



MULTITAP
**STEP UP
TRANSFORMER**

POWERING BENEATH THE EARTH'S SURFACE



Technologies of your victory



Datsan Special Transformers, a seasoned Turkish transformer enterprise, offers diverse services and electrical solutions. Established in 1992, we have garnered trust as a reputable manufacturer, executing numerous projects across sectors like oil & gas, power distribution, marine, and heavy industries. Our products stand out in the market due to the expertise of our highly qualified R&D professionals, ensuring reliability and uniqueness. Employing a tailored approach for every project, Datsan Special Transformers understand and fulfill our Customers' needs with optimal solutions. Over the years, we have consistently delivered victorious technologies to both our valued Customers and Partners.

GENERAL INFORMATION

VALUES



Innovation



Tailoring approaches to individual customers



Creating novel solutions



Upholding superior quality standards



Nurturing a partnership-friendly environment



Maximizing technological effectiveness

MISSION

WE CREATE, KEEP AND TRANSMIT VICTORY TECHNOLOGIES FOR OUR PARTNERS

OUR STANDARDS



POWERING YOUR ARTIFICIAL LIFT SYSTEM FOR QUALITY PERFORMANCE

Datsan Special Transformers Multitap Step Up Transformer a living demonstration of reliability and performance that has gained widespread trust across numerous oil-producing operators globally. Our Multitap Step Up Transformer powering the Electrical Submersible Pumps in oil & Geothermal wells, stands as a cornerstone of success.

Without a doubt, Datsan Special Transformer's Multitap Step Up Transformer stands as the ultimate, cost-effective solution to fulfill your needs, uncompromising on both quality and specifications. Our design team understands the operation complexities of Variable Speed Drives and Harmonics difficulties, making our Multitap Step Up Transformer the perfect match for your system. Backed by a deep understanding of these factors, it guarantees seamless integration and optimal performance.

With Datsan Special Transformer, you're not just investing in a product; you're securing a reliable and efficient solution tailored to your unique requirements. Welcome the future with confidence, as our Multitap Step Up Transformer leads the way in technological excellence.



Ultimate design flexibility

Standard multi-tap transformer designs are available with shorter lead-times, while engineered-to-order designs provide the flexibility for a utility to mate up with any drive and pump/motor combination.



Specifically designed for Electric Submersible Pumps (ESPs)

Because artificial lift operations for oil production can be located up to 20,000 feet below ground and cable fed for power, a voltage drop over this length of cable can be several hundred volts. Multi-tap transformers enable quick and easy adjusting of voltage feeding the pump.



CORE, MAGNETIC CIRCUIT

Silicon sheets which used for production, purchased according to our design. We select our suppliers carefully from core loss guaranteed suppliers category with whom we are ready to build technical cooperation. Our designers are realized according to customer demand and standards with 0.23, 0.27 and 0.33mm thickness (M3, M4, M5) and grain oriented in magnetic field silicon sheets. We generally use core form for magnetic circuit. However we use shell type core form as well by customer request.



WINDINGS

The **low voltage** windings are usually made by flat section electrolytic copper. CTC copper are used for transformers rated power up to 1000kVA. Winding insulation are creating by craft or nomex. Cross section of the wires are calculating by special design softwares to reach higher level of cooling and lowest level of onload losses.

High voltage windings are generally made by enameled covered circular cross-section wire. Winding insulation is realized by craft and other special paper. Winding insulation is one of the most important point for the transformer life. Therefor we prefer best paper manufacturer in the world. Layer insulations made according to DIN 6740. Each coil is testing on after wiring process.



TEST AND QUALITY CONTROL

In Datsan Special Transformers production line we keep the other transformers to routine tests according to IEC 60076 or IEEE C57.12.90. Type and special tests are also available by customer request. They cost borne by the client unless otherwise stated in the contract. Test results are real-time saving to our database and also to our ERP system during the test without the intervention of staff. Encountered problems are real-time evaluating by the software and we may reach source of the error faster than manual check. Our partners and customers may view test reports by our website after request to our technical support department to access online reporting and tracking system.

