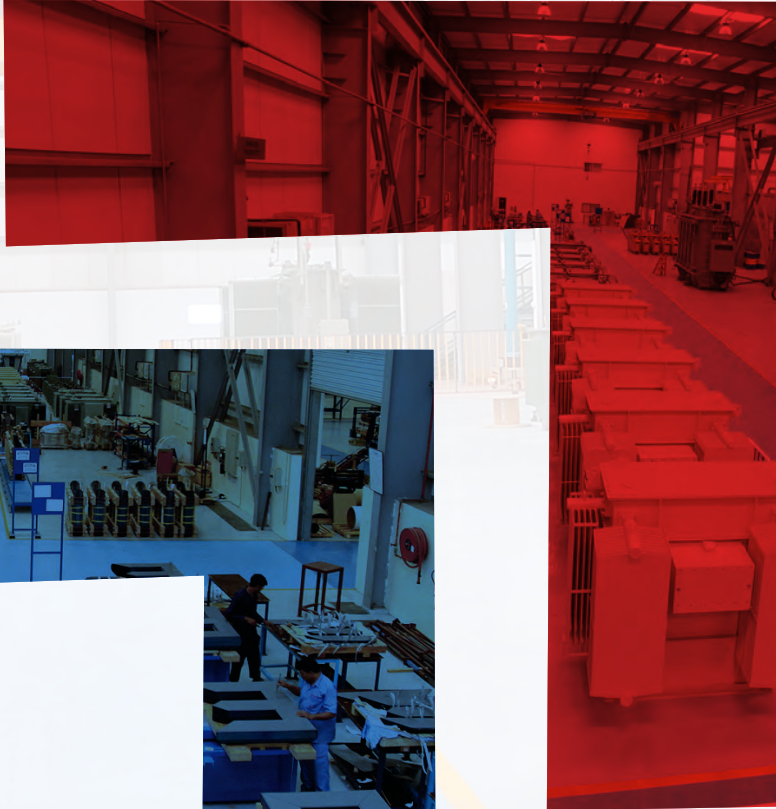


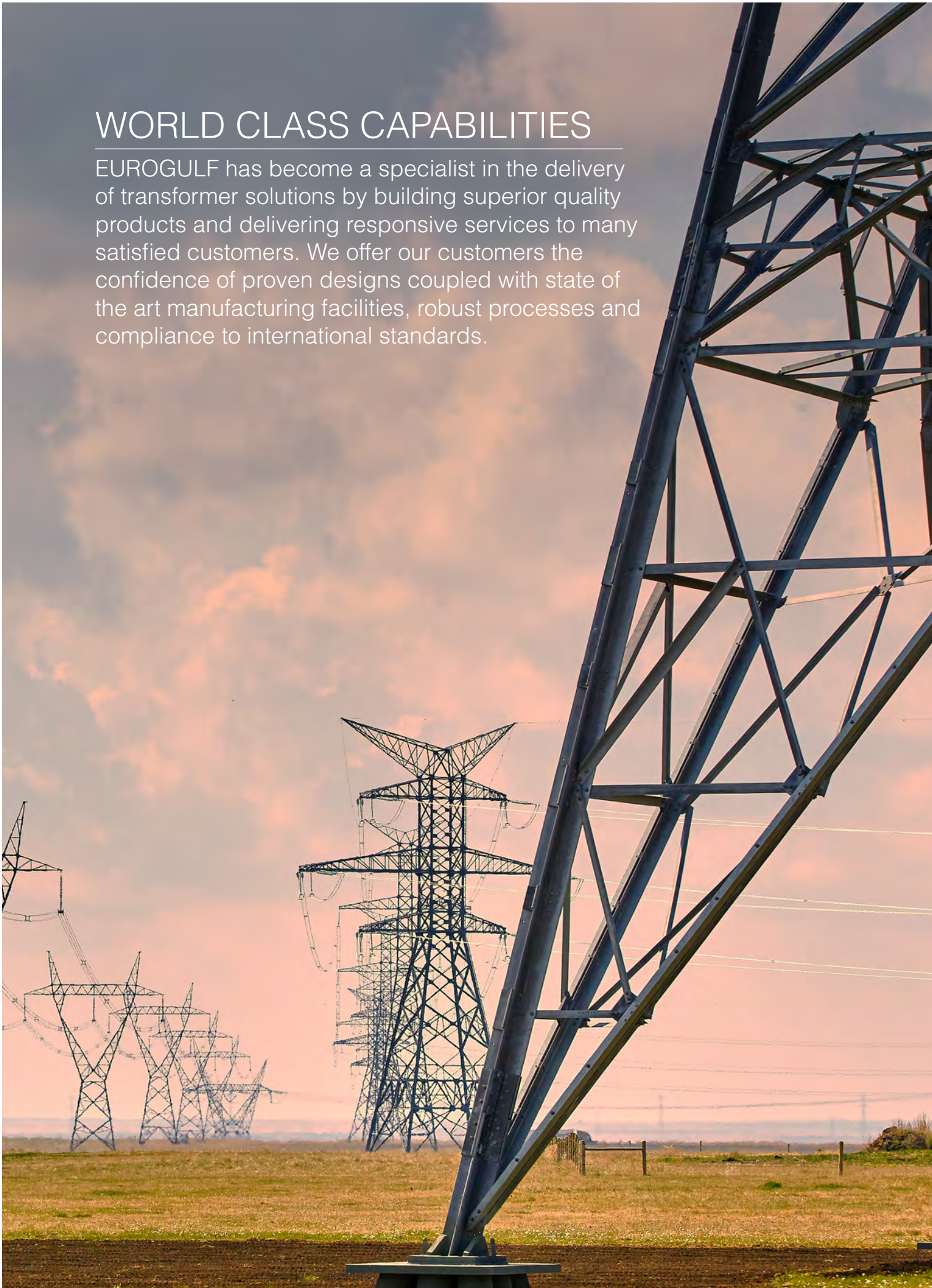


EFFICIENT, ECONOMIC, **ENERGY** SOLUTIONS



WORLD CLASS CAPABILITIES

EUROGULF has become a specialist in the delivery of transformer solutions by building superior quality products and delivering responsive services to many satisfied customers. We offer our customers the confidence of proven designs coupled with state of the art manufacturing facilities, robust processes and compliance to international standards.





OUR VISION

To deliver products and services that exceed customer's expectations, making EUROGULF a leading player in the industry.

OUR MISSION

To deliver value to all stakeholders in an ethical manner. To deliver quality in all functions covering design, manufacture, testing and commissioning of transformers and sub-stations through appropriate investment of resources.

