

## Specifications

### Conditions of Sale

**STANDARD:** The seller's standard conditions of sale set forth in Price Sheet 150 apply, except as modified under the "Warranty Qualifications" section on page 5.

### SPECIAL TO THIS PRODUCT:

**INCLUSIONS:** Remote supervisory PMH Pad-Mounted Gear permits automated switching and provides fault protection for underground distribution systems. Specification of remote supervisory PMH Pad-Mounted Gear with the communication and control equipment group provides for a completely integrated, self-powered switching and protection package for automated distribution installations. The gear includes interrupter switches, switch operators, a low-voltage compartment, and power fuses. The communication and control equipment group includes current and voltage sensors, a self-contained 20 Volt-ampere power source, a battery with a charger, and a user-specified remote terminal unit (RTU) and communication device.

### Mini-Rupter® Switches

600-ampere Mini-Rupter Switches provide three-pole live switching of three-phase circuits. One, two, three, or four Mini-Rupter Switches may be power-operated, depending on the model selected, as illustrated by the connection diagrams in Table 4 on page 8 through 12. Switch terminal pads can accommodate a variety of cable-terminating devices for cable sizes through 1000 kc mil. Each switch and bus terminal is provided with a ground stud, as is each ground pad.

### Type PM Switch Operators

Type PM Switch Operators provide power operation of the associated Mini-Rupter Switch in response to a **Remote** or **Local** pushbutton signal.

All Type PM Switch Operators include the following features as standard:

- An integral motor for power operating the quick-make quick-break mechanism of the Mini-Rupter Switch (Switch operation is achieved in approximately 3 seconds.)
- OPEN/CLOSE pushbuttons for local electrical operation
- A LOCAL-REMOTE selector switch, which permits local control using pushbuttons when in **Local** mode while precluding remote operations, with remote indication of the selector switch position
- Auxiliary switches for remote indication of **Open** and **Closed** switch positions
- A decoupler to permit operation of the switch operator without affecting the position of the switch
- An OPERATION counter
- A manual handle permitting local manual charging and tripping of the quick-make quick-break mechanism in the event control power is not available

### Control Equipment Groups

Remote supervisory PMH Pad-Mounted Gear may be purchased with the communication and control equipment group to provide a completely self-sufficient automated distribution switching and protection package. Alternately, they may be purchased with either a switch-control equipment group for use with an RTU by others (suffixes "-Y2" through "-Y4") or with a switch-control equipment group for use without an RTU (suffixes "-Y5" through "-Y7"). One of the control equipment groups must be specified when ordering. These control equipment groups are listed in Table 5 on page 13 and are described on page 2.



### **Communication and Control Equipment Group**

Remote supervisory PMH models specified with the communication and control equipment group make for a fully integrated package completely self-contained and factory-built. The communication and control equipment group includes a voltage sensor for single-phase sensing and a control-power source (for switch operators and the RTU), a battery charger with battery packs, three-phase current sensing on power-operated switches, an RTU, and a communication device. The components furnished with the communication and control equipment group are described below:

- A user-specified RTU installed and wired
- A user-specified communication device installed and wired, including a surge protector for user-supplied antenna●
- An S&C Voltage Sensor on the power-operated Mini-Rupter Switch in Compartment 1 of PMH-3 and PMH-5 models or Compartment 2 of all other models to provide power input to the S&C Battery Charger described below (Single-phase monitoring of system line voltage is also provided for input to the RTU. The voltage sensor replaces the center-phase insulator at the jaw-contact side of the Mini-Rupter Switch and, therefore, requires no extra space in the enclosure. In addition, unlike voltage transformers (VTs), the voltage sensor's construction eliminates the need for any primary-side fusing and the space and operating difficulties that they present.)
- Three split-core current sensors rated 600/5 amperes for customer installation on the cables of each power-operated switch (The current sensors provide three-phase monitoring of system line current for input to the RTU.)
- Two series-connected 12-Volt, 5 ampere-hour battery packs charged by an S&C-designed and manufactured temperature-compensated constant-voltage battery charger (The control-power source for the charger is the S&C Voltage Sensor [described above]. The battery charger features an integral load-disconnect circuit to prevent deep discharge of batteries after extended loss of power input. It includes an alarm circuit to indicate loss of power input

[field-selectable], battery low voltage, and charger overvoltage. The battery charger also includes circuitry to effect a battery **Load Test** feature when used in conjunction with a suitable RTU.)■

The battery provides control power for operation of the entire installation, including the switch operators, RTU, and communication device. The battery charger and battery packs are installed in the Type PM Switch Operator located on the left side of Compartment 1 for PMH-5 models or on the left side of Compartment 2 for all other models.

### **Switch-Control Equipment Groups for Use with RTU by Others**

When the RTU, communication device, and associated control power are to be furnished and installed by others, specify one of the three switch-control equipment groups for use with the RTU by others (catalog number suffixes “-Y2” through “-Y4”). These switch-control equipment groups differ only in the method of supplying control-power input to the switch operators as follows:

- **For an external user-supplied 24-Vdc source as control-power input to the switch operators:** Specify catalog number suffix “-Y2.” An S&C Voltage Sensor is furnished for single-phase sensing only.
- **For an external user-supplied 120-Vac source as input to an S&C Battery Charger and battery packs:** Specify catalog number suffix “-Y3.” This switch-control equipment group includes an S&C Battery Charger and battery packs that provide control-power input to the switch operators. An S&C Voltage Sensor is furnished for single-phase sensing only.
- **For an internal S&C-supplied 20 volt-ampere source as input to an S&C Battery Charger and battery packs:** Specify catalog number suffix “-Y4.” This switch-control equipment group includes an S&C Voltage Sensor, an S&C Battery Charger, and battery packs that provide control-power input to the switch operators. The voltage sensor provides only the power input to the battery charger. It is not usable for providing voltage sensing to the RTU.

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● S&C does not recommend the use of a 5-watt transceiver if the Communication and Control Equipment Group is powered by the S&C Voltage Sensor. The high-power draw of these radios puts the batteries into a cyclic loading condition, which may reduce battery life by up to 50%. Contact the nearest S&C Sales Office for details.

■ Frequent deep-discharge load testing of the batteries may put the batteries into a cyclic loading condition, which may reduce battery life by up to 50%. Contact the RTU manufacturer or the nearest S&C Sales Office for details.

The low-voltage compartment included with the pad-mounted gear has provisions for field installation of the user's RTU and communication device. All connectors from switch operators, current sensors, and voltage sensors for connection to the user's RTU are located in the low-voltage compartment. For PMH-10 models with four switch operators, the low-voltage compartment is not available, and the above connectors are located in the switch operator mounted on Compartment 3. The battery charger and battery packs, when furnished, are installed in the Type PM Switch Operator located on Compartment 1 of PMH-3 and PMH-5 models, or on Compartment 2 of all other models. The voltage sensor is installed on the center phase at the jaw-contact side of the Mini-Rupter Switch in Compartment 1 or 2, as applicable.

These switch-control equipment groups for use with the RTU by others differ from the communication and control equipment group in the following ways:

- The RTU and communication device are not included and are to be supplied by others.
- The voltage sensor provides either single-phase sensing or control-power input to an S&C Battery Charger (but not both), depending on the specific suffix selected as described above and in Table 5 on page 13.
- The battery charger and battery packs are only furnished as described above and in Table 5 on page 13. When supplied, the battery packs only provide power to the switch operators and are not intended to supply power to any user-supplied equipment.

### Switch-Control Equipment Groups for Use Without RTU

When the remote supervisory pad-mounted gear is not to be used in conjunction with an RTU, specify one of the three switch-control equipment groups for use without RTU (suffixes “-Y5” through “-Y7”). These switch-control equipment groups differ only in the method of supplying control-power input to the switch operators as follows:

- **For an external user-supplied 120-Vac source as control-power input without battery backup:** Specify catalog number suffix “-Y5.” This switch-control equipment group includes an S&C Ac Power Supply that converts the 120-Vac input to 24-Vdc for control-power input to the switch operators.

- **For an external user-supplied 120-Vac source as input to an S&C Battery Charger and battery packs:** Specify catalog number suffix “-Y6.” This switch-control equipment group includes an S&C Battery Charger and battery packs that provide control-power input to the switch operators.
- **For an internal S&C-supplied 20 volt-ampere source as input to an S&C Battery Charger and battery packs:** Specify catalog number suffix “-Y7.” This switch-control equipment group includes an S&C Voltage Sensor, an S&C Battery Charger, and battery packs that provide control-power input to the switch operators.

The voltage sensor, battery charger, and battery packs are the same as, and are installed in the same locations as, the corresponding components furnished with the switch-control equipment groups for use with RTU by others.

All connectors from switch operators for connection to the user's wiring are located in the low-voltage compartment included with the remote supervisory PMH Pad-Mounted Gear. For PMH-10 models with four switch operators, the low-voltage compartment is not available, and the above connectors are located in the switch operator that is mounted on Compartment 3.

### S&C Power Fuses

Remote supervisory PMH models (except PMH-10) contain 200-ampere hookstick-operated S&C Power Fuses with a Uni-Rupter® Interrupter for single-pole live switching of single-phase or three-phase load circuits. These models offer a choice of Types SML-20 and SML-4Z Power Fuses or Fault Fiter® Electronic Power Fuses. Fault Fiter Electronic Power Fuse mountings also accommodate a variety of single-barrel current-limiting fuses, as listed in Table 1 of S&C Information Bulletin 660-50. This gear is provided with a Grapppler™ Handling Tool (S&C's fuse-handling fitting), an instruction manual holder, and storage racks in the fuse-compartment doors for spare S&C Fuse Units or Refill Units and for the Grapppler Handling Tool (storage for Fault Fiter Electronic Power Fuses or current-limiting fuses cannot be provided in these racks).

Fuse terminal pads can accommodate a variety of cable-terminating devices for cable sizes through 4/0 maximum. Each fuse terminal is provided with a ground stud, as is each ground pad.

## Enclosure Construction

All low-voltage wiring is shielded from medium voltage and is routed in a 6-inch (152-mm) interconnecting control wiring base spacer, which increases enclosure height accordingly.

Enclosures containing medium voltage meet the requirements of ANSI C57.12.28 (enclosure integrity). Access to the interior of the medium-voltage compartments, switch operators, and low-voltage compartment is controlled by the S&C Penta-Latch® Mechanism. The Penta-Latch Mechanism provides automatic door latching and permits padlocking only when the door is securely latched. The door can be opened only with a pentahead socket wrench or tool.

The enclosure roof over each compartment is undercoated with an insulating “no-drip” compound. A resilient closed-cell gasket on the bottom flange of the pad-mounted gear protects the finish from being scratched during installation and isolates it from the alkalinity of a concrete foundation. Similar gasketing is provided between each switch operator or low-voltage compartment and the medium-voltage compartments. Enclosures are protected from corrosion by S&C’s olive green Ultradur® II Outdoor Finish.

A dual-purpose front barrier of fiberglass-reinforced polyester is provided for each switch and fuse. When the switch or fuse is in the **Open** position, this barrier can be inserted into the open gap to guard against inadvertent contact with live parts. Interphase and end barriers of the same material are provided with each switch and each set of fuses where required to achieve published BIL ratings. Additional barriers of fiberglass-reinforced polyester separate front and rear medium-voltage compartments and isolate the tie bus (where furnished). Full-length steel barriers separate adjoining switch and fuse compartments (where applicable).

**EXCLUSIONS:** For non-IntelliTeam® SG Automatic Restoration System applications, S&C may be able to furnish and install in the Communication and Control Equipment Group, or make provision for in the Switch-Control Equipment Group, a user-specified communication device. S&C will need to evaluate the physical and electrical requirements of the communication device and its performance characteristics, and conduct qualification testing to verify its suitability for the desired application. Refer to the nearest S&C Sales Office for pricing and scheduling information. S&C cannot furnish or install, any communication device for

which the supplier requires S&C to offer Tier I (i.e., “help desk”) support.

**APPLICATION NOTES:** For adequate power to be available, S&C Voltage Sensors must be applied at system line-to-line voltages ranging from 11.43 kV through 17.0 kV for 14.4-kV models, and from 20.44 kV through 29 kV for 25-kV models. For lower system voltages, contact the nearest S&C Sales Office.

Because remote supervisory PMH Pad-Mounted Gear includes a 6-inch (152-mm) interconnecting control wiring base spacer, it can be used to directly replace installed manually operated models that do not include optional base spacers (suffixes “-K1” through “-K20”) only under either of the following conditions:

- There is adequate installed cable to compensate for the 6-inch (152-mm) increased height of the remote supervisory gear
- Suitable cable splices are made.

When replacing manually operated models that include base spacers, refer to Table 1 to ensure the terminal-pad height of the remote supervisory gear will match that of the removed unit.

**Table 1. Base Spacer Requirements**

For Installed Manual Model with	Specify Remote Supervisory Model with
No base spacer	See above
6-inch (152-mm) base spacer	No base spacer
12-inch (305-mm) base spacer	6-inch (152-mm) base spacer
18-inch (457-mm) base spacer	12-inch (305-mm) base spacer
24-inch (610-mm) base spacer	18-inch (457-mm) base spacer

In addition, the following items should be considered when applying remote supervisory PMH Pad-Mounted Gear:

**Ungrounded systems.** Remote supervisory PMH Pad-Mounted Gear is not intended for use on ungrounded systems. Power to the remote supervisory PMH Pad-Mounted Gear is provided by a 20-VA voltage sensor connected phase to ground. Because the sensor is connected phase to ground, it is not able to provide power on ungrounded systems. Contact the nearest S&C Sales Office for more information on applying remote supervisory PMH Pad-Mounted Gear on ungrounded systems.

## Uni-Grounded and Resistance-Grounded Systems.

Uni-grounded and resistance-grounded systems require power to be provided by a phase-to-phase connected source. Power to the gear is provided by a 20-VA voltage sensor connected phase to ground. Therefore, the sensor is unable to provide power on resistively grounded or uni-grounded systems. Power must be supplied by an external source if remote supervisory PMH Pad-Mounted Gear is to be applied on a resistively grounded or uni-grounded system. Contact the nearest S&C Sales Office for more information on applying remote supervisory PMH Pad-Mounted Gear on uni-grounded or resistance-grounded systems.

**SPARE COMPONENTS:** Spare electronic components are available for use in troubleshooting communication and control equipment should the need arise. Contact the nearest S&C Sales Office for availability.

**WARRANTY QUALIFICATIONS:** The standard warranty contained in the seller's standard conditions of sale (as set forth in Price Sheet 150) does not apply to S&C Remote Supervisory PMH Pad-Mounted Gear where fuse units, fuse unit end-fittings, holders, refill units, or switch blades of other than S&C manufacture are used in conjunction with S&C SML Mountings. Nor does it apply to S&C Remote Supervisory PMH Pad-Mounted Gear where other than Fault Fiter Electronic Power Fuses, S&C Switch Blades, or the current-limiting fuses listed in Table 1 of S&C Information Bulletin 660-50 are used in conjunction with Fault Fiter Electronic Power Fuse Mountings and S&C Holders designed therefor, or when current-limiting fuses are applied other than as set forth in the "Recommended Voltage Ratings of Current-Limiting Fuses for Use in S&C Pad-Mounted Gear" section on page 6.

The seller's standard warranty does not apply to major components not of S&C manufacture, such as remote terminal units and communication devices, including hardware, software, resolution of protocol-related matters, and notification of upgrades or fixes for those devices.

## Switching with Uni-Rupter Interrupters

S&C Remote Supervisory PMH Pad-Mounted Gear features fuses with Uni-Rupter Interrupters for single-pole live switching of single-phase or three-phase load circuits on distribution systems rated 14.4 kV or 25 kV.

Complete ratings and capabilities of S&C Power Fuses with Uni-Rupter Interrupters, as applied in remote supervisory PMH Pad-Mounted Gear, are shown in Table 2. Uni-Rupter Interrupters are capable of carrying and interrupting load currents up to and including the emergency peak-load capabilities of the associated SML power fuses. In addition to the load-dropping capabilities shown, Uni-Rupter Interrupters are capable of interrupting transformer magnetizing currents associated with the applicable loads, as well as line-charging and cable-charging currents typical for distribution systems of these voltage ratings. The duty-cycle fault-closing capabilities shown for S&C Power Fuses with Uni-Rupter Interrupters represent the fault-closing capabilities of the power fuse with a Uni-Rupter Interrupter when the power fuse is closed with a purposeful thrust without hesitation. Following the specified number of such closings (two or three), Uni-Rupter Interrupters will remain operable and able to carry and interrupt rated current.

