data centres require uninterrupted, high-quality power at scale. Industrial operations are becoming increasingly electrified. These shifts place higher performance demands on the transformers at the core of these systems.

Monarch Transformers is built to meet these requirements. The company manufactures Power Transformers up to 245 kV class, along with Solar/Inverter Duty Transformers and Distribution Transformers from a purpose-built 1,75,000 sq. ft. facility in Vadodara. Automation, precision engineering and in-house testing are integral to how every transformer is manufactured.

Backed by the Monarch Group, a diversified business conglomerate with a presence across financial services, infrastructure, aviation, manufacturing, and digital platforms. This backing provides the capital, network and institutional strength to support long-term growth.

Manufactures power transformers up to **245 kV**

## Vision



To deliver solutions that power transmission, renewable and industrial systems with reliability, built to global standards and designed for long-term performance.

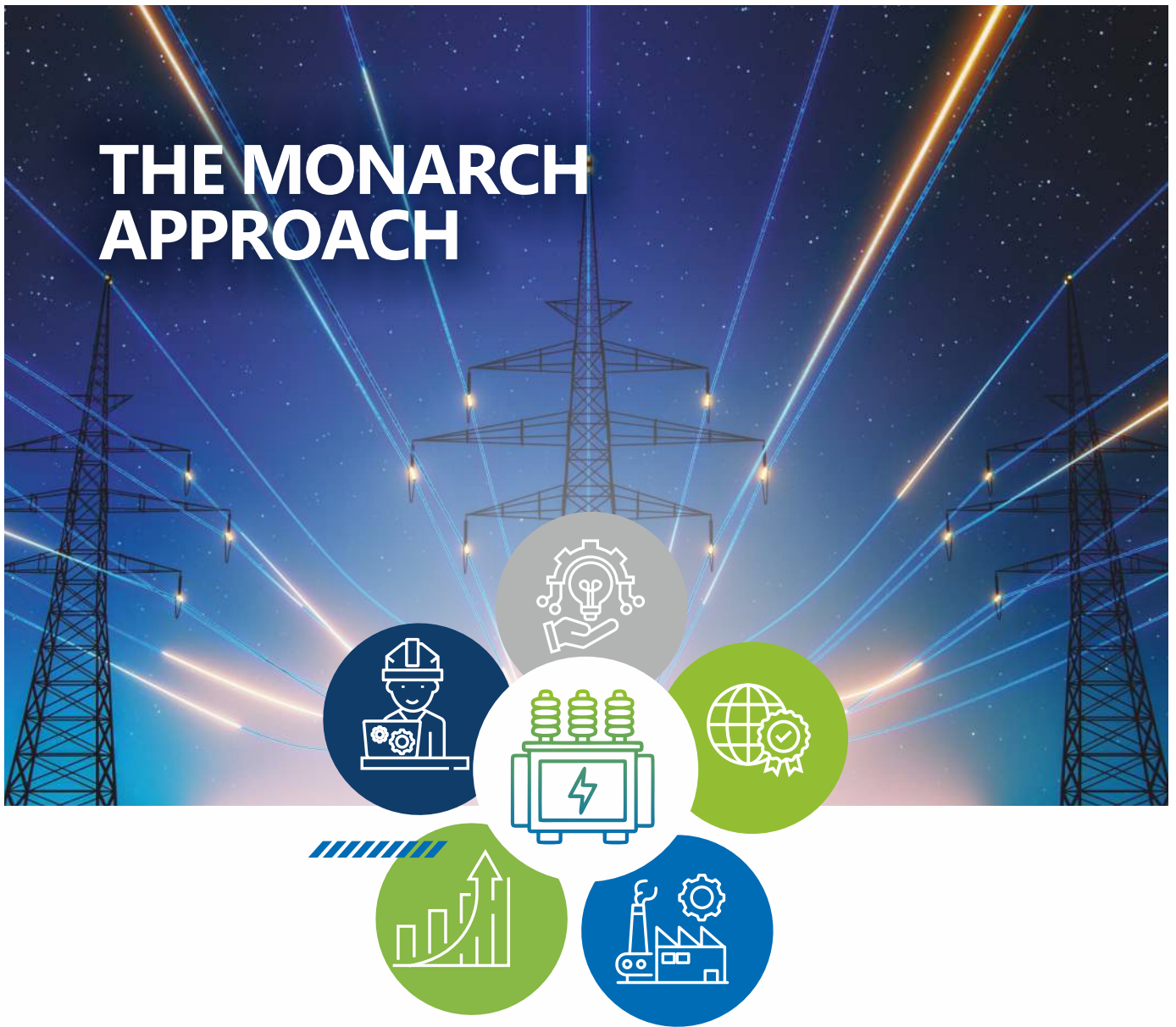
## Mission



- > Engineer transformer solutions with reliability, safety and long service life built into the design
- > Serve the full power chain, from high-voltage transmission to last-mile distribution
- > Ensure disciplined manufacturing and in-house validation for every unit
- > Build scalable capability aligned with India's infrastructure growth and the global energy transition



# THE MONARCH APPROACH



## Technology-led from the start

The facility is designed around advanced manufacturing systems, not retrofitted with them. Automation, process control and precision engineering are integral to every stage.

