# Specifications

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## Standard

The seller's standard conditions of sale set forth in Price Sheet 150 apply, except as modified under "Special Warranty Provisions" on page 6.

## Special to This Product

### *Inclusions*

Source-transfer Vista and Vista Green Underground Distribution Switchgear provide fully automatic primary-selective service and fault protection for up to three critical load circuits. Each unit includes 600-ampere load-interrupter switches (900-ampere as an option); microprocessor-controlled, resettable, vacuum fault interrupters; three-phase voltage sensing for each source; motor operators for each source way; and self-power by means of voltage transformers, all enclosed in a submersible, gas-insulated, gas-tight ($SF_6$) or hermetically sealed ($CO_2$ mix) welded-steel tank.

The Micro-AT Source-Transfer Control is housed in a low-voltage enclosure/compartment. Source-transfer Vista and Vista Green switchgear are rated through 38 kV and 25 kA symmetrical and are available in three styles: UnderCover™ Style, vault-mounted, and pad-mounted. Standard Vista switchgear products ship with $SF_6$ insulating gas. The new optional Vista Green Underground Distribution Switchgear ships with a dielectric gas mixture of $CO_2$ and C4-FN insulating gas instead of sulfur hexafluoride ($SF_6$). See the "Anatomy of a Catalog Number" section on page 7 for details on how to build Vista switchgear and Vista Green switchgear catalog numbers.

The three-position (CLOSED-OPEN-GROUNDED) load-interrupter switches provide three-pole live switching of 600- or 900-ampere main feeders. They provide a visible gap when open and internal grounding for all three phases with no cable handling or exposure to medium voltage. The load-interrupter switches have a 10-time duty-cycle fault-closing rating at currents up to the short-circuit rating of the gear.

The vacuum fault interrupters, in series with three-position (CLOSED-OPEN-GROUNDED) disconnects, provide three-pole load switching and fault interruption through 25 kA symmetrical or single-pole load switching and fault interruption through 12.5 kA symmetrical. (For other possible ratings and an alternative gas option, refer to the nearest S&C Sales Office.) Fault interrupters provide protection of 600- or 900-ampere main feeders or 200-($SF_6$ models only), 600-, or 900-ampere taps, laterals, or subloops. Fault interruption is initiated by a programmable overcurrent control. The total clearing time (from initiation of the fault to total clearing) can be as fast as 43 milliseconds. For single-pole fault interrupters, the overcurrent control can also be programmed to provide three-pole fault interruption.

A manual handle is provided for operating load-interrupter switches and fault interrupters. Operating mechanisms are designed to prevent inadvertent switching from the **Closed** position directly to **Grounded** position, and vice versa.

Large windows provide a clear view of the **Open/Closed/Grounded** position, and ground bus, allowing the operator to easily confirm the positions of the load-interrupter switches and disconnects of the fault interrupters. Trip indicators are easily visible through the windows.

Terminals are equipped with 200-ampere bushing wells ($SF_6$ models only) or 600- or 900-ampere bushings as specified. Bushing and bushing-well interfaces conform with IEEE Standard 386 and accept all standard insulated connectors and inserts.

Vista switchgear has been certified as arc resistant per IEC 62271-200 for fault currents up to 12.5 kA symmetrical for 15 cycles (25 kA symmetrical to units rated 25 kA short circuit). Arc resistance is standard for UnderCover Style and pad-mounted style. For the vault-mounted style, catalog number suffix "-N" must be specified, in which case a flange will be welded to the pressure relief device for connection of user-supplied piping to vent exhaust gases out of the vault area.

### *Overcurrent Control 2.0*

Fault interruption is initiated by a programmable overcurrent control housed in a watertight enclosure. The control is programmed by using a USB-A cable that is attached to the USB (or USB-A) port on a personal computer. The control receives both sensing and control inputs from the current transformers. No batteries are needed for the Vista Overcurrent Control 2.0.

Current transformers provide power and input signals. The control features a variety of time-current characteristic (TCC) curves—standard "E," "K," and "T" speed curves, Vista coordinating-speed tap and main curves, and relay curves per IEEE C37.112-1996 and IEC 60255-151:2009.

Coordinating-speed tap curves are used for fault interrupters feeding subloop taps and are specifically designed to optimize coordination with load-side, weak-link/backup current-limiting fuse combinations and source-side relays with low time-dial settings. The coordinating-speed main curves are used for fault interrupters on main feeders and have a longer minimum response time and a different shape to coordinate with tap-interrupter curves. Coordinating-speed curves have phase-overcurrent, ground-protection, negative-sequence fault, and sensitive-earth fault settings.

The coordinating-speed tap and main curves, as well as IEEE and IEC relay TCC curves, can be tailored to the application by using a variety of TCC curves and definite-time settings. Ground protection, negative-sequence fault, and sensitive-earth fault settings are also available.

### *Motor Operators and Controls*

Motor operators on the load-interrupter switch ways allow switching between the sources. A motor operator is provided for each of the two source ways in common-bus switchgear. Three motor operators—one for each source way and the tie-switch way—are provided for split-bus switchgear. The motor operator controls are located within the low-voltage enclosure/compartment. Each motor operator is provided with a control board that includes CLOSE, OPEN, and GROUND pushbuttons; SWITCH POSITION indicating lamps; an OPERATION counter; a LAMP TEST button; and a receptacle for a portable remote control. (The bus-tie switch for split-bus configurations does not have a ground position.) For additional motor-operated ways, please contact the nearest S&C Sales Office.

### *Potential Indication with Test Feature*

The optional potential indicator features a liquid-crystal display that indicates the presence of voltage for each phase. A solar panel supplies power for testing the potential-indication circuit. This feature is available with or without provisions for low-voltage phasing. Cable testing for faults can be performed through the back of a user-specified elbow or feedthru insert, eliminating the need for cable handling or parking stands.

### *Voltage and Current Sensing*

Three-phase voltage sensing is standard for each source. Three-phase current sensing is provided when the overcurrent lockout option is specified.

### *Vista Styles*

#### *UnderCover Style*

When the UnderCover Style is specified, a stainless steel tank with submersible wiring is furnished suitable for underground installation. A mild steel or, optionally, stainless steel low-voltage enclosure is mounted on a customer-supplied pad at grade level. It is connected to the tank with cabling up to 45 feet (1372 cm) in length.●

#### *Vault-Mounted Style*

Two versions of this style are available. Wet-vault-mounted style is intended for vaults that are subject to periodic flooding and includes submersible wiring and electrical components. Dry-vault-mounted style is intended for vaults that are not subject to periodic flooding and does not include submersible wiring and electrical components.

When the wet-vault-mounted style is specified, a stainless steel tank is furnished, suitable for mounting on the floor or wall of a vault. When the dry-vault-mounted style is specified, a mild steel tank is furnished. The mild steel or, optionally, stainless steel, low-voltage enclosure is mounted on the vault floor or wall; it is connected to the tank with cabling up to 45 feet (1372 cm) in length.●

#### *Pad-Mounted Style*

When the pad-mounted style is specified, a mild steel or, optionally, stainless steel enclosure is furnished. A mild steel or, optionally, stainless steel, low-voltage compartment is mounted on the side of the enclosure.

Although the Vista switchgear tank itself is submersible, many of the electrical components mounted to the tank are not. Special submersible components and wiring are provided when the UnderCover Style or wet-vault-mounted style is specified. Contact the nearest S&C Sales Office for information on pad-mounted style units with submersible wiring.

Pad-mounted enclosures meet the requirements of ANSI Standard C57.12.28 for enclosure integrity. The top of the enclosure is hinged on both sides for convenient access to the operating and termination compartments. The roof of the enclosure is sloped outward to ensure water flows away from the switchgear. A removable panel provides access to the elbows and cables and is secured by the overlapping padlockable top. A resilient closed-cell gasket on the enclosure bottom flange protects the finish from being scratched during installation. Enclosures are protected from corrosion by S&C's Ultradur® II Outdoor Finish.

### *Micro-AT Source-Transfer Control*

The Micro-AT Source-Transfer Control, located within the low-voltage enclosure/compartment, ensures a high degree of critical-load continuity by minimizing interruptions resulting from the loss of one source. Excluding the intentional time delay to coordinate with upstream protective devices and/or transition dwell time, transfer is achieved in 6 seconds.

The Micro-AT control uses an advanced microprocessor to perform control operations, as directed by settings programmed into the device at the factory and in the field. Such settings—consisting of the control's operating characteristics and voltage-, current-, and time-related operating parameters—are entered into the control with a keypad on the front panel.

An **Unbalance Detection** feature may be field-programmed in the Micro-AT Source-Transfer Control. This feature protects the loads from any source-side **Open Phase** condition at the same voltage as the Vista Underground Distribution Switchgear, whether caused by utility-line burndown, broken conductors, single-phase switching, equipment malfunctions, or single-phasing resulting from blown source-side fuses. The **Unbalance Detection** feature continuously develops and monitors the negative-sequence voltage to detect any unbalance present as the result of an **Open**

● Common-bus configuration switchgear requires a minimum of 5-inch (127-mm) diameter conduit. Split-bus configuration switchgear requires a minimum of 6-inch (152-mm) diameter conduit.

**Phase** condition. If the voltage unbalance exceeds a preset reference level for a period of time sufficient to confirm the loss is not transient, an output signal is produced that initiates automatic transfer to the other source.

An optional **Overcurrent Lockout** feature prevents an automatic transfer operation that would close a source interrupter switch into a fault. A light-emitting diode indicates when a lockout has occurred. Test keys are provided for simulating an **Overcurrent** condition on each source.

Control power for the source-transfer control is provided by voltage transformers inside the tank.

### *Common-Bus Primary-Selective System Applications*

Under normal operating conditions in a common-bus primary-selective system, the preferred-source load-interrupter switch is closed and the alternate-source load-interrupter switch is open. The Micro-AT Source-Transfer Control monitors both sources and initiates automatic transfer to the alternate source if preferred source voltage has been lost or reduced below a user-determined level for a programmed period of time. The method for returning to the normal circuit configuration can be field-programmed.

### *Split-Bus Primary-Selective System Applications*

In a split-bus primary-selective system, the circuit is divided into two sections by a normally open bus-tie switch. Each bus section has a normally closed load-interrupter switch, so the two loads receive power from separate sources. Each source is the preferred source for its section and the alternate source for the other section. The Micro-AT Source-Transfer Control monitors both sources and initiates automatic transfer if voltage on one source has been lost or reduced below a user-determined level.

Usually each source cable is loaded to capacity. Because under emergency conditions some loads can usually be shed, it is not necessary for either source to carry the switchgear's total load for a long period of time. The method for returning to the normal circuit configuration can be field-programmed.

## *Application Notes*

The following items should be considered when applying source-transfer Vista switchgear:

### *Ungrounded systems*

The S&C voltage sensors are connected phase to ground and are therefore not intended for use on ungrounded systems. Contact the nearest S&C Sales Office for information on applying source-transfer Vista Underground Distribution Switchgear on ungrounded systems.

### *Uni-grounded and resistance-grounded systems*

Uni-grounded and resistance-grounded systems require power provided by a phase-to-phase-connected voltage transformer. Therefore, power must be supplied by an external source if a source-transfer Vista switchgear is to be applied on a uni-grounded or resistance-grounded system. Contact the nearest S&C Sales Office.