OUR VALUES

- Maintain high quality standards in our design manufacturing process
- Constant following and upgrade of our skill-sets to match developments in the international environment
- Ethical work and leadership
- Maintaining a professional team spirit and long term partnership

OUR STRENGTHS

- Highly qualified and experienced team
- An operating plant covering an area of 100,000 sq.ft
- Latest manufacturing technologies and equipment
- Design capabilities to meet any requirement
- One of the best test facilities in the region

THE COMPANY

EUROGULF Transformer FZE is an ISO 9001 : 2015 certified company located in the Hamriyah Free Zone, in Sharjah, U.A.E and has successfully completed a decade of servicing customers with a wide-range of products in the region..

Today, the company has grown to become one of the prominent UAE manufacturer of power and distribution transformers. EUROGULF also offer a wide range of customized solutions to customer's specific requirements. The product range includes oil immersed distribution and power transformers for utility companies, industrial and commercial uses in addition to a wide range of transformers for special application in the marine & oil industry.

EUROGULF provides end-to-end transformer solutions including product development, design, manufacture, factory test, delivery, installation, site testing, maintenance and refurbishment. As a transformer solution specialist, we offer our customers the confidence of highly experienced experts in design, manufacture, test and in-field support.

Our prime assurance to our clients is "Quality with commitment". Our committed people take personal

responsibility for quality by applying care and attention throughout the design, procurement, manufacturing, test and installation processes. Complimented by well managed operational practices, our solutions go the distance.

From the integration of genuine innovation to smart responses to customer requirements, each transformer leaves our state of the art facilities with engineered design features that optimise the life of the product. As a consequence, our transformers deliver superior value over their life through reliable performance and minimum downtime.

We have grown our organisation for the long term by selecting the right suppliers, proven materials, applying innovative designs, and ensuring a total commitment to operational excellence. These undertakings have been, and continue to be, fundamental to the way our people work.



OUR PRODUCTS

POWER & DISTRIBUTION TRANSFORMERS

Our transformers are designed and manufactured for each specific customer requirement. Large and medium power transformers are designed and manufactured for specific applications and requirements.

EUROGULF produces customised transformers ranging in size at the Hamriyah Freezone facility. These products form a critical part of the electrical infrastructure in the power generation, transmission and sub-transmission networks and ensure reliable supply of electricity.

Our transformers are designed and manufactured for each specific customer requirement. Standard proven design methodologies and extensive simulation tools are both used to prove the product design and

ensure superior product performance in the field. The products are then manufactured in our state of the art facility with the latest technology equipment, systems and processes that are all subject to strict quality control gates.

All transformers are subjected to comprehensive routine tests and specified type tests, in accordance with the customer's requirements, relevant standards and Company procedures.

Manufactured in the UAE
with the latest technology
& equipment in a purpose
built plant of 100,000 sq. ft.

PACKAGE & UNIT SUBSTATIONS

EUROGULF produces standard and specialised substations ranging in size at our Hamriyah Freezone facility. These products form a critical part of electrical distribution networks and ensure reliable supply of electricity to homes and industry.

Our substations are designed and manufactured for standard and specific customer requirements that are widely used in areas where underground power reticulation is required, such as in residential, commercial and industrial developments. The fully enclosed transformer, HV and LV connections or switchgear are all fully assembled and tested in the factory prior to shipping to site. The standard design methodologies have been subject to extensive design review and subsequent in field review.





SPECIAL APPLICATION TRANSFORMERS

A number of industry applications require Specific Industrial Transformers due to the usage of power as a major resource for production. They need a specific design to supply the necessary power at a low voltage level. These transformer types as well as converter transformers for large drive applications are called special-purpose or Industry Transformers, whose design is tailor-made for high-current solutions for industry applications.

EUROGULF Transformers manufacture a range of associated products and features for special applications that may add significant value to the end customer depending on their own unique requirement. We have the capability, capacity, and experience to design and manufacture special transformers for specific applications that are unique in specification and requirement.

Some of our special application transformers include:

- Generator Transformer
- Rectifier and Converter Duty Transformer
- Single-Phase Oil Filled Transformer
- Earthing Transformer
- Multi-Tap Transformer

FULL RANGE OF TRANSFORMERS

Three-phase oil filled distribution transformers

Three-phase oil filled Power transformers

Generator transformers

Rectifier and converter duty transformers

Package / Unit compact substations

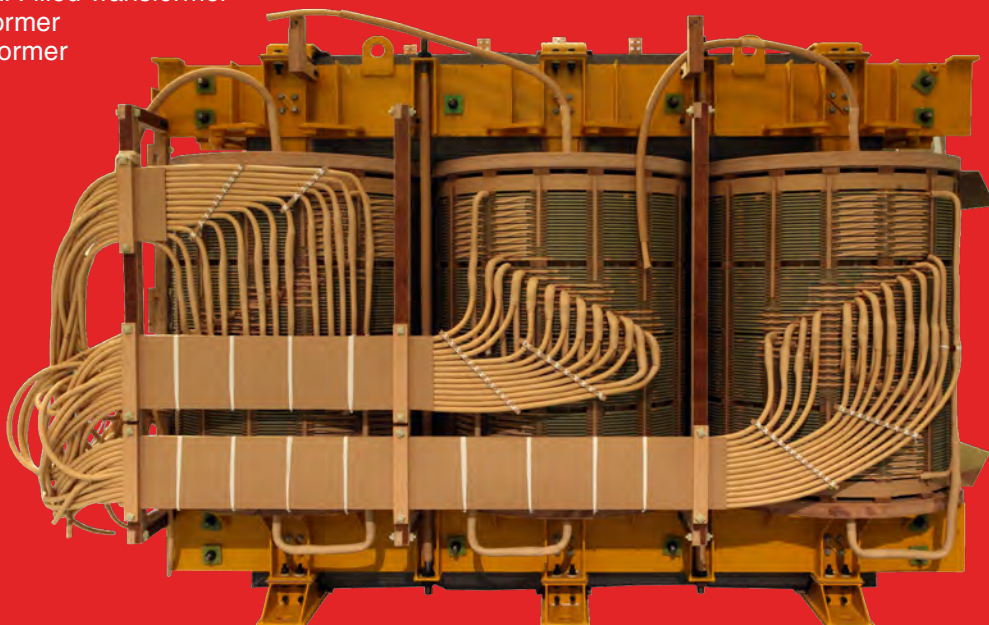
Single-phase oil filled transformers

Earthing transformers

Multi –tap transformers

Industrial application special transformer

Power and pad mounted transformers complying with ANSI standards



STANDARD TECHNICAL CHARACTERISTICS

STANDARD TECHNICAL CHARACTERISTICS	POWER TRANSFORMERS	DISTRIBUTION TRANSFORMERS
CONSTRUCTION TYPE	CONVENTIONAL	HERMETICALLY SEALED/ CONVENTIONAL
RATED POWER	5.0MVA TO 75MVA	100kVA TO 5000kVA
RATED VOLTAGE	UP TO 132kV	UP TO 36kV
NO. OF PHASES	THREE PHASE	THREE PHASE
VECTOR GROUP	Dyn11/ Ynd11	-
RATED FREQUENCY	50Hz or 60Hz	50Hz OR 60Hz
TAPPINGS ON HV	+10% TO -10% IN STEPS OF 1.25%	+5% TO -5% IN STEPS OF 2.5%
TYPE OF COOLING	ONAN OR ONAN/ ONAF	ONAN
STANDARDS	IEC 60076, IEC 60296,BS 2562	IEC 60076, IEC 60296,BS 2562