Routine tests:

- ▶ Measuring of the winding resistance
- ▶ Measuring of the insulation resistance
- ▶ Measuring of the tum ratio
- ▶ Measuring of the short circuit impedance
- ▶ Measuring of the no-load and onload losses
- ▶ Induced voltage test
- ▶ Applied voltage test

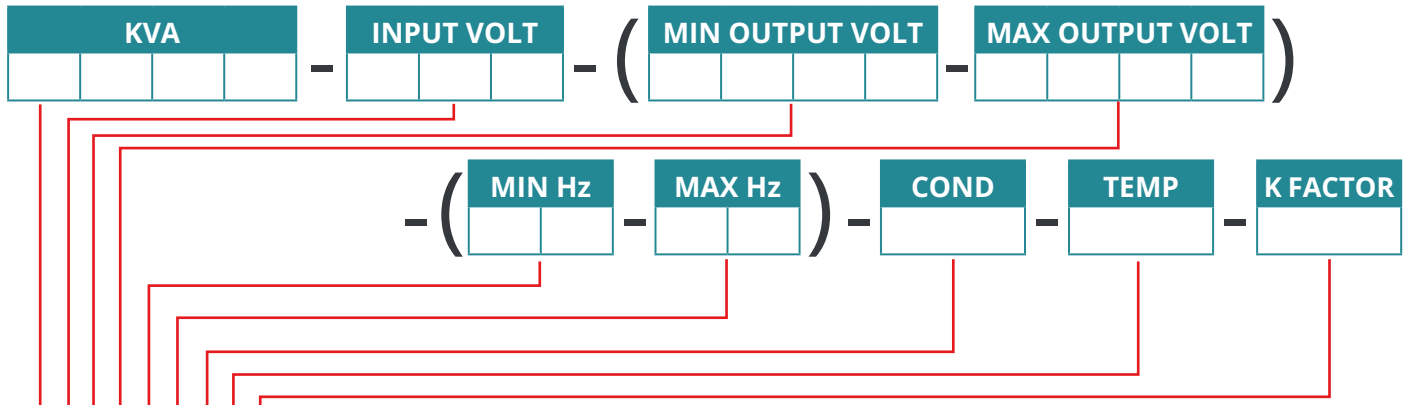
Type tests:

- ▶ Temperature rise test
- ▶ Impulse voltage test
- ▶ Short circuit withstand test

Special tests:

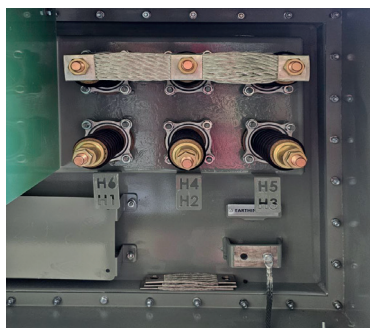
- ▶ Measuring of the noise level
- ▶ Measuring of the zero sequence impedance

CUSTOMIZE YOUR TRANSFORMER

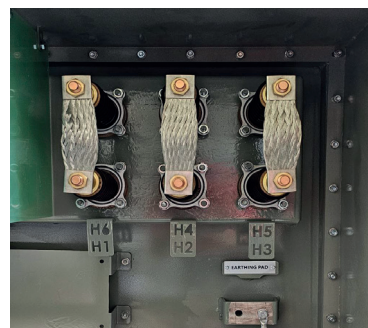


KVA	select any KVA from 10kVA to 3000kVA
INPUT VOLT	select any input voltage as per you system requirement
MIN OUTPUT VOLT	select the minimum voltage tap of the output winding
MAX OUTPUT VOLT	select the maximum voltage tap of the output winding
MIN Hz	select minimum VSD operating frequency
MAX Hz	select maximum VSD operating frequency
COND	select the winding conductor copper or aluminum
TEMP	specify the max. operation ambient temperature
K FACTOR	K factor 1, 4, 9, 13, 20
SPECIFY PROTECTION DEGREE	NEMA 1 / NEMA 3R / NEMA 4 / NEMA 4X / NEMA 4X SS
TANK MATERIAL	carbon steel / stainless steel / galvanized
COOLING SYSTEM	fins / welded radiators / radiators with valve
COLOUR	As per customer request