### *Fusing of Voltage Transformers*

The voltage transformers providing power to source-transfer Vista switchgear are fused external to the tank on the secondary side of the transformer. National Electric Code Article 450.3 (A) states that transformers over 600 volts nominal shall be protected on the primary side. Contact the nearest S&C Sales Office for information on applications that require NEC compliance.

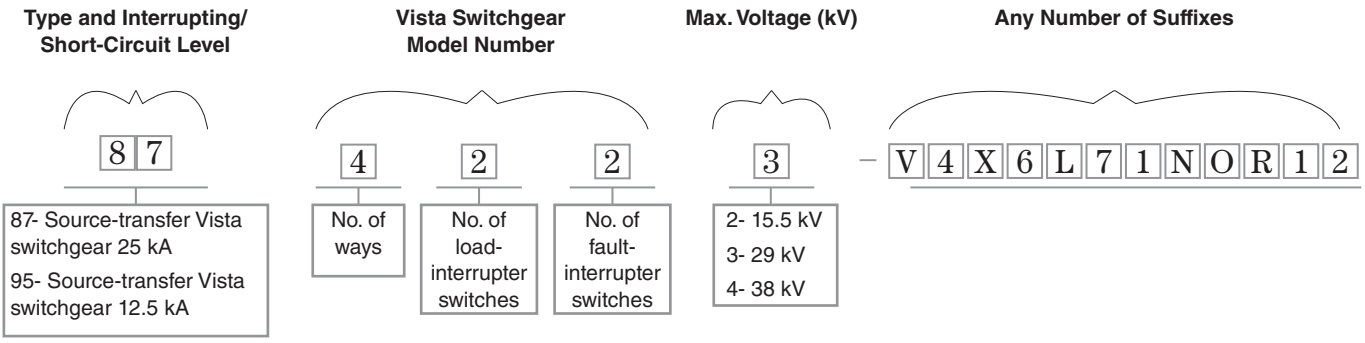
### *Special Warranty Provisions*

The standard warranty contained in the seller's standard conditions of sale, as set forth in Price Sheets 150 and 181, applies only to manual Vista Underground Distribution Switchgear and its associated options. The Vista Overcurrent Control 2.0 shall have the following warranty provisions: the first and second paragraphs of Price Sheet 150 warranty are replaced with the following:

**(1) General:** The seller warrants to the immediate purchaser or end user for a period of 10 years from the date of shipment that the equipment delivered will be of the kind and quality specified in the contract description and will be free of defects of workmanship and material. Should any failure to conform to this warranty appear under proper and normal use within 10 years after the date of shipment, the seller agrees, upon prompt notification thereof and confirmation that the equipment has been stored, installed, operated, and maintained in accordance with recommendations of the seller and standard industry practice, to correct the nonconformity either by repairing any damaged or defective parts of the equipment or (at the seller's option) by shipment of necessary replacement parts. The seller's warranty does not apply to any equipment that has been disassembled, repaired, or altered by anyone other than the seller. This limited warranty is granted only to the immediate purchaser or, if the equipment is purchased by a third party for installation in third-party equipment, the end user of the equipment. The seller's duty to perform under any warranty may be delayed, at the seller's sole option, until the seller has been paid in full for all goods purchased by the immediate purchaser. No such delay shall extend the warranty period.

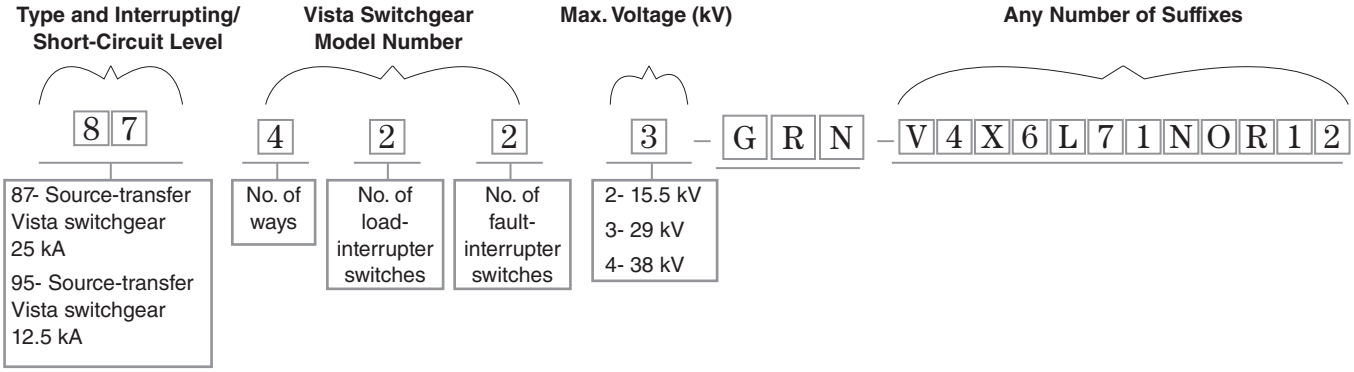
The seller further warrants to the immediate purchaser or end user that for a period of two years from the date of shipment, the software will perform substantially in accordance with the then-current release of specifications if properly used in accordance with the procedures described in the seller's instructions. The seller's liability regarding any of the software is expressly limited to exercising its reasonable efforts in supplying or replacing any media found to be physically defective or in correcting defects in the software during the warranty period. The seller does not warrant the use of the software will be uninterrupted or error-free.

## Vista Switchgear




**Note:** The catalog number example created above represents a source-transfer Vista switchgear, 25 kA, with a total of four ways that includes two load-interrupter switches and two fault-interrupter switches for a 29-kV application. The unit will also have wet-vault-mounted style that includes a stainless steel tank, submersible wiring, and and a 25-foot (762 cm) submersible control cable to attach to an olive green mild steel, low-voltage enclosure. The unit will also have 23-kV, 125-BIL voltage transformers, international crating, arc resistance for vault-mounted style, two-hole ground pads, and a remote low-pressure alarm.

## Vista Green Switchgear




**Note:** The catalog number example created above represents a source-transfer Vista Green switchgear unit, 25 kA, with a total of four ways that includes two load-interrupter switches and two fault interrupter switches for a 29-kV application. The unit will also have the wet-vault-mounted style that includes a stainless steel tank, submersible wiring, and and a 25-foot (762 cm) submersible control cable to attach to an olive green finish mild steel, low-voltage enclosure. The unit will also have 23-kV, 125-BIL voltage transformers, international crating, arc resistance for vault-mounted style, two-hole ground pads, and a remote low-pressure alarm.

## Vista or Vista Green Switchgear Example

Complete these steps to identify the base catalog number, the appropriate options, and the product accessories needed for a complete order:

**STEP 1.** Obtain the model number and the catalog number of the desired switchgear unit from Table 2 on page 11 or Table 3 on page 12.

*Model Number:* 4 2 2

*Catalog Number:* 8 7 4 2 2 3

**STEP 2.** **Insulating Gas.** To order the new $CO_2$ mix insulating gas, add "-GRN-" after the base catalog number. (To order $SF_6$ insulating gas, skip this step and proceed to Step 4.)

*Suffix:* –G R N–

**STEP 3.** Specify the desired switchgear style from Table 4 on page 12 and add the appropriate suffix to the catalog number.

*Suffix:* V 4

**STEP 4.** ***For 12.5-kA-rated models with one or more fault interrupters***: Add a suffix designation to the catalog number indicating the desired number of three-pole and single-pole fault interrupters, selected from Table 5 on page 13.

**Note:** This step is not applicable to models using the $CO_2$ mix gas or models rated 25 kA short circuit.

*Suffix:* ☐☐

**STEP 5.** Select the appropriate voltage transformer suffix from Table 6 on page 13.

*Suffix:* X 6

**STEP 6.** Add suffix designations to the catalog number indicating the optional features desired, selected from Table 7 on page 14 through page 17. (Add as many suffixes as required.)

*Suffixes:* L 7 1 N O R 1 2

**Note:** At this point, the catalog number for the Vista switchgear unit is complete. The next steps using Table 8 and Table 10 on page 18 are for product accessories and touch-up kit components that would be separate line items on the order. Contact S&C for additional available options.

**STEP 7.** Obtain catalog numbers for any accessories from Table 8 on page 18 and apply as a separate line item on the order.

*Catalog Number:*

_____

_____

_____

**STEP 8.** Include touch-up kit components from Table 10 on page 18.

*Catalog Number:* ☐☐☐☐– ☐☐☐

**STEP 9.** List the complete catalog number, including suffixes:

8 7 4 2 2 3 –G R N–

V 4 X 6 L 7 1 N O R 1 2

**Example:** The catalog number example created above represents a source-transfer Vista Green switchgear unit, 25 kA, with a total of four ways that includes two load-interrupter switches for a 29-kV application. The unit will also be wet-vault-mounted style that includes a stainless steel tank, submersible wiring, and 25-foot (762 cm) submersible control cable for attachment to a mild steel, low-voltage olive green finish enclosure. The unit will also have 23-kV, 125-BIL voltage transfomers, international crating, arc resistance for vault-mounted style, two-hole ground pads, and a remote low-pressure alarm.

**Note:** To select and configure 40-kA Vista loadbreak switches, remote supervisory products, or solid dielectric products, see the appropriate specification bulletin for those products.

## How to Order Vista or Vista Green Switchgear

Complete these steps to identify the base catalog number, the appropriate options, and the product accessories needed for a complete order:

**STEP 1.** Obtain the model number and the catalog number of the desired switchgear unit from Table 2 on page 11 or Table 3 on page 12.

*Model Number:* ☐☐☐

*Catalog Number:* ☐☐☐☐☐☐

**STEP 2.** **Insulating Gas.** To order the new $CO_2$ mix insulating gas, add "-GRN-" after the base catalog number. (To order $SF_6$ insulating gas, skip this step and proceed to Step 4.)

*Suffix:* –GRN–

**STEP 3.** Specify the desired switchgear style from Table 4 on page 12 and add the appropriate suffix to the catalog number.

*Suffix:* ☐☐☐

**STEP 4.** ***For 12.5-kA-rated models with one or more fault interrupters***: Add a suffix designation to the catalog number indicating the desired number of three-pole and single-pole fault interrupters, selected from Table 5 on page 13.

**Note:** This step is not applicable to models using the $CO_2$ mix gas or models rated 25 kA short circuit.

*Suffix:* ☐☐

**STEP 5.** Select the appropriate voltage transformer suffix from Table 6 on page 13.

*Suffix:* ☐☐

**STEP 6.** Add suffix designations to the catalog number indicating the optional features desired, selected from Table 7 on page 14 through page 17. (Add as many suffixes as required.)

*Suffixes:*

_____

_____

**Note:** At this point, the catalog number for the Vista switchgear unit is complete. The next steps using Table 8 and Table 10 on page 18 are for product accessories and touch-up kit components that would be separate line items on the order. Contact S&C for additional available options.

**STEP 7.** Obtain catalog numbers for any accessories from Table 8 on page 18 and apply as a separate line item on the order.

