Specification

Conditions of Sale

STANDARD: The seller's standard conditions of sale set forth in Price Sheet 150 apply, except as modified in the "Warranty Qualifications" section on page 3.

SPECIAL TO THIS PRODUCT:

INCLUSIONS: Manual PME Pad-Mounted Gear features elbow-connected encased components. Manual PME models are of freestanding, self-supporting construction—not for bolting directly to transformers—with provisions for cable entrance and exit through the bottom. Enclosures meet the requirements of ANSI C57.12.28 (enclosure integrity).

Access to termination compartments is controlled by the Penta-Latch® Mechanism, which 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 is undercoated with an insulating "no-drip" compound. A resilient closed-cell gasket on the enclosure bottom flange protects the finish from being scratched during installation and isolates it from the alkalinity of a concrete foundation. Enclosures are protected from corrosion by S&C's olive green Ultradur® II Outdoor Finish.

Switch terminals are equipped with 600-ampere-rated bushings, and fuse terminals are equipped with 200-ampere-rated bushing-wells. Bushing and bushing-well interfaces are in accordance with ANSI/IEEE Standard 386 to accept all standard separable insulated connectors and inserts.

Parking stands are provided adjacent to each bushing and bushing well. Grounding provisions suitable for use with separable insulated connectors and related accessories are located in each termination compartment. Full-length steel barriers separate adjoining termination compartments (where applicable). PME models are provided with an instruction manual holder and storage racks on each fuse termination-compartment door for spare S&C Fuse Units, Refill Units, or Interrupting Modules.

All medium-voltage switch and fuse components are completely encased in an inner grounded steel compartment. The component compartment floor of 22-gauge galvanized steel sheet excludes foliage and animals. Fiberglass-reinforced polyester barriers are provided where required to achieve published BIL ratings.

Roof sections over the cable compartments are hinged to allow easy cable pulling during installation.

External handle-operated 600-ampere Mini-Rupter® Switches provide three-pole live switching of three-phase source circuits. A folding switch-operating handle, secured inside the switch-operating-hub pocket, is provided with each Mini-Rupter Switch.

These PME models offer a choice of S&C Type SME-20 and SME-4Z Power Fuses or Fault Fiter® Electronic Power Fuses. SME-20 Power Fuses use the SMU-20® Fuse Unit, and SME-4Z Power Fuses use the SM-4® Refill Unit. Fault Fiter Electronic Power Fuse mountings also accommodate a variety of single-barrel current-limiting fuses, as listed in Table 2 of S&C Information Bulletin 660-50.

Fuses provide fault protection of the tap circuits, and loadbreak inserts and separable insulated connectors supplied by the user permit single-pole switching of the taps. These units feature TransFuser™ Mountings, which are fuse-handling mechanisms with a mechanical interlock that guards against gaining access to the fuse before opening the loadbreak separable insulated connector at the fuse terminal. The fuse is accessible only when de-energized and isolated for full-view non-loadbreak disconnection and removal with a shotgun stick.

Individual ground rings are provided for each fuse mounting to allow convenient grounding of cable concentric neutrals and elbow accessories. These ground rings are also equipped with cable guides to assist in cable training and to prevent cables from interfering with movement of the fuse-access panel.

EXCLUSIONS: Three-phase units listed in Table 3 on pages 5 through 7 do not include the items listed in Table 4 on page 8, nor do they include the connector, fuse components, switch blades, or accessories listed in Table 2 on page 3; Table 5, Table 6, and Table 7 on page 9; and Table 13 and Table 14 on page 15.

SPECIFICATION DEVIATIONS: Features or modifications other than those listed in Table 4 on page 8 cannot be accommodated. Specifically, the following modifications are not available:

- Relocation of components (switches and fuses)
- Inclusion of bracket- or base-mounted surge arresters or any type of cable-terminating device other than separable insulated connectors
- Mechanical cable interlocks

APPLICATION NOTES: For application information as well as a guide to the selection of appropriate ampere ratings and speeds for S&C SME Power Fuses, and the types and TCC curve parameters of control modules for Fault Fiter Electronic Power Fuses, contact the nearest S&C Sales Office.

Switching With Mini-Rupter Switches. Manual PME Pad-Mounted Gear features Mini-Rupter Switches for three-pole live switching of three-phase circuits.