**Table 2. Ratings and Capabilities for S&C Power Fuses with Uni-Rupter Interrupters**

Fuse Type	Voltage, kV			Current, Amperes, RMS				
	Nom.	Max	BIL	Max	Interr. (Sym.)	Live Switching		
						Load-Splitting (Parallel or Loop Switching)	Load Dropping	Duty-Cycle Fault-Closing RMS, Sym.
SML-20	14.4	17	95	200E or 200K	14 000	200	200	14 000●
	25	27	125	200E or 200K	12 500	200	200	12 500■
SML-4Z	14.4	17	95	200E	14 000	200	200	12 500●
	25	27	125	200E	12 500▲	200	200	12 500■
Fault Fiter fuse	14.4	17	95	400	14 000	200	200	14 000●
	25	27	125	200	12 500	200	200	12 500 ■

- Three-time duty-cycle fault-closing capability.
- Two-time duty-cycle fault-closing capability.

- ▲ Applicable to solidly grounded-neutral systems only, with fuses connected by single-conductor, concentric-neutral-type cable to a transformer or transformers. Rating is 9,400 amperes, RMS, asymmetrical for all other applications.

## A Note on Single-Pole Switching

In single-pole switching of ungrounded-primary three-phase transformers or banks (or single-phase transformers connected line to line), circuit connections or parameters may, in some cases, produce excessive overvoltages. In particular, for the following applications above 22 kV, single-pole switching by any means—including with a Uni-Rupter Interrupter—should be performed only under the conditions stated in italics:

- Switching unloaded or lightly loaded delta-connected or ungrounded-primary wye-wye connected three-phase transformers or banks (or line-to-line connected single-phase transformers), rated 150 kVA or less three-phase, or 50 kVA or less single-phase—or of any kVA rating when combined with unloaded cables or lines—where maximum system operating voltage exceeds 22 kV (*Single-pole switching should be performed only if each phase is carrying 5% load or more, or if the transformer or bank is temporarily grounded at the primary neutral during switching.*)
- Switching loaded or unloaded ungrounded-primary wye-delta connected three-phase transformers or banks—alone or combined with unloaded cables or lines—where maximum system operating voltage exceeds 22 kV (*Single-pole switching should be performed only if each phase is carrying 5% load or more and if the lighting-load phase is always switched open first [or switched closed last] or if the transformer or bank is temporarily grounded at the primary neutral during switching.*)

## Recommended Voltage Ratings of Current-Limiting Fuses for Use in S&C Pad-Mounted Gear

In general, current-limiting fuses should have a maximum voltage rating equal to, but not greater than, 140% of the system line-to-line voltage because, for most applications, the fuses can be exposed to full system line-to-line voltage in clearing faults. Although there may be economic or

space-saving incentives for using current-limiting fuses with voltage ratings “appropriate for system line-to-ground voltage” (i.e., fuses with a voltage rating lower than line-to-line voltage but greater than or equal to maximum system line-to-ground voltage), S&C can recommend such use only in the following applications:

- Protection of single-phase transformers serving single-phase loads
- Protection of three-phase lateral circuits fed by a single-conductor-shielded cable (provided each transformer on that lateral is individually fused so the current-limiting fuse serving the lateral will not be required to clear secondary faults)
- Protection of single-phase lateral circuits fed by a single-conductor-shielded cable where the load is line-to-ground connected

## Switching with Mini-Rupter

S&C Remote Supervisory PMH Pad-Mounted Gear features S&C Mini-Rupter Switches for three-pole live switching of three-phase circuits.

Complete ratings for Mini-Rupter Switches as applied in S&C PMH Pad-Mounted Gear are shown in Table 3. In addition to the load-dropping ratings shown, Mini-Rupter Switches are capable of interrupting transformer magnetizing currents associated with the applicable loads, as well as line-charging and cable-charging currents typical for distribution systems of these voltage ratings. For applications on systems rated higher than 7.2 kV and involving load current with high harmonic content (such as rectifier load currents), refer to the nearest S&C Sales Office. The two-time duty-cycle fault-closing ratings shown for Mini-Rupter Switches define the ability to close the Mini-Rupter Switches twice against a three-phase fault with asymmetrical current in at least one phase equal to the rated value, with the switch remaining operable and able to carry and interrupt rated current.

**Table 3. Ratings for Mini-Rupter Switches**

Voltage, kV			Current, Amperes						
Nom.	Max	BIL	Cont.	Live Switching		Three-Time Duty-Cycle, Fault-Closing		Short-Circuit	
				Load Splitting (Parallel or Loop Switching)	Load Dropping	Peak	RMS, Sym.	Peak Withstand, Peak	One-Second Short-Time Withstand, RMS, Sym.
14.4	17.5	95	600	600	600	36 400	14 000	36 400	14 000
25	29	125	600	600	600	32 500	12 500	32 500	12 500

**How to Order**

Complete the following steps to order the gear, control equipment groups, options, connectors, and accessories:

**STEP 1.** Obtain the catalog number of the desired unit from Table 4 on page 8 through 12.

Catalog Number:

**STEP 2.** Obtain the suffix designation of the desired unit from Table 5 on page 13 and add the corresponding suffix to the above catalog number.

**Note:** For the communication and control equipment group, complete S&C Form 212, "Automated Distribution Equipment Application Summary," and forward a copy of the form to the nearest S&C Sales Office.

Suffix:

**STEP 3.** Add additional suffix designations (to the catalog number in Step 2) to indicate the optional features desired, selected from Table 6 on page 14 through 18.

Suffix:

Suffix:

**STEP 4.** Obtain the catalog number of the connector from Table 7 on page 18.

Catalog Number:

**STEP 5.** List any accessories from Table 17 on page 25.

Catalog Number:

Catalog Number:

Catalog Number:

Complete the following steps to order fuse components and optional switch blades:

**STEP 1.** **For SML-4Z Power Fuses:** Obtain the catalog number of the holder and refill units from Table 9 on page 19 and Table 12 on page 22 taking care to match the voltage rating of the holder to the refill units.

Catalog Number:

**For SML-20 Power Fuses:** Obtain the catalog number of the end fittings and fuse units from Table 8 on page 18 and Table 11 on page 20, taking care to match the voltage rating of the end fittings to the fuse units.

Catalog Number:

Catalog Number:

**For Fault Fiter® Electronic Power Fuses:** Obtain the catalog number for the holders, the interrupting modules, and the control modules from Table 10 on page 19 and Table 13 on page 23, Table 14 on page 23, and Table 15 on page 24, taking care to match the voltage rating of the holders, interrupting modules, and the control modules.

Catalog Number:

Catalog Number:

Catalog Number:

**For Switch Blades:** Obtain the catalog number for the switch blades from Table 18 on page 26.

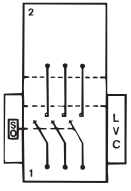
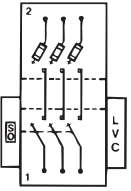
Catalog Number:

**Example:** The catalog number of a 14.4-kV remote supervisory Model PMH-9 with SML-20 mountings; two Type PM Switch Operators; switch-control equipment group, including battery charger, battery packs, a voltage sensor for a self-contained power source, and current sensors for three-phase current sensing on both Mini-Rupter Switches (with RTU and communications device by others); optional key interlocks to prevent paralleling of switches in Compartments 1 and 2; and 600-ampere bushings without studs, at switch terminals is:

**Note:** Select a fuse unit end-fitting and SMU-20® Fuse Unit from Table 8 on page 18 and Table 11 on page 20 and 21, as applicable.

# Remote Supervisory PMH Pad-Mounted Gear

**Table 4. Three-Phase Units<sup>①</sup> (Including mountings with Uni-Rupter Interrupter, less fuse components<sup>②</sup>)**

Model <sup>③</sup>	Connection Diagram <sup>④</sup>	Fuse Type	Ratings <sup>⑤</sup>									Catalog Number	Page Reference for Dimensional Information
			kV			Amperes, RMS				Short-Circuit			
			Nom.	Max	BIL	Fuse with Uni-Rupter <sup>®</sup> Interrupter		Mini-Rupter <sup>®</sup> Switch		Amperes, RMS, Sym.	MVA, 3-Phase Sym. at Rated Voltage		
						Max	Load Dropping	Cont.	Load Dropping				
PMH-3		—	14.4	17	95	—	—	600	600	14 000	350	156232R3	27
			25	29	125	—	—	600	600	12 500	540	156233R3	
PMH-5●		SML-20	14.4	17	95	200E■	200	600	600	14 000	350	156112R3	28
			25	27	125	200E■	200	600	600	12 500	540	156113R3	
		SML-4Z	14.4	17	95	200E	200	600	600	12 500	310	156312R3	
			25	27	125	200E	200	600	600	12 500▲	540▲	156313R3	
		Fault Fiter <sup>⑥</sup>	14.4	17	95	200	200	600	600	14 000	350	156512R3	
			25	29	125	200	200	600	600	12 500	540	156513R3	

① One of the control equipment groups listed in Table 5 on page 13 must be specified when ordering.

② Fuse components are to be ordered separately. Refer to Tables 8 through 15 on pages 18 through 24.

③ When a remote supervisory unit is replacing an installed manually operated unit, certain restrictions apply. Refer to the "Application Notes" section on page 4.

④ Compartment numbers appear in corners of each diagram.

⑤ The short-circuit ratings expressed in amperes, RMS, asymmetrical are 1.6 times the symmetrical values listed. Fault-closing and/or momentary ratings of switches and bus, and fault-closing capabilities and interrupting ratings of fuses, equal or exceed these values. For complete live-switching (as well as momentary and one-second) ratings for Mini-Rupter Switches and complete live-switching capabilities of Uni-Rupter

Interrupters as applied in remote supervisory PMH Pad-Mounted Gear, refer to Tables 2 and 3 on pages 5 and 6.

⑥ These models also accommodate selected current-limiting fuses in S&C Holders; refer to Table 1 of S&C Information Bulletin 660-50. Maximum voltage and maximum ampere ratings as listed in that table apply when current-limiting fuses are used. Consult the appropriate current-limiting fuse manufacturer for complete fuse ratings.

● Key interlocks, catalog number suffix "-C3" or "-C4," are required for ultimate users other than electric utilities.

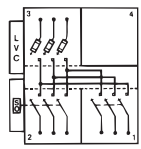
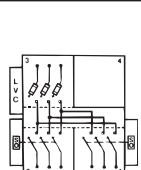
■ SMU-20 Fuse Units are available in ratings through 200K amperes as well as 200E amperes.

▲ Applicable to solidly grounded-neutral systems only, with fuses connected by single-conductor, concentric-neutral type cable to a transformer or transformers. Rating is 9,400 amperes, RMS, symmetrical (405 MVA) for all other applications.

TABLE CONTINUED ►



**Table 4. Three-Phase Units<sup>①</sup> (Including mountings with Uni-Rupter Interrupter, less fuse components<sup>②</sup>)—Continued**

Model <sup>③</sup>	Connection Diagram <sup>④</sup>	Fuse Type	Ratings <sup>⑤</sup>								Catalog Number	Page Reference for Dimensional Information	
			kV			Amperes, RMS				Short-Circuit			
			Nom.	Max	BIL	Fuse with Uni-Rupter <sup>®</sup> Interrupter		Mini-Rupter <sup>®</sup> Switch		Amperes, RMS, Sym.			MVA, 3-Phase Sym. at Rated Voltage
						Max	Load Dropping	Cont.	Load Dropping				
PMH-6●		SML-20	14.4	17	95	200E■	200	600	600	14 000	350	156122R4	29
			25	27	125	200E■	200	600	600	12 500	540	156123R3	
		SML-4Z	14.4	17	95	200E	200	600	600	12 500	310	156322R4	
			25	27	125	200E	200	600	600	12 500▲	540▲	156323R3	
		Fault Fiter <sup>⑥</sup>	14.4	17	95	200	200	600	600	14 000	350	156522R4	
			25	29	125	200	200	600	600	12 500	540	156523R3	
		SML-20	14.4	17	95	200E■	200	600	600	14 000	350	256122R4	30
			25	27	125	200E■	200	600	600	12 500	540	256123R3	
		SML-4Z	14.4	17	95	200E	200	600	600	12 500	310	256322R4	
			25	27	125	200E	200	600	600	12 500▲	540▲	256323R3	
		Fault Fiter <sup>⑥</sup>	14.4	17	95	200	200	600	600	14 000	350	256522R4	
			25	29	125	200	200	600	600	12 500	540	256523R3	

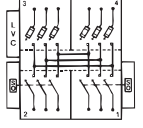
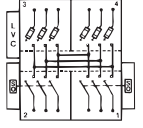
- ① One of the control equipment groups listed in Table 5 on page 13 must be specified when ordering.
- ② Fuse components are to be ordered separately. Refer to Tables 8 through 15 on pages 18 through 24.
- ③ When a remote supervisory unit is replacing an installed manually operated unit, certain restrictions apply. Refer to the "Application Notes" section on page 4.
- ④ Compartment numbers appear in corners of each diagram.
- ⑤ The short-circuit ratings expressed in amperes, RMS, asymmetrical are 1.6 times the symmetrical values listed. Fault-closing and/or momentary ratings of switches and bus, and fault-closing capabilities and interrupting ratings of fuses, equal or exceed these values. For complete live-switching (as well as momentary and one-second) ratings for Mini-Rupter Switches and complete live-switching capabilities of Uni-Rupter

- Interrupters as applied in remote supervisory PMH Pad-Mounted Gear, refer to Tables 2 and 3 on pages 5 and 6.
- ⑥ These models also accommodate selected current-limiting fuses in S&C Holders; refer to Table 1 of S&C Information Bulletin 660-50. Maximum voltage and maximum ampere ratings as listed in that table apply when current-limiting fuses are used. Consult the appropriate current-limiting fuse manufacturer for complete fuse ratings.
  - Key interlocks, catalog number suffix "-C3" or "-C4," are required for ultimate users other than electric utilities.
  - SMU-20 Fuse Units are available in ratings through 200K amperes as well as 200E amperes.
  - ▲ Applicable to solidly grounded-neutral systems only, with fuses connected by single-conductor, concentric-neutral type cable to a transformer or transformers. Rating is 9,400 amperes, RMS, symmetrical (405 MVA) for all other applications.

TABLE CONTINUED ►

# Remote Supervisory PMH Pad-Mounted Gear

**Table 4. Three-Phase Units<sup>①</sup> (Including mountings with Uni-Rupter Interrupter, less fuse components<sup>②</sup>)—Continued**

Model <sup>③</sup>	Connection Diagram <sup>④</sup>	Fuse Type	Ratings <sup>⑤</sup>									Catalog Number	Page Reference for Dimensional Information
			kV			Amperes, RMS				Short-Circuit			
			Nom.	Max	BIL	Fuse with Uni-Rupter <sup>®</sup> Interrupter		Mini-Rupter <sup>®</sup> Switch		Amperes, RMS, Sym.	MVA, 3-Phase Sym. at Rated Voltage		
						Max	Load Dropping	Cont.	Load Dropping				
PMH-9●		SML-20	14.4	17	95	200E■	200	600	600	14 000	350	156152R4	31
			25	27	125	200E■	200	600	600	12 500	540	156153R3	
		SML-4Z	14.4	17	95	200E	200	600	600	12 500	310	156352R4	
			25	27	125	200E	200	600	600	12 500▲	540▲	156353R3	
		Fault Fiter <sup>⑥</sup>	14.4	17	95	200	200	600	600	14 000	350	156552R4	
			25	29	125	200	200	600	600	12 500	540	156553R3	
		SML-20	14.4	17	95	200E■	200	600	600	14 000	350	256152R4	32
			25	27	125	200E■	200	600	600	12 500	540	256153R3	
		SML-4Z	14.4	17	95	200E	200	600	600	12 500	310	256352R4	
			25	27	125	200E	200	600	600	12 500▲	540▲	256353R3	
		Fault Fiter <sup>⑥</sup>	14.4	17	95	200	200	600	600	14 000	350	256552R4	
			25	29	125	200	200	600	600	12 500	540	256553R3	

① One of the control equipment groups listed in Table 5 on page 13 must be specified when ordering.

② Fuse components are to be ordered separately. Refer to Tables 8 through 15 on pages 18 through 24.