*Catalog Number:*

_____

_____

_____

**STEP 8.** Include touch-up kit components from Table 10 on page 18.

*Catalog Number:* ☐☐☐☐– ☐☐☐

**STEP 9.** List the complete catalog number, including suffixes:

_____

_____

**Note:** To select and configure 40-kA Vista loadbreak switches, remote supervisory products, or solid dielectric products, see the appropriate specification bulletin for those products.

**Table 1. 50/60-Hz ANSI Ratings—IEC Ratings in Parentheses**

| kV | | | Amperes, RMS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fault Interrupter | | | | Load-Interrupter Switch | | |
| System Class | Max | BIL | Main Bus Cont. Current | Short-Circuit, Sym. | Cont., Load Dropping, and Load Splitting① | 10-Time Duty-Cycle Fault-Closing, Sym. | | 10-Time Duty-Cycle Fault-Interr., Sym. | Cont., Load Dropping, and Load Splitting① | 10-Time Duty-Cycle Fault-Closing, Sym.② | Mom. and One-Second, Sym. |
| | | | | | | Into Closed Position | Into Grounded Position | | | | |
| 15.5 (12) | 15.5 (15.5) | 95 (95) | 600 (630)● | 12 500 (12 500) | 200 (200)■ | 12 500 (12 500) | 12 500 (12 500) | 12 500 (12 500) | 600 (630)▼ | 12 500 (12 500) | 12 500 (12 500) |
| | | | | 25 000 (25 000) | 600 (630)▲ | 25 000 (25 000) | ◆ | 25 000 (25 000) | 600 (630)○ | ◆ | 25 000 (25 000) |
| 27 (24) | 29 (29) | 125 (125) | 600 (630)● | 12 500 (12 500) | 200 (200)■ | 12 500 (12 500) | 12 500 (12 500) | 12 500 (12 500) | 600 (630)▼ | 16 000 (16 000) | 12 500 (12 500) |
| | | | | 25 000 (25 000) | 600 (630)▲ | 25 000 (25 000) | ◆ | 25 000 (25 000) | 600 (630)○ | ◆ | 25 000 (25 000) |
| 38 (36) | 38 (38) | 150 (150) | 600 (630)● | 12 500 (12 500) | 200 (200)■ | 12 500 (12 500) | 12 500 (12 500) | 12 500 (12 500) | 600 (630)▼ | 16 000 (16 000) | 12 500 (12 500) |
| | | | | 25 000 (25 000) | 600 (630)▲ | 25 000 (25 000) | ◆ | 25 000 (25 000) | 600 (630)○ | ◆ | 25 000 (25 000) |

① Parallel or loop switching. Fault interrupters and load-interrupter switches can switch the magnetizing current of transformers associated with the load-dropping rating. Unloaded cable switching rating: 10 amperes at 15.5 kV; 20 amperes at 29 kV and 38 kV.

② Applicable to fault closing into the **Closed** or **Grounded** position.

● 1200 (1200) amperes when switchgear is furnished with optional copper bus, catalog number suffix "-Z5."

■ 600 (630) amperes when switchgear is furnished with optional 600-ampere bushings at fault-interrupter terminals, catalog number suffix "-M2" or "-M3." **Note:** 600-ampere bushings are supplied as standard for Vista Green switchgear.

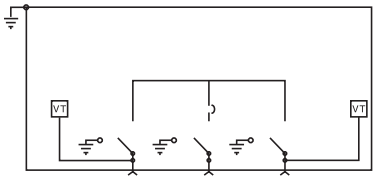
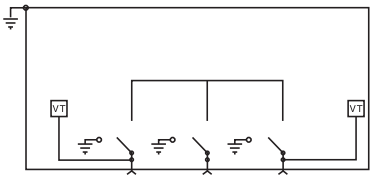
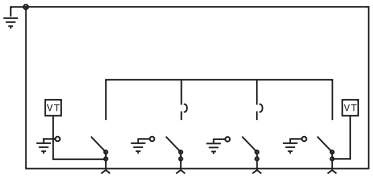
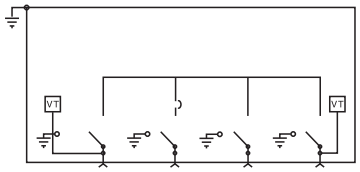
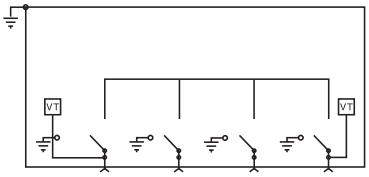
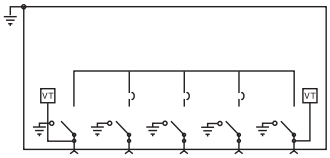
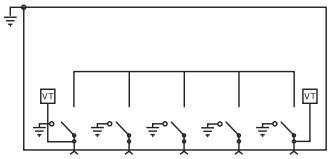
▲ 900 (900) amperes when switchgear is furnished with optional 900-ampere fault interrupters, catalog number suffix "-Q1" through "-Q6," plus optional copper bus, catalog number suffix "-Z5"

◆ 25 000 (25 000) amperes symmetrical three-time duty-cycle fault closing rating; 16 000 (16 000) amperes symmetrical 10-time duty-cycle fault-closing rating.

▼ 200 (200) amperes when switchgear is furnished with optional 200-ampere bushing wells at load-interrupter switch terminals, catalog number suffix "-M4." **Note:** $SF_6$ models only.

○ 900 (900) amperes when switchgear is furnished with optional 900-ampere load-interrupter switches, catalog number suffix "-K1" through "-K6," plus optional copper bus, catalog number suffix "-Z5"

**Table 2. Three-Phase Units—Common-Bus Configuration**

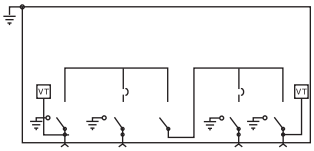
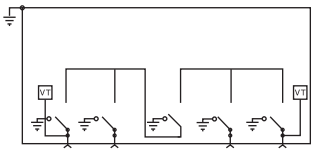
| Model① | One-Line Diagram② | Ratings③ | | | Catalog Number |
|---|---|---|---|---|---|
| | | kV | | Short-Circuit Amperes, RMS, Sym. | |
| | | Max | BIL | | |
| 321 |  | 15.5 | 95 | 12 500 | 953212 |
| | | | | 25 000 | 873212 |
| | | 29 | 125 | 12 500 | 953213 |
| | | | | 25 000 | 873213 |
| | | 38 | 150 | 12 500 | 953214 |
| | | | | 25 000 | 873214 |
| 330 |  | 15.5 | 95 | 12 500 | 953302 |
| | | | | 25 000 | 873302 |
| | | 29 | 125 | 12 500 | 953303 |
| | | | | 25 000 | 873303 |
| | | 38 | 150 | 12 500 | 953304 |
| | | | | 25 000 | 873304 |
| 422 |  | 15.5 | 95 | 12 500 | 954222 |
| | | | | 25 000 | 874222 |
| | | 29 | 125 | 12 500 | 954223 |
| | | | | 25 000 | 874223 |
| | | 38 | 150 | 12 500 | 954224 |
| | | | | 25 000 | 874224 |
| 431 |  | 15.5 | 95 | 12 500 | 954312 |
| | | | | 25 000 | 874312 |
| | | 29 | 125 | 12 500 | 954313 |
| | | | | 25 000 | 874313 |
| | | 38 | 150 | 12 500 | 954314 |
| | | | | 25 000 | 874314 |
| 440 |  | 15.5 | 95 | 12 500 | 954402 |
| | | | | 25 000 | 874402 |
| | | 29 | 125 | 12 500 | 954403 |
| | | | | 25 000 | 874403 |
| | | 38 | 150 | 12 500 | 954404 |
| | | | | 25 000 | 874404 |
| 523 |  | 15.5 | 95 | 12 500 | 955232 |
| | | | | 25 000 | 875232 |
| | | 29 | 125 | 12 500 | 955233 |
| 550 |  | 15.5 | 95 | 12 500 | 955502 |
| | | | | 25 000 | 875502 |
| | | 29 | 125 | 12 500 | 955503 |

① The model number defines the total number of ways, the number of load-interrupter switch ways, and the number of fault-interrupter ways. For example, a Model 431 has "4" ways in total; of which, "3" are load-interrupter switch ways, and "1" is a fault-interrupter way.

② Refer to the nearest S&C Sales Office for other possible configurations.

③ Refer to Table 1 on page 10 for continuous, load-dropping, interrupting, and momentary ratings.

### Table 3. Three-Phase Units—Split-Bus Configuration

| Model① | One-Line Diagram② | Ratings③ | | | Catalog Number |
|---|---|---|---|---|---|
| | | kV | | Short-Circuit Amperes, RMS, Sym. | |
| | | Max | BIL | | |
| 532 |  | 15.5 | 95 | 12 500 | 965322 |
| | | 29 | 125 | 12 500 | 965323 |
| 550 |  | 15.5 | 95 | 12 500 | 965502 |
| | | 29 | 125 | 12 500 | 965503 |

① The model number defines the total number of ways, the number of load-interrupter switch ways, and the number of fault-interrupter ways. For example, a Model 431 has "4" ways in total of which "3" are load- interrupter switch ways and "1" is a fault-interrupter way.

② Refer to the nearest S&C Sales Office for other possible configurations.

③ Refer to Table 1 on page 10 for continuous, load-dropping, interrupting, and momentary ratings.

### Table 4. Switchgear Styles

| Item | | | Suffix to Be Added to Switchgear Catalog Number | Applicable to Models |
|---|---|---|---|---|
| UnderCover Style. Includes stainless steel tank, submersible wiring, and 25-foot (762 cm) submersible control cable for attachment to olive green finish mild steel, low-voltage enclosure | | | -U | All models |
| Dry-vault-mounted style. Includes mild steel tank and 25-foot (762 cm) control cable for attachment to olive green finish mild steel, low-voltage enclosure. Does not include submersible wiring | | | -V3 | |
| Wet-vault-mounted style. Includes stainless steel tank, submersible wiring, and 25-foot (762 cm) submersible control cable for attachment to olive green finish mild steel, low-voltage enclosure | | | -V4 | |
| Pad-mounted style. Includes pad-mounted enclosure for mounting switchgear with integral low-voltage compartment on a pad | Mild-steel outer enclosure and low-voltage compartment | Olive green finish | -P6 | |
| | | Light gray finish | -P11 | |
| | Stainless steel outer enclosure and low-voltage compartment | Olive green finish | -P16 | |
| | | Light gray finish | -P21 | |

### Table 5. Single-Pole or Three-Pole Fault Interrupting①②③

| Item | Suffix to Be Added to Switchgear Catalog Number | Applicable to Models |
|---|---|---|
| Single-pole manual fault interrupter on all fault-interrupting ways ● | -T0 | 12.5-kA-rated models with 1 or more fault interrupters |
| Three-pole manual fault interrupter on one fault-interrupting way (single-pole manual fault interrupter on all other fault-interrupting ways) ● | -T1 | 12.5-kA-rated models with 1 or more fault interrupters |
| Three-pole manual fault interrupter on two fault-interrupting ways (single-pole manual fault interrupter on all other fault-interrupting ways) ● | -T2 | 12.5-kA-rated models with 2 or more fault interrupters |
| Three-pole manual fault interrupter on three fault-interrupting ways (single-pole manual fault interrupter on all other fault-interrupting ways) ● | -T3 | 12.5-kA-rated models with 3 or more fault interrupters |

① Not applicable to models rated 25 kA short circuit. All 25 kA-rated models include three-pole manual fault interrupters.