EUROGULF STANDARD TECHNICAL DETAILS FOR 11kV DISTRIBUTION TRANSFORMERS*

RATING	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (kg)	COOLING TYPE	SOUND LEVEL (db)
100kVA	1050	800	1100	700	ONAN	51
200kVA	1200	900	1200	1100	ONAN	55
250kVA	1300	1000	1300	1500	ONAN	55
500kVA	1500	1150	1450	2000	ONAN	56
1000kVA	1700	1300	1600	3000	ONAN	58
1500kVA	2000	1500	1700	4200	ONAN	60
2000kVA	2300	1750	1800	5100	ONAN	61
2500kVA	2400	1900	1950	6300	ONAN	62

*NOTE: Dimensions and weights are typical and should not be used for design purposes.
For exact dimensions and weights, contact EUROGULF TRANSFORMERS

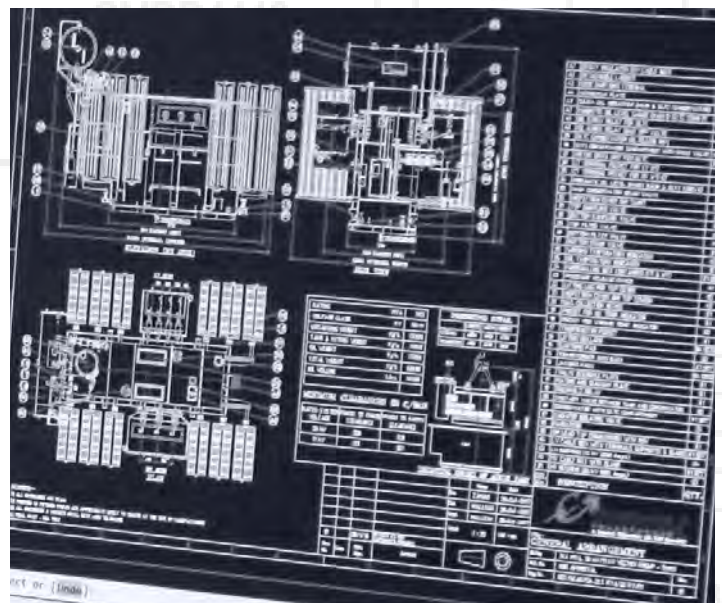
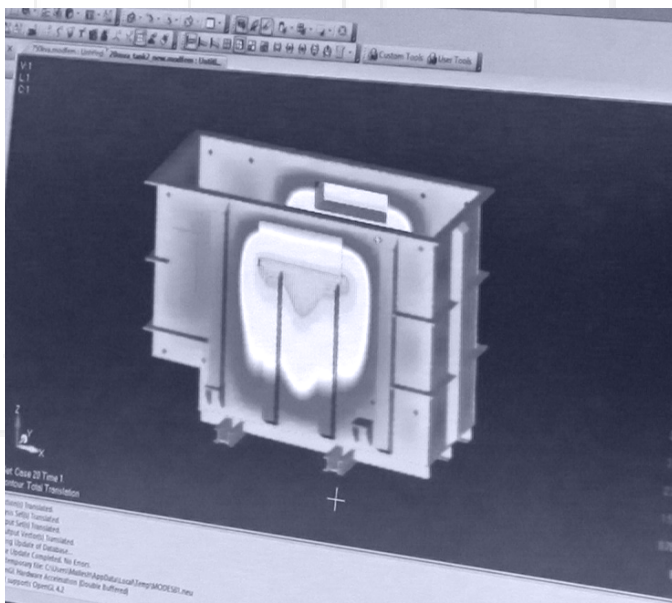
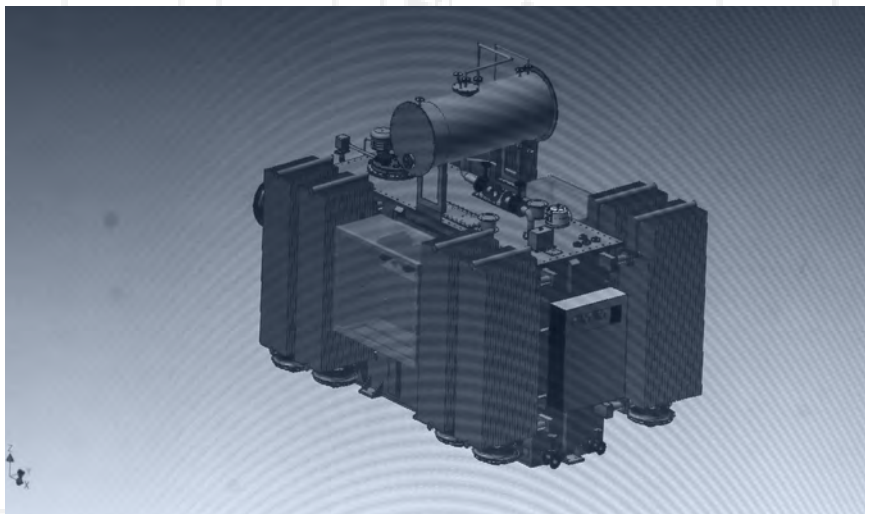


DESIGN & TECHNOLOGY

In order to optimise the electrical and mechanical design of our products, we use software ranging from tender optimisation programs and detailed in house developed programs to sophisticated finite element modelling.

Our mechanical design is completed using 3D solid modelling, structural/thermal analysis of critical components and other linked programs. Design aspects that are addressed include clearances for test voltages, mechanical strength for lifting, short circuit strength, transport and other conditions, vacuum and pressure withstand, transport and site mass, dimension constraints and customer fitting requirements.

Design reviews with our engineering team can be performed at either our manufacturing facilities or our customer's offices.



MANUFACTURING PROCESS

EUROGULF Transformers are manufactured with high quality standard materials imported from renowned suppliers from the industry. We adopt one of the best manufacturing processes in the transformer industry.

WINDING

- Automatic CNC Machine for winding
- Foil winding for low voltage
- PICC for high voltage windings
- Bunch of CIC for power.



CORE ASSEMBLY

- Cut core laminations are stacked together in a step lap pattern to reduce the losses, excitation current and noise.



CORE COIL ASSEMBLY

- Core Coil Assembly and Tap changer connection are made prior to the drying process
- Ratio, magnetic process and vector group is checked
- Scrambled it to make a type specimen book.



VACUUM DRYING

- Core Coil Assemblies are dried under vacuum to remove moisture
- Over for drying active part is computerized and can cater up to 132kV class
- The type of kV class is selected at menu
- The process is automatic
- After the completion of the process the CCA is taken for tanking process, scrambled it to make a type specimen book.