DATSAN SPECIAL TRANSFORMERS offers the flexibility you need for your ESP's voltage requirements. Customize your Multitap Step Up Transformer within a wide voltage range, from minimum to maximum operating voltage. With dual tap changers and a choice of Delta or Star output winding, you can easily achieve the precise motor voltage required for your application.



Star winding connection



Delta winding connection

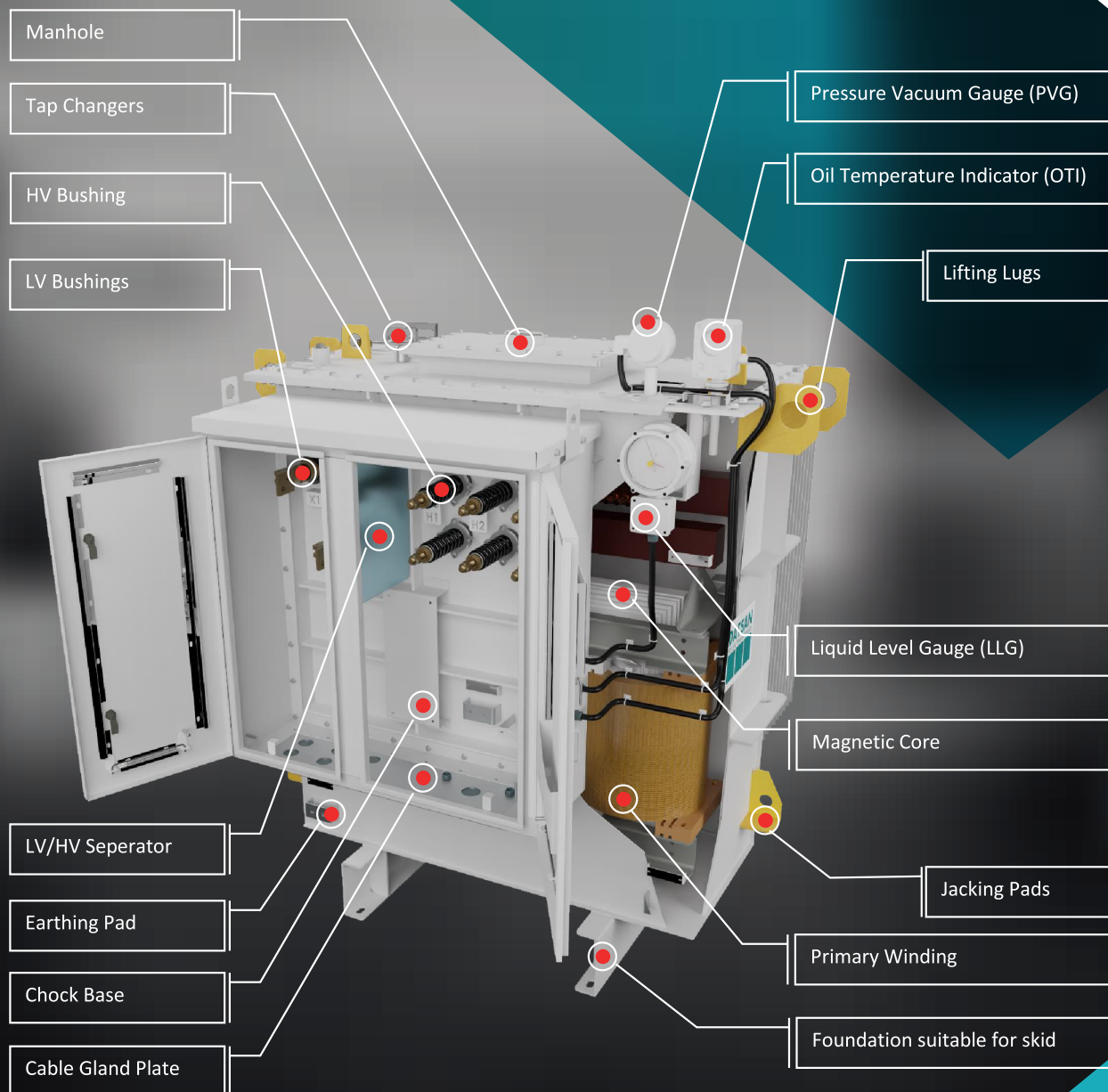
A CLOSEUP CONSTRUCTION DETAILS

STAINLESS
STEEL TANK

RADIATORS
WITH VALVES

CONTROL
BOX

CONSERVATOR



ACCESSORIES

OIL TEMPERATURE GAUGE
WITH/WITHOUT CONTACTS



WINDING TEMPERATURE GAUGE
WITH/WITHOUT CONTACTS



OIL LEVEL GAUGE
WITH/WITHOUT CONTACTS



PRESSURE VACUUM GAUGE
WITH/WITHOUT CONTACTS



PRESSURE RELIEVE VALVE



OIL FILLING PLUG



OIL DRAIN VALVE



SURGE ARRESTOR



SILICA GEL BREATHER







LIFTING JACK



Please contact with our team for any special accessories or requirements.



AFTER SALES SERVICE

- 01**

Worldwide reach through Regional Service Centers across continents.
- 02**

Round-the-clock service and advisory support
- 03**

Leverage DATSAN portal for Service, NCR, and warranty assistance
- 04**

Rely on our experienced team for top-notch application services

Have you ever experienced a problem while working on a platform that needs an urgent solution? You call technical support, but it's late or early and no one answers. Such situation is never going to happen while working with Datsan Special Transformers support. We are at your service 24/7 all around the world. Moreover, no language barrier ever rises between understanding the problem and solving it right away.

Datsan Special Transformers with Partners all around the world provides a highly professional multilanguage support. If there's no answer during 3 hours, you can easily claim a free of charge transformer repair.