② Refer to the nearest S&C Sales Office for other possible configurations.

③ For standard models, components are in the following order (from left to right) when facing the operating side of the gear: load switches, bus taps, three-pole fault interrupters, single-pole fault interrupters.

● Motor operators are not available for single-pole fault-interrupting ways.

### Table 6. Voltage Transformers

| System Voltage, kV① | Transformer BIL, kV② | Suffix to Be Added to Switchgear Catalog Number | Applicable to Models |
|---|---|---|---|
| 4.16 | 75 | -X1 | All models |
| 7.2 | 75 | -X2 | |
| 8.32 | 75 | -X3 | |
| 12 | 95 | -X4 | |
| 12.47 | 95 | -X4 | |
| 13.8 | 95 | -X5 | |
| 14.4 | 95 | -X5 | |
| 23 | 125 | -X6 | |
| 24.9 | 125 | -X6 | |
| 27.6 | 125 | -X7 | |
| 34.5 | 150 | -X8 | |

① For additional system operating voltages and additional voltage-transformer ratings, refer to the nearest S&C Sales Office.

② The transformer BIL rating may impact the rating of the switchgear. The switchgear BIL rating will be de-rated to that of the transformer BIL rating if the latter is lower.

**Table 7. Optional Features**

| Item | | Suffix to Be Added to Switchgear Catalog Number | Applicable to Models |
|---|---|---|---|
| Stainless steel tank for dry-vault-mounted style or pad-mounted style switchgear | | -S | All models |
| Stainless steel low-voltage enclosure for UnderCover Style or vault-mounted style switchgear | | -E | All models |
| Mounting provisions for a fault indicator for each load-interrupter switch in pad-mounted style switchgear. Accommodates three-phase indicator with single-phase sensors | *With* viewing window in pad-mounted enclosure | -F2 ● | All models |
| Control cable for UnderCover Style or wet-vault-mounted style switchgear. 25-foot (762 cm) length is standard. Connects Vista switchgear tank to low-voltage enclosure | 35-foot (1067 cm) length | -J35 | All models with catalog number suffix "-U" or "-V4" |
| | 45-foot (1372 cm) length | -J45 | |
| Control cable for dry-vault-mounted style switchgear. 25-foot (762 cm) length is standard. Connects Vista tank to low-voltage enclosure | 35-foot (1067 cm) length | -H35 | All models catalog number suffix "-V3" |
| | 45-foot (1372 cm) length | -H45 | |
| Potential indication with test feature. Includes an LCD indicating the presence of voltage on each phase, and a solar panel to supply power for testing of the complete voltage-indication circuit and phasing circuit (if furnished). One potential indicator is provided for each bus terminal, load-interrupter switch, and fault-interrupter way | *With* provisions for low-voltage phasing | -L2 | All models |
| Spanish labels | | -L51 | All models |
| International crating① | | -L71 | All models |
| 900-ampere load-interrupter switch②③④ on | Way 1 | -K1 | All models rated 25 kA ($SF_6$ and 15.5kV, 25 kA Vista Green switchgear models only) |
| | Way 2 | -K2 | |
| | Way 3 | -K3 | |
| | Way 4 | -K4 | |
| | Way 5 | -K5 | |
| | Way 6 | -K6 | |
| 900-ampere fault interrupter②③④⑤ on | Way 1 | -Q1 | |
| | Way 2 | -Q2 | |
| | Way 3 | -Q3 | |
| | Way 4 | -Q4 | |
| | Way 5 | -Q5 | |
| | Way 6 | -Q6 | |

① Wood products used in the packaging are either hardwood or certified by the wood supplier as being "heat treated (kiln dried) to a core temperature of 133°F (56°C) for a minimum of 30 minutes."

② 900-ampere cable connectors must be used.

③ If piggybacked cable connectors are desired, refer to the nearest S&C Sales Office.

④ Copper bus, catalog number suffix "-Z5," must be specified if 900-ampere load-interrupter switches and/or 900-ampere fault interrupters are specified.

⑤ If multiple 900-ampere-rated fault-interrupting ways are desired, they must be specified adjacent to one another. Contact the local S&C Sales Office for details.

● Specify catalog number suffix "-F12" for pad-mounted style switchgear with stainless steel outer enclosure, catalog number suffix "-P12," "-P14," "-P16," "-P17," "-P19," or "-P21."

*TABLE CONTINUED* ►

## Table 7. Optional Features—Continued

| Item | | Suffix to Be Added to Switchgear Catalog Number | Applicable to Models |
|---|---|---|---|
| 600-A bushings *without* studs for the load-interrupter switch and bus terminals (in lieu of standard 600-A bushings *with* package of studs)⑥ | | -M1 | All models rated 12.5 kA |
| 600-A bushings *without* studs, for the load-interrupter switch, fault interrupter, and bus terminals (in lieu of standard 600-A bushings with package of studs)⑥ | | | All models rated 25 kA |
| 600-A bushings at fault-interrupter terminals (in lieu of 200-A bushing wells) | *Without* package of studs | -M2 | All $SF_6$ models rated 12.5 kA except Models 210, 220, 320, 330, and 440 |
| | *With* package of studs | -M3 | |
| 200-A bushing wells at the load-interrupter switch and bus terminals (in lieu of 600-A bushings with package of studs) | | -M4 | All $SF_6$ models rated 12.5 kA |
| Arc resistance for vault-mounted style (arc resistance is standard for UnderCover Styles and pad-mounted style), per IEC 62271-200, for arcs occurring internal to the tank (15 cycles, 12 kA symmetrical for 12.5 kA-rated models and 25 kA symmetrical for 25 kA-rated models) | | -N | All models with catalog number suffix "-V3" or "-V4" |
| Two-hole ground pads, one per way, located below the bushings or bushing wells (in lieu of standard one ground pad per tank) | | -O | All models |
| Remote low-pressure alarm. Includes internal contact for remote low-pressure indication with wiring to outside of tank | With wire routed to the outside of the tank and to a low-voltage control enclosure for customer connections | -R11 | All pad-mounted and dry-vault-mounted styles |
| | | -R12 | All UnderCover Styles and wet-vault-mounted styles |
| | With wires terminated in an enclosure furnished with a terminal block for customer connections (Terminal block enclosure is typically mounted on the side of the Vista switchgear tank near the overcurrent control relay enclosure.) | -R2 | All pad-mounted and dry-vault-mounted styles |

⑥ Bushings are rated 900 amperes on ways furnished with 900-ampere load-interrupter switches (catalog number suffix "-K1" through "-K6") and/or 900-ampere fault interrupters (catalog number suffix "-Q1" through "-Q6").

⑦ The external trip board can be powered by user-supplied 120-Vac 50/60-Hz control power source, 120 Vac 50/60 Hz supplied by a voltage transformer internal to the tank (option suffix "-X"), or 36 Vdc supplied by the battery charger.

⑧ The user-supplied trip-initiating signal must be a momentary contact. Refer to the nearest S&C Sales Office if an application requires the use of a latching contact.

*TABLE CONTINUED* ►

### Table 7. Optional Features—Continued

| Item | | Suffix to Be Added to Switchgear Catalog Number | Applicable to Models |
|---|---|---|---|
| External trip provisions. Allows three-pole tripping of single-pole or three-pole fault interrupters via a trip signal from a remote location or an external relay. Requires a 110/120-Vac 50/60-Hz control power source ⑦⑧ | In addition to standard overcurrent control for all fault interrupters | -R31 | Pad-mounted and dry-vault-mounted styles, Models 321, 422, 431, 523, 532 |
| | | -R32 | UnderCover Styles and wet-vault-mounted style, Models 321, 422, 431, 523, 532 |
| | In lieu of standard overcurrent control and current transformers for all fault interrupters | -R41 | Pad-mounted and dry-vault-mounted styles, Models 321, 422, 431, 523, 532 |
| | | -R42 | UnderCover Styles and wet-vault-mounted style, Models 321, 422, 431, 523, 532 |
| External trip provisions. Allows three-pole tripping of single-pole or three-pole fault interrupters via a trip signal from a remote location or an external relay. Requires a 220/240-Vac 50/60-Hz control power source⑦⑧ | In addition to standard overcurrent control for all fault interrupters | -R33 | Pad-mounted and dry-vault-mounted styles, Models 321, 422, 431, 523, 532 |
| | | -R34 | UnderCover Styles and wet-vault-mounted style, Models 321, 422, 431, 523, 532 |
| | In lieu of standard overcurrent control and current transformers for all fault interrupters | -R43 | Pad-mounted and dry-vault-mounted styles, Models 321, 422, 431, 523, 532 |
| | | -R44 | UnderCover Styles and wet-vault-mounted style, Models 321, 422, 431, 523, 532 |

⑦ The external trip board can be powered by user-supplied 120-Vac 50/60-Hz control power source, 120 Vac 50/60 Hz supplied by a voltage transformer internal to the tank (option suffix "-X") or 36 Vdc supplied by the battery charger.

⑧ The user-supplied trip-initiating signal must be a momentary contact. Refer to the nearest S&C Sales Office if an application requires the use of a latching contact.

*TABLE CONTINUED* ►

### Table 7. Optional Features—Continued

| Item | Suffix to Be Added to Switchgear Catalog Number | Applicable to Models |
|---|---|---|
| Overcurrent lockout. Includes three-phase current sensors on each source way | -Y21 | All pad-mounted and dry-vault-mounted styles |
| | -Y22 | All UnderCover Style and wet-vault-mounted style |
| Remote indication. Includes provisions for remote monitoring of the presence or absence of source voltages, manual or automatic operating mode, status of the READY indicator, EVENT indicator, and **Overcurrent Lockout** (if feature is furnished) | -Y4 | All models |
| Test panel. Permits the use of an external, adjustable three-phase source to verify, through independent measurement, the response of the control to **Loss of Source**, **Phase Unbalance**, and **Overcurrent Lockout** (if feature is furnished) | -Y5 | |
| Supervisory control. Permits switch operation from a remote location | -Y6 | |
| Communications card. Permits local uploading of "events" and settings from the Micro-AT control to a user-furnished personal computer as well as downloading of the user's standard operating parameters | -Y8 | |
| Electrical anti-paralleling. Prevents paralleling of two sources | -Y10 | All common-bus configuration models |
| Copper bus⑨ | -Z5 | All models |

⑨ Main bus can be rated up to 1200 amperes when catalog number suffix "-Z5" is specified.