TANK CONSTRUCTION

- Tanks are fabricated with mild steel
- The welds are leak free and as per SA 2½ all tanks are checked by ultraviolet ray dye penetrant test to ensure zero leakage.



BLASTING & PAINTING

- Shot blasting process removes mill and welding scale
- A Zinc-rich primer coat is applied immediate after short blasting to eliminate rust formation
- After the first coat is dried, a second coat is applied
- Painting is done by spray painting process.



TANKING & FINAL ASSEMBLY

- Transformers are filled with filtered transformer oil under vacuum to the required level
- After the tanking process, testing is done to ensure transformers are leak free





TESTING

We have a modern and efficient test room equipped with high precision equipment calibrated to meet the requirement of IEC 60076, IEEE, BS, IS and NEMA standards to conduct routine, type and special tests according to customer requirements, the national and international standards and company procedures.

ROUTINE TESTS

- Measurement of Voltage Ratio & Check of Vector Group
- Measurement of Winding Resistances
- Measurement of Insulation Resistance and PI Value
- Magnetic Circuit Insulation Test
- Test on Transformer Oil (BDV only)
- Separate Source Voltage Withstand Test
- Induced Overvoltage Withstand Test
- Measurement of No- Load Losses & No – Load Current
- Measurement of Load Loss & Impedance Voltage
- Calculation of Efficiency and Regulation at different load and power factor
- Oil leakage Test on Assembled Transformer
- Dimensional and control panel Checks
- Test on OLTC where applicable
- CT Ratio and Polarity check

TYPE TESTS & SPECIAL TESTS

- Temperature Rise Test
- Lightning Impulse Voltage Withstand Test
- Measurement of Zero Phase Sequence Impedance
- Chopped Wave Lightning Impulse Test
- Magnetic Balance Test and Measurement of Magnetizing Current
- Capacitance and Tank Measurement
- Measurement of current Harmonics
- Acoustic Sound level measurement
- Measurement of Auxiliary losses etc.

AUTOMATION OF TEST LAB

In 2015 the test lab of Eurogulf has being made fully automatic by coupling the latest instruments with a software reducing the testing cycle time. As a result the test engineer doesn't requires to note down any readings manually, all values appearing on the instrument screen are captured in the software and at the end of all test reports are generated.





CONSTRUCTIONAL FEATURES

EUROGULF transformers are fully compliant with International standards IEC -60076 and customer specification. A wide range of transformers are designed, manufactured and supplied to utility networks, Industrial, commercial, power generation and mining applications. EUROGULF transformers are manufactured in accordance with the international quality standards ISO 9001 and ISO 140001. Our transformers have been type tested according to IEC at the world-renowned testing laboratories, KEMA Netherlands, CESI Italy.

MAGNETIC CORE

The magnetic core is made of high quality, Cold Rolled Grain Oriented (CRGO) silicon steel laminations. Conventional Cold Rolled Grain Oriented (CRGO) silicon steel is used for transformers with normal no-load loss characteristics, while transformers with reduced no-load losses are often built using higher-quality HiB steel, usually domain-refined (e.g. laser treated). These steel sheets are 0.23 to 0.35mm thick. Laminations are stacked together in a step-lap pattern to achieve low no load loss and low sound levels.

The core is clamped using wooden beams or structural steel clamps which provide high strength under both static (lifting and clamping) and dynamic (short-circuit) mechanical loads.



WINDINGS

The windings are designed to optimize dynamic, thermal, mechanical and electrical stresses, according to the current and voltage requirements.

Low voltage windings of distribution transformers are usually made of high conductivity electrolytic copper or aluminum foil. The benefit of foil is that it compensates any asymmetry in high voltage ampere-turns and reduces the axial forces produced by a short circuit to a minimum. Epoxy diamond dotted paper is used as insulation between layers of low voltage winding. This has a thermo-hardening epoxy adhesive which cures and bonds during drying process.

High voltage windings of distribution transformers are made of paper insulated round or rectangular conductors of copper or aluminum material. They are directly wound on LV winding after providing sufficient LV-HV insulation to form a compact and rigid winding assembly. Epoxy diamond dotted paper is used as insulation between layers of high voltage winding. Tappings are provided in high voltage winding to regulate the output voltage of transformer to required levels.

Generally, windings of power transformers are made of paper-covered copper conductor in the form of individual strips conductor, bunched conductors or continuously transposed cable (CTC) conductors according to design requirement. Winding types are selected by the design engineer, depending upon the specific application. Layer, helical, disc, interleaved disc and shielded windings are available to designers, depending on the voltage and current requirements. Modern Horizontal or Vertical winding machines with fully adjustable mandrels are used in the winding process.





CORE & COIL ASSEMBLY

The windings of distribution transformer are placed over the core limbs then assembled with upper yoke and necessary connections are made as per the tapplings and vector group. All leads and conductors are rigidly supported by special clamping arrangements.

In case of power transformers, the individual windings are assembled one over the other to form the entire phase coil assembly. The radial gaps between the windings are subdivided by means of solid press board barriers. Stress rings and angle rings are placed on top and bottom of the windings to achieve a contoured end insulation design for optimal control of the oil gaps and creepage stresses.

The complete phase assemblies are then carefully lowered over the separate core legs and solidly packed towards the core to assure optimal short circuit capability.

The top core yoke is then repacked and the complete core and coil assembly is clamped.

All winding connections and tap lead connections to the tap changer(s) are made before drying the complete core and coil assembly.



DRYING PROCESS OF CORE & COIL

The core and coil assembly is dried in vacuum drying oven for a specified time to remove moisture from insulating material like pressboard, paper, wood, insulating tape etc. The drying time-period depends on quantity of insulating material, thereby which depends on transformer rating and voltage class of transformer.





TANK

Transformer tank is made of low carbon steel. The vast majority of distribution transformer tanks are constructed with corrugated fins. The purpose of corrugated fins is to increase the available contact surface for the cooling air. However, in hermetically sealed designs the corrugated fin design also enables a degree of flexibility which is needed to accommodate the expansion and contraction of the liquid as it heats and cools, due to load and ambient temperature. This allows the tank to be totally filled (and hermetically sealed), with the clear benefit of prolonging the transformer's service life expectancy and reducing maintenance. Distribution transformer tank can also be manufactured with Radiators and conservator as per customer requirement.

After welding, the tank is shot-blasted to remove any surface impurities, leaving a clean prepared surface for maximum adhesion of the paint coating. Air-drying paint is then applied by spraying to protect against corrosion.

In the case of power transformers, the tank of a transformer is a closed structure which is made by steel plates. Stiffeners are usually provided on all the sides and also on the top cover of the tank to reduce stresses and deflections in plates under various types of loads.

