

RELIABLE TRANSFORMERS

for Renewable Energy



GSU PAD MOUNT TRANSFORMERS



VIRGINIA TRANSFORMER CORP

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GSU TRANSFORMERS

IT'S IN THE DESIGN! – IT'S WHAT'S INSIDE THAT COUNTS

THE PROBLEM:

- SOLID STATE CONVERTER/INVERTERS IN TYPE 3 AND 4 TURBINES PRODUCE CURRENT AND VOLTAGE HARMONICS
- 5-LEGGED AND WOUND CORE DESIGN S MOST SUSEPTABLE TO HARMONICS AND GASSING
- THESE HARMONICS CAUSE LOCALIZED HEATING IN THE CORE AND COIL – LEADING TO GASSING AND ACCELERATED INSULATION AGING
 - GASSING ----- LOSS OF LIFE
 - DEGASSING ----- LOSS OF REVENUE
- DESIGN CONSTRUCTION - 3 - LEGGED CORE, RECTIFIER TYPE DESIGN MITIGATES HEATING, GASSING, AND PARTIAL DISCHARGE
- CORE FLUX DENSITY DESIGNS MINIMIZE HARMONICS AND HOT SPOTS
- ELECTROSTATIC SHIELDS – PREVENT CAPACITIVELY (COUPLED TRANSFER OF HIGH FREQUENCY HARMONICS FROM ONE WINDING TO ANOTHER)

THE SOLUTION:

- 30 YEARS EXPERIENCE IN RECTIFIER TRANSFORMER DESIGN
- RECTIFIER DUTY DESIGN MITIGATES HARMONIC HEATING AND GASSING
- 3 - LEGGED DESIGN OVERCOMES GASSING
- ELECTROSTATIC SHIELDS PREVENT COUPLED TRANSFER OF HARMONICS IN WINDING
- 3 YEAR WARRANTY, INCLUDING GASSING

RELIABLE GSU TRANSFORMER FOR RELIABLE POWER





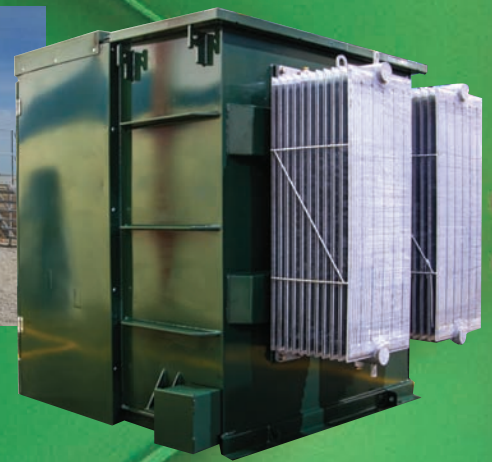
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VALUE - TECHNOLOGY - CONSTRUCTION