### Table 8. Accessories

| Item | | Catalog Number |
|---|---|---|
| Shotgun clamp stick for use with separable connectors | 6-foot–5½-inch (197 cm) length | 9933-150 |
| | 8-foot–5½-inch (258 cm) length | 9933-151 |
| Storage bag for shotgun clamp stick, heavy canvas | 6-foot–6-inch (198 cm) length | 9933-152 |
| | 8-foot–6-inch (259 cm) length | 9933-153 |
| Test accessory. Permits preliminary checkout of source-transfer control using single-phase 120-Vac source (before medium-voltage connections are made to the Vista switchgear) to expedite full service once medium voltage is available | | TA-2669● |
| Micro-AT Source-Transfer Control communications cable. For connecting optional communications card to user-furnished personal computer. Includes Matlink communication software | For personal computers having 25-pin serial communication port | TA-2320 |
| | For personal computers having 9-pin serial communication port | TA-2321 |
| Portable motor operator. For operation of load-interrupter switches and single- or three-pole fault interrupters from a remote location. Includes carrying case, 50-foot (1524 cm) length control cable with remote controls, and power supplied by: | User-furnished 24-Volt battery and battery charger | 38320R1 |
| | S&C-furnished 24-Volt battery and battery charger | 38322R1 |
| | S&C-furnished ac input power supply | 38323R1 |
| Portable remote control for permanent motor operator. Requires one of the control cables listed below | | TA-2424 |
| 25-foot (762 cm) length control cable for portable remote control for permanent motor operator | | 9931-615 |
| 50-foot (1524 cm) length control cable for portable remote control for permanent motor operator | | 9931-616 |
| Pentahead socket for ½-inch drive | | 9931-074 |

● Catalog number TA-2669 is only intended for use with Micro-AT controls. Refer to the nearest S&C Sales Office for test accessories for use with Type AT controls.

### Table 9. Vista Overcurrent Control 2.0 Replacement Parts

| Item | Catalog Number |
|---|---|
| Vista Overcurrent Control 2.0 connection cable. For connecting the control to the user PC for programming and status information. [This 6.6-foot (2-meter) cable includes USB Type A to Type A connection.] | TR-11887 |

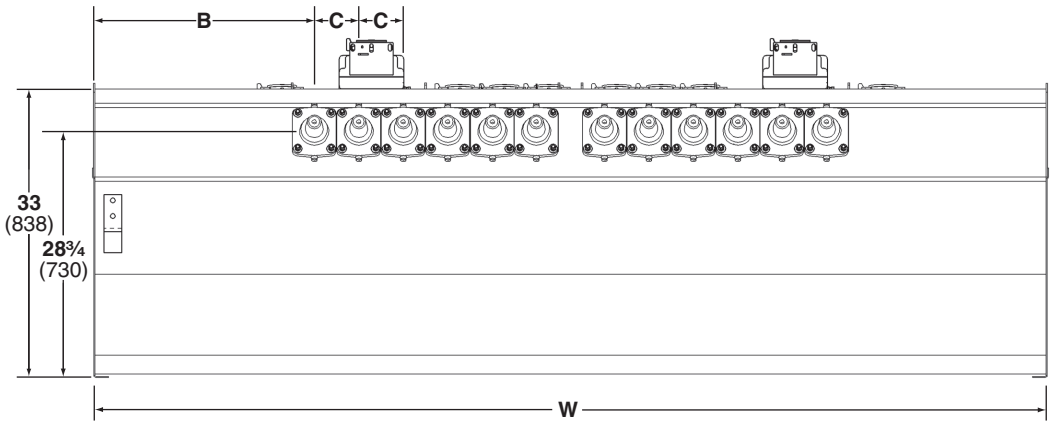
### Table 10. Touch-Up Kit Components—Aerosol Coatings in 12-ounce cans

| Item | Catalog Number |
|---|---|
| S&C light gray outdoor finish | 9999-080 |
| S&C olive green (Munsell 7GY 3.29/1.5) outdoor finish | 9999-058 |
| S&C red-oxide primer | 9999-061 |

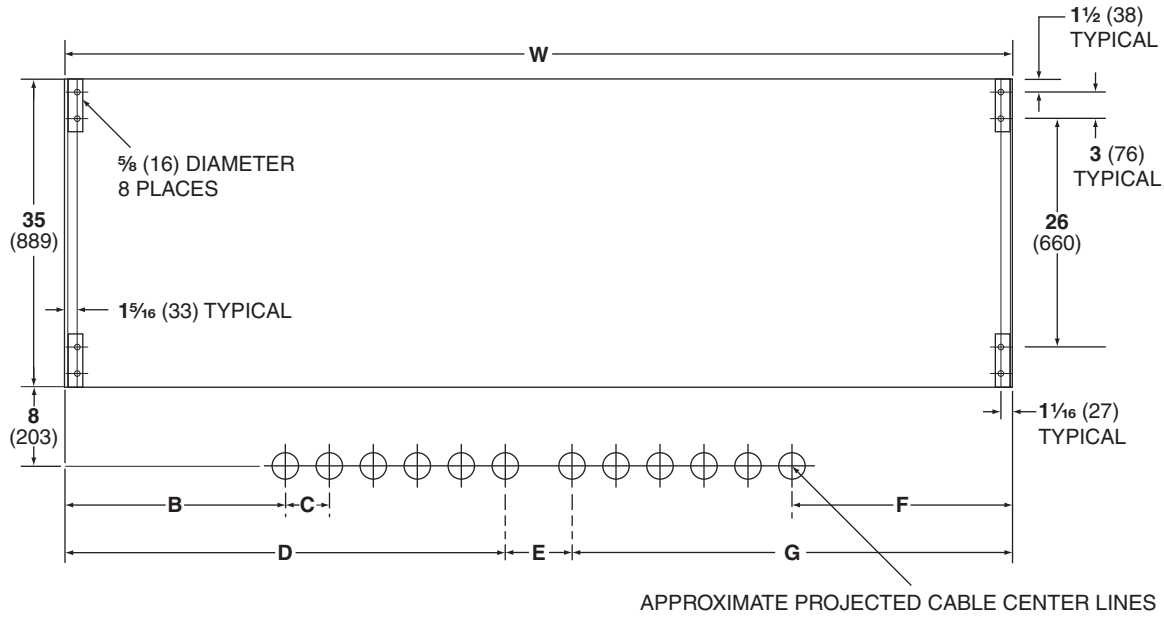
## Common-Bus Configuration Vista Switchgear Tank

(Model 422, 15.5 kV shown)

Dimensions in inches (mm)



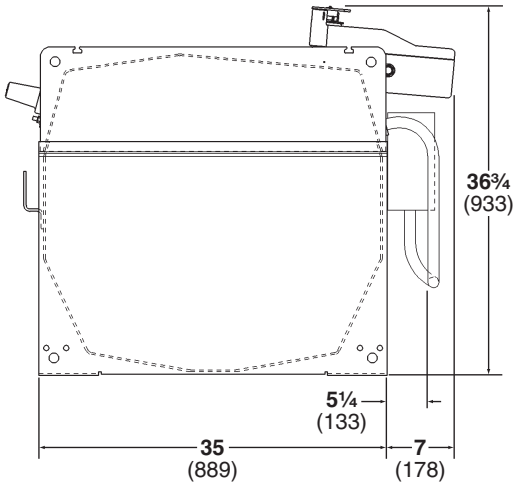

**TERMINATION VIEW**




**ANCHOR BOLT PLAN**

# Dimensional Drawings

Dimensions in inches (mm)



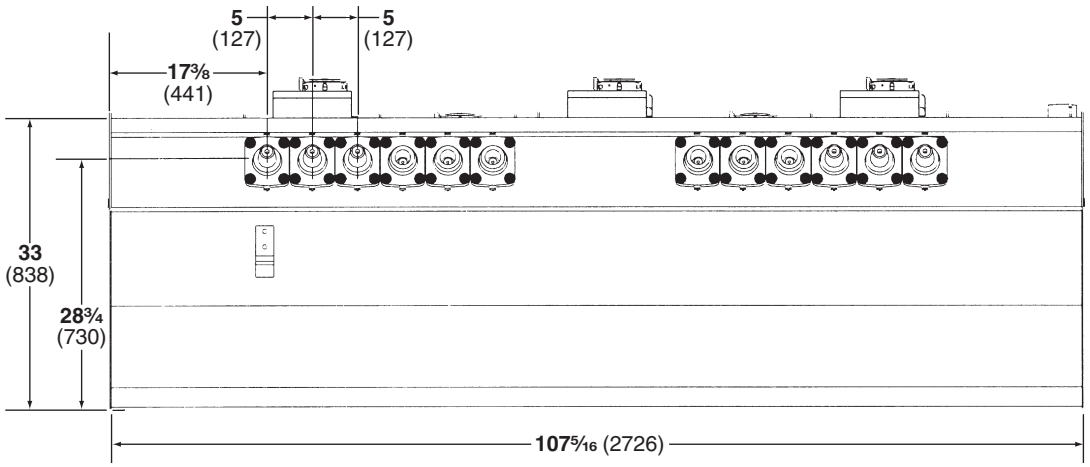

**SIDE VIEW**

| Model | Ratings | | B | C | D | E | F | G | W |
|---|---|---|---|---|---|---|---|---|---|
| | kV, Max | Short-Circuit, Amperes, RMS, Sym. | | | | | | | |
| 320<br>321<br>330 | 15.5 | 12 500 | 19⅛ (486) | 5 (127) | 29⅛ (740) | 7⅝ (194) | 18¾ (476) | 43¾ (1111) | 80 7/16 (2043) |
| | | 25 000 | 19⅛ (486) | 5 (127) | 29⅛ (740) | 7⅝ (194) | 18¾ (476) | 43¾ (1111) | 80 7/16 (2043) |
| | 29 | 12 500 | 19⅛ (486) | 5 (127) | 29⅛ (740) | 7⅝(194) | 18¾ (476) | 43¾ (1111) | 80 7/16 (2043) |
| | | 25 000 | 22 5/16 (567) | 5¾ (146) | NA | NA | 22 5/16 (567) | NA | 90 1/16 (2288) |
| | 38 | 12 500 | 22 5/16 (567) | 5¾ (146) | NA | NA | 22 5/16 (567) | NA | 90 1/16 (2288) |
| | | 25 000 | 22 5/16 (567) | 5¾ (146) | NA | NA | 22 5/16 (567) | NA | 90 1/16 (2288) |
| 413<br>422<br>431<br>440 | 15.5 | 12 500 | 18 15/16 (481) | 5 (127) | 43 15/16 (1116) | 7⅝ (194) | 18 15/16 (481) | 43 15/16 (1116) | 95 7/16 (2424) |
| | | 25 000 | 18 15/16 (481) | 5 (127) | 43 15/16 (1116) | 7⅝ (194) | 18 15/16 (481) | 43 15/16 (1116) | 95 7/16 (2424) |
| | 29 | 12 500 | 18 15/16 (481) | 5 (127) | 43 15/16 (1116) | 7⅝ (194) | 18 15/16 (481) | 43 15/16 (1116) | 95 7/16 (2424) |
| | | 25 000 | 22 5/16 (567) | 5¾ (146) | NA | NA | 22 5/16 (567) | NA | 107 5/16 (2726) |
| | 38 | 12 500 | 22 5/16 (567) | 5¾ (146) | NA | NA | 22 5/16 (567) | NA | 107 5/16 (2726) |
| | | 25 000 | 22 5/16 (567) | 5¾ (146) | NA | NA | 22 5/16 (567) | NA | 107 5/16 (2726) |
| 514<br>523 | 15.5 | 12 500 | 17⅜ (441) | 5 (127) | 42⅜ (1076) | 7⅝ (194) | 17 5/16 (440) | 57 15/16 (1472) | 107 5/16 (2726) |
| | | 25 000 | 17⅜ (441) | 5 (127) | 42⅜ (1076) | 7⅝ (194) | 17 5/16 (440) | 57 15/16 (1472) | 107 5/16 (2726) |
| | 29 | 12 500 | 17⅜ (441) | 5 (127) | 42⅜ (1076) | 7⅝ (194) | 17 5/16 (440) | 57 15/16 (1472) | 107 5/16 (2726) |