Complete ratings for Mini-Rupter Switches, as applied in manual PME Pad-Mounted Gear, are shown Table 1 on page 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 three-time duty-cycle fault-closing ratings for Mini-Rupter Switches shown in Table 1 on page 3 define the ability to close the switches three times 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.

A Note on Single-Pole Switching. In using separable insulated connectors (elbows) for single-pole switching of three-phase transformers or transformer banks (or single-phase transformers connected line-to-line) where the maximum system operating voltage exceeds 22 kV, circuit connections or parameters may, in some cases, produce overvoltages that exceed the switching capability of the elbow. Therefore, follow the elbow manufacturer's recommendations and the user's operating and safety procedures for switching such transformers from other than at the transformer location when they are unloaded or lightly loaded.

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 any of the following applications:

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

Achieving 25-kA Short-Circuit Rating in 14.4-kV Models. As indicated in Table 3 on pages 5 through 7, specific 14.4-kV models have a short-circuit rating of 25,000 amperes, RMS, symmetrical and 620 MVA. They include:

- PME-4, PME-5, PME-6, PME-9, PME-11, and PME-12, furnished with Fault Fiter fuse mountings, when certain non-S&C-manufactured current-limiting fuses are used, having a rated maximum interrupting current of at least 25,000 amperes, RMS, symmetrical and limiting the instantaneous peak let-through current to less than 36,000 amperes (Refer to Table 2 of S&C Information Bulletin 660-50.)
- PME-10

In each instance, separable connectors and cables installed in the switch compartments must be rated 25,000 amperes, RMS, symmetrical. In addition, the gear cannot be furnished with optional 200-ampere bushing wells in lieu of 600-ampere bushings at the switch terminals, catalog number suffix "-M4," or UL listing catalog number suffix "-X."

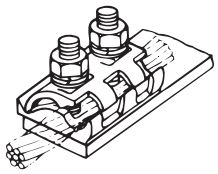
OPERATION NOTE: Manual PME Pad-Mounted Gear accommodates separable insulated connectors and accessories. This gear must be operated by qualified persons who are thoroughly trained in, and who understand any hazards that may be involved with, the operation of separable insulated connectors and related accessories.

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 manual PME 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 SME Mountings. Nor does it apply to manual PME Pad-Mounted Gear where other than Fault Fiter Electronic Power Fuses, S&C Switch Blades, or the current-limiting fuses listed in Table 2 of S&C Information Bulletin 660-50 are used in conjunction with Fault Fiter Electronic Power Fuse mountings and S&C Holders designed therefore, or when current-limiting fuses are applied other than as set forth under the "Recommended Voltage Ratings of Current-Limiting Fuses for Use in S&C Pad-Mounted Gear" section on page 2.

Table 1. Ratings for Mini-Rupter® Switch

Voltage, kV			Current, Amperes						
				Live Switching		Three-Time Duty-Cycle Fault-Closing		Short-Circuit	
Nom.	Max	BIL	Cont.	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	65 000	25 000	65 000	25 000
25	29	125	600	600	600	32 500	12 500	32 500	12 500

Table 2. Connector

	Bronze body, tin plated, two galvanized steel bolts, two Belleville washers	No. 2 solid (33.6 mm^2) through 500 kc mil (335 mm^2) stranded copper or aluminum	4745

How to Order

Complete the following steps to order manual PME Pad-Mounted Gear:

STEP 1. Select the pad-mounted gear and options:

(a) Obtain the catalog number of the desired unit from Table 3 on pages 5 through 7.

Catalog Number: ☐☐☐☐☐☐☐

(b) Add suffix designations (to the catalog number above) to indicate the optional features desired, selected from Table 4 on page 8.

Suffix(es): –☐☐☐

(c) Connectors: Obtain the catalog number of the connector from Table 2 on page 3.

Catalog Number: ☐☐☐☐

(d) Obtain the catalog numbers of accessories and touch-up kit components from Table 14 and Table 15 on page 15.

Catalog Number: ☐☐☐☐–☐☐☐

STEP 2. Select the fuse components and switch blades:

(a) ***For SME-20 Power Fuses***: Obtain the catalog number of the end-fittings and fuse units from Table 5 on page 9 and Table 8 on pages 10 through 11, making sure to match the voltage rating of the end fittings to the fuse units.