③ When a remote supervisory unit is replacing an installed manually operated unit, certain restrictions apply. Refer to the "Application Notes" section on page 4.

④ Compartment numbers appear in corners of each diagram.

⑤ The short-circuit ratings expressed in amperes, RMS, asymmetrical are 1.6 times the symmetrical values listed. Fault-closing and/or momentary ratings of switches and bus, and fault-closing capabilities and interrupting ratings of fuses, equal or exceed these values. For complete live-switching (as well as momentary and one-second) ratings for Mini-Rupter Switches and complete live-switching capabilities of Uni-Rupter

Interrupters as applied in remote supervisory PMH Pad-Mounted Gear, refer to Tables 2 and 3 on pages 5 and 6.

⑥ These models also accommodate selected current-limiting fuses in S&C Holders; refer to Table 1 of S&C Information Bulletin 660-50. Maximum voltage and maximum ampere ratings as listed in that table apply when current-limiting fuses are used. Consult the appropriate current-limiting fuse manufacturer for complete fuse ratings.

● Key interlocks, catalog number suffix "-C3" or "-C4," are required for ultimate users other than electric utilities.

■ SMU-20 Fuse Units are available in ratings through 200K amperes as well as 200E amperes.

▲ Applicable to solidly grounded-neutral systems only, with fuses connected by single-conductor, concentric-neutral type cable to a transformer or transformers. Rating is 9,400 amperes, RMS, symmetrical (405 MVA) for all other applications.

TABLE CONTINUED ►

**Table 4. Three-Phase Units<sup>①</sup> (Including mountings with Uni-Rupter Interrupter, less fuse components<sup>②</sup>)—Continued**

Model <sup>③</sup>	Connection Diagram <sup>④⑦</sup>	Fuse Type	Ratings <sup>⑤</sup>									Catalog Number	Page Reference for Dimensional Information
			kV			Amperes, RMS				Short-Circuit			
			Nom.	Max	BIL	Fuse with Uni-Rupter <sup>®</sup> Interrupter		Mini-Rupter <sup>®</sup> Switch		Amperes, RMS, Sym.	MVA, 3-Phase Sym. at Rated Voltage		
						Max	Load Dropping	Cont.	Load Dropping				
PMH-10		—	14.4	17	95	—	—	600	600	14 000	350	156242R4	33
		—	25	29	125	—	—	600	600	12 500	540	156243R3	
		—	14.4	17	95	—	—	600	600	14 000	350	256242R4	34
		—	25	29	125	—	—	600	600	12 500	540	256243R3	
		—	14.4	17	95	—	—	600	600	14 000	350	456242R4	35
		—	25	29	125	—	—	600	600	12 500	540	456243R3	

① One of the control equipment groups listed in Table 5 on page 13 must be specified when ordering.  
 ② Fuse components are to be ordered separately. Refer to Tables 8 through 15 on pages 18 through 24.  
 ③ When a remote supervisory unit is replacing an installed manually operated unit, certain restrictions apply. Refer to the "Application Notes" section on page 4.  
 ④ Compartment numbers appear in corners of each diagram.  
 ⑤ The short-circuit ratings expressed in amperes, RMS, asymmetrical are 1.6 times the symmetrical values listed. Fault-closing and/or momentary ratings of switches and bus, and fault-closing capabilities and

interrupting ratings of fuses, equal or exceed these values. For complete live-switching (as well as momentary and one-second) ratings for Mini-Rupter Switches and complete live-switching capabilities of Uni-Rupter Interrupters as applied in remote supervisory PMH Pad-Mounted Gear, refer to Tables 2 and 3 on pages 5 and 6.  
 ⑦ For models with four switch operators, the connectors from each switch operator for connection to user's RTU will be located in the switch operator that is mounted on Compartment 3.  
 ⑧ Refer to the nearest S&C Sales Office for assistance with low-voltage compartment placement.

TABLE CONTINUED ►

# Remote Supervisory PMH Pad-Mounted Gear

**Table 4. Three-Phase Units<sup>①</sup> (Including mountings with Uni-Rupter Interrupter, less fuse components<sup>②</sup>)—Continued**

Model <sup>③</sup>	Connection Diagram <sup>④</sup>	Fuse Type	Ratings <sup>⑤</sup>									Catalog Number	Page Reference for Dimensional Information
			kV			Amperes, RMS				Short-Circuit			
			Nom.	Max	BIL	Fuse with Uni-Rupter <sup>®</sup> Interrupter		Mini-Rupter <sup>®</sup> Switch		Amperes, RMS, Sym.	MVA, 3-Phase Sym. at Rated Voltage		
						Max	Load Dropping	Cont.	Load Dropping				
PMH-11●		SML-20	14.4	17	95	200E■	200	600	600	14 000	350	156162R4	36
			25	27	125	200E■	200	600	600	12 500	540	156163R3	
		SML-4Z	14.4	17	95	200E	200	600	600	12 500	310	156362R4	
			25	27	125	200E	200	600	600	12 500▲	540▲	156363R3	
		Fault Fiter <sup>⑥</sup>	14.4	17	95	200	200	600	600	14 000	350	156562R4	
			25	29	125	200	200	600	600	12 500	540	156563R3	
		SML-20	14.4	17	95	200E■	200	600	600	14 000	350	256162R4	37
			25	27	125	200E■	200	600	600	12 500	540	256163R3	
		SML-4Z	14.4	17	95	200E	200	600	600	12 500	310	256362R4	
			25	27	125	200E	200	600	600	12 500▲	540▲	256363R3	
		Fault Fiter <sup>⑥</sup>	14.4	17	95	200	200	600	600	14 000	350	256562R4	
			25	29	125	200	200	600	600	12 500	540	256563R3	
	SML-20	14.4	17	95	200E■	200	600	600	14 000	350	356162R4	38	
		25	27	125	200E■	200	600	600	12 500	540	356163R3		
	SML-4Z	14.4	17	95	200E	200	600	600	12 500	310	356362R4		
		25	27	125	200E	200	600	600	12 500▲	540▲	356363R3		
	Fault Fiter <sup>⑥</sup>	14.4	17	95	200	200	600	600	14 000	350	356562R4		
		25	29	125	200	200	600	600	12 500	540	356563R3		

① One of the control equipment groups listed in Table 5 on page 13 must be specified when ordering.

② Fuse components are to be ordered separately. Refer to Tables 8 through 15 on pages 18 through 24.

③ When a remote supervisory unit is replacing an installed manually operated unit, certain restrictions apply. Refer to the "Application Notes" section on page 4.

④ Compartment numbers appear in corners of each diagram.

⑤ The short-circuit ratings expressed in amperes, RMS, asymmetrical are 1.6 times the symmetrical values listed. Fault-closing and/or momentary ratings of switches and bus, and fault-closing capabilities and interrupting ratings of fuses, equal or exceed these values. For complete live-switching (as well as momentary and one-second) ratings for Mini-Rupter Switches and complete live-switching capabilities of Uni-Rupter Interrupters as applied in remote supervisory PMH Pad-Mounted Gear, refer to Tables 2 and 3 on pages 5 and 6.

⑥ These models also accommodate selected current-limiting fuses in S&C Holders; refer to Table 1 of S&C Information Bulletin 660-50. Maximum voltage and maximum ampere ratings as listed in that table apply when current-limiting fuses are used. Consult the appropriate current-limiting fuse manufacturer for complete fuse ratings.

● Key interlocks, catalog number suffix "-C3" or "-C4," are required for ultimate users other than electric utilities.

■ SMU-20 Fuse Units are available in ratings through 200K amperes as well as 200E amperes.

▲ Applicable to solidly grounded-neutral systems only, with fuses connected by single-conductor, concentric-neutral type cable to a transformer or transformers. Rating is 9,400 amperes, RMS, symmetrical (405 MVA) for all other applications.

Table 5. Control Equipment Groups

Item		Suffix to be Added to Pad-Mounted Gear Catalog Number	Applicable to Models
Communication and Control Equipment Group <sup>①②</sup> —includes user-specified remote terminal unit (RTU); user-specified communication device; a battery charger; battery packs; a voltage sensor for power input to battery charger and for single-phase voltage sensing; and current sensors for three-phase current sensing on each power-operated switch <sup>③④</sup>		●	All models
Switch-Control Equipment Groups for use with RTU by others <sup>①②⑤⑥</sup> —includes provisions for mounting of user-supplied and installed RTU, communication device, etc., in a low-voltage compartment; current sensors (5-amperes ac output) for three-phase current sensing on each power-operated switch; a voltage sensor (user-selectable 5-Vac or 69-Vac output) for single-phase voltage sensing with power for the switch operators supplied by <sup>③</sup>	External control power—user-supplied 24-Vdc source	-Y2	With 1 switch operator With 2 switch operators With 3 switch operators With 4 switch operators
	External control power—user-supplied 120-Vac source to an S&C Battery Charger and battery packs	-Y3	With 1 switch operator With 2 switch operators With 3 switch operators With 4 switch operators
	Internal control power—S&C-supplied (voltage sensor) 20 Volt-ampere source to an S&C Battery Charger and battery packs	-Y4	With 1 switch operator With 2 switch operators With 3 switch operators With 4 switch operators
	External control power—user-supplied 120-Vac source to an S&C Ac Power Supply (furnished) to develop control power input to the switch operators	-Y5	All models
	External control power—user-supplied 120-Vac source to an S&C Battery Charger and battery packs	-Y6	All models
	Internal control power—S&C-supplied (voltage sensor) 20 Volt-ampere source to an S&C Battery Charger and battery packs <sup>①</sup>	-Y7	All models

① The S&C Voltage Sensor is mounted on the center phase at the jaw-contact side of the switch in Compartment 2 (Compartment 1 of PMH-3 and PMH-5 Models).

② Current sensors must not be installed on unshielded cables or on cables where the insulation is exposed but ungrounded (for example, where dielectric tape or heat-shrink tubing is used). These sensors are intended for application at ground potential and may be damaged by the voltage gradient between the cable insulation and ground.

③ The S&C Battery Charger is factory-calibrated to accommodate the loads supplied with the Communication and Control Equipment Group at the time of shipment. If additional loads are subsequently added, S&C recommends recalibration of the charging output to the batteries to ensure optimal battery life. Refer to Table 17 on page 25 for recalibration instructions.

④ The battery charger and battery packs furnished with this option are not intended to provide power to any user-supplied and installed equipment.

⑤ The low-voltage compartment is not available on models with four switch operators.

⑥ When this option is specified, the connectors from each switch operator for connection to user's wiring will be located in the low-voltage compartment. For models with four switch operators, these connectors will be located in the switch operator that is mounted on Compartment 3.

⑦ Current and voltage sensing are not included and cannot be provided.

● Refer to the nearest S&C Sales Office for application assistance.

# Remote Supervisory PMH Pad-Mounted Gear

**Table 6. Optional Features**

Item		Suffix to be Added to Pad-Mounted Gear Catalog Number	Applicable to Models	
Light gray Ultradur II Outdoor Finish instead of olive green		-A2	All models	
Equipment green Ultradur II Outdoor Finish (Toronto Standard) instead of olive green		-A3		
Seafoam green Ultradur II Outdoor Finish instead of olive green		-A4		
Special color to match custom Ultradur II Outdoor Finish		-A5		
Stainless steel enclosure <sup>①</sup>	With olive green Ultradur II Outdoor Finish	-A10	With 1 switch operator	PMH-3, -5, -6, -9, 10, -11
			With 2 switch operators	
			With 3 switch operators	
			With 4 switch operators	
	With light gray Ultradur II Outdoor Finish	-A12	With 1 switch operator	PMH-3, -5, -6, -9, 10, -11
			With 2 switch operators	
			With 3 switch operators	
			With 4 switch operators	
	With special color Ultradur II Outdoor Finish	-A15	With 1 switch operator	PMH-3, -5, -6, -9, 10, -11
			With 2 switch operators	
			With 3 switch operators	
			With 4 switch operators	
Hexhead actuator for use in lieu of pentahead actuator on all Penta-Latch Mechanisms	For use except when option suffix "-F2" is specified	-B1●	All models	
	For use when option suffix "-F2" is also specified	-B2■		
Copper bus <sup>②</sup> and copper switch terminals, fuse connector adapters, and bus terminals <sup>③</sup>		-B5	PMH-3, -5, -6, -9, 10, -11	
Reinforced bus	Used with standard aluminum bus	-B6	14.4-kV PMH-6, -9, -10, -11	
	Used with optional copper bus	-B7	14.4-kV PMH-6, -9, -10, -11	

① When this optional feature is specified, the entire exterior of the enclosure, including switch operator enclosures and low-voltage compartment, is fabricated from 11-gauge Type 304 stainless steel. When specifying optional hexhead actuators, provisions for fault indicators with viewing windows in doors, or base spacer, specify the correct suffix for use in gear with a stainless steel enclosure.

② Copper bus measures ¼-inch × 2 inches (6 mm × 51 mm).

③ Copper bus and copper switch terminals, fuse connector adapters, and bus terminals cannot be ordered separately.

● Specify catalog number suffix "-B11" for gear with stainless-steel enclosure.

■ Specify catalog number suffix "-B12" for gear with stainless-steel enclosure.

TABLE CONTINUED ►

Table 6. Optional Features—Continued

Item		Suffix to be Added to Pad-Mounted Gear Catalog Number	Applicable to Models	
Key interlocks to prevent paralleling of switches in Compartments 1 and 2 <sup>④</sup>		-C1	With 1 switch operator	PMH-6, -9, -10, -11
			With 2 or more switch operators	PMH-6, -9, -10, -11
Key interlocks to prevent opening fuse-compartment doors unless all switches are locked open <sup>④</sup>		-C3▲	With 1 switch operator	PMH-5, -6, -9, -11
			With 2 switch operators	PMH-6, -9, -11
			With 3 switch operators	PMH-11
Key interlocks. Combines functions of options “-C1” and “-C3” listed above <sup>④</sup>		-C4▲	With 1 switch operator	PMH-6, -9, -11
			With 2 switch operators	PMH-6, -9, -11
			With 3 switch operators	PMH-11
Fuse-storage feature for three spare fuse assemblies per compartment <sup>⑤</sup>	Located in Compartment 1	-E1	PMH-5, -6, -9, -11	
	Located in Compartment 2	-E2	PMH-6, -9, -11	
	Located in Compartments 1 and 2	-E3	PMH-6, -9, -11	
Mounting provisions for a fault indicator in each switch compartment <sup>⑥</sup>	Without viewing window in door	-F1	PMH-3, -5, -6, -9, -10, -11	
	With viewing window in door	-F2◆	PMH-3, -5, -6, -9, -10, -11	
Inner barrier panels—a panel inside the enclosure door for each compartment, secured by recessed pentahead bolt(s) <sup>⑦⑧</sup>		-G7▼	PMH-3, -5, -6	
			All other models	
Copper ground stud for each switch, fuse, or bus terminal and ground pad <sup>⑨</sup>	In fuse compartments	-H2	PMH-5, -6, -9, -11	
	In switch and bus compartments	-J2	PMH-3, -6, -9, -10, -11	

④ When ordering, furnish name of ultimate user, station, and location of gear.

⑤ Fuse assemblies (fuse holders or fuse units with end fittings) are not included. For units equipped with Fault Fiter Electronic Power Fuse mountings, two spare Fault Fiter interrupting modules, one spare Fault Fiter Electronic Power Fuse holder, or one spare current-limiting fuse holder can be accommodated in each compartment.

⑥ Accommodates three-phase indicator with single-phase sensors

⑦ Where the National Electrical Safety Code (ANSI Standard C2) applies, this optional feature may be included to meet the requirements of Section 381G.

⑧ Meets RUS’s requirements for “dead-front.”

⑨ Diameters of copper ground studs are as follows:

Ground Stud	Diameter	
	(inches)	(mm)
Switch	1/2	13
Fuse	7/16	11
Bus Terminal	7/16	11
Ground Pad	7/16	11

▲ Must be specified if end user is not an electric utility and/or if Canadian Standards Association listing, catalog number suffix “-Z,” is specified.

◆ Specify catalog number suffix “-F12” for gear with stainless steel enclosure.

▼ Not available if Canadian Standards Association listing, catalog number suffix “-Z,” is specified.