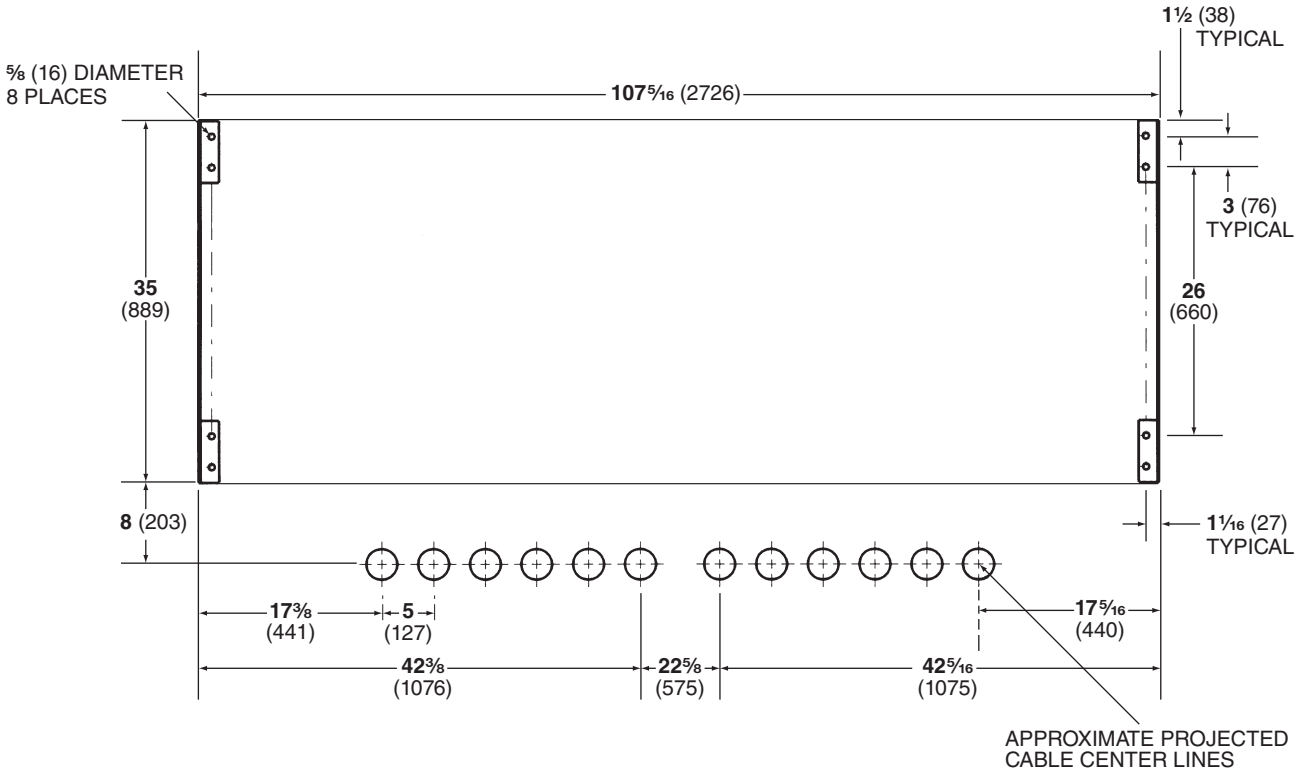
## Split-Bus Configuration Vista Switchgear Tank

(Model 532, 15.5 kV shown; applicable to all models)

Dimensions in inches (mm)

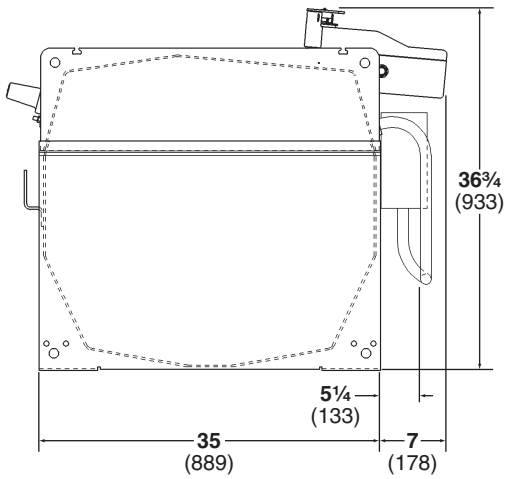



**TERMINATION VIEW**




**TERMINATION VIEW**

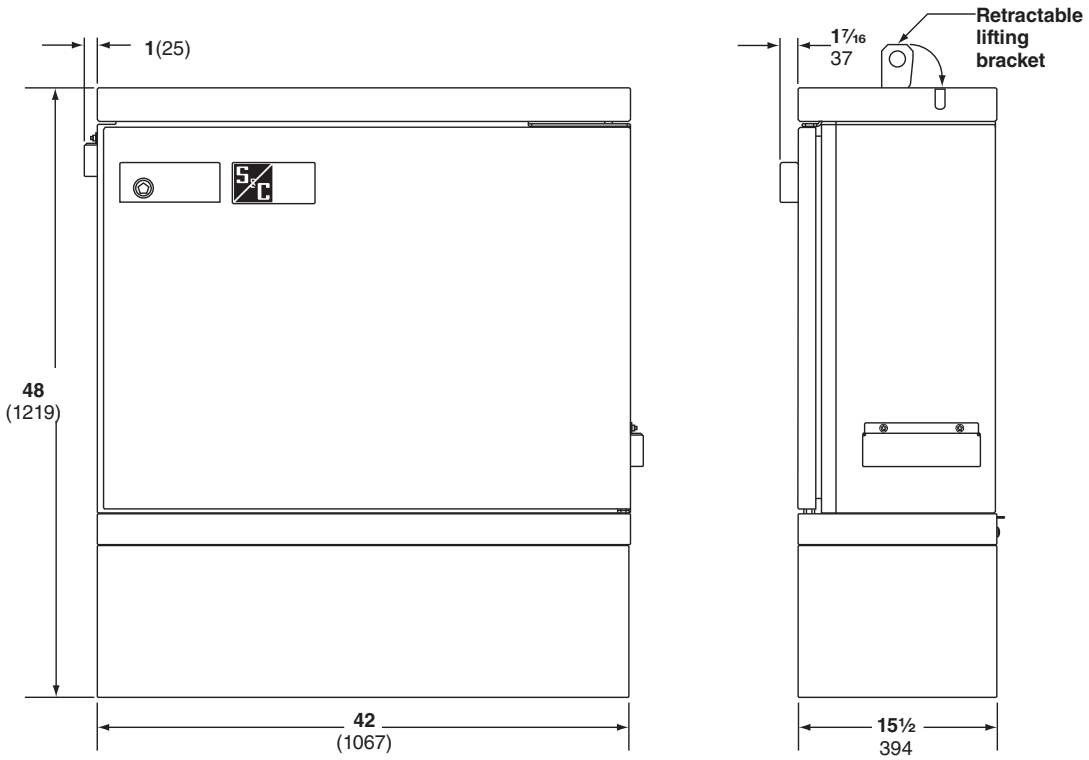
Dimensions in inches (mm)



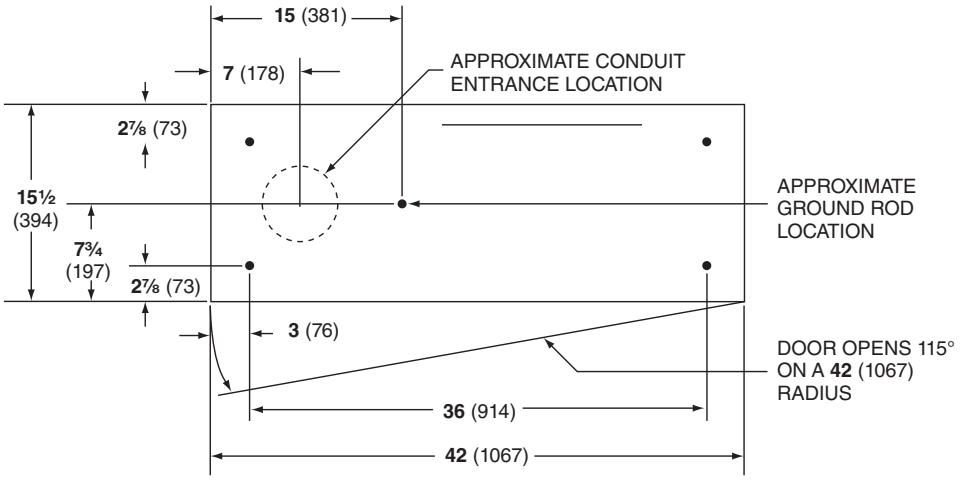

**SIDE VIEW**

## UnderCover™ Style Switchgear Low-Voltage Enclosure★

Dimensions in inches (mm)




**FRONT VIEW** **SIDE VIEW**




**ANCHOR BOLT PLAN**

★ Common-bus configuration switchgear requires a minimum of a 5-inch (127-mm) diameter conduit. Split-bus configuration switchgear requires a minimum of a 6-inch (152-mm) diameter conduit.

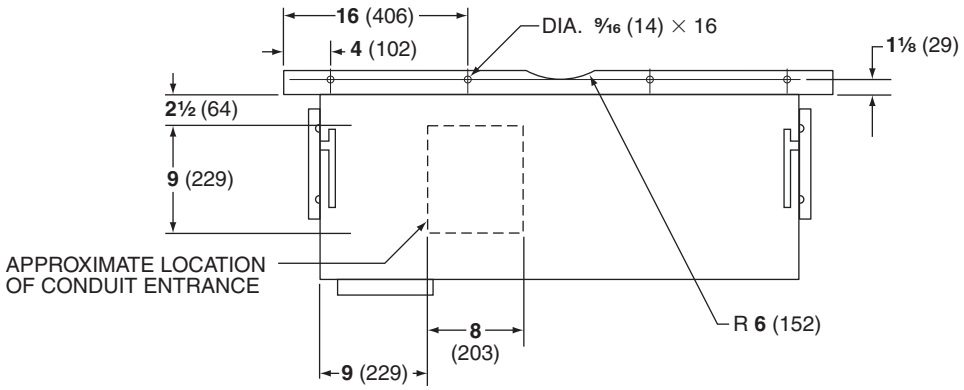
① Attach earth ground cable between the ground lug inside the low-voltage enclosure and the ground rod by using a copper cable of 4/0 or greater and less than 10 feet (304.8 cm) in length.

② Ground rod must be 25 ohm impedance or less.