Catalog Number: ☐☐☐☐☐☐

(b) ***For SME-4Z Power Fuses***: Obtain the catalog number of the holder and refill units from Table 6 on page 9 and Table 9 on page 12, making sure to match the voltage rating of the holder to the refill units.

Catalog Number: ☐☐☐☐☐☐☐☐

(c) ***For Fault Fiter Electronic Power Fuses***: Obtain the catalog number for the holders, the interrupting modules, and the control modules from Table 7 on page 9, Table 10 on page 13, Table 11 on page 13, and Table 12 on page 14, making sure to match the voltage rating of the holders, interrupting modules, and the control modules.

Catalog Number:
☐☐☐☐–☐☐☐☐☐☐☐☐☐☐☐☐

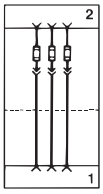
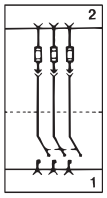
(d) ***For Switch Blades***: Obtain the catalog number for the switch blades from Table 13 on page 15.

Catalog Number: ☐☐☐☐

Example: The catalog number of a 14.4-kV manual Model PME-9 with SME-20 Mountings with an optional **Fuse Storage** feature for three spare fuse holders or fuse units with end-fittings in Compartment 1 is:

Catalog Number: 6 5 1 5 2 R 1 – E 1

Table 3. Three-Phase Units (Including mountings, less fuse components①)

Model② and Connection Diagram③	Fuse Type	Ratings									MVA 3-Phase Sym. at Rated Voltage	Catalog Number	Net Wt., Lbs. (kgs.)	Page Reference for Dimensional Information
		kV			Current, Amperes, RMS			Short-Circuit						
						Mini-Rupter		Current, Amperes, RMS, Sym.④						
		Nom.	Max	BIL	Fuse, Max	Cont.	Load Dropping	Mini-Rupter	Main Bus	Pad-Mounted Gear⑤				
PME-4● 	SME-20	14.4	17	95	200E■	—	—	—	14 000	14 000	350	65102R1	650 (295)	16
		25	27	125	200E■	—	—	—	12 500	12 500	540	65103R1	750 (340)	
	SME-4Z	14.4	17	95	200E	—	—	—	14 000	12 500	310	65302R1	650 (295)	
		25	27	125	200E	—	—	—	12 500	12 500▲	540▲	65303R1	750 (340)	
	Fault-Fiter fuse ⑥	14.4	17	95	200	—	—	—	14 000	14 000◆	350◆	65502R1	650 (295)	
		25	29	125	200	—	—	—	12 500	12 500	540	65503R1	750 (340)	
PME-5 	SME-20	14.4	17	95	200E■	600	600	25 000	14 000	14 000	350	65112R1	950 (431)	17
		25	27	125	200E■	600	600	12 500	12 500	12 500	540	65113R1	1250 (567)	
	SME-4Z	14.4	17.0	95	200E	600	600	25 000	14 000	12 500	310	65312R1	950 (431)	
		25	27	125	200E	600	600	12 500	12 500	12 500▲	540▲	65313R1	1250 (567)	
	Fault-Fiter fuse⑥	14.4	17	95	200	600	600	25 000	14 000	14 000◆	350◆	65512R1	950 (431)	
		25	29	125	200	600	600	12 500	12 500	12 500	540	65513R1	1250 (567)	

① Fuse components must be ordered separately.

② Vertical-type portable feed-thru inserts cannot be accommodated in fuse-termination compartments of models furnished with SME-20 Power Fuses or Fault Fiter Electronic Power Fuses. Also, "piggybacked" Blackburn 600-ampere T-bodies cannot be accommodated in switch-termination compartments.

③ Compartment numbers appear in corners of each connection diagram.

④ Asymmetrical current rating is 1.6 times symmetrical current rating.

⑤ Short-circuit rating of a complete pad-mounted gear unit may be limited by the ratings of bushing inserts, elbows, T-bodies, fuses, and cables used. Fault-closing and/or short-circuit ratings of switches and bus, and its interrupting ratings of fuses, meet or exceed short-circuit rating of the gear. For complete switch ratings, refer to the "Application Notes" section on page 2.

⑥ Fault Fiter fuse mountings accommodate certain non-S&C-manufactured current-limiting fuses. Refer to Table 2 of S&C Information Bulletin 660-50. The maximum voltage and current ratings indicated in that table apply. Consult the fuse manufacturer for complete fuse ratings.