TABLE CONTINUED ►

# Remote Supervisory PMH Pad-Mounted Gear

**Table 6. Optional Features—Continued**

Item			Suffix to be Added to Pad-Mounted Gear Catalog Number	Applicable to Models
Base spacer, compartmented to match enclosure, increases cable-termination height <sup>Ⓣ</sup>	Carbon steel	6 inches (152 mm)	-K1	PMH-3, -5 All other models
		12 inches (305 mm)	-K2	PMH-3, -5 All other models
		18 inches (457 mm)	-K3	PMH-3, -5 All other models
		24 inches (610 mm)	-K4	PMH-3, -5 All other models
	Stainless steel	6 inches (152 mm)	-K11	PMH-3, -5 All other models
		12 inches (305 mm)	-K12	PMH-3, -5 All other models
		18 inches (457 mm)	-K13	PMH-3, -5 All other models
		24 inches (610 mm)	-K14	PMH-3, -5 All other models
Base spacer, noncompartmented, increases cable-termination height <sup>Ⓣ</sup>	Carbon steel	6 inches (152 mm)	-K7	PMH-3, -5 All other models
		12 inches (305 mm)	-K8	PMH-3, -5 All other models
		18 inches (457 mm)	-K9	PMH-3, -5 All other models
		24 inches (610 mm)	-K10	PMH-3, -5 All other models
	Stainless steel	6 inches (152 mm)	-K17	PMH-3, -5 All other models
		12 inches (305 mm)	-K18	PMH-3, -5 All other models
		18 inches (457 mm)	-K19	PMH-3, -5 All other models
		24 inches (610 mm)	-K20	PMH-3, -5 All other models

<sup>Ⓣ</sup> Three-phase units include a 6-inch (152-mm) interconnecting control wiring base spacer that accommodates wiring from switch operators to the low-voltage compartment and also provides a corresponding

increase in cable-termination space. Specify additional base spacers accordingly. When the remote supervisory unit is replacing a manual unit, refer to the "Application Notes" section on page 4.

TABLE CONTINUED ►



Table 6. Optional Features—Continued

Item		Suffix to be Added to Pad-Mounted Gear Catalog Number	Applicable to Models
International crating <sup>⑪</sup>		-L71	All models
Switch- and bus-terminal adapters—for connection of two cables (through 750 kc mil) per terminal <sup>⑫</sup> <sup>⑬</sup>		-M1	PMH-3, -5, -6, -9, -10, -11
Cable guides, one at each terminal <sup>⑭</sup> <sup>⑮</sup>	In switch and bus compartments. For conductor sizes No. 2 through 1000 kc mil	-M2	PMH-3, -5, -6, -9, -10, -11
	In fuse compartments. For conductor sizes No. 2 through 4/0	-M3	PMH-5, -6, -9, -11
Polymer-housed metal-oxide surge arresters, <sup>⑯</sup> base-mounted, at switch terminals and bus terminals in Compartments 1 and 2 (removed for shipment)	9 kV	-N6	14.4-kV PMH-3, -5, -6, -9, -10, -11
	10 kV	-N7	14.4-kV PMH-3, -5, -6, -9, -10, -11
	12 kV	-N8	PMH-3, -5, -6, -9, -10, -11
	15 kV	-N9	PMH-3, -5, -6, -9, -10, -11
	18 kV	-N10	25-kV PMH-3, -5, -6, -9, -10, -11
Metal-oxide surge arresters, <sup>⑯</sup> base-mounted, at switch and bus terminals in Compartments 1 and 2 (removed for shipment)	3 kV	-N11	14.4-kV PMH-3, -5, -6, -9, -10, -11
	6 kV	-N12	14.4-kV PMH-3, -5, -6, -9, -10, -11
Mounting provisions for base-mounted surge arresters <sup>⑰</sup> , at switch terminals and bus terminals in Compartments 1 and 2	9 kV, 10 kV, or 9/10 kV	-P1	14.4-kV PMH-3, -5, -6, -9, -10, -11
	12 kV	-P3	PMH-3, -5, -6, -9, -10, -11
	15 kV	-P4	PMH-3, -5, -6, -9, -10, -11
	18 kV	-P5	25-kV PMH-3, -5, -6, -9, -10, -11

<sup>⑪</sup> Wood products used in 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.

<sup>⑫</sup> When catalog number suffixes “-M1” and “-M2” are both specified, only one cable guide is provided at each switch terminal.

<sup>⑬</sup> Space limitations prevent use of these adapters where surge arresters are to be installed.

<sup>⑭</sup> These devices extend below the base of the unit. Provide a cable pit or specify a base spacer that provides a 6-inch (152-mm) or greater increase in cable-termination height.

<sup>⑮</sup> Surge arresters are base-mounted only (without isolators).

<sup>⑯</sup> These provisions accommodate Ohio Brass Type PDV (metal oxide), Eaton Cooper Power Type AZL19C (metal oxide), or General Electric Tranquell<sup>®</sup> (metal oxide) distribution-class surge arresters. Surge arresters must be base-mounted only (without isolators).

TABLE CONTINUED ►

# Remote Supervisory PMH Pad-Mounted Gear

**Table 6. Optional Features—Continued**

Item	Suffix to be Added to Pad-Mounted Gear Catalog Number	Applicable to Models
Three-phase voltage sensing using S&C Voltage Sensors <sup>Ⓣ</sup>	-W1	All models with communication control equipment group or suffix “-Y2” or “-Y3”
Canadian Standards Association Special Inspection Service Compliance label. Completed gear inspected and approved by CSA to Canadian standards. Includes viewing window with tamper-resistant cover in switch compartment door(s), and hazard-alerting labels per CSA specification. Shipping time may be extended for inspection by CSA	-Z□△◇	PMH-3, -5
		PMH-6, -9
		PMH-11
		PMH-10

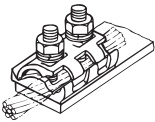
<sup>Ⓣ</sup> Not available with switch-control equipment group suffixes “-Y5” and “-Y6.”

□ Key interlocks, catalog number suffix “-C3” or “-C4,” must be specified on gear with fuse component(s).

△ Not available if mounting provisions for fault indicator with viewing window in switch compartment door(s), catalog number suffix “-F2” or “-F12,” is specified.

◇ Not available if inner barrier panels, catalog number suffix “-G7,” is specified.

**Table 7. Connector**

Illustration	Description	Accommodating Conductor	Catalog Number
	Bronze body, tin plated, two galvanized steel bolts, two Belleville washers	No. 2 solid (33.6 mm <sup>2</sup> ) through 500 kc mil (335 mm <sup>2</sup> ) stranded copper or aluminum	4745

**Table 8. SML-20 Power Fuse Components**

Fuse Unit End-Fittings	
Item	Catalog Number
End-fittings (including silencer), for use with SMU-20 Fuse Units	3097
SMU-20 <sup>Ⓣ</sup> Fuse Units <sup>①</sup>	
14.4 kV Nominal, 17 kV Max	25 kV Nominal, 27 kV Max
For a complete listing of available ampere ratings, speeds, and catalog numbers, refer to Table 11 on page 20 and 21.	

<sup>①</sup> These fuse units are usable in SM-20, SMD-20, SML-20, and SME-20 Mountings.

**Table 9. SML-4Z Power Fuse Components**

Holders				
Item	Ratings			Catalog Number
	kV		Amperes, Max	
	Nom.	Max		
Holder (including silencer), for use with SM-4® Refill Units	14.4	17	200E	92352
	25	27	200E	92353
SM-4® Refill Units (For use with SM-4 and SML-4 holders)①				
14.4 kV Nominal, 17 kV Max		25 kV Nominal, 27 kV Max		
For a complete listing of available ampere ratings, speeds, and catalog numbers, refer to Table 12 on page 22.				

① These refill units are usable in SM-4, SM-4Z, SML-4Z, and SME-4Z holders.

**Table 10. Fault Fiter® Electronic Power Fuse Components**

Holders				
Item	Ratings			Catalog Number
	kV		Amperes, Cont.	
	Nom.	Max		
Holder, for use with Fault Fiter Electronic Power Fuses	13.8	17	400	99412R1
	25	29	200	99413R1
Interrupting Modules①				
Item	Ratings			Catalog Number
	kV		Amperes, Cont.	
	Nom.	Max		
Interrupting module, for use with Fault Fiter Electronic Power Fuses	13.8	17	600	802600R2
	25	29	600	803600R2
Control Modules①				
For a complete listing of available types, TCC curve parameters, and catalog numbers, refer to Tables 13 through 15 on page 23 and 24.				

① Interrupting modules and control modules rated 600 amperes continuous are also applicable for use in mountings rated 200 or 400 amperes continuous.

# Remote Supervisory PMH Pad-Mounted Gear

**Table 11. SMU-20® Fuse Units (For use in SM-20 or SML-20 Mountings)①**

14.4 kV Nominal, 17 kV Max					
"K" Ratings		"E" Ratings			
Rating, Amperes ↓	Catalog Number	Rating, Amperes ↓	Catalog Number		
Speed →	S&C "K" TCC 165-2	Speed →	S&C "K" TCC 115-2		
		1	702001		
		Speed →	S&C Std. TCC 153-2	S&C Slow TCC 119-2	S&C Very Slow TCC 176-2
3K	702003	5E	612005		
6K	702006	7E	612007		
8K	702008	10E	612010		
10K	702010	13E	612013		
12K	702012	15E	612015	712015	
15K	702015	20E	612020	712020	
20K	702020	25E	612025	712025	
25K	702025	30E	612030	712030	
30K	702030	40E	612040	712040	
40K	702040	50E	612050	712050	602050
50K	702050	65E	612065	712065	602065
65K	702065	80E	612080	712080	602080
80K	702080	100E	612100	712100	602100
100K	702100	125E	612125	712125	602125
140K	702140	150E	612150	712150	602150
200K	702200	175E	612175	712175	602175
		200E	612200	712200	602200

① These fuse units are equally suitable for use in SMD-20 Outdoor Distribution Mountings and with SME-20 Fuse Unit End-Fittings listed in Specification Bulletin 665-31, "S&C Manual PME Pad-Mounted Gear"

and Specification Bulletin 666-31, "S&C Remote Supervisory PME Pad-Mounted Gear."

TABLE CONTINUED ►

Table 11. SMU-20® Fuse Units (For use in SM-20 or SML-20 Mountings)①—Continued

14.4 kV Nominal, 17 kV Max					
“K” Ratings		“E” Ratings			
Rating, Amperes ↓	Catalog Number	Rating, Amperes ↓	Catalog Number		
Speed →	S&C “K” TCC 165-2	Speed →	S&C “K” TCC 115-2		
		1	703001		
		Speed →	S&C Std. TCC 153-2	S&C Slow TCC 119-2	S&C Very Slow TCC 176-2
3K	703003	5E	613005		
6K	703006	7E	613007		
8K	703008	10E	613010		
10K	703010	13E	613013		
12K	703012	15E	613015	713015	
15K	703015	20E	613020	713020	
20K	703020	25E	613025	713025	
25K	703025	30E	613030	713030	
30K	703030	40E	613040	713040	
40K	703040	50E	613050	713050	603050
50K	703050	65E	613065	713065	603065
65K	703065	80E	613080	713080	603080
80K	703080	100E	613100	713100	603100
100K	703100	125E	613125	713125	603125
140K	703140	150E	613150	713150	603150
200K	703200	175E	613175	713175	603175
		200E	613200	713200	603200

① These fuse units are equally suitable for use in SMD-20 Outdoor Distribution Mountings and with SME-20 Fuse Unit End-Fittings listed in Specification Bulletin 665-31, “S&C Manual PME Pad-Mounted Gear”

and Specification Bulletin 666-31, “S&C Remote Supervisory PME Pad-Mounted Gear.”

# Remote Supervisory PMH Pad-Mounted Gear

**Table 12. SM-4® REFILL UNITS (For use in SML-4 Holders)①**

Rating, Amperes ↓	14.4 kV Nominal, 17 kV Max②			25 kV Nominal, 27 kV Max	
	Catalog Number			Catalog Number	
Speed →	S&C Std. TCC 115-4			S&C Std. TCC 115-4	
1	122001R4			123001R4	
2	122002R4			123002R4	
Speed →	S&C Std. TCC 153-4	S&C Slow TCC 119-4	S&C Coord. TCC 179-2	S&C Std. TCC 153-2	S&C Slow TCC 119-4
3E	122005R4			123005R4	
5E	122007R4			123007R4	
7E	122010R4			123010R4	
10E	122015R4			123015R4	
13E	122020R4			123020R4	
15E	122025R4	252025R4		123025R4	253025R4
20E	122030R4	252030R4		123030R4	253030R4
25E	122040R4	252040R4		123040R4	253040R4
30E	122050R4	252050R4		123050R4	253050R4
40E	122060R4	252060R4		123060R4	253060R4
50E	122075R4	252075R4		123075R4	253075R4
65E	122100R4	252100R4		123100R4	253100R4
80E	122125R4	252125R4		123125R4	253125R4
100E	122150R4	252150R4		123150R4	253150R4
125E	122200R4	252200R4		123200R4	253200R4
150E	122250R4	252250R4		123250R4	253250R4
175E	122275R4	252275R4		123275R4	253275R4
200E	122300R4	252300R4		123300R4	253300R4
210E			382210R4●		

① These refill units are also suitable for use with SME-4Z Holders listed in Specification Bulletin 665-31, "S&C Manual PME Pad-Mounted Gear" and Specification Bulletin 666-31, "S&C Remote Supervisory PME Pad-Mounted Gear."

② Rated 14.4 kV nominal, for use in SM-4 Holders rated 14.4 kV when applied in listed mountings rated 13.8 kV or in discontinued mountings rated 14.4 kV.

● This S&C Coordinating Speed refill unit should be applied where the maximum continuous load current does not exceed 200 amperes and where all fault currents below 1000 amperes will be cleared by another fuse.

**Table 13. Fault Fiter® Control Modules—Underground Subloop<sup>①</sup> Type (TCC No. 422-7)**

Continuous Current, Amperes Max <sup>②</sup>	TCC Curve Parameters				Catalog Number
	Minimum Pickup, Amperes, RMS	Short-Time Pickup, Amperes, RMS	Short-Time Delay Band	Instantaneous Pickup, Amperes, RMS	
600	400	1300	2	3000	7020-C40P130S2T3
	500	1300	1	3000	7020-C50P130S1T3

① This control module is applicable for protection of 15-kV and 25-kV class underground distribution subloops having the following parameters: maximum available fault current—14,000 amperes, RMS symmetrical at 15 kV, 12,500 amperes RMS, symmetrical at 25 kV; maximum rated transformer kVA connected for residential circuits—1200 kVA single-phase, 3600 kVA three-phase at 15 kV, 2400 kVA single-phase, 7200 kVA three-phase at 25 kV; with no capacitor banks or

current-limiting fuses on the load side of the Fault Fiter Electronic Power Fuse. If the maximum rated transformer kVA connected is greater than the values listed above, or if the application involves protection of circuits serving industrial, commercial, or institutional loads, refer to nearest S&C Sales Office.

② Control modules rated 600 amperes continuous are also applicable for use in mountings rated 200 amperes or 400 amperes continuous.

**Table 14. Fault Fiter Control Modules—Inverse Curve Type (TCC No. 410-7)**

Continuous Current, Amperes, Max <sup>①</sup>	Minimum Pickup, Amperes, RMS	Catalog Number
600	400	814040
	500	814050
	600	814060
	700	814070
	800	814080
	1000	814100
	1250	814125
	1500	814150

① Control modules rated 600 amperes continuous are also applicable for use in mountings rated 200 amperes or 400 amperes continuous.

# Remote Supervisory PMH Pad-Mounted Gear

**Table 15. Fault Fiter Control Modules—Time-Delayed Compound-Curve Type (TCC No. 421-7)**

Continuous Current, Amperes, Max <sup>①</sup>	TCC Curve Parameters				Catalog Number
	Minimum Pickup, Amperes, RMS	Short-Time Delay Band	High-Current Pickup, Amperes, RMS	High-Current Delay Band Time Delay, ms	
600	400	1	3000	8	7010-C40S1T3D8
			6000		7010-C40S1T6D8
		2	3000		7010-C40S2T3D8
			6000		7010-C40S2T6D8
		3	3000		7010-C40S3T3D8
			6000		7010-C40S3T6D8
		4	3000		7010-C40S4T3D8
			6000		7010-C40S4T6D8
	600	1	3000	8	7010-C60S1T3D8
			6000		7010-C60S1T6D8
		2	3000		7010-C60S2T3D8
			6000		7010-C60S2T6D8
		3	3000		7010-C60S3T3D8
			6000		7010-C60S3T6D8
		4	3000		7010-C60S4T3D8
			6000		7010-C60S4T6D8
	800	1	3000	8	7010-C80S1T3D8
			6000		7010-C80S1T6D8
		2	3000		7010-C80S2T3D8
			6000		7010-C80S2T6D8
		3	3000		7010-C80S3T3D8
			6000		7010-C80S3T6D8
		4	3000		7010-C80S4T3D8
			6000		7010-C80S4T6D8
	1100	1	3000	8	7010-C110S1T3D8
			6000		7010-C110S1T6D8
		2	3000		7010-C110S2T3D8
			6000		7010-C110S2T6D8
3		3000	7010-C110S3T3D8		
		6000	7010-C110S3T6D8		
4		3000	7010-C110S4T3D8		
		6000	7010-C110S4T6D8		

<sup>①</sup> Control modules rated 600 amperes continuous are also applicable for use in mountings rated 200 amperes or 400 amperes continuous.