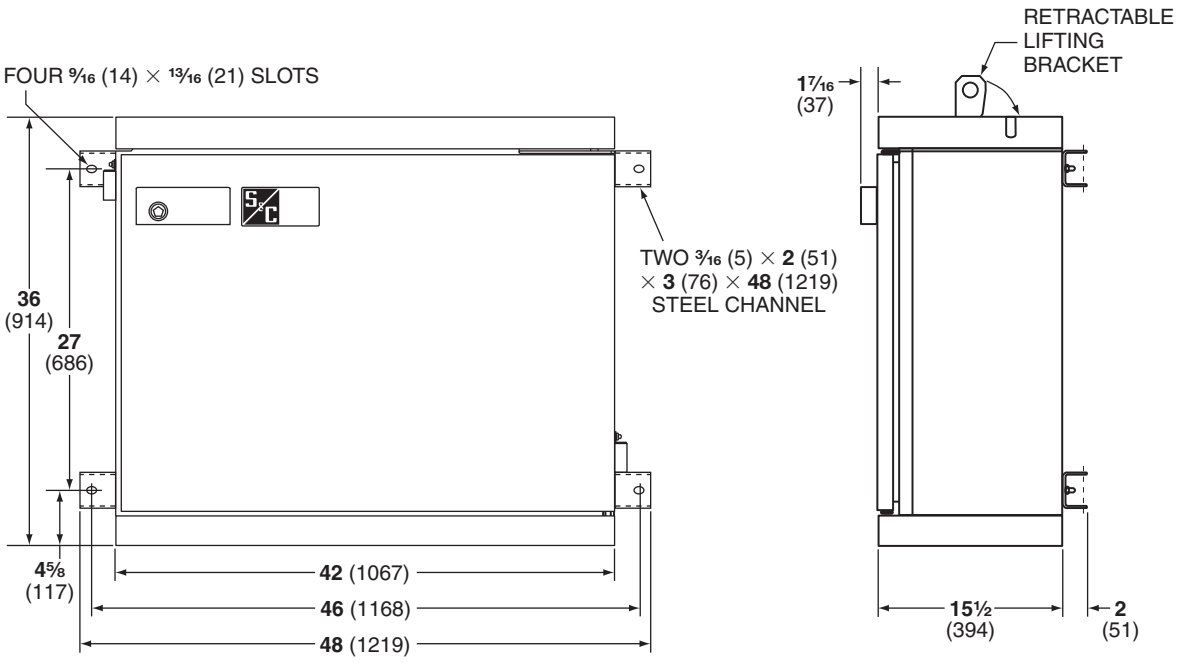
## Vault-Mounted Style Switchgear Low-Voltage Enclosure

Applicable to wall-mounted and floor-mounted tanks★

Dimensions in inches (mm)




**TOP VIEW**



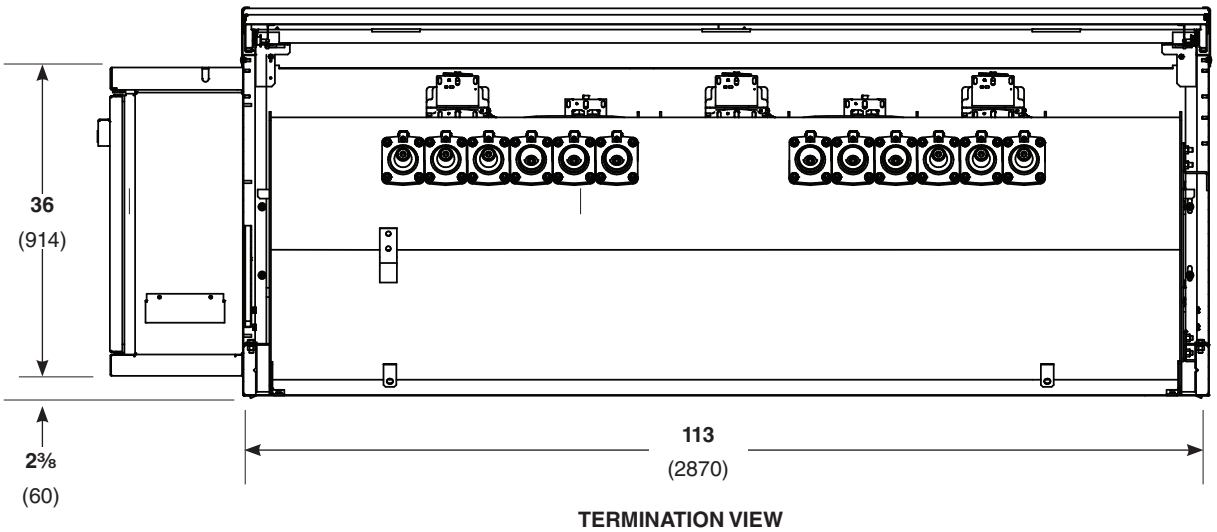

**FRONT VIEW** **SIDE VIEW**

★ Common-bus configuration switchgear requires a minimum of a 5-inch (127-mm) diameter conduit. Split-bus configuration switchgear requires a minimum of a 6-inch (152-mm) diameter conduit.

## Common-Bus Configuration Pad-Mounted Style Switchgear with Low-Voltage Enclosure

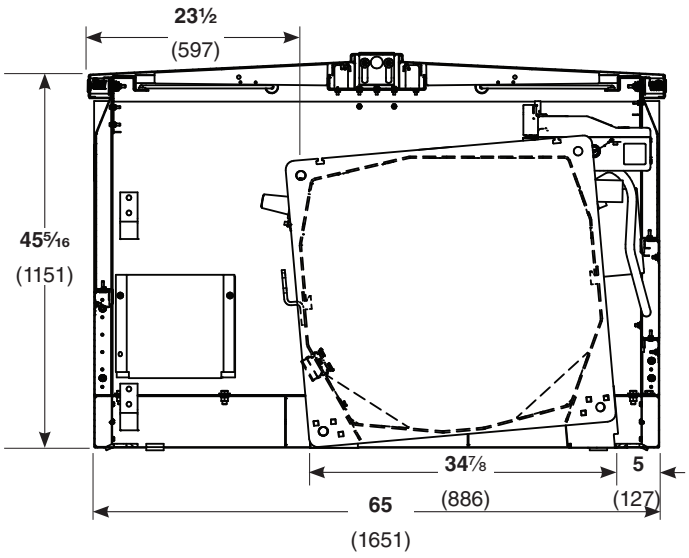
(Model 422, 15.5 kV shown)

Dimensions in inches (mm)




SIDE VIEW

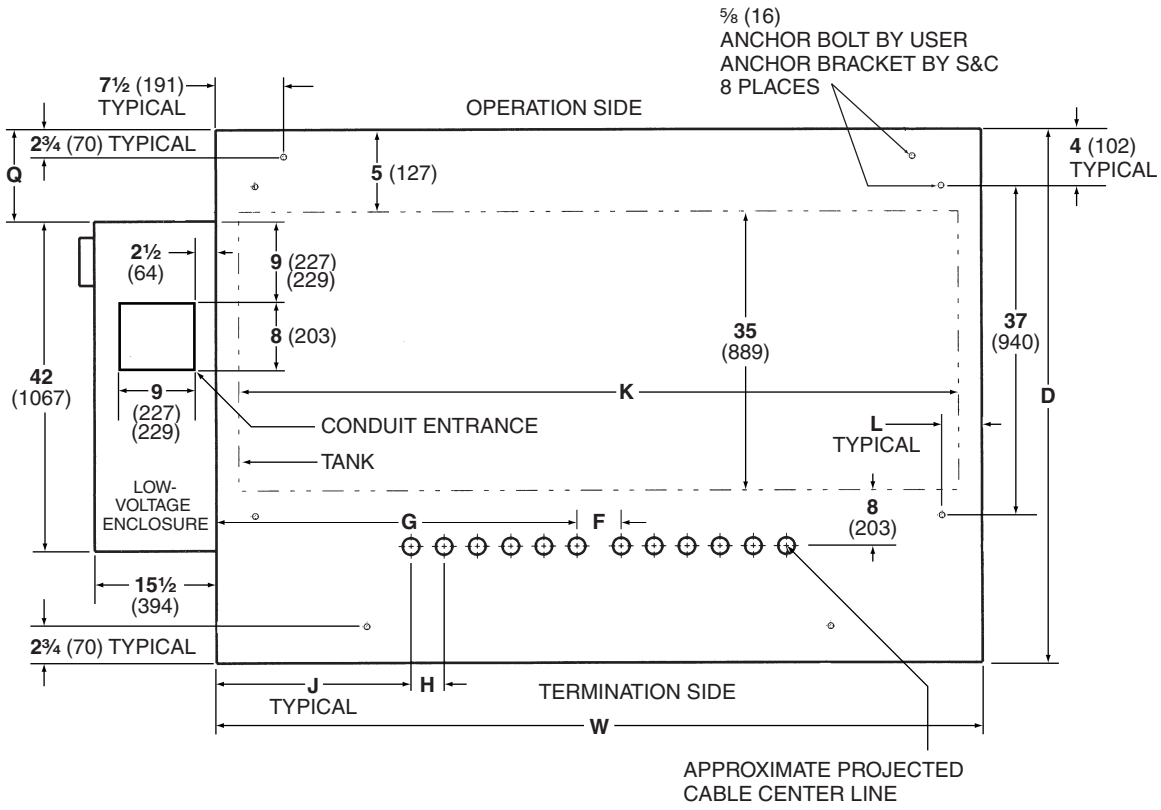
TERMINATION VIEW




SIDE VIEW

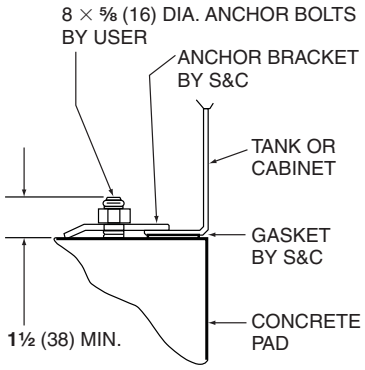
| Model | Ratings | | D | F | G | H |
|---|---|---|---|---|---|---|
| | kV, Max | Short-Circuit, Amperes, RMS, Sym. | | | | |
| 321<br>330 | 15.5 | 12 500 | 61<br>(1549) | 7⅝<br>(194) | 38⅞<br>(987) | 5<br>(127) |
| | | 25 000 | 65<br>(1651) | 7⅝<br>(194) | 38⅞<br>(987) | 5<br>(127) |
| | 29 | 12 500 | 65<br>(1651) | 7⅝<br>(194) | 38⅞<br>(987) | 5<br>(127) |
| | | 25 000 | 65<br>(1651) | NA | NA | 5¾<br>(146) |
| | 38 | 12 500 | 65<br>(1651) | NA | NA | 5¾<br>(146) |
| | | 25 000 | 65<br>(1651) | NA | NA | 5¾<br>(146) |
| 422<br>431<br>440 | 15.5 | 12 500 | 61<br>(1549) | 7⅝<br>(194) | 47³⁄₁₆<br>(1199) | 5<br>(127) |
| | | 25 000 | 65<br>(1651) | 7⅝<br>(194) | 47³⁄₁₆<br>(1199) | 5<br>(127) |
| | 29 | 12 500 | 65<br>(1651) | 7⅝<br>(194) | 47³⁄₁₆<br>(1199) | 5<br>(127) |
| | | 25 000 | 65<br>(1651) | NA | NA | 5¾<br>(146) |
| | 38 | 12 500 | 65<br>(1651) | NA | NA | 5¾<br>(146) |
| | | 25 000 | 65<br>(1651) | NA | NA | 5¾<br>(146) |
| 523<br>550 | 15.5 | 12 500 | 65<br>(1651) | 22⅝<br>(575) | 45¼<br>(1149) | 5<br>(127) |
| | | 25 000 | 65<br>(1651) | 22⅝<br>(575) | 45¼<br>(1149) | 5<br>(127) |
| | 29 | 12 500 | 65<br>(1651) | 22⅝<br>(575) | 45¼<br>(1149) | 5<br>(127) |