Facilities for lifting, jacking and pulling are provided on each transformer tank. Hand holes and manholes are placed for

easy access to interior components such as de-energized tap switches and bushing connections. Tank bases are either flat or have structural members which allow skidding of the transformer in two directions, as required by the specification. The transformer can be designed with a welded or a bolted cover or as a bell type tank.

All metal parts are grit-blast cleaned to remove weld splatter, mill scale and oxides, providing an excellent surface for the adherence of the primer and paint. The inside of the tank is painted with a yellow/ white oil-resistant paint to create good visibility during internal inspection.

The conservator oil preservation system uses an expansion tank to and from which the transformer oil may flow freely as it expands or contracts due to oil temperature changes. This system always provides a head of oil above the main tank and keeps it completely filled. An oil level gauge is mounted on the conservator and indicates the change in liquid level.

All metal parts are extensively tested on oil tightness via penetrant and pressure test at the tank manufacturer and with an extra 24 hours leakage test after complete assembly.



FITTINGS & ACCESSORIES

Off circuit tap changer / On load tap changer (optional)

HV Bushings

LV Bushings

Oil filling plug /valve

Oil drain valve

Oil filter valve

Oil sampling valve

Magnetic oil level gauge

Pressure relief device

Oil temperature indicator

Winding temperature indicator (optional)

Buchholz Relay

DGPT Relay (optional)

DMCR Relay

Breather

Terminal box/ Marshalling box (optional)

Lifting lugs

Earthing terminals

Conservator

Corrugations/ Radiators

Rating plate

Other accessories are provided on request.



TRANSFORMER FLUIDS

Usually transformers are filled with high quality mineral oil as per IEC 60296. It acts as a coolant and an insulating medium. For special applications, transformers are filled with silicone oil, MIDEI or synthetic organic esters.

COOLING

Distribution transformers are commonly cooled with corrugated fins and power transformer are cooled with detachable radiators/. The radiators are fitted to transformer tank through butterfly valves. In large power transformer radiators are placed as separate cooler banks with cooling fans. Each radiator is equipped with oil filling plug, oil drain plug and lifting lug. Based on customer requirement we built power transformers with ONAN, ONAN/ONAF, OFAF and ODAF cooling arrangement.





TRANSFORMER ASSESSMENT

For a safe and reliable operation of transformers, preventive maintenance is a must. This detects problems at an early stage and can prevent further deterioration. We have extensive transformer design and site operation experience enabling us to accurately assess a transformer's condition both pre and post failure.

No one can precisely answer when equipment will fail, but it's essential to manage the risk. Whether evaluating an individual unit or a fleet of transformers, assessment is complex and requires experienced engineers and technicians using numerous evaluation criteria to establish transformer health or end-of-life. We leverage the resources of our extensive knowledge and experienced team of engineers to deliver the highest level of consulting services and knowledge-based solutions.

Transformer condition assessment services from EUROGULF provide a solid foundation for effective maintenance programs based on industry best

practices. These assessments can be conducted in the field or in either of our world class facilities, depending on the size of transformer being assessed and the location of the subject transformer.

Typical transformer assessment services include:

- Condition assessment in the field
- Oil sampling and testing in conjunction
- Specialist transformer testing using the latest equipment
- Site failure investigation (field or factory)

UPGRADE, REPAIR & REFURBISHMENT

EUROGULF offers a full maintenance solution for oil filled and dry transformers. We offer services for distribution and power transformers. To determine the maintenance need of your transformer(s), Maintenance Partners offers an assessment that consists of visual inspections, oil sampling, thermography and electrical measurements.

Transformers are low maintenance, but not free of maintenance. We are well equipped to respond to the full range of transformer upgrade, maintenance and repair requirements. With the quality of our fluid processing and vacuum equipment and a fleet that includes purpose-built test vans with specialist test equipment.

We are very experienced in working with power transformers of any make or age, including upgrade, repair & refurbishment works at site or in factory. This work often involves undertaking projects in very tight time-frames in order to reduce the impact on the customer.

Typical upgrade, repair & refurbishment services include:

- Factory based repairs, refurbishments and rating upgrades
- Specialist provider of major and minor on-site repair and refurbishment services
- Supply and install systems for oil preservation and passive on-line moisture management
- Design and install replacement or upgraded wiring and control systems



OIL SAMPLING, ANALYTICS & DIAGNOSTICS

By sampling and analyzing the dielectric fluid, the presence of contaminants can be detected and appropriate preventative actions initiated. The Oil and Gas Analysis remains a critical component of the condition assessment of the transformer. We offer a comprehensive sampling, analysis and diagnostic service for all types of transformers, on-load tap changers and circuit breakers.

The three main factors which can affect the health of the transformers are the paper, which is used for conductor insulation, the pressboard which is used for the major insulation and winding support and the insulating oil.

With age, water and contaminants (air or gas bubbles, particles of different origin, oxygen, and oil ageing) dissolve in the dielectric fluid of the transformer increasing the risk of failures or accelerating ageing of the insulation system, thus reducing the technical life. The level of possible contamination of the insulating oil over the years depends on its design, especially on the effectiveness of the oil preservation system, and sources of contamination.

All fluid samples are taken by skilled technicians and are free from contamination to ensure that the integrity of the samples are not compromised. The samples are then sent for Analytical Services, for comprehensive analysis and diagnosis.

EUROGULF technicians also specialise in taking paper and pressboard samples from accessible locations within transformers to test the paper condition which is one indication of the remaining life of the cellulose insulating systems. Our technicians re-paper leads from sample locations.

SITE INSTALLATION & TESTING

Power transformer installation and pre-commissioning testing is predominantly undertaken by our highly skilled installation teams utilising specialised processing and latest test equipment.

For remote areas or transformer sites around the world, we will usually send a site supervisor to ensure the stringent systems for product assembly are followed using suitable equipment. EUROGULF has extensive experience in the region and understand the latest legislation and non-legislated requirements.

Typical installation and pre-commissioning services include:

- Pre-delivery site audit and preparation of transport and off-loading plans, identifying any special or technical requirements
- Preparation and review of safety documentation including transport & offloading plans
- Preparation of safe work method statements, including pre-start meeting requirements
- Implementation of agreed work schedule and time-line
- Assembly plans including transformer processing requirements
- Site Testing and functional checks to confirm factory acceptance test results and the transformer's condition following transport and assembly.
- Practical completion of site audit with the customer's representative and sign off



CLIENTS & PROJECTS

EUROGULF supports all the major electricity providers and heavy electricity user sectors. Our transformers are designed and manufactured to meet our customer's technical and commercial specifications, as well as Safety, Environmental and other compliance standards. Our transformer products and solutions are high quality, fit for purpose and built to last.



5MW POWERPLANT AT FOB FOR DWYER (AFGHANISTAN)



FUJAIRAH OIL TERMINAL (UAE)



MOBILE PACKAGE SUBSTATION 33 kV / FEWA



A WIDE RANGE OF PROJECTS

We have a proven track record of supplying a wide range of transformers across the different sectors within the power industry to our local and global customers.