**Table 16. 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 7GY3.29/1.5) outdoor finish	9999-058
S&C red-oxide primer	9999-061

**Table 17. Accessories**

Item			Catalog Number
Grounding jumpers, set of three, with eye-type clamps for installation with a standard shotgun clamp stick	36-inch (914-mm) length		4210
Shotgun clamp sticks for installation of grounding jumpers and for use with voltage testers	77½-inch (1969-mm) length		9933-150
	101½-inch (2578-mm) length		9933-151
Storage bag, heavy canvas	For grounding jumpers		9933-149
	For shotgun clamp stick	6-foot-6-inch (1981-mm) length	9933-152
		8-foot-6-inch (2591-mm) length	9933-153
Voltage tester with audio and visual signals, includes voltage tester, batteries, adapter for shotgun clamp sticks, and storage case <sup>①</sup>			9931-072
Current sensors, set of three—split core, rated 600/5 amperes for application in conjunction with manually operated switches for monitoring load currents—for conductors of up to 3½-inch (89-mm) diameter <sup>②</sup>			TA-2224
Detailed hardware manual—includes schematic diagrams, circuit-board layouts, parts lists, bench-check procedures, and operating descriptions for the switch control and battery charger, as applicable	For Switch-Control Equipment Groups for use with RTU by others	Suffix “-Y2”	RD-3602
		Suffix “-Y3”	RD-3603
		Suffix “-Y4”	RD-3604
	For Switch-Control Equipment Groups for use without RTU	Suffix “-Y5”	RD-3605
		Suffix “-Y6”	RD-3606
		Suffix “-Y7”	RD-3607
Pentahead socket, for ½-inch drive			9931-074
S&C Battery Charger Recalibration Procedure—includes detailed instructions on calibrating the charging voltage to the batteries to ensure optimal battery life			RD-3808

① For ultimate users other than electric utilities, also specify a shotgun clamp stick of the appropriate length.

② Current sensors must not be installed on unshielded cables or on cables where the insulation is exposed but ungrounded (for example,

where dielectric tape or heat-shrink tubing is used). These sensors are intended for application at ground potential and may be damaged by the voltage gradient between the cable insulation and ground.

# Remote Supervisory PMH Pad-Mounted Gear

**Table 18. Switch Blades** ①

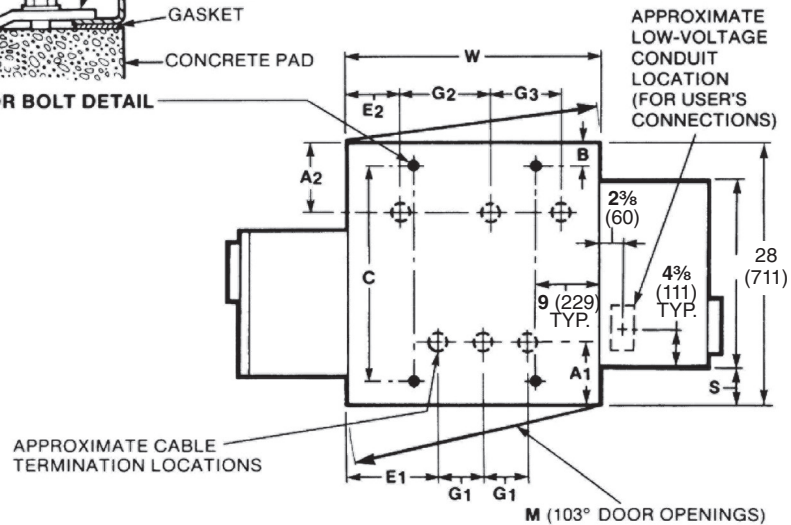
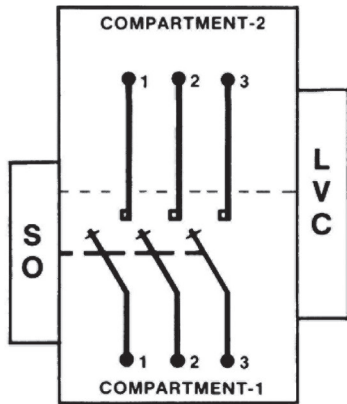
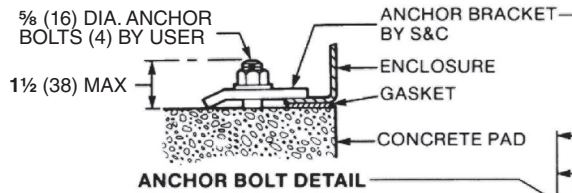
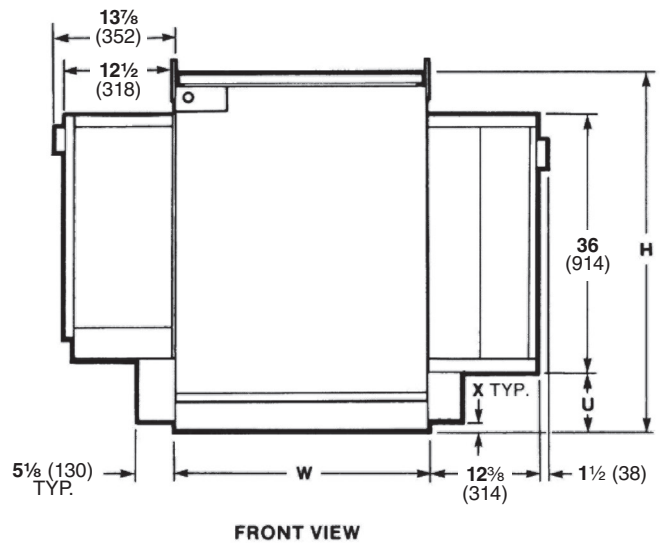
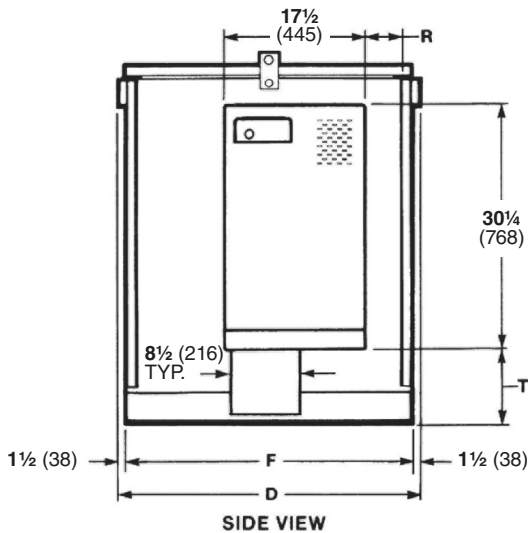
Item	Rating			Catalog Number
	kV		Amperes, Cont.	
	Nom.	Max		
Switch blade, for use in lieu of SMU-20 Fuse Unit in SML-20 mounting	14.4	17	200	5432
	25	27	200	5433
Switch blade, for use in lieu of SML-4Z Holder in SML-4 mounting	14.4	17	200	5442
	25	27	200	5443
Switch blade, for use in lieu of Fault Fiter holder in Fault Fiter mounting	13.8	17	400	3222
	25	29	200	3223R1

① When switch blades are used in lieu of fuses, the Uni-Rupter Interrupter associated with these switches can carry and interrupt load currents up to and including the emergency peak-load capabilities of the SML power fuses, or up to 400 amperes at 14.4 kV and 200 amperes at 25 kV for Fault Fiter Electronic Power Fuses. Furthermore,

the switches with the Uni-Rupter Interrupter have fault-closing ratings equal to those of S&C Power Fuses with a Uni-Rupter Interrupter (see the "Application Notes" section on page 4 and 5). The momentary and one-second ratings of the switches equal the short-circuit ratings of the pad-mounted gear.

## Model PMH-3 14.4 kV and 25 kV

Dimensions in inches (mm)



kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub> ●	B	C	D	E <sub>1</sub>	E <sub>2</sub>	F	G <sub>1</sub>	G <sub>2</sub>	G <sub>3</sub>	H	M	R	S	T	U	W	X
14.4	9 <sup>7</sup> / <sub>8</sub> (251)	11 <sup>1</sup> / <sub>8</sub> (283)	3 <sup>7</sup> / <sub>8</sub> (98)	30 (762)	40 <sup>3</sup> / <sub>4</sub> (1035)	12 <sup>7</sup> / <sub>8</sub> (327)	7 <sup>3</sup> / <sub>4</sub> (197)	37 <sup>3</sup> / <sub>4</sub> (959)	6 (152)	9 <sup>3</sup> / <sub>4</sub> (248)	9 <sup>3</sup> / <sub>4</sub> (248)	50 (1270)	34 (864)	5 <sup>1</sup> / <sub>2</sub> (140)	4 <sup>7</sup> / <sub>8</sub> (124)	16 (406)	10 <sup>1</sup> / <sub>4</sub> (260)	34 <sup>7</sup> / <sub>8</sub> (886)	7 <sup>7</sup> / <sub>8</sub> (22)
25	14 <sup>1</sup> / <sub>8</sub> (359)	15 <sup>1</sup> / <sub>4</sub> (387)	3 <sup>7</sup> / <sub>8</sub> (98)	49 (1245)	59 <sup>3</sup> / <sub>4</sub> (1518)	13 <sup>3</sup> / <sub>4</sub> (349)	9 (229)	56 <sup>3</sup> / <sub>4</sub> (1441)	7 <sup>1</sup> / <sub>2</sub> (191)	11 (279)	12 <sup>1</sup> / <sub>2</sub> (318)	61 (1549)	42 <sup>1</sup> / <sub>8</sub> (1070)	9 <sup>3</sup> / <sub>4</sub> (248)	14 <sup>7</sup> / <sub>8</sub> (365)	25 <sup>3</sup> / <sub>4</sub> (654)	20 (508)	43 (1092)	1 <sup>1</sup> / <sub>2</sub> (13)

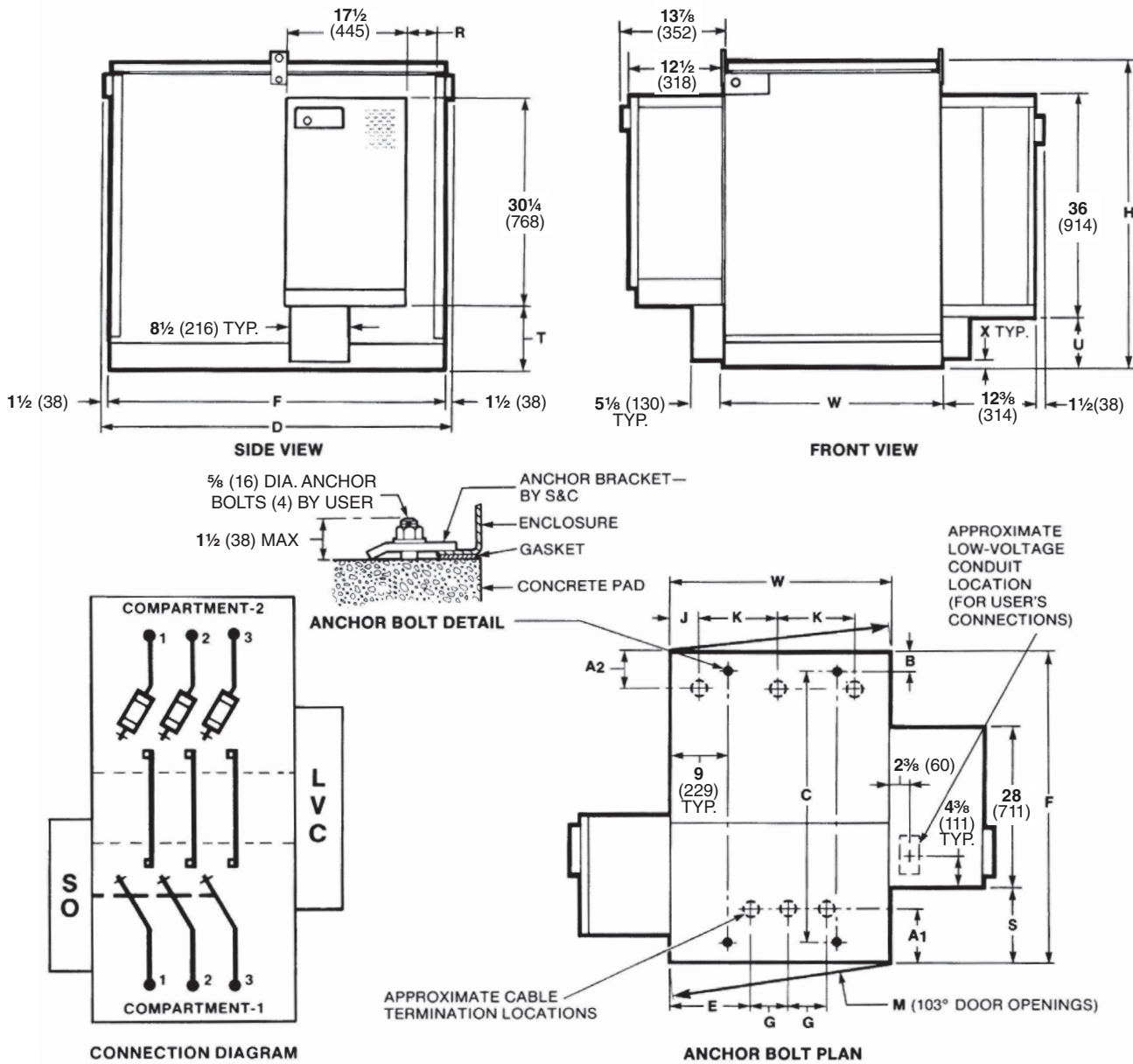
● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

# Remote Supervisory PMH Pad-Mounted Gear

## Model PMH-5

14.4 kV and 25 kV

Dimensions in inches (mm)