● Available only when the end user is an electric utility.

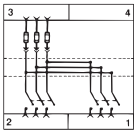
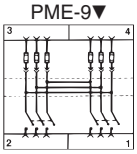
■ SMU-20® Fuse Units are available in ratings through 200K amperes as well as 200E amperes.

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

◆ 25,000 amperes, RMS, symmetrical and 620 MVA when certain non-S&C-manufactured current-limiting fuses are used, having a rated maximum interrupting current of at least 25,000 amperes, RMS, symmetrical and limiting the instantaneous peak let-through current to less than 36,000 amperes. Refer to Table 2 of S&C Information Bulletin 660-50. Separable connectors and cables installed in switch compartments must be rated 25,000 amperes, RMS, symmetrical; gear cannot be furnished with optional 200-ampere bushing wells in lieu of 600-ampere bushings at switch terminals, catalog number suffix "-M4," or optional UL Listing, catalog number suffix "-X."

TABLE CONTINUED ▶

Table 3. Three-Phase Units (Including mountings, less fuse components①)—Continued

Model② and Connection Diagram③	Fuse Type	Ratings									MVA 3-Phase Sym. at Rated Voltage	Catalog Number	Net Wt., Lbs. (kgs.)	Page Reference for Dimensional Information
		kV			Current, Amperes, RMS			Short-Circuit						
						Mini-Rupter		Current, Amperes, RMS, Sym.④						
		Nom.	Max	BIL	Fuse, Max	Cont.	Load Dropping	Mini-Rupter	Main Bus	Pad-Mounted Gear⑤				
PME-6▼ 	SME-20	14.4	17	95	200E■	600	600	25 000	25 000	14 000	350	65122R1	1700 (771)	18
		25	27	125	200E■	600	600	12 500	12 500	12 500	540	65123R1	2125 (964)	
	SME-4Z	14.4	17	95	200E	600	600	25 000	25 000	12 500	310	65322R1	1700 (771)	
		25	27	125	200E	600	600	12 500	12 500	12 500▲	540▲	65323R1	2125 (964)	
	Fault-Fiter fuse⑥	14.4	17	95	200	600	600	25 000	25 000	14 000◆	350◆	65522R1	1700 (771)	
		25	29	125	200	600	600	12 500	12 500	12 500	540	65523R1	2125 (964)	
PME-9▼ 	SME-20	14.4	17	95	200E■	600	600	25 000	25 000	14 000	350	65152R1	1800 (816)	19
		25	27	125	200E■	600	600	12 500	12 500	12 500	540	65153R1	2225 (1009)	
	SME-4Z	14.4	17	95	200E	600	600	25 000	25 000	12 500	310	65352R1	1800 (816)	
		25	27	125	200E	600	600	12 500	12 500	12 500▲	540▲	65353R1	2225 (1009)	
	Fault-Fiter⑥	14.4	17	95	200	600	600	25 000	25 000	14 000◆	350◆	65552R1	1800 (816)	
		25	29	125	200	600	600	12 500	12 500	12 500	540	65553R1	2225 (1009)	

① Fuse components must be ordered separately.

② Vertical-type portable feed-thru inserts cannot be accommodated in fuse-termination compartments of models furnished with SME-20 Power Fuses or Fault Fiter Electronic Power Fuses. Also, "piggybacked" Blackburn 600-ampere T-bodies cannot be accommodated in switch-termination compartments.

③ Compartment numbers appear in the corners of each connection diagram.

④ Asymmetrical current rating is 1.6 times symmetrical current rating.

⑤ Short-circuit rating of complete pad-mounted gear unit may be limited by ratings of bushing inserts, elbows, T-bodies, fuses, and cables used. Fault-closing and/or short-circuit ratings of switches and bus, and interrupting ratings of fuses meet or exceed short-circuit rating of the gear. For complete switch ratings, refer to the "Application Notes" section on page 2.

⑥ Fault Fiter fuse mountings accommodate certain non-S&C-manufactured current-limiting fuses. Refer to Table 2 of S&C Information Bulletin 660-50. The maximum voltage and current ratings indicated in that table apply. Consult the fuse manufacturer for complete fuse ratings.