PROJECT NAME	PROJECT LOCATION	RATING/ VOLTAGE RATIO
Tayseer Early Development/ PDO	Oman	1750 KVA, 6.6/0.415 kV
Ajman City Center Expansion / FEWA	U.A.E	2000 KVA, 11/0.433 kV 1500 KVA, 11/0.433 kV
Sharjah Investment Center / SEWA	U.A.E	15MVA, 33/11 kV 500 KVA, 11/0.415 kV
Mazoon Tender no. 1 / DCRP	Oman	1000 KVA, 11/0.433 kV
FEWA Tender no. 54E/2014 - Mobile Package Substation 33 kV / FEWA	U.A.E	15MVA, 33/11 kV
Juraina Mall / SEWA	U.A.E	20MVA, 33/11 kV 500 KVA, 11/0.415 kV
DUSUP 15-5115 Replacement of Power Transformers at Margham Plant	U.A.E	1000 KVA, 3.3/0.4 kV 750 KVA, 3.3/0.4 kV 300 KVA, 3.3/0.4 kV
Tilal City Project / SEWA	U.A.E	1500 KVA, 11/0.415 kV 1000 KVA, 11/0.415 kV
FEWA Tender no. 90E / 2016 - Supply of Distribution Transformers	U.A.E	500 KVA, 11/0.433 kV
FEWA Tender no. 74E/2015 - Supply of Distribution Transformers	U.A.E	500 KVA, 11/0.433 kV 1500 KVA, 11/0.433 kV 2000 KVA, 11/0.433 kV
132 kV S/S Star 1&2 / SEWA	U.A.E	15MVA, 33/11 kV 500 KVA, 11/0.415 kV
Emirates Stone / SEWA	U.A.E	500 KVA, 11/0.415 kV 1500 KVA, 11/0.415 kV 20MVA, 33/11 kV
New Visitor Center and Plaza at Sheikh Zayed Mosque /ADWEA	U.A.E	1000 KVA, 11/0.415 kV
Transformer Supply for KCML Cement Manufacturing Ltd.	Iraq	3150 KVA, 6.6/0.415 kV 2500 KVA, 6.6/0.415 kV
Barakah Nuclear Power Plant, Abu Dhabi / ADWEA	U.A.E	1500 KVA, 11/0.415 kV 1000 KVA, 11/0.415 kV
VVIP Terminal at Al Ain International Airport / Ministry of Presidential Affairs	U.A.E	1500 KVA, 11/0.415 kV
YTML Karachi for Power House	Pakistan	1500 KVA, 11/0.415 kV
5 MW Power Plant at FOB DWYER	Afghanistan	3150 KVA, 0.48/13.8 kV
Supply of Distribution and Earthing Transformer to Energy Power Systems	Australia	3000 KVA, 0.415/11 kV 200 KVA, 11/0.415 kV 200 A Earthing Transformer
Supply of Distribution Transformer to Somalia	Somalia	2000 KVA, 11/0.415 kV 1000 KVA, 11/0.415 kV 315 KVA, 11/0.415 kV 200 KVA, 11/0.415 kV 100 KVA, 11/0.415 kV
Fujairah Oil Terminal / FEWA	U.A.E	1600 KVA, 6.6/0.420 kV
Bauxite Mine Infrastructure & Utilities Project/ Ma'aden	Saudi Arabia	500 KVA, 13.8/0.48 kV 1000 KVA, 4.16/0.4 kV 1000 KVA, 4.16/0.48 kV 2500 KVA, 4.16/13.8 kV 2500 KVA, 4.16/0.48 kV 2000 KVA, 13.8/0.4 kV 3000 KVA, 4.16/0.48 kV
New Runway at 250m Separation Civil Works and Airside Systems, Sharjah International Airport Project / SEWA	U.A.E	2000 KVA, 11/3.45 kV 1000 KVA, 11/0.415 kV 250 KVA, 0.415/11 kV 50 KVA, 11/0.415 kV
Wael Pharmacy / EDD	Bahrain	1500 KVA, 11/0.415 kV
Water Supply to ADCO and GASCO facilities at Buhasa & Habshan/ ADWEA	U.A.E	1500 KVA, 11/0.415 kV
Supply of Power Transformers to Al Jazira Petroleum	Yemen	18MVA, 33/11 kV 7MVA, 33/11 kV
Amwaj Wave Phase 1 / EDD	Bahrain	1500 KVA, 11/0.415 kV 1000 KVA, 11/0.415 kV
Supply of Power Transformers / UPPTCL	India	40MVA, 132/33 kV
Amwaj Wave Phase 1 / EDD	Bahrain	1500 KVA, 11/0.415 kV 1000 KVA, 11/0.415 kV
Supply of Distribution Transformers in Ghana	Ghana	315 KVA, 0.433/11 kV 800 KVA, 0.433/11 kV 500 KVA, 0.433/11 kV



STANDARDS & COMPLIANCE

We have an enviable reputation for quality and reliability and we will do whatever it takes to protect this long standing reputation. We operate under very strict Quality, Health and Safety, and Environmental Management Systems with all our products being designed, manufactured and/or tested to Regional or International Standards.

QUALITY MANAGEMENT SYSTEMS

We have been certified to ISO 9001:2015 Quality Management Systems since 2007. Our Quality Management System is integral to all areas of our business, including design reviews, use of approved materials, equipment specification, process controls, procedures, and standard work instructions. Internal and external audits, performance assessment and reviews are a regular part of our Quality Management System.





HEALTH & SAFETY MANAGEMENT SYSTEMS

Everyday, our goal is to ensure that all employees, contractors and visitors go home safely at the end of their working day. We comply with the relevant and current Health and Safety legislation and industry standards and are certified to ISO 14001:2004 and OHSAS 18001:2007 in addition to the ISO 9001:2015 certification mentioned above. Our processes are proactively reviewed to eliminate and minimise risks.

THE EUROGULF HSE POLICY

Eurogulf Transformer is strongly committed to providing a safe and healthy place for its employees, customers and other stakeholders; and protecting the environment and natural resources.

- Ensure that everyone understands our policy on Environmental and Health & Safety.
- Include a commitment to prevention of injury and ill health and continuous improvement in EMS and OHSAS management and performance.
- Provide adequate control of Environmental and Health & Safety risks arising from our work activities.
- Consult with Employees on all matters of Environmental and Health & Safety.
- Provide and maintain safety at work and equipment.
- Ensure safe handling of chemicals and substances.
- Ensure that an employee and others acting on behalf of the company are competent to do their tasks, by providing adequate instruction, training, information and supervision.
- Ensure Compliances with relevant legal requirements as minimum standard.
- Regularly review the system to identify strengths and areas of improvement.
- Improve operational performances leading to prevention of pollution in air, water and land.
- Enforce firmly and aggressively Environment, Health & Safety (EHS) program through line superiors to prevent injury and ill health.
- Ensure that all wastes are disposed by of by a fully authorized wastes disposal contractor.
- Brief the staff on matters related to the environment, which may be affected by the works.

