



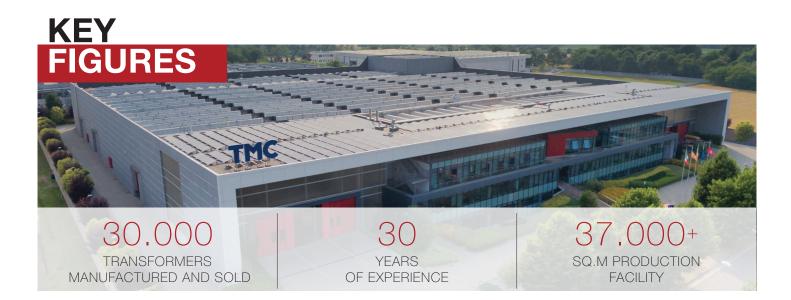


TMC TRANSFORMERS IS A
GLOBAL COMPANY ACTIVE
IN THE MANUFACTURE OF
MEDIUM AND LOW VOLTAGE
TRANSFORMERS AND
REACTORS, BOTH CAST
RESIN AND VPI.



world of transformers

TMC Transformers SpA puts together a carefully selected group of engineers and technicians with vast experience in the design and manufacture of distribution and special transformers: two different souls combined together under a single roof, to offer customers the most suitable technology and service. TMC focuses on dry type transformers and reactors for all the applications worldwide.





### OUR TECHNOLOGY



#### **CAST RESIN**

Transformers up to 25MVA and up to 52kV in class F or class H insulation systems

#### **Enclosures**

IP: from IP21 to IP67 NEMA: from NEMA1 to NEMA13

#### Cooling

AN up to AFWF



#### **VPI MEDIUM VOLTAGE**

Transformers & reactors with power up to 25MVA and voltages up to class 36 kV

#### **VPI LOW VOLTAGE**

Transformers & reactors up to 10MVA

#### **Enclosures**

IP: from IP21 to IP67

NEMA: from NEMA1 to NEMA13

#### Cooling

AN up to AFWF

Distribution Transformers: efficiency according to DOE2016 and NRcan standard



### ENCLOSURES & COOLING TECHNOLOGY

- Protective metal enclosures for indoor and outdoor applications IP: from IP21 to IP67 NEMA: from NEMA1 to NEMA13
- Direct water cooling
- Indirect water cooling
- AFWF (air-water cooling)
- AFAF (air to air heat exchanger)

**AFTER** 

#### **OBJECTIVE**

#### **OPTIMIZATION**

OF THE LIFECYCLE COST OF THE TRANSFORMERS

#### **FULLY SUPPORT ON**

- Unscheduled maintenance / repair / parts replacement
- Power, cooling, degree of protection and upgrades
- Reconditioning of the transformers and spares

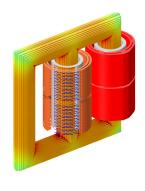
### **SPARE PARTS**

PROGRAM

#### **ORGANIZATION**

OF THE SCHEDULED MAINTENANCE

# & DEVELOPMENT

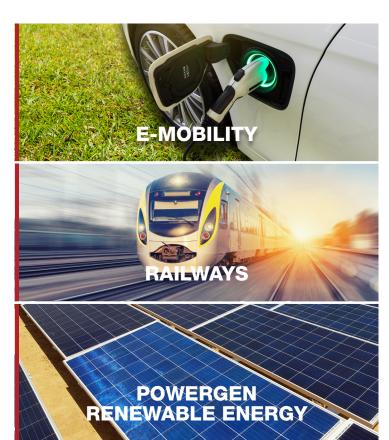


**R&D** is at the heart of TMC providing substantial benefits for both our team and our customers. Our R&D work has two prime targets:

- access to consultants to ensure customers that their product requirements always match or exceed their developing markets;
- collaboration with Supply Chain to ensure that as a 'team' we develop and utilize the most innovative materials available in the most cost-effective way.

## TMC WORLD OF TRANSFORMERS





#### **MARINE & OFFSHORE**

- Main propulsion, bow thruster & service
- Multi-pulse harmonic cancellation
- MV and LV drive systems
- IP23, IP44, IP54
- Multi-pulse drilling drives systems

#### OIL & GAS

- Ratings ≤25MVA
- MV insulation system ≤52kV
- H-ART 180°C technology
- Environmental, climate & fire behavior classes E4,
   C5 & F1
- Enclosure up to NEMA12 degree of protection
- Painting for high corrosion area C5H or even CX with stainless steel
- Suitable for certification for hazardous area IEC Ex (ATEX) & NEC Ex

#### **DATA CENTRE**

- 'K' factor and high harmonic designs
- High efficiency
- Low inrush designs

#### **E-MOBILITY**

- Full range of MV and LV solutions
- Special multi-winding designs
- Dedicated study to fit into special dimensions

#### RAILWAYS

- MV track side supply
- Suitable for specific traction duty cycles (e.g. in accordance with IEEE 1653.1)
- LV Aux on-board power supplies
- Protected from water/rain/brake dust

#### **POWERGEN/RENEWABLE ENERGY**

- PV generation to MV network
- High efficiency designs
- Dual secondary windings
- Custom designed for restricted installation constraints

## SUSTAINABILITY POLICIES



TMC STRIVES DAILY TO
OPTIMIZE PRODUCTION
PROCESSES IN ORDER
TO REDUCE WASTE AND
CREATE PRODUCTS THAT
HAVE LOW EMISSIONS AND
OVERALL IMPACT ON THE
ENVIRONMENT.
THE CONTINUOUS RESEARCH
FOR ECO-FRIENDLY
ALTERNATIVE MATERIALS AND
THE USE OF ENERGY FROM
RENEWABLE SOURCES ARE
JUST SOME OF THE GOALS OF
OUR PROCESS ENGINEERING.

#### **BATTERY STORAGE**

- Two, three or four winding transformers
- Dedicate FEA to study special cases
- Low losses

#### **BUILDING & INFRASTRUCTURE**

 Major project construction: hospitals, educational facilities, stadiums, exhibition centres, bridges and tunnels, and communication systems

#### **INDUSTRY**

- High efficiency 'green' industrial systems
- Multi-pulse transformers for VSDs
- Heavy current for steel production
- Transformers to feed, control and operate industrial electric power machinery

## OUR CERTIFICATIONS





















TMC Transformers is a UL Certificated company



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