



MSO Motor Switch Operator REQUEST FOR QUOTATION

E-MAIL: sales@macleanpower.com | FAX: (209) 931-8186

Company Name

Address 1

Address 2

City State Zip code

Contact Name

Telephone Number

Facsimile Number

E-mail address

Make copies of this form to transmit your MSO requirements.

Step 1. Motor Operator Class (check one): Distribution (15.5-38 kV) Transmission (48-72.5kV)

Step 2. Control Mechanism Type: Reciprocating* (↑↓)

***Note: Reciprocating control is the only control mechanism type available at this time.**

Step 3. Switch Control Rod Type (check one):

- 1-3/4" Square Fiberglass 1" O.D. Round Fiberglass
- 3/4" IPS Pipe (1" O.D.) 1" IPS Pipe (1.31" O.D.)

Step 4. Control Panel / User Interface (check one):

- Inertia Control Panel (Standard MSO) SEL-700G (MSO-SEL)
- SEL-751 (MSO-SEL) SEL-751A (MSO-SEL)
- SEL-2411 (MSO-SEL)

***Note: See Table for RTU/SEL Relay Sensor Input Capabilities.**

Step 5. Remote Terminal Unit (RTU) or SEL Relay Needed? (Check one): YES NO

***Note: Select YES if a MSO-SEL (SEL-Relay) is selected in step 4 above and answer questions 5a. through 5d. below; otherwise skip to step 6.**

5a. RTU or SEL Relay Supplied by Inertia, or by Customer? (Check one): Inertia Customer

5b. RTU or SEL Relay Type (Model Number): _____

***Note: Inertia's Standard MSO RTU Type if not specified: Cleaveland Price RTU3220, DNP3 Protocol**

5c. MSO-SEL's only: SEL-3505 required? (Check one): YES NO

5d. MSO-SEL's only: Conformal Coated SEL Relay (check one): YES NO

Step 6. Hardwired Status / Control Board? (Check one): YES NO

***Note: Answer questions 6a. and 6b. below if YES is selected; otherwise skip to step 7.**

6a. Select desired hardwired status points and number of dry contacts for each status.

Status Points / (Qty. of Dry Contact):

- Open Switch / (Qty.: _____) Close Switch / (Qty.: _____)
- Remote - Local. / (Qty.: _____) Motor Decoupled / (Qty.: _____)
- Battery Lockout. / (Qty.: _____) Battery Test in Progress. / (Qty.: _____)
- Interlock Pin Removed. / (Qty.: _____) Cabinet Door Open. / (Qty.: _____)

Other Status (Specify): _____

6b. Select desired hardwired control points, control voltage, and number of each control point.

Control Points / Control Voltage / (Qty.):

- Open Switch / Voltage: _____ / (Qty.: _____) Close Switch / Voltage: _____ / (Qty.: _____)
- Battery Test / Voltatge: _____ / (Qty.: _____) Other (Specify): _____

Continued on Next Page.

Step 7. Communication Type (Check all that apply):

- Radio Ethernet Fiber Optics Hardwire None

***Note: If "None" is selected above, skip 7a through 7c and continue to step 8**

7a. Communication Device(s) supplied by Inertia, or by Customer? (Check one): Inertia Customer

7b. Communication Device(s) Model Number(s): _____

7c. Communication Protocol:

- DNP (Standard) Modbus IEC 61850 Other (Specify): _____

Step 8. MSO overhead Switch Line Sensing or Fault Indication? (Check all that apply):

***Note 1: If 'None' is selected, skip to step 9**

***Note 2: See Table 1 for RTU/SEL Relay Sensor Input Capabilities**

- | | Load Side | Source Side |
|---|--------------------------|--------------------------|
| 3 Ph. Current Sensors: | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Ph. Voltage Sensors: | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Ph. CT/PT Combo Sensors: | <input type="checkbox"/> | <input type="checkbox"/> |
| 1 Ph. 120VAC PT Input: | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Fault Circuit Indicators / Qty (Multiples of 3): _____ | | |

Step 9. Additional MSO Features (Check all that apply):

- 9a. Alternate Power Supply Input Voltage (120 VAC is standard):
 9a-1. Input Voltage: _____ V VAC VDC
 9a-2. Dual Power Supply Inputs [Preferred/Alternate Setup]: YES NO
- 9b. Antenna Bulkhead Connector / Polyphasor (select type): 125-1000 MHz 700-2700 MHz
- 9c. Antenna with 20 ft. coaxial antenna cable.
- 9d. Control Rod Standoff Bracket.
- 9e. Control Rod Safety Cover.
- 9f. 80W Battery Warming Blanket.
- 9g. Thermal Diffusion Galvanizing (TDG) Components (Control Handle, Brackets, S.S. Pans, Enclosure).
- 9h. Special / Custom Design (If YES, write brief description below)

Table 1: SEL Relay Sensor Input Capabilities Chart

SEL Sensor Input Card Combinations	SEL Relay Type			
	SEL-751	SEL-751A	SEL-2411	SEL-700GT+
3-Phase CT Inputs (5A)	x	x	x	x
3-Phase PT Inputs (300V)	x	x	x	x
3-Phase CT/PT Inputs (5A / 300V)	x	x	x	x
1-Phase PT Input (V-Sync 300V)	x	x	x	x
3-Phase CT/PT (5A / 300V) + 1-Phase PT (300V)	x	x		x
3-Phase CT/PT (5A / 300V) + 3-Phase PT (300V)				x
3-Phase CT/PT (5A / 300V) + 3-Phase CT (5A)			x	x
3-Phase CT/PT (5A / 300V) + 3-Phase CT/PT (5A / 300V)				x
8V LEA (Low Energy Analog) Input Voltage Option*	x		x	

*Note: 8V LEA (Low Energy Analog) inputs can be substituted in place of 300V inputs for voltage sensor cards for 751 and 2411 relays only.