



RFQ Check Sheet for Specifying Trayer Switchgear

(Submit to Trayer Engineering Sales Department: Fax: 415 285 0883 or email: sales@trayer.com)

Grid Smart. Grid Tough.

Project Description _____

Address _____

Company Name _____

Contact Name _____

Title _____

List any additional contacts that are involved in this RFQ and any approval or record drawings that are required.

Email _____

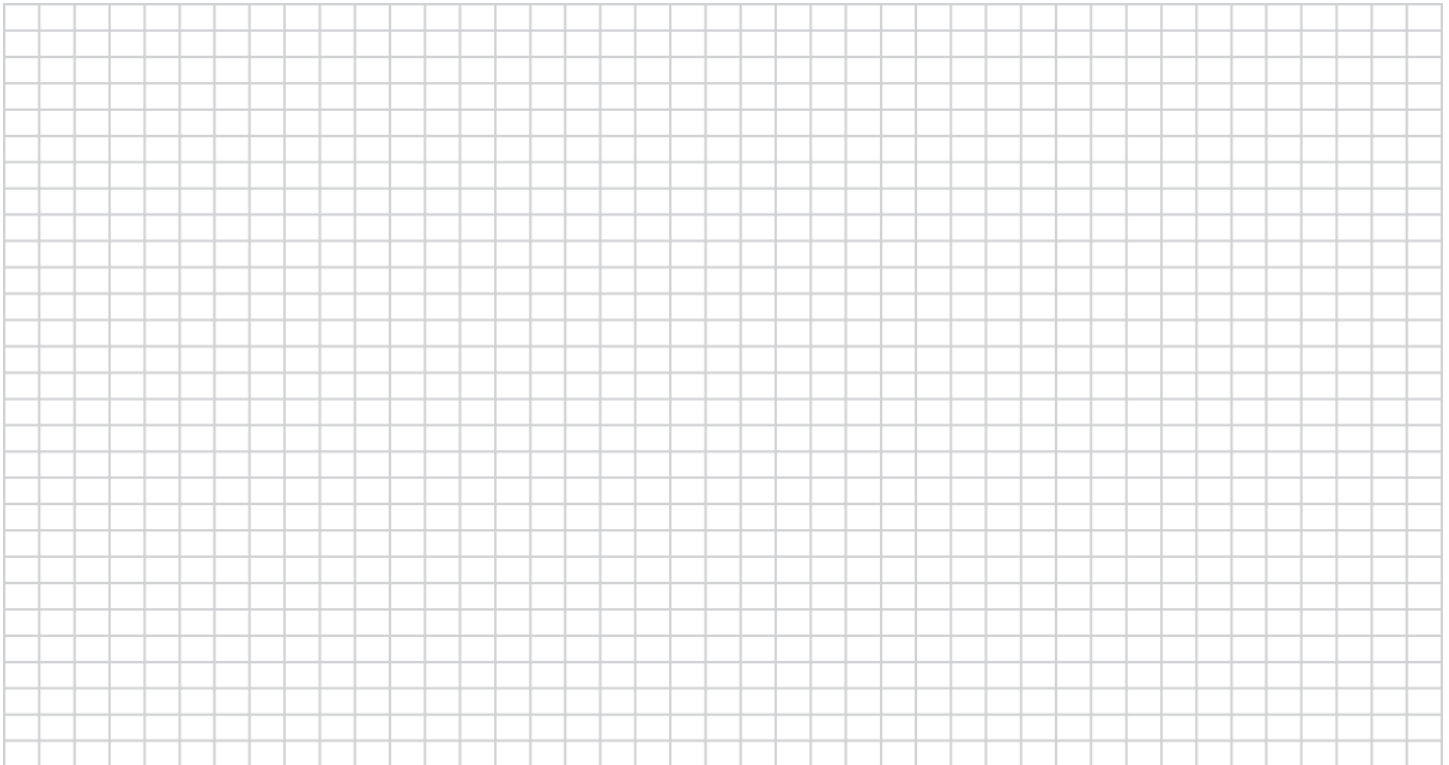
Phone _____

Rep Name _____

One-Line Diagram

Use the symbols to sketch your configuration or attach a separate diagram

Show ways in order from left to right. Indicate Potential transformers



 Switch	 VFI	 Switch VD	 VFI VD	 Switch & Fuse	 VD w/ Ground	<p>Potential Transformers</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> (1) Line to Ground </div> <div style="text-align: center;"> (2) Line to Line </div> <div style="text-align: center;"> (1) 3 P.T. Line to Ground </div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> 200A Bushing Wells </div> <div style="text-align: center;"> Removable Stud 200A Bushing Wells </div> </div> <div style="text-align: center; margin-top: 10px;"> 600A Bushings </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> Auxiliary Controls </div> <div style="text-align: center;"> Motor Operators </div> </div>
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Way Configuration (Fused ways- kVA rating of transformer being fed. Any information not captured in the one-line diagram)

Way	kVA Rating	Additional Descriptions
1		
2		
3		
4		
5		
6		

Type of Equipment

- Indoor Dry Vault Mounted (no cable compartments)
- Indoor Dry Vault Mounted w/cable compartments

- Submersible Vault Manhole Mount – Top operable
- Submersible Vault Mount – Front operable

- Round Tank (Dry Vault & Submersible)
- Rectangular Tank (Dry Vault & Submersible)