Dimensions in inches (mm)




**ANCHOR BOLT PLAN**

Dimensions in inches (mm)

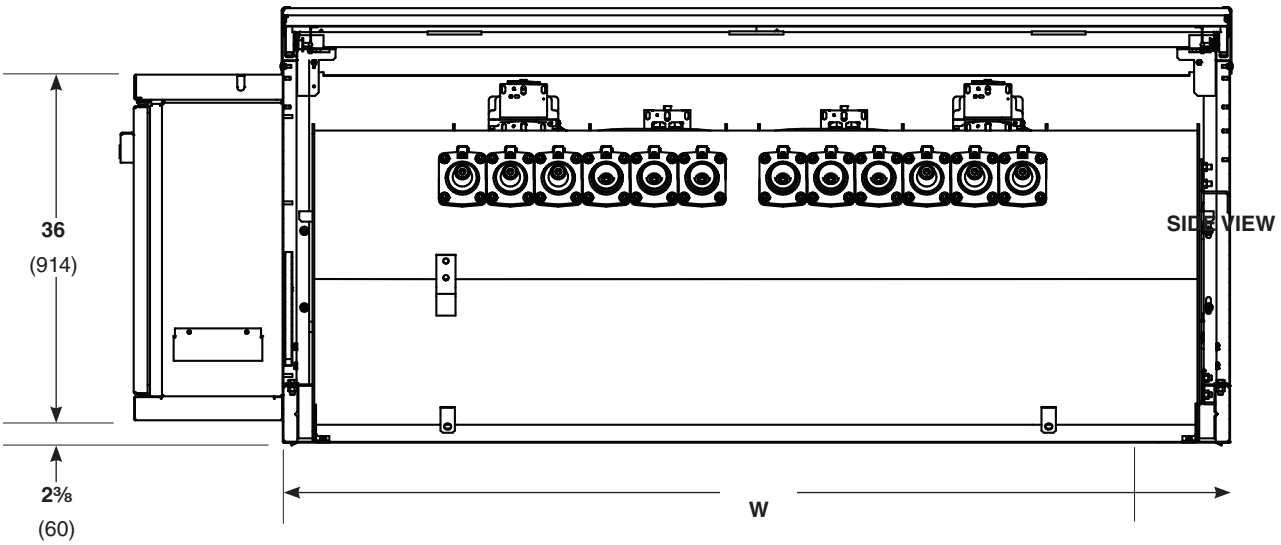



**ANCHOR BOLT DETAIL**

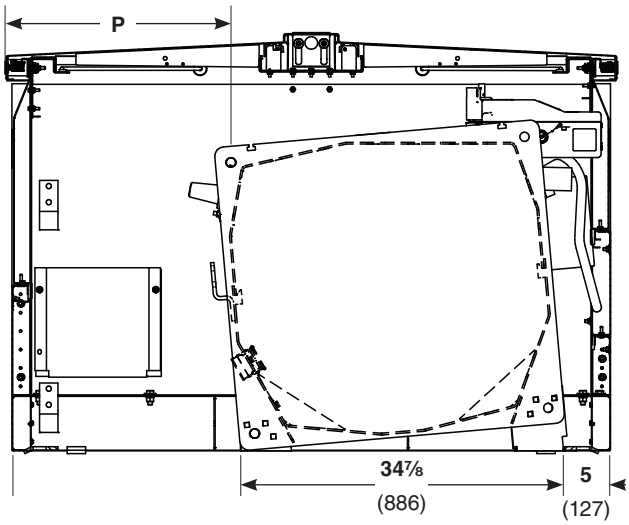
| Model | Ratings | | J | K | L | P | Q | W |
|---|---|---|---|---|---|---|---|---|
| | kV, Max | Short-Circuit, Amperes, RMS, Sym. | | | | | | |
| 321<br>330 | 15.5 | 12 500 | 29⅞ (759) | 80⁷⁄₁₆ (2043) | 12⁹⁄₁₆ (310) | 19½ (495) | 3½ (89) | 102 (2591) |
| | | 25 000 | 29⅞ (759) | 80⁷⁄₁₆ (2043) | 12⁹⁄₁₆ (310) | 23½ (597) | 11½ (292) | 102 (2591) |
| | 29 | 12 500 | 29⅞ (759) | 80⁷⁄₁₆ (2043) | 12⁹⁄₁₆ (310) | 23½ (597) | 11½ (292) | 102 (2591) |
| | | 25 000 | 33½ (851) | 90¹⁄₁₆ (2288) | 12⅞ (327) | 23½ (597) | 11½ (292) | 113 (2870) |
| | 38 | 12 500 | 33½ (851) | 90¹⁄₁₆ (2288) | 12⅞ (327) | 23½ (597) | 11½ (292) | 113 (2870) |
| | | 25 000 | 33½ (851) | 90¹⁄₁₆ (2288) | 12⅞ (327) | 23½ (597) | 11½ (292) | 113 (2870) |
| 422<br>431<br>440 | 15.5 | 12 500 | 22³⁄₁₆ (564) | 95⁷⁄₁₆ (2424) | 4⅝ (117) | 19½ (495) | 3½ (89) | 102 (2591) |
| | | 25 000 | 22³⁄₁₆ (564) | 95⁷⁄₁₆ (2424) | 4⅝ (117) | 23½ (597) | 11½ (292) | 102 (2591) |
| | 29 | 12 500 | 22³⁄₁₆(564) | 95⁷⁄₁₆ (2424) | 4⅝ (117) | 23½ (597) | 11½ (292) | 102 (2591) |
| | | 25 000 | 24⅞ (632) | 107⁵⁄₁₆ (2726) | 4¼ (108) | 23½ (597) | 11½ (292) | 113 (2870) |
| | 38 | 12 500 | 24⅞ (632) | 107⁵⁄₁₆ (2726) | 4¼ (108) | 23½ (597) | 11½ (292) | 113 (2870) |
| | | 25 000 | 24⅞ (632) | 107⁵⁄₁₆ (2726) | 4¼ (108) | 23½ (597) | 11½ (292) | 113 (2870) |
| 523<br>550 | 15.5 | 12 500 | 20¼ (514) | 107⁵⁄₁₆ (2726) | 4¼ (108) | 23½ (597) | 11½ (292) | 113 (2870) |
| | | 25 000 | 20¼ (514) | 107⁵⁄₁₆ (2726) | 4¼ (108) | 23½ (597) | 11½ (292) | 113 (2870) |
| | 29 | 12 500 | 20¼ (514) | 107⁵⁄₁₆ (2726) | 4¼ (108) | 23½ (597) | 11½ (292) | 113 (2870) |

**Split-Bus Configuration Pad-Mounted Style Switchgear with Low-Voltage Enclosure**
(Model 532, 15.5 kV shown; applicable to all models)

Dimensions in inches (mm)

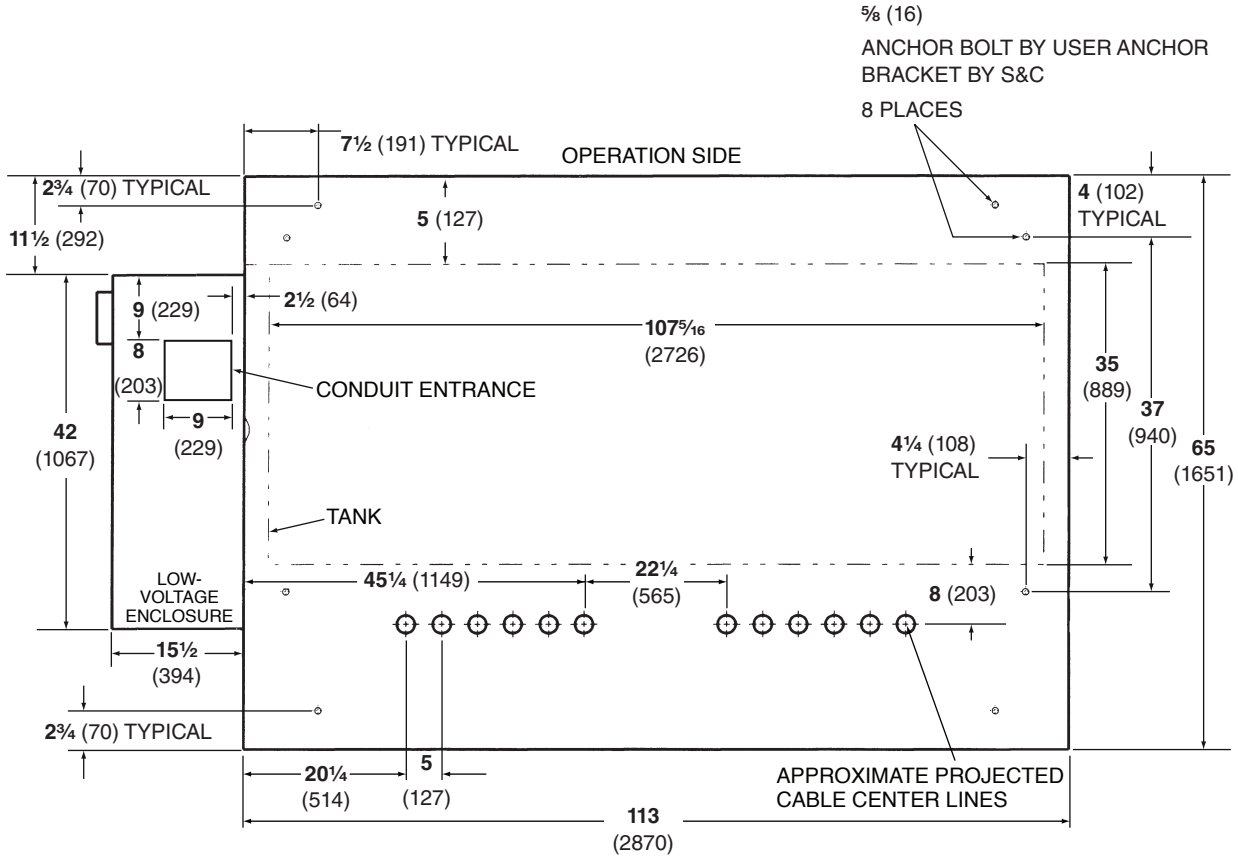



**TERMINATION VIEW**

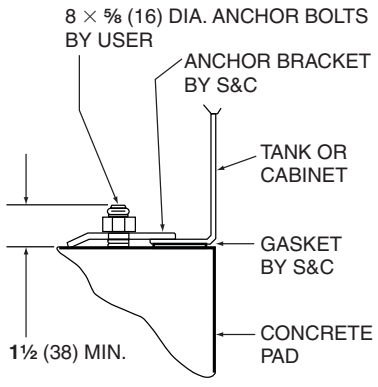



**SIDE VIEW**

Dimensions in inches (mm)




**ANCHOR BOLT PLAN**




**ANCHOR BOLT DETAIL**