Got a problem? Call us, you're never alone.

AFTER SALES SERVICE

- 
ADVICE
- 
HELP
- 
SUPPORT
- 
SATISFACTION
- 
MAINTENANCE
- 
QUALITY
- 
GUARANTEE
- 
CUSTOMER



TECHNOLOGIES OF
YOUR VICTORY

THE HEART OF OIL INDUSTRY

What makes a good manufacturer? Product quality? Sure! Efficient important is still the experience and knowledge.

Whirling dynamics of industrial world can bring many challenges, and Datsan Special Transformers accepts them with its versatile and vast experience being born in in tre heart of oil industry.

We manufacture our products for such influential regions as Middle East, Iraq, Azerbaijan and Kazakhstan, Russia and Asia.

Offshore oil & gas market is no news for us. Its requirements and our experience build a strong tandem for successful production. We already implemented several hundred pieces of equipment for offshore platforms with various technical solutions - offshore application with SS316l / hot dip galvanizing and special merine-grade coating.

We never stop to gain new experience in different industry sectors to implement our high-tech solutions
We provide a time-proved solutions, because we know how it's done



DATSAN
SPECIAL TRANSFORMERS

TECHNOLOGIES OF
YOUR VICTORY



**WE ARE GLOBALLY
PETROLEUM CERTIFIED**



What qualities must a reliable manufacturer have? Product quality and efficiency, safety? Sure. But the best choice to deal with is an internationally petroleum certified manufacturer.



Datsan Special Transformers proudly owns **TSE ISO/TS 29001:2013** - the Petroleum and Natural Gas Industries Sector-Specific Quality Management System Certificate.

DATSANST.COM

DATSAN
SPECIAL TRANSFORMERS



CONTACT US



www.datsanst.com



+90-482-215 3188



Kiziltepe Mardin Karayolu
6km 47400 Turkey



info@datsanst.com.tr