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

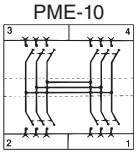
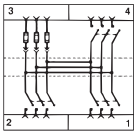
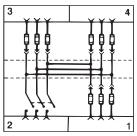
▲ Applicable to solidly grounded-neutral systems only, with fuses connected by a single-conductor, concentric-neutral-type cable to a transformer(s). Rating is 9,400 amperes, RMS, symmetrical (405 MVA) for all other applications.

◆ 25,000 amperes, RMS, symmetrical and 620 MVA when certain non-S&C-manufactured current-limiting fuses are used, having a rated maximum interrupting current of at least 25,000 amperes, RMS, symmetrical and limiting the instantaneous peak let-through current to less than 36,000 amperes. Refer to Table 2 of S&C Information Bulletin 660-50. Separable connectors and cables installed in switch compartments must be rated 25,000 amperes, RMS, symmetrical; gear cannot be furnished with optional 200-ampere bushing wells in lieu of 600-ampere bushings at switch terminals, catalog number suffix "-M4," or optional UL Listing, catalog number suffix "-X."

▼ Optional key interlocks, catalog number suffix "-C3" or "-C4," must be furnished if end user is not an electric utility.

TABLE CONTINUED ►

Table 3. Three-Phase Units (Including mountings, less fuse components①)—Continued

Model② and Connection Diagram③	Fuse Type	Ratings									MVA 3-Phase Sym. at Rated Voltage	Catalog Number	Net Wt., Lbs. (kgs.)	Page Reference for Dimensional Information
		kV			Current, Amperes, RMS			Short-Circuit						
						Mini-Rupter		Current, Amperes, RMS, Sym.④						
		Nom.	Max	BIL	Fuse, Max	Cont.	Load Dropping	Mini-Rupter	Main Bus	Pad-Mounted Gear⑤				
PME-10 	—	14.4	17.5	95	—	600	600	25 000	25 000	25 000□	620□	65242R1	1975 (896)	20
	—	25	29	125	—	600	600	12 500	12 500	12 500	540	65243R1	2450 (1111)	
PME-11▼ 	SME-20	14.4	17	95	200E■	600	600	25 000	25 000	14 000	350	65162R1	1900 (862)	21
		25	27	125	200E■	600	600	12 500	12 500	12 500	540	65163R1	2375 (1077)	
	SME-4Z	14.4	17	95	200E	600	600	25 000	25 000	12 500	310	65362R1	1900 (862)	
		25	27	125	200E	600	600	12 500	12 500	12 500▲	540▲	65363R1	2375 (1077)	
	Fault-Fiter⑥	14.4	17	95	200	600	600	25 000	25 000	14 000◆	350◆	65562R1	1900 (862)	
		25	29	125	200	600	600	12 500	12 500	12 500	540	65563R1	2375 (1077)	
PME-12▼ 	SME-20	14.4	17	95	200E■	600	600	25 000	14 000	14 000	350	65172R1	1725 (782)	22
		25	27	125	200E■	600	600	12 500	12 500	12 500	540	65173R1	2150 (975)	
	SME-4Z	14.4	17	95	200E	600	600	25 000	14 000	12 500	310	65372R1	1725 (782)	
		25	27	125	200E	600	600	12 500	12 500	12 500▲	540▲	65373R1	2150 (975)	
	Fault-Fiter⑥	14.4	17	95	200	600	600	25 000	14 000	14 000◆	350◆	65572R1	1725 (782)	
		25	29	125	200	600	600	12 500	12 500	12 500	540	65573R1	2150 (975)	

① Fuse components must be ordered separately.

② Vertical-type portable feed-thru inserts cannot be accommodated in fuse-termination compartments of models furnished with SME-20 Power Fuses or Fault Fiter Electronic Power Fuses. Also, "piggybacked" Blackburn 600-ampere T-bodies cannot be accommodated in switch-termination compartments.

③ Compartment numbers appear in the corners of each connection diagram.

④ Asymmetrical current rating is 1.6 times symmetrical current rating.

⑤ Short-circuit rating of complete pad-mounted gear unit may be limited by ratings of bushing inserts, elbows, T-bodies, fuses, and cables used. Fault-closing and/or short-circuit ratings of switches and bus, and interrupting ratings of fuses meet or exceed short-circuit rating of the gear. For complete switch ratings, refer to the "Application Notes" section on page 2.