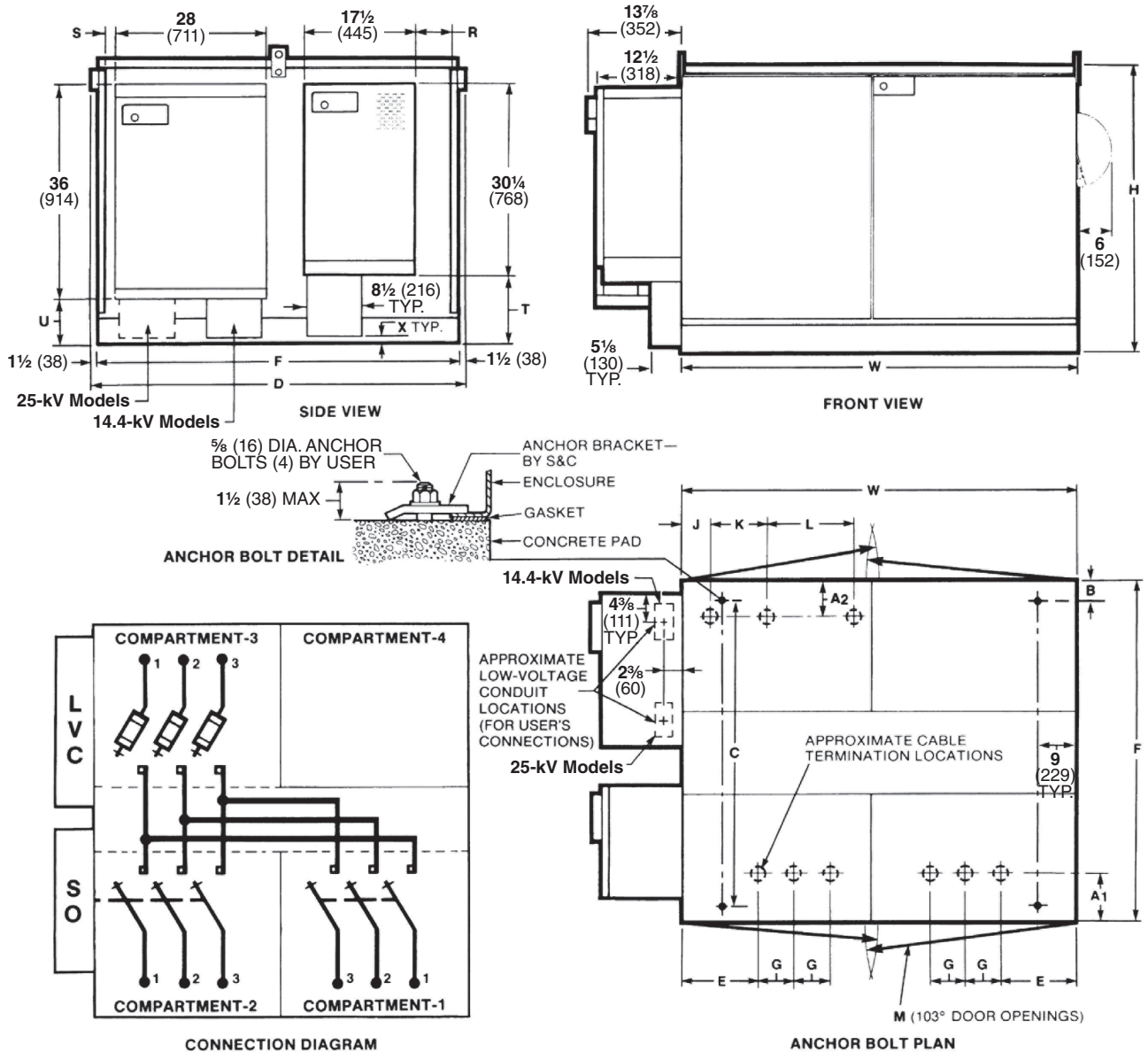
kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub>	B	C	D	E	F	G	H	J	K	M	R	S	T	U	W	X
14.4	9 7/8 (251)	7 (178)	3 7/8 (98)	44 (1118)	54 3/4 (1391)	12 7/8 (327)	51 1/4 (1314)	6 (152)	50 (1270)	4 7/8 (124)	9 3/4 (248)	34 (864)	5 1/2 (140)	11 7/8 (302)	16 (406)	10 1/4 (260)	34 7/8 (886)	7/8 (22)
25	14 1/8 (359)	11 1/4 (286)	3 7/8 (98)	51 1/2 (1461)	68 1/4 (1734)	13 3/4 (349)	65 1/4 (1657)	7 1/2 (191)	61 (1549)	6 5/8 (168)	12 1/2 (318)	42 1/8 (1070)	9 3/4 (248)	18 5/8 (473)	25 3/4 (654)	20 (508)	43 (1092)	1/2 (13)

● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

## Model PMH-6

14.4 kV and 25 kV with one switch operator

Dimensions in inches (mm)



kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub>	B	C	D	E	F	G	H	J	K	L	M	R	S	T	U	W	X
14.4	9 7/8 (251)	7 (178)	3 7/8 (98)	53 (1356)	63 3/4 (1619)	12 7/8 (327)	60 3/4 (1543)	6 (152)	50 (1270)	4 3/4 (121)	9 3/4 (248)	14 3/4 (375)	34 (864)	5 1/2 (140)	1 (25)	16 (406)	10 1/4 (260)	67 (1702)	7/8 (22)
25	14 1/8 (359)	11 1/4 (286)	3 7/8 (98)	69 (1753)	79 3/4 (2026)	13 3/4 (349)	76 3/4 (1949)	7 1/2 (191)	61 (1549)	6 (152)	12 1/2 (318)	16 1/2 (419)	41 1/2 (1054)	9 3/4 (248)	5 1/4 (133)	25 3/4 (654)	20 (508)	82 (2083)	1/2 (13)

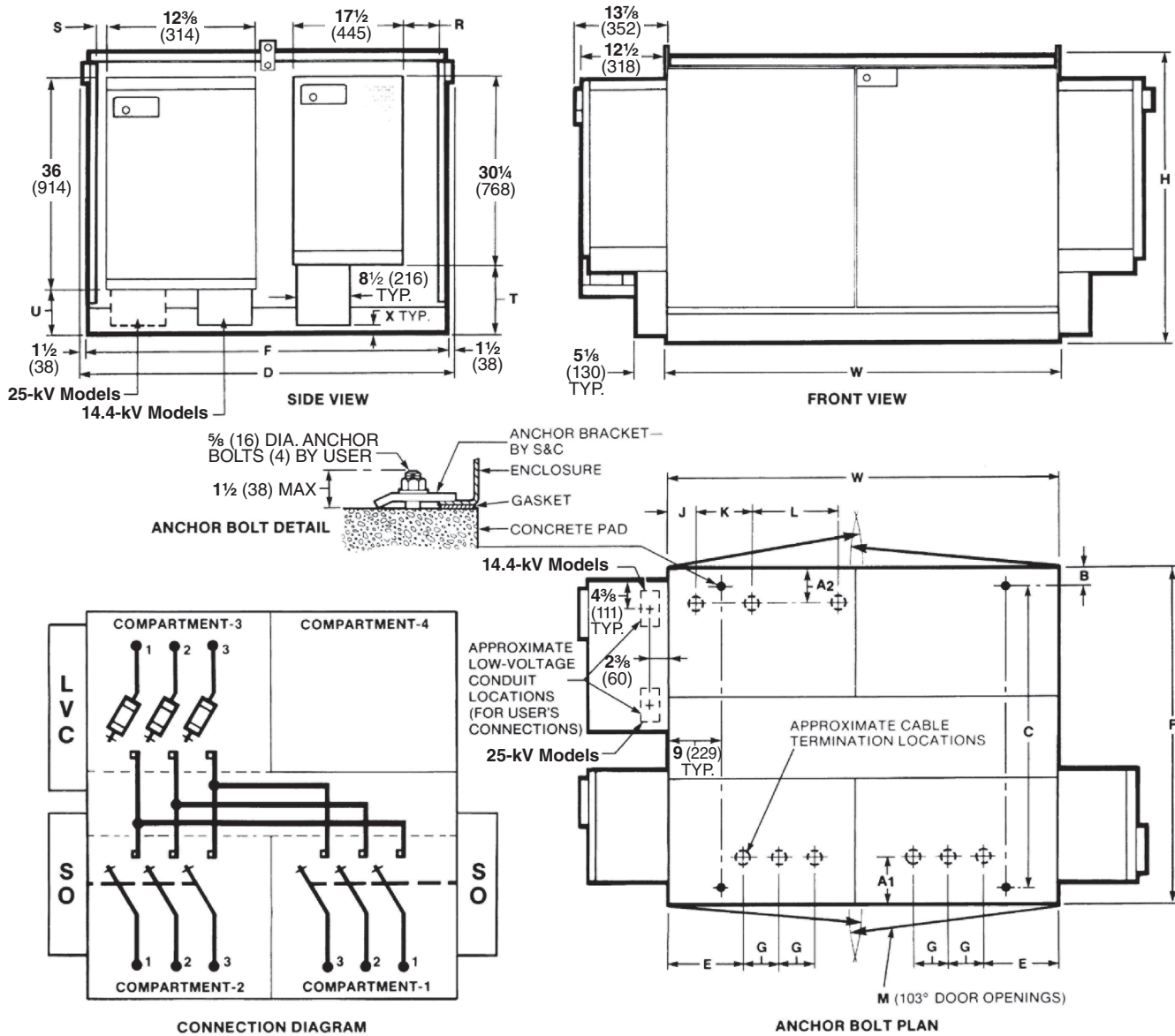
● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

# Remote Supervisory PMH Pad-Mounted Gear

## Model PMH-6

14.4 kV and 25 kV with two switch operators

Dimensions in inches (mm)

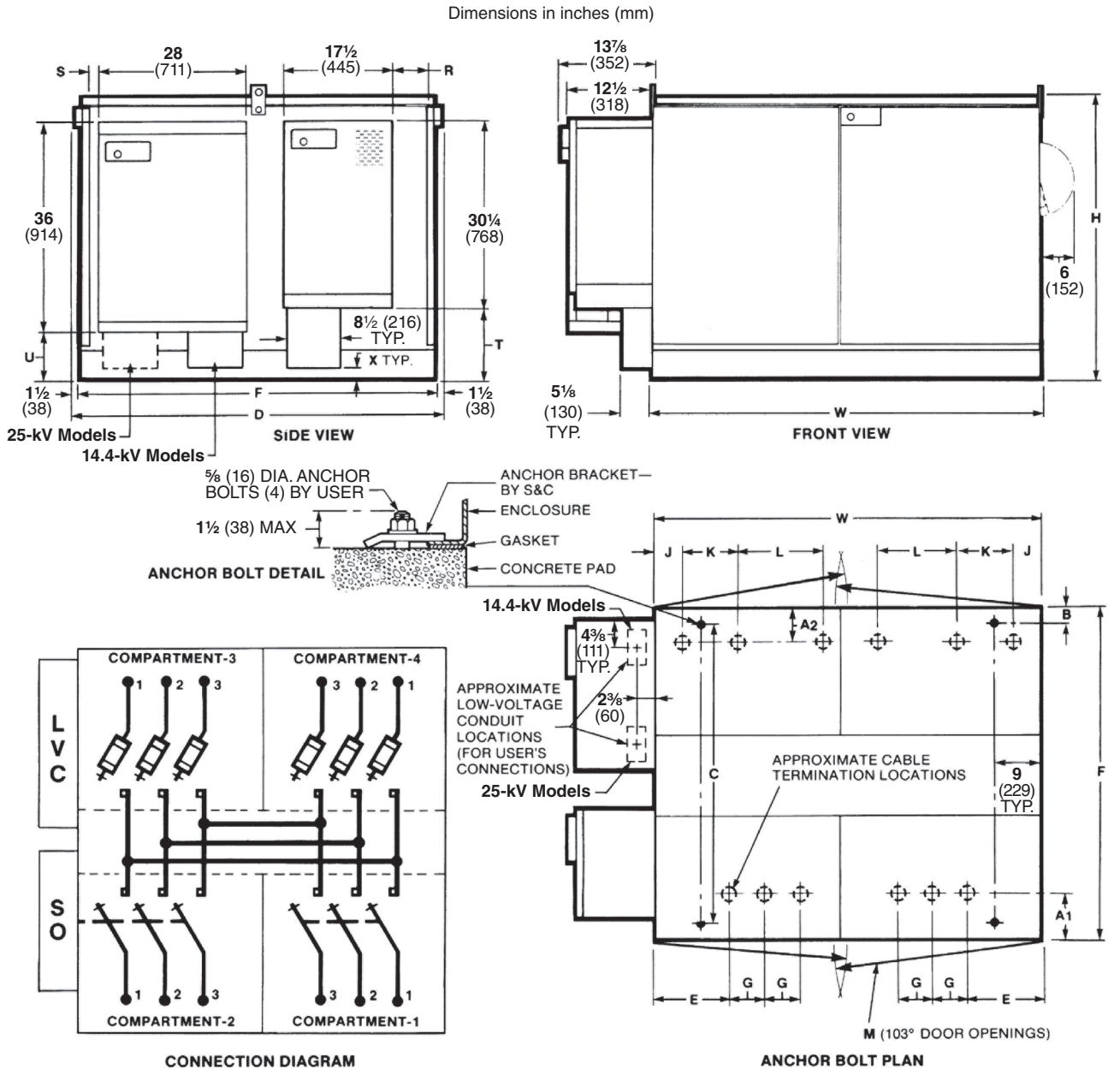


kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub>	B	C	D	E	F	G	H	J	K	L	M	R	S	T	U	W	X
14.4	9 7/8 (251)	7 (178)	3 7/8 (98)	53 (1346)	63 3/4 (1619)	12 7/8 (327)	60 3/4 (1543)	6 (152)	50 (1270)	4 3/4 (121)	9 3/4 (248)	14 3/4 (375)	34 (864)	5 1/2 (140)	1 (25)	16 (406)	10 1/4 (260)	67 (1702)	7/8 (22)
25	14 1/8 (359)	11 1/4 (286)	3 7/8 (98)	69 (1753)	79 3/4 (2026)	13 3/4 (349)	76 3/4 (1949)	7 1/2 (191)	61 (1549)	6 (152)	12 1/2 (318)	16 1/2 (419)	41 1/2 (1054)	9 3/4 (248)	5 1/4 (133)	25 3/4 (654)	20 (508)	82 (2083)	1/2 (13)

● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

## Model PMH-9

14.4 kV and 25 kV with one switch operator



kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub>	B	C	D	E	F	G	H	J	K	L	M	R	S	T	U	W	X
14.4	9 7/8 (251)	7 (178)	3 7/8 (98)	53 (1346)	63 3/4 (1619)	12 7/8 (327)	60 3/4 (1543)	6 (152)	50 (1270)	4 3/4 (121)	9 3/4 (248)	14 3/4 (375)	34 (864)	5 1/2 (140)	1 (25)	16 (406)	10 1/4 (260)	67 (1702)	7/8 (22)
25	14 1/8 (359)	11 1/4 (286)	3 7/8 (98)	69 (1753)	79 3/4 (2026)	13 3/4 (349)	76 3/4 (1949)	7 1/2 (191)	61 (1549)	6 (152)	12 1/2 (318)	16 1/2 (419)	41 1/2 (1054)	9 3/4 (248)	5 1/4 (133)	25 3/4 (654)	20 (508)	82 (2083)	1/2 (13)

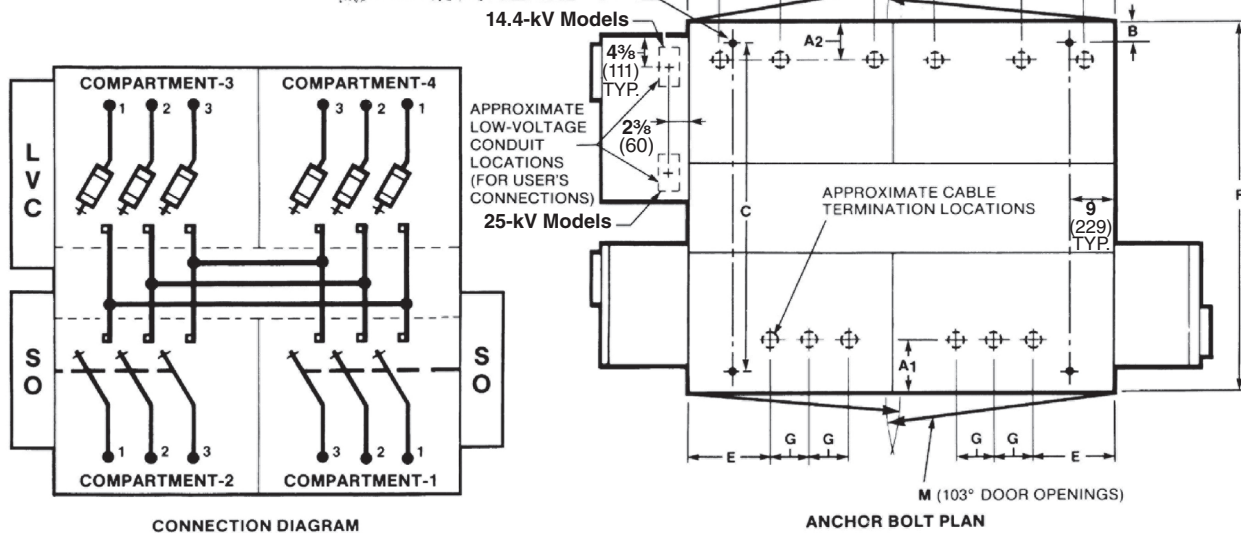
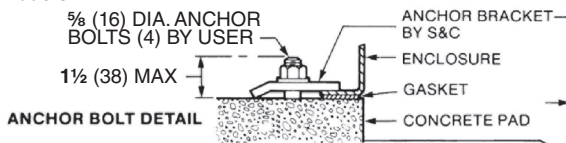
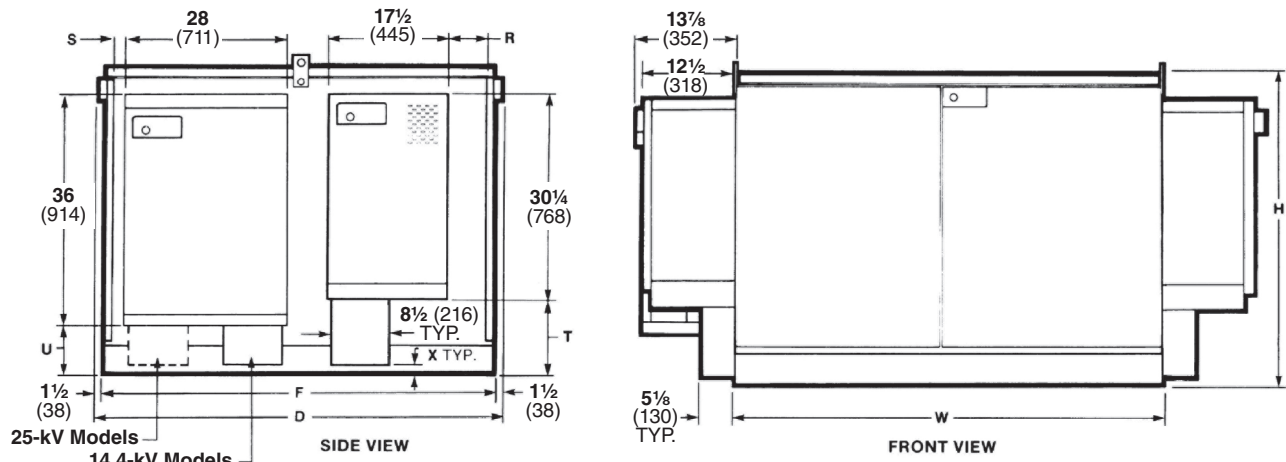
● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