## Globally benchmarked standards

Manufacturing and testing processes are aligned with IEC, IS and international utility requirements. Every unit is built for reliable performance across a wide range of applications.

## Engineering before production

Design decisions are driven by field performance. Engineering discipline ensures reliability, not just through material selection.

## Backed for the long run

Monarch Transformers is backed by the Monarch Group, bringing capital, network and operational depth to support sustained growth.

## A partner, not a supplier

Monarch works with utilities, developers, EPCs and industrial operators as long-term partners, offering specification support, custom engineering and application-specific design.

# Solutions

Built for grids that energise tomorrow

## Power Transformers



High-performance solutions for transmission networks, substations and large industrial applications.

- Up to 100 MVA, 245 kV class
- Vapour Phase Drying for insulation integrity
- Full in-house impulse, partial discharge and heat run testing
- Suited to utilities, grid operators and EPC partners

Engineered for renewable energy systems with variable load profiles and harmonic conditions.

- Designed for solar and hybrid renewable applications
- Vacuum Drying Autoclave process for insulation consistency
- Validated for ratio accuracy, partial discharge and load performance

## Solar / Inverter Duty Transformers



Reliable power delivery across utility networks, infrastructure and industrial applications.

- Covers utility, infrastructure and industrial requirements
- Controlled winding and drying processes for consistent quality
- Suited to rural electrification, commercial and urban infrastructure

## Distribution Transformers



When standard ratings do not meet project requirements, Monarch engineers solutions to specifications.

- Engineering support from specification definition through to dispatch
- Designed for renewable, industrial, data centre and specialised applications

## Custom Engineered Solutions





# An Ecosystem of Manufacturing Excellence

## What makes Monarch different from the inside out

Most transformer manufacturers are built around production. Monarch is built around engineering intelligence. Every system in the facility, from design and winding through drying and testing, is integrated to deliver consistent, high-performance outcomes at scale.

### Scale and Capability

<b>16,000 MVA</b>	<b>1,75,000 sq. ft.</b>	<b>Up To 100 MVA</b>	<b>Up To 245 kV</b>
Plant Capacity	Manufacturing Facility	Per Unit Capacity	Voltage Class

#### > Design and Engineering Depth

Every transformer begins with engineering. Design decisions across voltage ratios, insulation systems, cooling configurations and core geometry are made with long-term field performance in mind.

#### > Automation and Process Control

PLC-based winding machines and SCADA-controlled drying systems manage core production processes. Real-time monitoring ensures low variability and consistent outcomes across production.

#### > Advanced Drying Systems

Vapour Phase Drying for Power Transformers up to 245 kV and Vacuum Drying Autoclaves for Solar/Inverter Duty and Distribution Transformers ensure insulation integrity over a long service life.

#### > Precision Winding

Vertical winding machines deliver accurate conductor placement, controlled tension and consistent coil geometry, forming the foundation of mechanical and electrical performance.

#### > In-house Testing Infrastructure

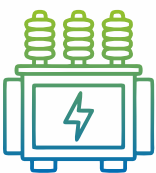
A fully equipped testing facility covering impulse voltage, partial discharge, SFRA, tan delta, heat run and loss measurement ensures every transformer is validated before dispatch.

#### > Scale and Handling

150 MT crane capacity and dedicated production zones for winding, core assembly, drying, final assembly and testing support high-volume, high-complexity manufacturing within a 1,75,000 sq. ft. integrated facility.



**Quality at Monarch is built into the manufacturing process, from incoming material inspection through to pre-dispatch validation. Every transformer passes through a defined testing protocol before dispatch.**



### > **Impulse Voltage Testing**

Simulates lightning and switching surges to validate insulation integrity under the transient conditions.

### > **Partial Discharge Measurement**

Multi-channel detection validates insulation behavior under voltage, ensuring long-term dielectric reliability.

### > **SFRA Analysis**

Confirms the mechanical integrity of windings and core, ensuring alignment with design parameters.

### > **Tan Delta Testing**

Evaluates insulation condition to ensure sustained dielectric performance.

### > **Heat Run Testing**

Validates thermal performance under full load operating conditions.

### > **No-load and Load Loss Measurement**

Benchmarks efficiency and losses against IEC, IS and utility requirements.

Testing is structured across three categories:

- Routine tests for every unit
- Type tests for design validation
- Special tests for application-specific requirements

All testing aligns with IEC, IS and global utility standards.

# Partners We Power

## Power Utilities

Grid expansion, substations and transmission infrastructure



## Renewable Energy Developers

Solar, wind and hybrid power systems



## Infrastructure & EPC

Large-scale project execution



## Rural Electrification

Last-mile delivery across regions



## Commercial & Data Centres

Stable, high-demand power environments



## Railways & Transport

Electrification and transport infrastructure



## MONARCH TRANSFORMERS PVT. LTD.



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