⑥ Fault Fiter fuse mountings accommodate certain non-S&C-manufactured current-limiting fuses. Refer to Table 2 of S&C Information Bulletin 660-50. The maximum voltage and current ratings indicated in that table apply. Consult the fuse manufacturer for complete fuse ratings.

■ 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 a single-conductor, concentric-neutral-type cable to a transformer(s). Rating is 9,400 amperes, RMS, symmetrical (405 MVA) for all other applications.

◆ 25,000 amperes, RMS, symmetrical and 620 MVA when certain non-S&C-manufactured current-limiting fuses are used, having a rated maximum interrupting current of at least 25,000 amperes, RMS, symmetrical and limiting the instantaneous peak let-through current to less than 36,000 amperes. Refer to Table 2 of S&C Information Bulletin 660-50. Separable connectors and cables installed in switch compartments must be rated 25,000 amperes, RMS, symmetrical; gear cannot be furnished with optional 200-ampere bushing wells in lieu of 600-ampere bushings at switch terminals, catalog number suffix "-M4," or optional UL Listing, catalog number suffix "-X."

▼ Optional key interlocks, catalog number suffix "-C3" or "-C4," must be furnished if end user is not an electric utility.

□ To achieve this rating, separable connectors and cables installed in switch compartments must be rated 25,000 amperes, RMS, symmetrical; gear cannot be furnished with optional 200-ampere bushing wells in lieu of 600-ampere bushings at switch terminals, catalog number suffix "-M4." Otherwise, gear is rated 14,000 amperes, RMS, symmetrical, and 350 MVA.

Table 4. Optional Features

Item		Suffix to be Added to Pad-Mounted Gear Catalog No.	Applicable to Models
Light gray outdoor Ultradur® II Outdoor Finish instead of olive green		-A2	All models
Equipment green outdoor Ultradur II Outdoor Finish (Toronto standard) instead of olive green		-A3	All models
Seafoam green outdoor Ultradur II Outdoor Finish instead of olive green		-A4	All models
Special color outdoor Ultradur II Outdoor Finish instead of olive green		-A5	All models
Stainless steel enclosure①	With olive green Ultradur II Outdoor Finish	-A10	All models
	With light gray Ultradur II Outdoor Finish	-A12	All models
	With special color Ultradur II Outdoor Finish	-A15	All models
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●■	All models except PME-4
Key interlocks to prevent paralleling of switches in Compartments 1 and 2②		-C1	PME-6, -9, -10, -11
Key interlocks to prevent opening fuse termination-compartment doors unless all switches are locked open②		-C3	PME-5, -6, -9, -11, -12
Key interlocks. Combines functions of options "-C1" and "-C3" above②		-C4	PME-6, -9, -11
Fuse-storage feature for three spare fuse assemblies per compartment③	Located in Compartment 1	-E1	PME-4, -5, -6, -9, -11
	Located in Compartment 2	-E2	PME-6, -9, -11, -12
	Located in Compartments 1 and 2	-E3	PME-6, -9, -11
Mounting provisions for a fault indicator in each switch compartment	Without viewing window in door	-F1	PME-5, -6, -9, -10, -11, -12
Note: Accommodates three-phase indicator with single-phase sensors	With viewing window in door	-F2●	PME-5, -6, -9, -10, -11, -12
Base adapter, to permit a PME model to be installed on a mounting pad having anchor bolts located to suit the comparable PMH model. This adapter increases the height of the unit 6 inches	Carbon steel	-K	All models
	Stainless steel	-K10	All models
Base spacer 6-inch (152 mm)	Carbon steel	-K7	All models
	Stainless steel	-K17	All models
Base Spacer 12-inch (305 mm)	Carbon steel	-K8	All models
	Stainless steel	-K18	All models
International crating④		-L71	All models
600-ampere bushings without studs, at switch terminals		-M1	PME-5, -6, -9, -10, -11, -12
200-ampere bushings wells in lieu of 600-ampere bushings, at switch terminals⑤		-M4	PME-5, -6, -9, -10, -11, -12
UL listing. Includes "UL Listed" symbol on ratings label and nameplate⑥		-X▲	All 14.4-kV models

① When this optional feature is specified, the entire exterior of the enclosure will be fabricated from 11-gauge Type 304 stainless steel. When ordering optional hexhead actuators, provisions for fault indicators with viewing windows in doors, or a base adapter, specify the correct suffix for use with a stainless steel enclosure.

