

Dry-Type Transformer Products

Industrial Control – 50 through 750 VA

Type FB Encapsulated 600 Volt Class

- General Purpose: Single-Phase 50 VA through 15 kVA – Three-Phase 3 kVA through 15 kVA
- Buck-Boost: 50 VA through 5 kVA for Both Single Phase and Three Phase Circuits

Type FH Ventilated 600 Volt Class

- General Purpose: Single-Phase 15 through 500 kVA – Three-Phase 15 through 1500 kVA – K-Factor Rated K-1 through K-20
- Motor Drive Isolation: Three-Phase 7.5 through 750 kVA

High Voltage General Purpose (HVGP) 5-15 kV (95 kV BIL and below)

- Single-Phase: 15 through 1500 kVA – K-Factor Rated K-1 through K-20
- Three-Phase: 15 kVA through 1500 kVA – K-Factor Rated K-1 through K-20

Unit Substation Medium Voltage 5 kV-35 kV (150 kV BIL and below)

- Single-Phase 15 through 2500 kVA
- Three-Phase 75 through 7500 kVA – K-Factor Rated K-1 through K-20 and ABS Certified

Pad-Mounted (Cabinet Security per IEEE C57.12.28) 5 kV, 15 kV, 25 kV (125 kV BIL and below)

Mine Duty 5 kV-25 kV Multiple Secondaries

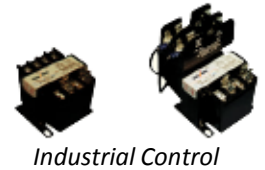
- Single-Phase 15 kVA through 3000 kVA
- Three-Phase 15 kVA through 6000 kVA

Specialty Transformers

- Auto Transformers 600 V through 25 kV – Zig-zag Transformer (Neutral Deriving and Phase Shifting)
- Rectifier Transformers: 6 Pulse, 12 Pulse, 18 Pulse, 24 Pulse – Three-Phase 75 kVA through 7500 kVA
- Reactors – TENV – High Rise Medium Voltage

Special Features and Services – Transformers

- Vacuum Pressure Impregnated (VPI) and VPI/Epoxy Shielded – UL Listing 5 kV-15 kV 95 kV BIL and Below
- American Bureau of Ship Building (ABS) Certification for Ships and Off Shore Drilling Rigs
- Repair, Rebuild, Refurbish, kVA Upgrade, Voltage Upgrade
- High Efficiency: TP-1, NEMA Premium, DOE 2010 TSL-2, CSA EEV Label complying with C802.2-06
- Electro-static Shielding – Low Sound – Step Lap Miter Cut Cores



Industrial Control



FB Encapsulated Buck-Boost and General Purpose



FH 600 V Class Ventilated GP and Drive Isolation



Medium Voltage HVGP and Unit Substation

Switchgear and Related Products

Pad-Mounted Switchgear – 15 kV, 25 kV, 38 kV – Live-Front – Dead-Front – Live-Front/Dead-Front

- Manual – Automatic Source Transfer – Automatic Sectionalizing
- SCADA/Remote-Supervisory Controlled Models
- Air-Puffer and Vacuum Interrupters
- 2,4,6 and 8 compartment units available
- Live-Front and Dead-Front UL Listed at 15 kV

Metal-Enclosed Switchgear – 5 kV to 38 kV

- Manual – Automatic Source Transfer – Automatic Sectionalizing
- SCADA/Remote-Supervisory Control
- UL Listed at 5 kV and 15 kV – UL Listed Shunt Trip

Primary-Metering Pad-Mounted Switchgear – 15 kV, 25 kV, 38 kV

- 200 Amp Bushing Wells (optional 600 Amp Bushings)

Fused Sectionalizer Pad-Mounted Switchgear – 15 kV, 25 kV

Wall-Mounted Equipment – 15 kV, 25 kV

- Wall-Mounted Switch Cabinets – Wall-Mounted Fuse Cabinets

Unit Substations – 5 kV to 38 kV

Vacuum Recloser – 15 kV, 25 kV

Custom Engineered Products – 5 kV to 121 kV

- Portable Substations – Trailer, Skid and Rail-Mounted

Pad-Mounted Capacitor Banks – 15 kV, 25 kV

- 200 Amp Busing Wells or 600 Amp Bushings – 150 – 3600 kVAR – Vacuum Switches

Switchgear Components

- Micro-Processor Controls
- Switch Operators for Automatic Transfer, Sectionalizing and SCADA/Remote-Supervisory Control
- Fast-Trip and Run-and-Trip Switch Operators
- Fuse Mountings and Fuse-Unit End Fittings



Dead-Front Pad-Mounted Switchgear (PSE)



Metal-Enclosed Switchgear



Pad-Mounted Capacitor Bank

- Utility Applications
- Commercial/Industrial
- Petro/Chemical
- Mining
- Tunneling and Dredging
- Construction
- Oil and Gas Exploration
- University Expansion
- Renewable Energy Collection and Grid Ties

Some Specific Examples:

•Mining Related Products

- Surface mine portable substations
- High-voltage mining switchgear
- Skid-Mounted Custom Substations
- Caterpillar-track mounted substations
- Substations for corrosive or caustic atmospheres
- Portable substations with fold-down utility tower

•Petro/Chemical – Tunneling and Dredging – Oil and Gas Exploration

•University Expansion – Renewable Energy Collection and Grid Ties

- Trailer-Mounted Custom Substations
- Totally-Enclosed portable substations with heavy Insulation for extreme cold environment
- Indoor substations designed to be mounted inside a box trailer
- Construction site substations with neutral grounding resistors and no exposed voltages
- Portable substations with walk-in aisles and built-in HVAC
- Conveyor and pump starters
- “Solar House” inverter substations for large solar array fields and solar grid tie to utility

•Utility – Commercial/Industrial Applications – Construction

- 6-Bay Custom-Engineered Switchgear
- Portable Generators with distribution
- Custom engineered substations with bullet-resistant exterior skin for rural locations
- Vacuum Circuit Breaker switch houses
- Arc-flash exposure reduction equipment solutions



Longwall Electrics



Underground Power Centers



Explosion-Proof Distribution and Control



Underground Vacuum Circuit Breakers



38 kV Walk-In Metal-Enclosed with Switch and Circuit Breaker



1500 kVA Galvanized Portable Substation