CESI

Copy No. 1

Certificate No.

B7010327

Type Test Certificate

of Short-Circuit Performance

Test object: Three phase test windings of interest power transformer 20 / 25 MVA, 33 / 11 kV
Designation: Power Transformer

Manufacturer: Elmagraf Transformer FZE, Hamrah Free Zone PO BOX 42123
Sharjah-United Arab Emirates

Tested for: From March 12, 2017 to July 04, 2017
(Date/s) of tests

Tested by: CESI S.p.A.
Via Belfortino 54
20134 Milano, Italy

The test object, constructed in accordance with the description, drawings and photographs incorporated in this document has been subjected to the series of proving tests in accordance with STL Guides and

IEC 60075-5 (2009)
Clause 4.2

This Type Test Certificate has been issued by CESI in compliance with the IEC 61850.

The results are those of successful proving tests and all acceptance proof tests. The values obtained and the general test performance are considered to be valid for the stated description of the type. The results reported by the signatories are the responsibility of the signatories and not the responsibility of the manufacturer.

The Certificate expires, 5 years later.

August 09, 2017

Date of issue: August 09, 2017
STL Member Laboratory

August 09, 2017
STL Member

Following the successful tests (CECIS), a certificate of compliance with the requirements of the IEC 60075-5 (2009) has been issued. The certificate is valid for the stated description of the type. The results reported by the signatories are the responsibility of the signatories and not the responsibility of the manufacturer.

測思
ELECTRIC SYSTEMS
TESTING

TYPE TEST CERTIFICATE (TTC)

TTC Form 1.0.1

CESI

TYPE TEST CERTIFICATE

APPARATUS: 00000001

DATE: 10/05/2012

TIME: 10:00

TESTER: [Signature]

Type Test Certificate of: Short circuit performance

Apparatus: Oil-immersed power transformer

Designation: T21

Standard: IEC 60076-5 Min. Rated voltage: 230 kV, Rated frequency: 50 Hz

Manufacturer: Enagrel Transformers E2E - Sharjah U.A.E.

Client: Enagrel Transformers E2E - Sharjah U.A.E.

Tested by: CESI S.p.A. Milan, ITALY

Test date: from November 24, 2011 to April 18, 2012

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in the reference documents, identified in this Certificate, has been subjected to the series of proving tests in the following cases:

IEC 60076-5 (2008)

The Type Test Certificate has been issued by CESI following exclusively the XI-Series

The results are shown in the record of Proving Tests and the configurations attached in the Test Reports. The results obtained and the general performance are considered to comply with the above Standard and to justify the ratings assigned by the Manufacturer as stated on page No. 3.

The Certificate applies only to the apparatus tested. The responsibility for conformity of any apparatus having the same designations with that tested rests with the Manufacturer.

Only original members of IEC Certificate, or reproduction of this page accompanied by any legal certificate, are allowed to be printed outside of the apparatus tested, or printed without official permission from CESI.

No. of pages: 4

No. of pages annexed:

Issue date: May 4, 2012

Prepared: PPR - Annalisa Gargiulo

Written: T2E - Paolo Frasca, PPR - Valeria Mauro

Approved: PPR - The Manager - Annalisa Gargiulo

CESI S.p.A.
Design & Certification Division
Electrical Engineering - Milan
Italy
Tel: +39 02 5749 1111
Fax: +39 02 5749 1112

CESI - CERTIFICATE OF EQUIVALENCE - 2014

CESI

TYPE TEST CERTIFICATE

Reference: **ESM-001**

Type-Test Certificate of **Short-circuit performance**
 Apparatus **GIS immersed power transformer**
 Designation **7126**

Registered in **ROMA - Autorizzazione 107114 - Rassegna Impianti (MSE)**

Manufacturer **Ensaqul Transformers ESE - Shanghai (U.A.E.)**

Client **Ensaqul Transformers ESE - Shanghai (U.A.E.)**

Issued by **CESI S.p.A. Milan, ITALY**

Valid from **from February 7, 2012** to **April 18, 2012**

The apparatus, constructed in accordance with the designations, drawings and photographic incorporated in the reference documents identified in this Certificate, has been subjected to the series of proving tests in accordance with

(IEC 60076-5 (2000))

This Type-Test Certificate has been issued by CESI following exclusively the ITC Guidelines.

The results are shown in the record of Proving Tests and the certificates attached to the final Report. The values obtained and the general performance are compared to comply with the above Standard(s) and to justify the ratings assigned by the Manufacturer as listed on page 561.3

The Certificate applies only to the apparatus tested. The responsibility for conformity of any apparatus bearing the same designations with that tested rests with the Manufacturer.

Only major modifications in the Certificate or amendments to this page incorporated by any changes will subject the tested or ordered change of the issue also listed, as a certified without further procurement from CESI.

No. of pages **8** No. of pages annexed

Issue date **May 4, 2012**

Prepared **EFER - Armando Giorgio**

Verified **JTS - Pjotr Petrov, PZR - Yulian Maslov**

Approved **FM - The Manager - Ambrosio Lorenzo**

Model: **2**

CESI back
 Issuing Certificate of Equivalence
 Type-Test Certificate of Design
 "After CESI"
 2012

CESI

ORIGINAL

COPY

COPY

TYPE TEST CERTIFICATE

APPROVED BY

Type Test Certificate of Complete type tests

Apparatus Oil immersed power transformer

Designation T25

Rated power (MVA) Rated voltage (kV) kV Rated frequency (Hz)

Manufacturer European Transformers EE - Shanghai S.A.E.J

Client European Transformers EE - Shanghai S.A.E.J

Tested by CESI S.p.A. Milan, ITALY

Tests date from April 30, 2012 to June 15, 2012

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in the reference documents identified in this Certificate, has been subjected to the series of proving tests in accordance with

(IEC 60076-2 (2011))

IEC 60076-5 (2006), Clause 17

(IEC 60076-5 (2006))

This Type Test Certificate has been issued by CESI following exclusively the VDI Standard

the results are shown in the report of Proving Test and the colligations attached in the Test Reports. The values obtained and the proved performance are considered to comply with the above Standard and to justify the status assigned by the Manufacturer as stated on page No. 3.

The certificate applies only to the apparatus tested. The responsibility for conformity of any apparatus bearing the same designation with that tested rests with the Manufacturer.

Only original signatures of the President, or representatives of this company, by any means (in any way not limited to the normal setting of the apparatus used, and printed and dated carbon documents) hold valid.