# Remote Supervisory PMH Pad-Mounted Gear

## Model PMH-9

14.4 kV and 25 kV with two switch operators

Dimensions in inches (mm)



kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub>	B	C	D	E	F	G	H	J	K	L	M	R	S	T	U	W	X
14.4	9 <sup>7</sup> / <sub>8</sub> (251)	7 (178)	3 <sup>7</sup> / <sub>8</sub> (98)	53 (1346)	63 <sup>3</sup> / <sub>4</sub> (1619)	12 <sup>7</sup> / <sub>8</sub> (327)	60 <sup>3</sup> / <sub>4</sub> (1543)	6 (152)	50 (1270)	4 <sup>3</sup> / <sub>4</sub> (121)	9 <sup>3</sup> / <sub>4</sub> (248)	14 <sup>3</sup> / <sub>4</sub> (375)	34 (864)	5 <sup>1</sup> / <sub>2</sub> (140)	1 (25)	16 (406)	10 <sup>1</sup> / <sub>4</sub> (260)	67 (1702)	7 <sup>7</sup> / <sub>8</sub> (22)
25	14 <sup>1</sup> / <sub>8</sub> (359)	11 <sup>1</sup> / <sub>4</sub> (286)	3 <sup>7</sup> / <sub>8</sub> (98)	69 (1753)	79 <sup>3</sup> / <sub>4</sub> (2026)	13 <sup>3</sup> / <sub>4</sub> (349)	76 <sup>3</sup> / <sub>4</sub> (1949)	7 <sup>1</sup> / <sub>2</sub> (191)	61 (1549)	6 (152)	12 <sup>1</sup> / <sub>2</sub> (318)	16 <sup>1</sup> / <sub>2</sub> (419)	41 <sup>1</sup> / <sub>2</sub> (1054)	9 <sup>3</sup> / <sub>4</sub> (248)	5 <sup>1</sup> / <sub>4</sub> (133)	25 <sup>3</sup> / <sub>4</sub> (654)	20 (508)	82 (2083)	1 <sup>1</sup> / <sub>2</sub> (13)

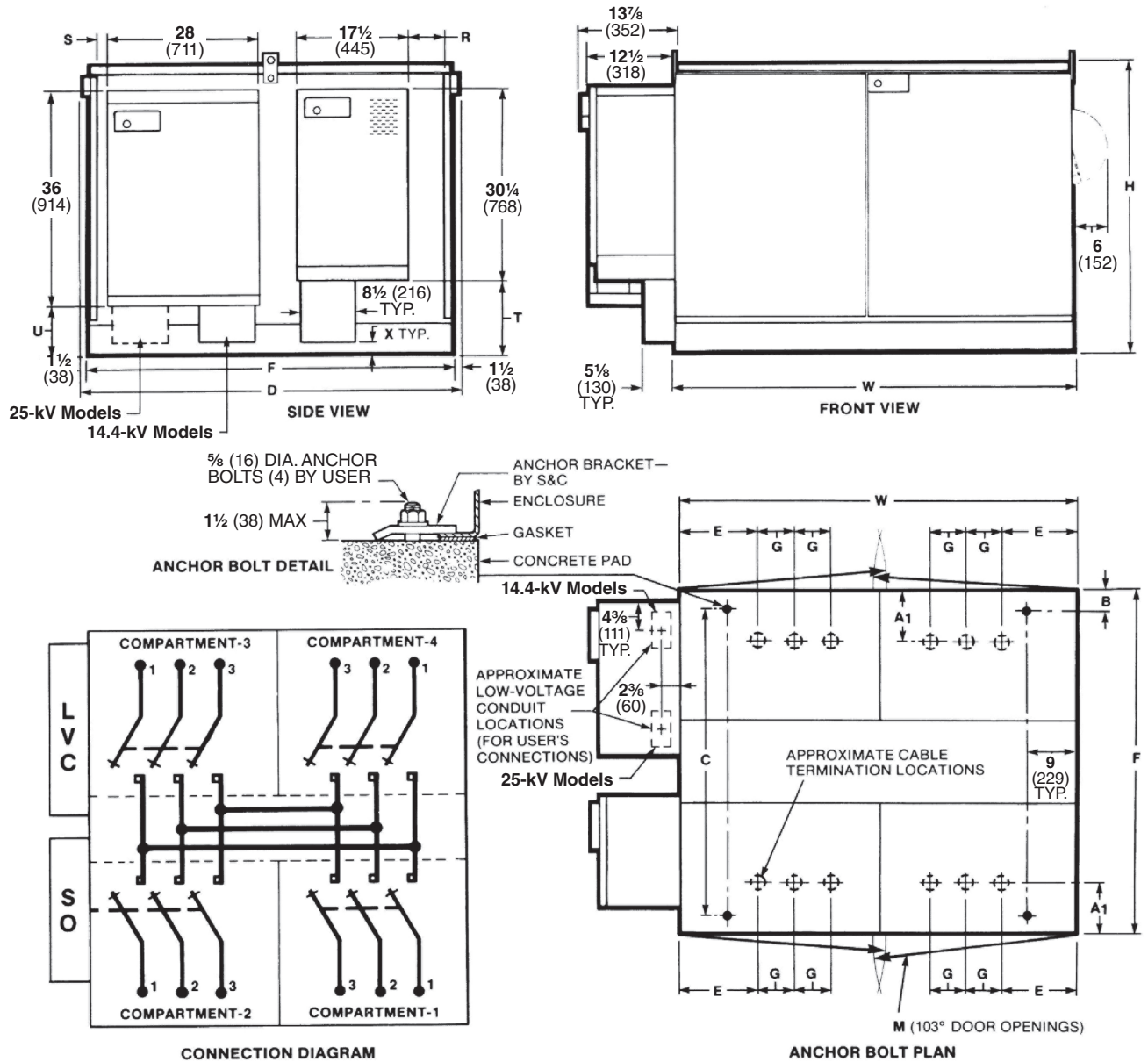
● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.



## Model PMH-10

14.4 kV and 25 kV with one switch operator

Dimensions in inches (mm)



kV, Nom.	A <sub>1</sub> ●	B	C	D	E	F	G	H	M	R	S	T	U	W	X
14.4	9 7/8 (251)	3 7/8 (98)	53 (1346)	63 3/4 (1619)	12 7/8 (327)	60 3/4 (1543)	6 (152)	50 (1270)	34 (864)	5 1/2 (140)	1 (25)	16 (406)	10 1/4 (260)	67 (1702)	7/8 (22)
25	14 1/8 (359)	3 7/8 (98)	69 (1753)	79 3/4 (2026)	13 3/4 (349)	76 3/4 (1949)	7 1/2 (191)	61 (1549)	41 1/2 (1054)	9 3/4 (248)	5 1/4 (133)	25 3/4 (654)	20 (508)	82 (2083)	1/2 (13)

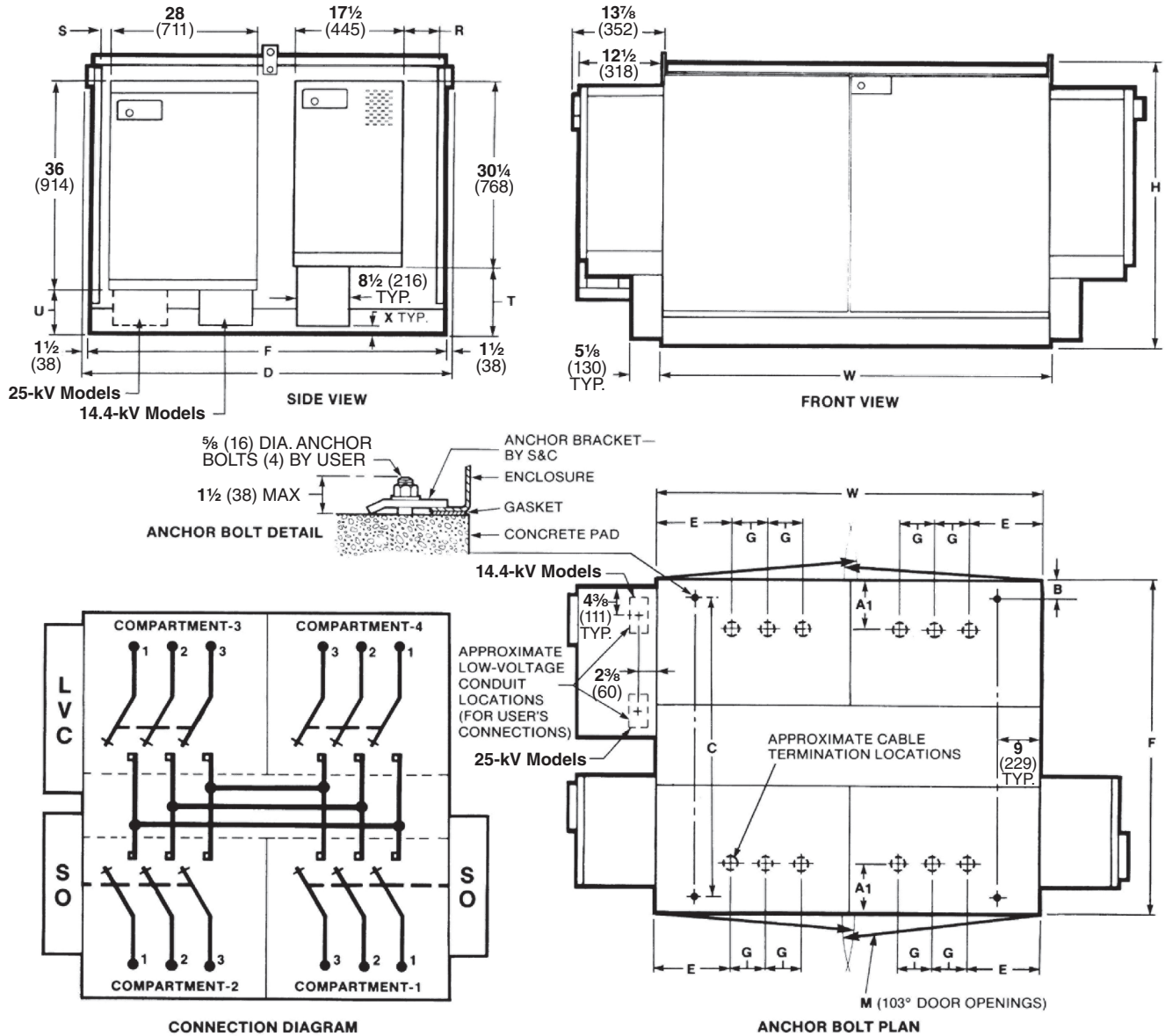
● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

# Remote Supervisory PMH Pad-Mounted Gear

## Model PMH-10

14.4 kV and 25 kV with two switch operators

Dimensions in inches (mm)



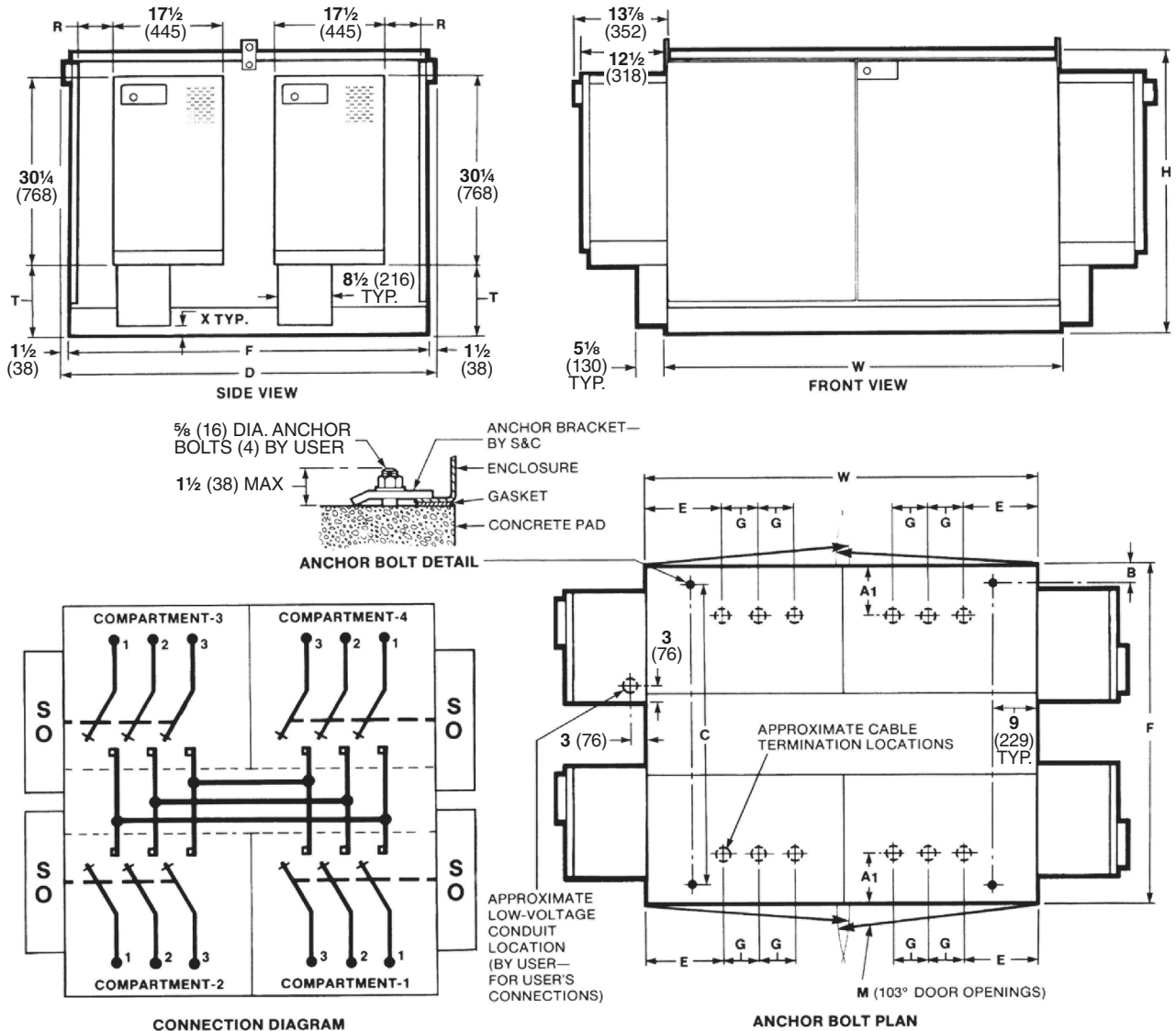
kV, Nom.	A <sub>1</sub> ●	B	C	D	E	F	G	H	M	R	S	T	U	W	X
14.4	9 7/8 (251)	3 7/8 (98)	53 (1346)	63 3/4 (1619)	12 7/8 (327)	60 3/4 (1543)	6 (152)	50 (1270)	34 (864)	5 1/2 (140)	1 (25)	16 (406)	10 1/4 (260)	67 (1702)	7/8 (22)
25	14 1/8 (359)	3 7/8 (98)	69 (1753)	79 3/4 (2026)	13 3/4 (349)	76 3/4 (1949)	7 1/2 (191)	61 (1549)	41 1/2 (1054)	9 3/4 (248)	5 1/4 (133)	25 3/4 (654)	20 (508)	82 (2083)	1/2 (13)

● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

## Model PMH-10

14.4 kV and 25 kV with four switch operators

Dimensions in inches (mm)



kV, Nom.	A, ●	B	C	D	E	F	G	H	M	R	T	W	X
14.4	9 $\frac{7}{8}$ (251)	3 $\frac{7}{8}$ (98)	53 (1346)	63 $\frac{3}{4}$ (1619)	12 $\frac{7}{8}$ (327)	60 $\frac{3}{4}$ (1543)	6 (152)	50 (1270)	34 (864)	5 $\frac{1}{2}$ (140)	16 (406)	67 (1702)	7 $\frac{7}{8}$ (22)
25	14 $\frac{1}{8}$ (359)	3 $\frac{7}{8}$ (98)	69 (1753)	79 $\frac{3}{4}$ (2026)	13 $\frac{3}{4}$ (349)	76 $\frac{3}{4}$ (1949)	7 $\frac{1}{2}$ (191)	61 (1549)	41 $\frac{1}{2}$ (1054)	9 $\frac{3}{4}$ (248)	26 (660)	82 (2083)	1 $\frac{1}{2}$ (13)

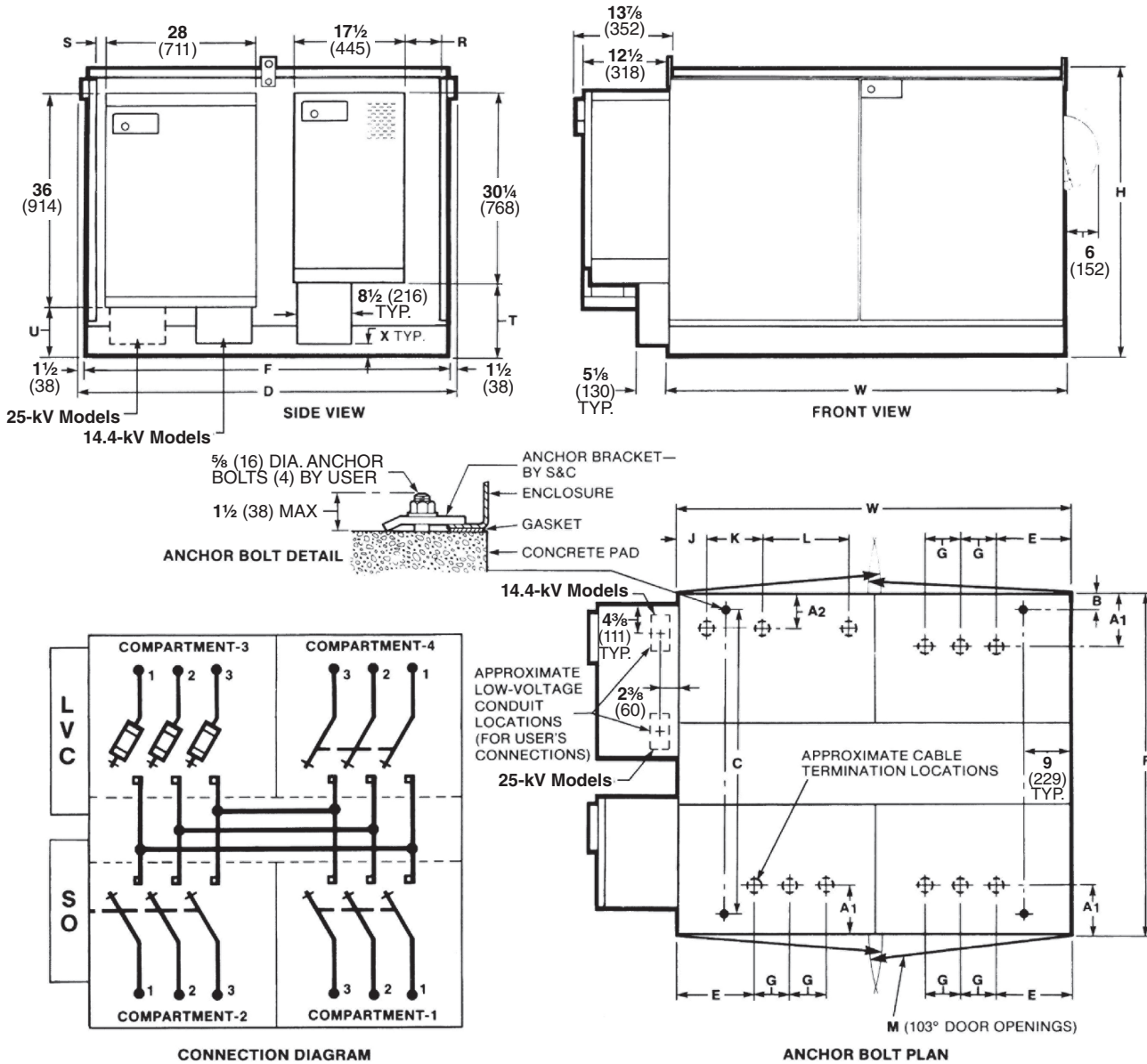
● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

# Remote Supervisory PMH Pad-Mounted Gear

## Model PMH-11

14.4 kV and 25 kV with one switch operator

Dimensions in inches (mm)

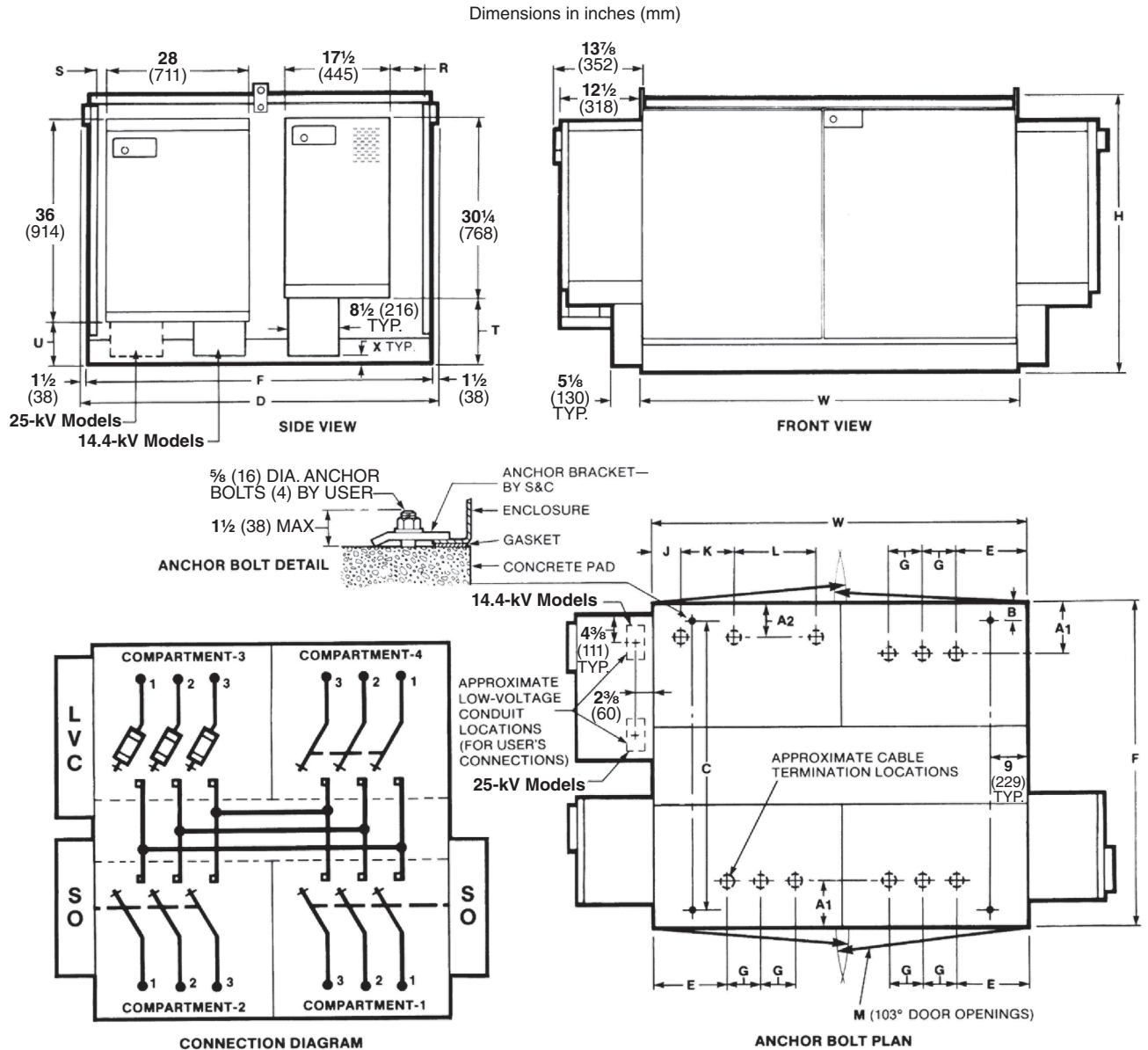


kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub>	B	C	D	E	F	G	H	J	K	L	M	R	S	T	U	W	X
14.4	9 7/8 (251)	7 (178)	3 7/8 (98)	53 (1346)	63 3/4 (1619)	12 7/8 (327)	60 3/4 (1543)	6 (152)	50 (1270)	4 3/4 (121)	9 3/4 (248)	14 3/4 (375)	34 (864)	5 1/2 (140)	1 (25)	16 (406)	10 1/4 (260)	67 (1702)	7/8 (22)
25	14 1/8 (359)	11 1/4 (286)	3 7/8 (98)	69 (1753)	79 3/4 (2026)	13 3/4 (349)	76 3/4 (1949)	7 1/2 (191)	61 (1549)	6 (152)	12 1/2 (318)	16 1/2 (419)	41 1/2 (1054)	9 3/4 (248)	5 1/4 (133)	25 3/4 (654)	20 (508)	82 (2083)	1/2 (13)

● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

## Model PMH-11

14.4 kV and 25 kV with two switch operators



kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub>	B	C	D	E	F	G	H	J	K	L	M	R	S	T	U	W	X
14.4	9 7/8 (251)	7 (178)	3 7/8 (98)	53 (1346)	63 3/4 (1619)	12 7/8 (327)	60 3/4 (1543)	6 (152)	50 (1270)	4 3/4 (121)	9 3/4 (248)	14 3/4 (375)	34 (864)	5 1/2 (140)	1 (25)	16 (406)	10 1/4 (260)	67 (1702)	7/8 (22)
25	14 1/8 (359)	11 1/4 (286)	3 7/8 (98)	69 (1753)	79 3/4 (2026)	13 3/4 (349)	76 3/4 (1949)	7 1/2 (191)	61 (1549)	6 (152)	12 1/2 (318)	16 1/2 (419)	41 1/2 (1054)	9 3/4 (248)	5 1/4 (133)	25 3/4 (654)	20 (508)	82 (2083)	1/2 (13)

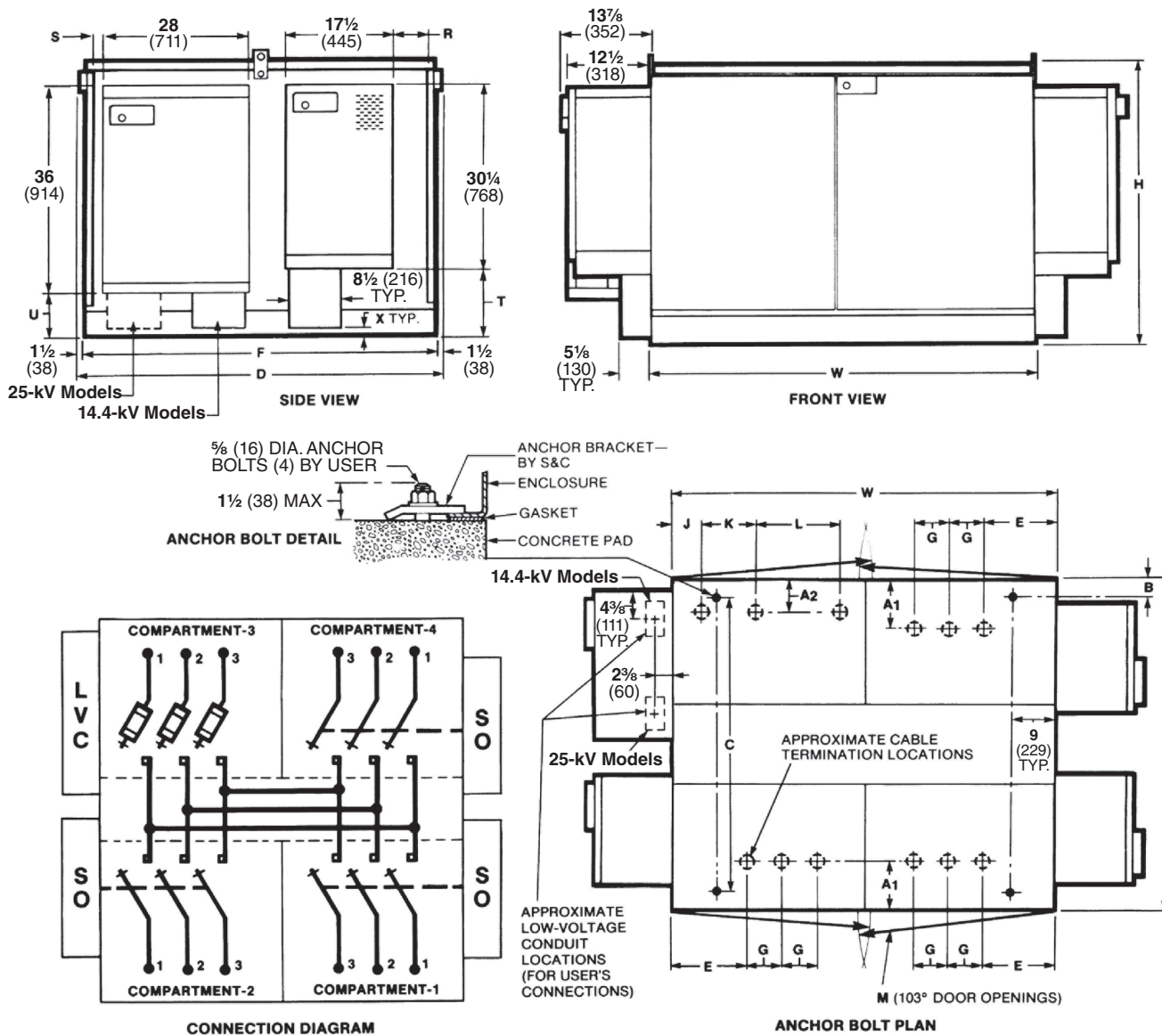
● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.

# Remote Supervisory PMH Pad-Mounted Gear

## Model PMH-11

14.4 kV and 25 kV with three switch operators

Dimensions in inches (mm)



kV, Nom.	A <sub>1</sub> ●	A <sub>2</sub>	B	C	D	E	F	G	H	J	K	L	M	R	S	T	U	W	X
14.4	9⅞ (251)	7 (178)	3⅞ (98)	53 (1346)	63¾ (1619)	12⅞ (327)	60¾ (1543)	6 (152)	50 (1270)	4¾ (121)	9¾ (248)	14¾ (375)	34 (864)	5½ (140)	1 (25)	16 (406)	10¼ (260)	67 (1702)	7/8 (22)
25	14⅞ (359)	11¼ (286)	3⅞ (98)	69 (1753)	79¾ (2026)	13¾ (349)	76¾ (1949)	7½ (191)	61 (1549)	6 (152)	12½ (318)	16½ (419)	41½ (1054)	9¾ (248)	5¼ (133)	25¾ (654)	20 (508)	82 (2083)	½ (13)

● When catalog number suffix “-M1” is specified, cable-termination locations will be slightly affected. Refer to the nearest S&C Sales Office for details.