② When ordering, please furnish the name of ultimate user, station, and location of gear.

③ Fuse assemblies (fuse holders or fuse units with end fittings) are not included. For units equipped with Fault Fiter® Electronic Power Fuse mountings, only two spare Fault Fiter Electronic Power Fuse holders or two spare current-limiting fuse holders can be accommodated in each compartment.

④ Choosing this option signifies that wood products to be used in the packaging of any items on international orders must either be hard wood or certified by the wood supplier as having "been heat treated (kiln dried) to a core temperature of 56°C (133°F) for a minimum of 30 minutes."

⑤ When catalog number suffix "-M4" is specified, the continuous current and short-circuit ratings are limited to the ratings of the bushing wells, bushing inserts, and elbows used. In addition, the pad-mounted gear will not be capable of carrying a 25,000 amperes, RMS, symmetrical short-circuit rating and a 620 MVA rating.

⑥ When catalog number suffix "-X" is specified, the pad-mounted gear will not be capable of carrying a 25,000 amperes, RMS, symmetrical short-circuit rating and a 620 MVA rating.

● When ordering catalog number suffix "-B1," "-B2," or "-F2" for use with a stainless steel enclosure, specify catalog number suffix "-B11" instead of "-B1," "-B12" instead of "-B2," or "-F12" instead of "-F2."

■ Not available if UL listing (catalog number suffix "-X") is specified.

▲ Not available if hexhead actuator for use in lieu of pentahead actuator on all Penta-Latch Mechanisms (catalog number suffix "-B1," "-B2," "-B11," or "-B12") is specified.

Table 5. SME-20 Power Fuse Components

Fuse-Unit End Fittings	
Item	**Catalog Number**
End-fittings (including silencer), for use with SMU-20® Fuse Units	3093
SMU-20® Fuse Units①	
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 8 on pages 10 through 11.	

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

Table 6. SME-4Z Power Fuse Components

Holders				
Item	**Rating**			**Catalog Number**
	kV		**Amperes, Max**	
	Nom.	**Max**		
Holder (including silencer), for use with SM-4 Refill Units	14.4	17	200E	90362
	25	27	200E	90363
SM-4® Refill Units①				
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 9 on page 12.				

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

Table 7. Fault Fiter® Electronic Power Fuse Components

Holders				
Item	**Rating**			**Catalog**
	kV		**Amperes, Cont.**	
	Nom.	**Max**		
Holder, for use with Fault Fiter Electronic Power Fuses	13.8	17	200	3132
	25	29	200	3133
Interrupting Modules①				
Item	**Rating**			**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 Modules ①				
For a complete listing of available types, TCC curve parameters, and catalog numbers, refer to Table 10 on page 13, Table 11 on page 13, and Table 12 on page 14.				

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

Table 8. SMU-20® Fuse Units (For use in SM-20, SME-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 Std. 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				
6K	702006	5E	612005		
8K	702008	7E	612007		
10K	702010	10E	612010		
12K	702012	13E	612013		
15K	702015	15E	612015	712015	
20K	702020	20E	612020	712020	
25K	702025	25E	612025	712025	
30K	702030	30E	612030	712030	
40K	702040	40E	612040	712040	
50K	702050	50E	612050	712050	602050
65K	702065	65E	612065	712065	602065
80K	702080	80E	612080	712080	602080
100K	702100	100E	612100	712100	602100
140K	702140	125E	612125	712125	602125
200K	702200	150E	612150	712150	602150
		175E	612175	712175	602175
		200E	612200	712200	602200

① These fuse units are equally suitable for use in SMD-20 outdoor distribution mountings.

TABLE CONTINUED ►

Table 8. SMU-20® Fuse Units (For use in SM-20, SME-20, or SML-20 Mountings)①—Continued

25 kV Nominal, 27 kV Max②					
"K" Ratings		"E" Ratings			
Rating, Amperes ↓	Catalog Number	Rating, Amperes ↓	Catalog Number		
Speed →	S&C "K" TCC 165-2	Speed →	S&C Std. 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				
6K	703006	5E	613005		
8K	703008	7E	613007		
10K	703010	10E	613010		
12K	703012	13E	613013		
15K	703015	15E	613015	713015	
20K	703020	20E	613020	713020	
25K	703025	25E	613025	713025	
30K	703030	30E	613030	713030	
40K	703040	40E	613040	713040	
50K	703050	50E	613050	713050	603050
65K	703065	65E	613065	713065	603065
80K	703080	80E	613080	713080	603080
100K	703100	100E	613100	713100	603100
140K	703140	125E	613125	713125	603125
200K	703200	150E	613150	713150	603150
		175E	613175	713175	603175
		200E	613200	713200	603200

① These fuse units are equally suitable for use in SMD-20 outdoor distribution mountings.