No. of pages: 4

No. of pages annexed

Issue date

June 26, 2012

Prepared

E.T.E., Alessandro Giorgini

Verified

T.M. Pigna Fagnola, P.M. Joseph Daid

Approved

P.M. the Manager Alessandro Giannini

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Via S. Rocco 10
20139 Milano (Italy)
Tel. +39 02 5749 1111
Fax +39 02 5749 1112

Page 1/1

CESI

CERTIFICATO

FEDERAZIONE

ITALIANA

FED

TYPE TEST CERTIFICATE

Model Number: 00000000000000000000

Type Test Certificate of: Complete type tests

Apparatus: Oil immersed power transformer

Designation: F2M

Rated power (MVA): 5000 MVA, Rated voltage (kV AC/100%): 500/550 kV (100%)

Manufacturer: Isotrafag Transformers F2M - Sharjah (U.A.E.)

Client: Isotrafag Transformers F2M - Sharjah (U.A.E.)

Tested by: CESI S.p.A. Milan, Italy

Tests date: from January 18, 2012 to January 25, 2012

The apparatus, submitted to acceptance with the description, drawings and photographs mentioned in the reference documents identified in this Certificate, has been subjected to the series of proving tests in accordance with:

(IEC 60076-3 (2002), clause 13)
 (IEC 60076-5 (2000))
 (IEC 60076-10 (2002))

"This Type Test Certificate has been issued by CESI following exclusively the S41 Guidelines. The results are shown in the report of Proving Tests and the certificate attached to the Test Reports, and the results obtained and the general performances are considered to comply with the above Standards and to justify the ratings assigned by the manufacturer as listed on page No. 3.

The Certificate applies only to the apparatus tested. The responsibility for conformity of any apparatus having the same characteristics with that tested rests with the manufacturer.

Only original reproduction of this Certificate, or reproductions of this type accompanied by any pages on which are stated the original ratings of the apparatus tested, are permitted without written permission from CESI.

No. of pages: 4 No. of pages annexed: 0

Issue date: February 10, 2012

Prepared: PIRELLA, Antonio Giorgio

Verified: PIRELLA, Pichi Francesco PIRELLA, Giovanni Ettore

Approved: PIRELLA, The Manager ANTONIO GIORGIO

CESI S.p.A.
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 Fax +39 02 57491100
 E-mail: info@cesi.it

00000000000000000000

CERTIFICATE OF CONFORMITY

Form 10/01/12

KEMA 

**Type test Certificate of
complete type tests**

Eurogulf Transformers
Sharjah, United Arab Emirates

has successfully passed the type test sequence on a

distribution transformer

Type: 7030
Rating: 1500 kVA - 11 kV ± 2, 2,5% / 415 V - Dyn11 - 50 Hz

The test object passed the specification of test duties of

IEC 60076

The test results are reported in Certificate No.

TDT 2001-10

This Certificate is issued on 16 April 2010

KEMA Nederland B.V.



P.G.A. Buis
KEMA T&D Testing Services
Managing Director

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Type test Certificate of short-circuit performance

Eurogulf Transformers

FZC,
Sharjah, United Arab Emirates

has successfully passed the type test sequence on a three-phase
distribution transformer

Type: Three-phase distribution transformer
Rating: 1600 kVA - 11 kV $\pm 2 \times 2.5\%$ / 0.433 kV - Dyn11 - 50 Hz

The test object passed the required clauses of

IEC 60076-5

The test results are recorded in Certificate No.

TIC 2090-13

This Certificate is issued on 31 October 2013

KEMA Nederland B.V.

S.J.M. Verhoeven
Director Testing, Inspections & Certification The Netherlands

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1600 kVA, 11/0.433 kV, 50 Hz



Type test Certificate of complete performance

Eurogulf Transformer

FZE,
Sharjah, United Arab Emirates

has successfully passed the type test sequence on a three-phase oil-immersed

distribution transformer

Type: Three-phase oil-immersed distribution transformer
Rating: 1500 kVA - 11 kV $\pm 2 \times 2.5\%$ / 0.433 kV - Dyn11 - 50 Hz

The test object passed the required clauses of

IEC 60076

The test results are recorded in Certificate No.

2119-15

This Certificate is issued on 19 May 2015

KEMA Nederland B.V.

S.J.M. Verhoeven
Director Testing, Inspections & Certification The Netherlands

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1500 kVA, 11/0.415 kV, 50 Hz



Type test Certificate of short-circuit performance

Eurogulf Transformers

FZC,
Sharjah, United Arab Emirates

has successfully passed the type test sequence on a three-phase

distribution transformer

Type: Three-phase distribution transformer
Rating: 1000 kVA - 11 kV $\pm 2 \times 2.5\%$ / 0.433 kV - Dyn11 - 50 Hz

The test object passed the required clauses of

IEC 60076-5

The test results are recorded in Certificate No.

TIC 2090-13

This Certificate is issued on 31 October 2013

KEMA Nederland B.V.

S.J.M. Verhoeven
Director Testing, Inspections & Certification The Netherlands

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1000 kVA, 11/0.433 kV, 50 Hz



Type test Certificate of short-circuit and dielectric performance

Eurogulf Transformers

FZC,
Sharjah, United Arab Emirates

has successfully passed the type test sequence on a three-phase

oil-immersed type distribution transformer

Type: Three-phase distribution transformer
Rating: 500 kVA - 11 (5-3 $\times 2.5\%$) kV / 0.415 kV - Dyn11 - 50 Hz

The test object passed the required clauses of

IEC 60076-3 (2000)

IEC 60076-5 (2006)

The test results are recorded in Certificate No.

TIC 2006-13

This Certificate is issued on 20 February 2013

KEMA Nederland B.V.

S.J.M. Verhoeven
Director Testing, Inspections & Certification The Netherlands

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500 kVA, 11/0.415 kV, 50 Hz



Type test Certificate of complete type tests

Eurogulf Transformers

FZC,
Sharjah, United Arab Emirates

has successfully passed the type test sequence on a three-phase

distribution transformer

Type: Three-phase distribution transformer
Rating: 250 kVA - 11 kV $\pm 2 \times 2.5\%$ / 0.433 kV - Dyn11 - 50 Hz

The test object passed the required clauses of

IEC 60076

The test results are recorded in Certificate No.

TIC 2091-13

This Certificate is issued on 31 October 2013

KEMA Nederland B.V.

S.J.M. Verhoeven
Director Testing, Inspections & Certification The Netherlands

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250 kVA, 11/0.433 kV, 50 Hz



Type test Certificate of complete type tests

Eurogulf Transformers

FZC,
Sharjah, United Arab Emirates

has successfully passed the type test sequence on a three-phase

distribution transformer

Type: Three-phase distribution transformer
Rating: 100 kVA - 11 kV $\pm 2 \times 2.5\%$ / 0.433 kV - Dyn11 - 50 Hz

The test object passed the required clauses of

IEC 60076

The test results are recorded in Certificate No.

TIC 2092-13

This Certificate is issued on 31 October 2013

KEMA Nederland B.V.

S.J.M. Verhoeven
Director Testing, Inspections & Certification The Netherlands

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100 kVA, 11/0.433 kV, 50 Hz

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