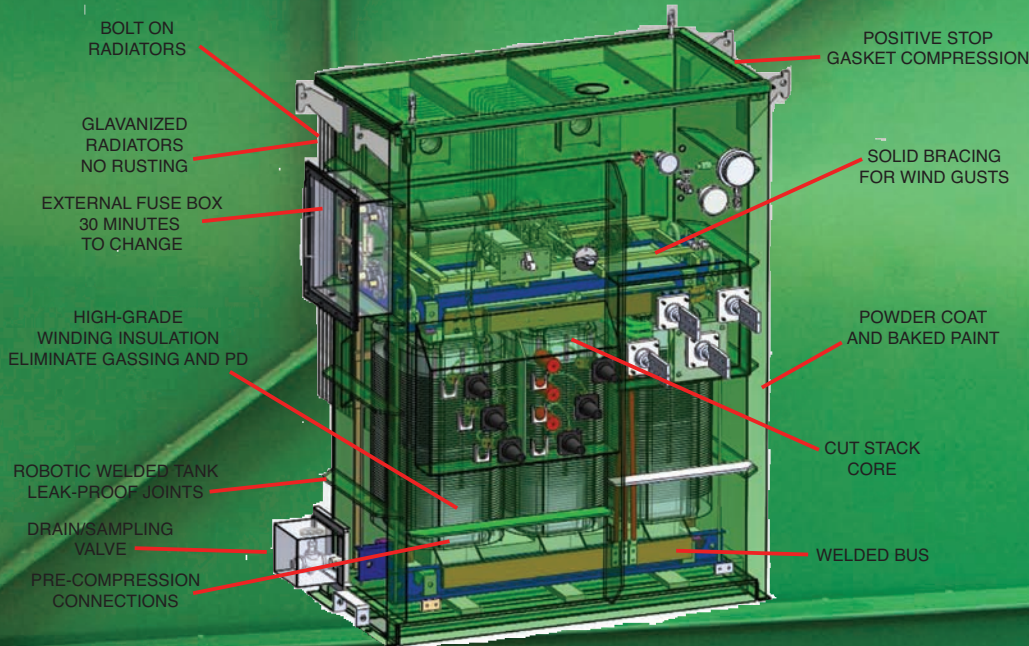
RELIABILITY BUILT THROUGH INNOVATIVE TECHNOLOGY

- INSULATION DESIGN; NO HOT SPOTS
- PRECOMPRESSION CONNECTORS - NO ARCING
- CLAMPED COILS - NO SHORT CIRCUIT FAILURES
- AUTOMATED CORE CUTTING - NO BURRS
- PLC CONTROLLED WINDINGS - NO LOOSE COILS
- EXTERNAL WEAK LINK FUSE BOX - NO DOWNTIME OR OIL CONTAMINATION
- GALVANIZED RADIATORS - NO RUST - NO OIL LEAKS
- ROBOTIC WELDING - NO JOINT LEAKS