- Padmounted Outdoor
 - Single Side Double Sided

- Padmount Access Vertical Lift up Hood (standard)
- Horizontal Swinging Doors
- Swinging Doors & Lift-up Top

Special Size Requirements

- Size of Switch Tank _____
- Size of Switch Tank Base _____
- Size of High Voltage Cabinet _____
- Cable Entrance (Bottom is standard) _____
- Height of lowest bushing _____

Construction

- Tank Stainless Steel 304
 304L

- Tank Stand Hot Dip Galvanized (standard)
- 304
 304L

- Parking Stand Load Break
 Non-Load Break

Padmount Options & Accessories

- Copper Ground Rod
- Drain plug option
- Drain valve with Sampler
- Drip Shield
- Fuse Wipes
- Second Liquid Level Gauge
- Fault Indicators (Location and Make/Model/Type is required)
- _____
- Special Paint (Specify paint color and manufacturer and provide sample)
- _____

Potential Transformers (PTs) Required

- Number of Voltage Sensing PTs _____
- Number of Control Power PTs _____
- Number of shared PTs _____

Control Box Requirements

- Location of Low Voltage Control Box (default is left side)
 - Right
 - Rear of Tank

Additional Entrance to Low Voltage Control Cabinet
(attach sheet detailing the location on the sides or bottom of cabinet and the diameter of the wire, cord grip and conduit hub)

Existing Operating Voltage (line to line)

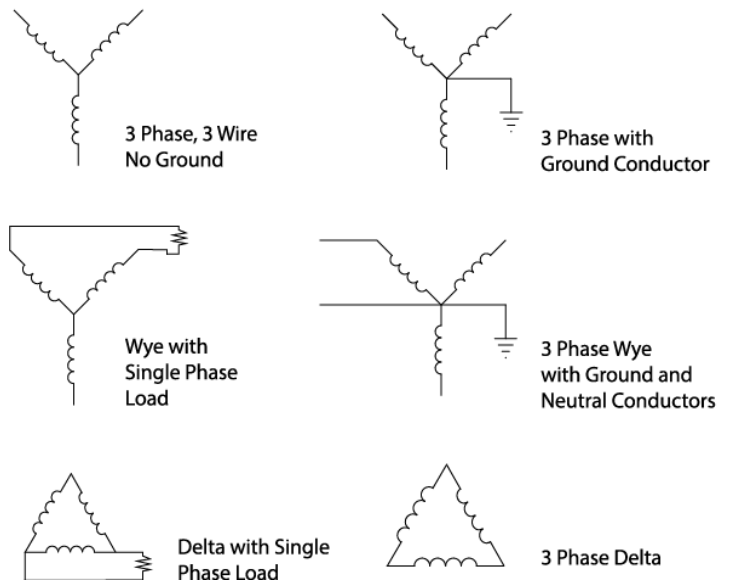
- 2400 13200
- 4160 13800
- 4800 14400
- 7200 20800
- 8320 24900
- 12470 34500

Other Voltage _____

Provision for easy change to future voltage of _____

Utility System Configuration

(select which best describes the transformer configuration)



Type of Insulation	
<input type="checkbox"/> 10C transformer oil (Standard)	<input type="checkbox"/> Alpha-1 flame resistant
<input type="checkbox"/> BIOTEMP (Minimum temp > 15 °)	<input type="checkbox"/> SF-6 Insulating gas

Protection Required

Specify Fused Ways

- Wet Well (up to 200A max)
- Dry Well (up to 50A max)
- Other fuse rating _____

Specify VFI Circuit Breaker with Relay Control

- Single phase VFI (4000 Series)
- Three Single Phase Ganged VFI (4000 Series)
- Three phase VFI (3000 Series)

Over-current Relays

Manufacturers

- SEL – Schweitzer Engineering Laboratories
- T&B – Thomas & Betts (only with 4000 Series)

Special Relay and programming requirements

Indicate SEL relay model and attach relay programming requirements

T&B Relay Options

- Single/Three-phase selectable
- Three-Phase and Ground

Fault Current Requirements

Momentary Make & Latch Amps (Asymmetrical) _____

Maximum Symmetrical Fault Current _____

Communications Transceiver

- None
- Optical
- Radio
- Other _____

Battery Backup requirement

- Battery Backup Location _____
- Relay Control
- Motor Control

Automatic Transfer System

- Standard ATS
- High-Speed ATS (10 cycle response time)
- ATS Functional document reviewed by customer

Additional Switchgear Description & Requirements

Control Options

Auxiliary Contacts (Open/Closed/GND/Tripped/Charged)

	Open	Closed	GND	Tripped	Charged
Switch					
VFI					
Visible Disconnect					
High-Speed ATS					

Motor Operators

- Padmount Linear Actuators - 24VDC
- Submersible *MotoPak* motor operators
 - 24VDC
 - 120VAC
- Provision only for future linear actuators (Padmount only)

Manual Operation Options

- Plain Rope Operation
- Provision for All-Direction rope operation
- Provision only for future Cable Operator
- Cable Operator (Submersible only)

Remote Control Operation Options

- RTU (Remote Terminal Unit)
- Pendant Box (only with motorized actuators)

Interlocks

- Slide-bar interlocks between adjacent handles
- Provision for future Key interlocks on handles
- Key interlock between switch handles
- Slide-bar interlocks between Dry Well fuse wells and handles

Additional Main Name Plates and Decals

Specify requirement and Location

Special Seismic Requirements (attach requirements)

Requirements will be reviewed by an independent consultant to insure the equipment is in compliance