25 YEAR LIFE PROTECTED BY PATENTS

IT'S WHAT'S INSIDE THAT COUNTS





Do Not Operate When Trapped

LOAD BREAK SWITCH



H1A



H1B



H2A



H2B

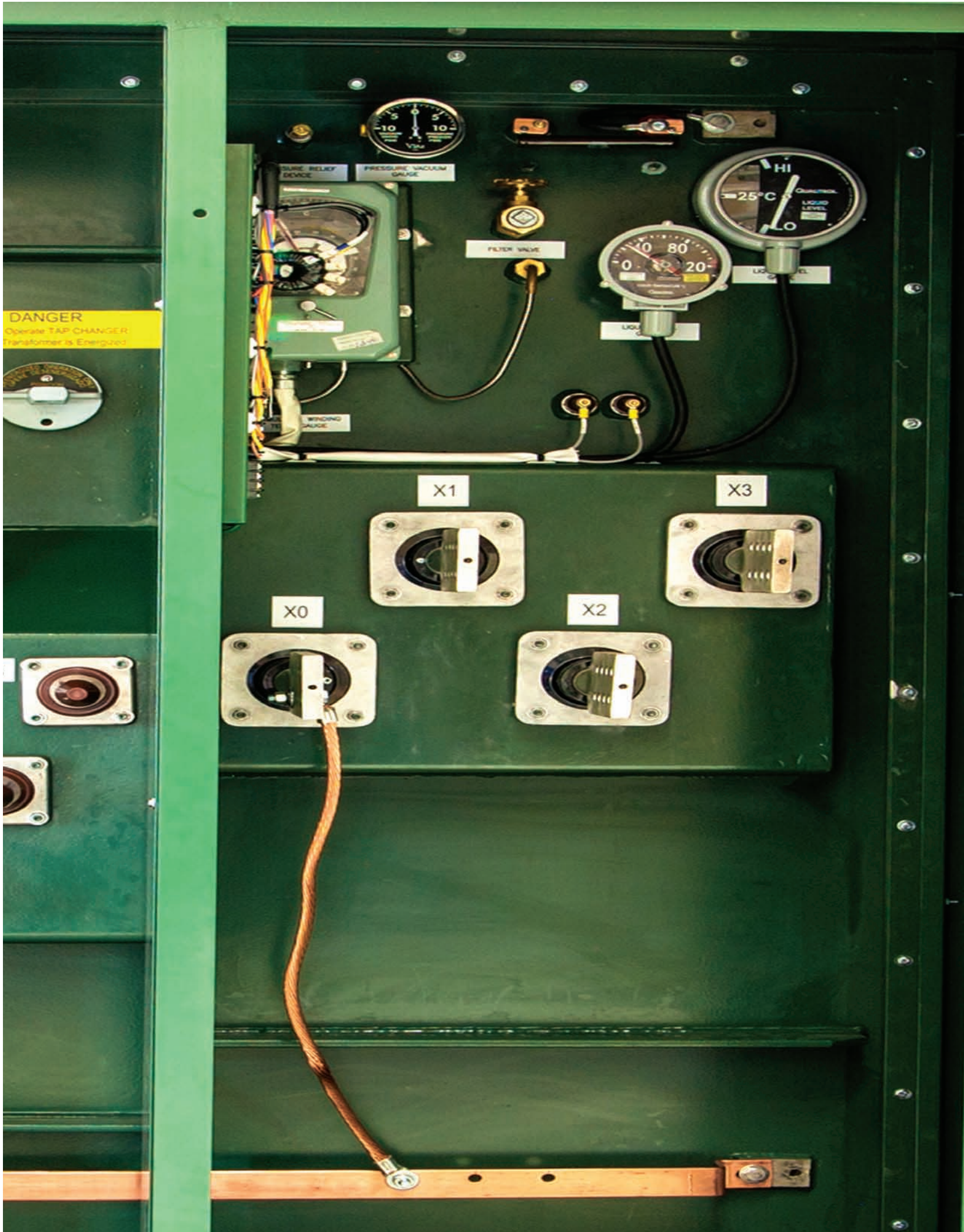


H3A



H3B







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STANDARD FEATURES

- PAD MOUNT LOOP FEED DEAD FRONT
- 1000 KVA – 3500 KVA
- 15 KV – 34.5 KV
- ALUMINUM WINDING
- EFFICIENCY: >99.3%
- BIL HV 150 - 200KV, LV 30 - 45 KV
- DELTA / GROUNDED WYE
- TEMPERATURE RISE 65° C
- FLUID - MINERAL OIL
- VOLTAGE ADJUSTMENT +5% TO -5% IN 2.5% STEPS
- GAUGES - PRV, PRESSURE/VACUUM LEVEL, TEMP.
- PAINT - POWDER COAT BAKED EPOXY
- MUNSELL GREEN (OTHER COLORS AVAILABLE)
- WEATHER PROOF GASKETS IN RETAINED GROOVES
- 3 YEAR WARRANTY, INCLUDING GASSING
- RADIATORS: GALVANIZED, BOLT-ON /
FIELD REPLACEABLE
- ELECTROSTATIC SHIELDING
- STAINLESS STEEL DOOR HINGES
- PADLOCKING AND PENTA HEAD BOLT,
3 POINT LATCHING
- 1" OIL DRAIN VALVE
- NEMA SST GROUND PADS
- POINT LIFTING
- JACKING BOSSES
- PRV, PRESSURE/VACUUM LEVEL, TEMP.

OPTIONAL FEATURES

- PAD MOUNT RADIAL FEED - DEAD FRONT, LIVE FRONT
- > 3500 KVA
- COPPER WINDINGS
- EXTREME LOW LOSS (LL/NLL) DESIGNS AVAILABLE
- WYE/WYE
- TEMPERATURE RISE 55° C/65° C
- * FLUID: FR3 / ENVIROTEMP / LUMINOL
- PAINT: CHOICE OF COLORS
- EXTERNAL MOUNTED WEAK LINK FUSE BOX
- RAD VALVES
- CIRCUIT BREAKERS
- EXTERNAL DRAIN VALVE
- CSA, IEC, UL

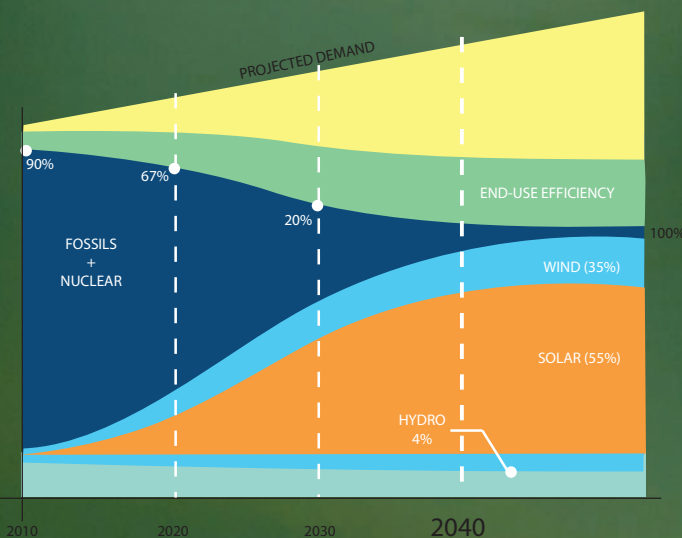
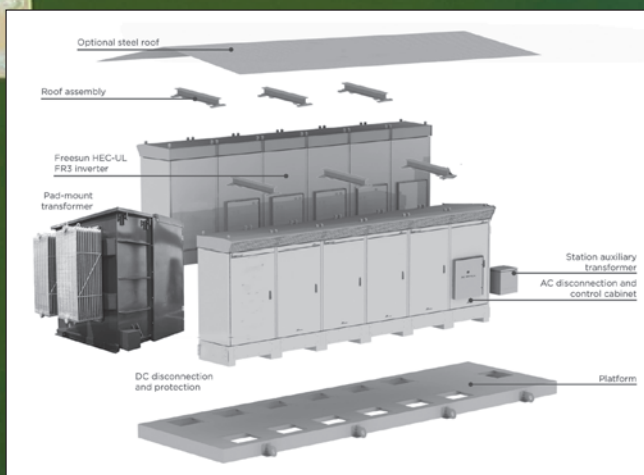


A 25 YEAR LIFE TRANSFORMER

SOLAR UTILITY – SCALE TRANSFORMERS

WILL YOUR TRANSFORMER STILL BE WORKING AFTER 25 YEARS?

- STAND - ALONE OR E-HOUSE INSTALLATIONS
- LIQUID GSU PAD MOUNTS – LONG LIFE INSTALLATIONS
- LIQUID OR DRY TYPE FOR E-HOUSE INSTALLATIONS AVAILABLE





VIRGINIA TRANSFORMER CORP

Virginia Transformer is a leader in custom power transformers engineered precisely for your application and optimized for performance and long life.

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