② Also suitable for protection of single-phase-to-neutral circuits (lines or transformers) on 20/34.5 GrY-kV systems.

Table 9. SM-4® Refill Units (For use in SM-4, SME-4, or SML-4 Holders)

Rating, Amperes ↓	14.4 kV Nominal, 17 kV Max①			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 179-4	S&C Std. TCC 153-4	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
210			382210R4●		

① 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 10. Fault Fiter Fuse Control Modules—Underground Subloop① Type (TCC No. 422-7)

Continuous Current, Amperes, Max②	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 a Fault Fiter 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, contact your 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 11. Fault Fiter Fuse Control Modules—Inverse Curve Type (TCC No. 410-7)

Continuous Current, Amperes, Max①	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.

Table 12. Fault Fiter Fuse Control Modules—Time-Delayed Compound-Curve Type (TCC No. 421-7)

Continuous Current, Amperes, Max①	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	8	7010-C40S1T6D8
		2	3000	8	7010-C40S2T3D8
			6000	8	7010-C40S2T6D8
		3	3000	8	7010-C40S3T3D8
			6000	8	7010-C40S3T6D8
		4	3000	8	7010-C40S4T3D8
			6000	8	7010-C40S4T6D8
	600	1	3000	8	7010-C60S1T3D8
			6000	8	7010-C60S1T6D8
		2	3000	8	7010-C60S2T3D8
			6000	8	7010-C60S2T6D8
		3	3000	8	7010-C60S3T3D8
			6000	8	7010-C60S3T6D8
		4	3000	8	7010-C60S4T3D8
			6000	8	7010-C60S4T6D8
	800	1	3000	8	7010-C80S1T3D8
			6000	8	7010-C80S1T6D8
		2	3000	8	7010-C80S2T3D8
			6000	8	7010-C80S2T6D8
		3	3000	8	7010-C80S3T3D8
			6000	8	7010-C80S3T6D8
		4	3000	8	7010-C80S4T3D8
			6000	8	7010-C80S4T6D8
	1100	1	3000	8	7010-C110S1T3D8
			6000	8	7010-C110S1T6D8
		2	3000	8	7010-C110S2T3D8
			6000	8	7010-C110S2T6D8
		3	3000	8	7010-C110S3T3D8
			6000	8	7010-C110S3T6D8
		4	3000	8	7010-C110S4T3D8
			6000	8	7010-C110S4T6D8

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

Table 13. Switch Blades①

Item	Rating			Catalog Number
	kV		Amps, Cont.	
	Nom.	Max		
Switch blade, for use in lieu of SMU-20® Fuse Unit in SME-20 Mounting	14.4	17	200	5452
	25	27	200	5453
Switch blade, for use in lieu of SME-4Z Fuse Unit in SME-4 Mounting	14.4	17	200	5462
	25	27	200	5463
Switch blade, for use in lieu of Fault Fiter Holder in Fault Fiter Mounting	14.4	17	200	5472
	25	29	200	5473

① When switch blades are used in lieu of fuses, the short-circuit rating of the pad-mounted gear is 14,000 amperes, RMS, symmetrical at 14.4 kV or 12,500 amperes, RMS symmetrical at 25 kV. Actual short-circuit capabilities may be limited to lower values by the capabilities of bushing inserts, elbows, and cables used on the gear.

Table 14. Accessories

Item			Catalog Number
Shotgun clamp sticks for use with separable connectors and voltage testers	77½-inch (1969-mm) length		9933-150
	101½-inch (2578-mm) length		9933-151
Storage bag, heavy canvas	For shotgun clamp stick	78-inch (1981-mm) length	9933-152
		102-inch (2591-mm) length	9933-153
Voltage tester with audio and visual signals, includes voltage tester, batteries, adapter for shotgun clampsticks, and storage case①			9931-072
Pentahead Socket, for ½-inch drive			9931-074

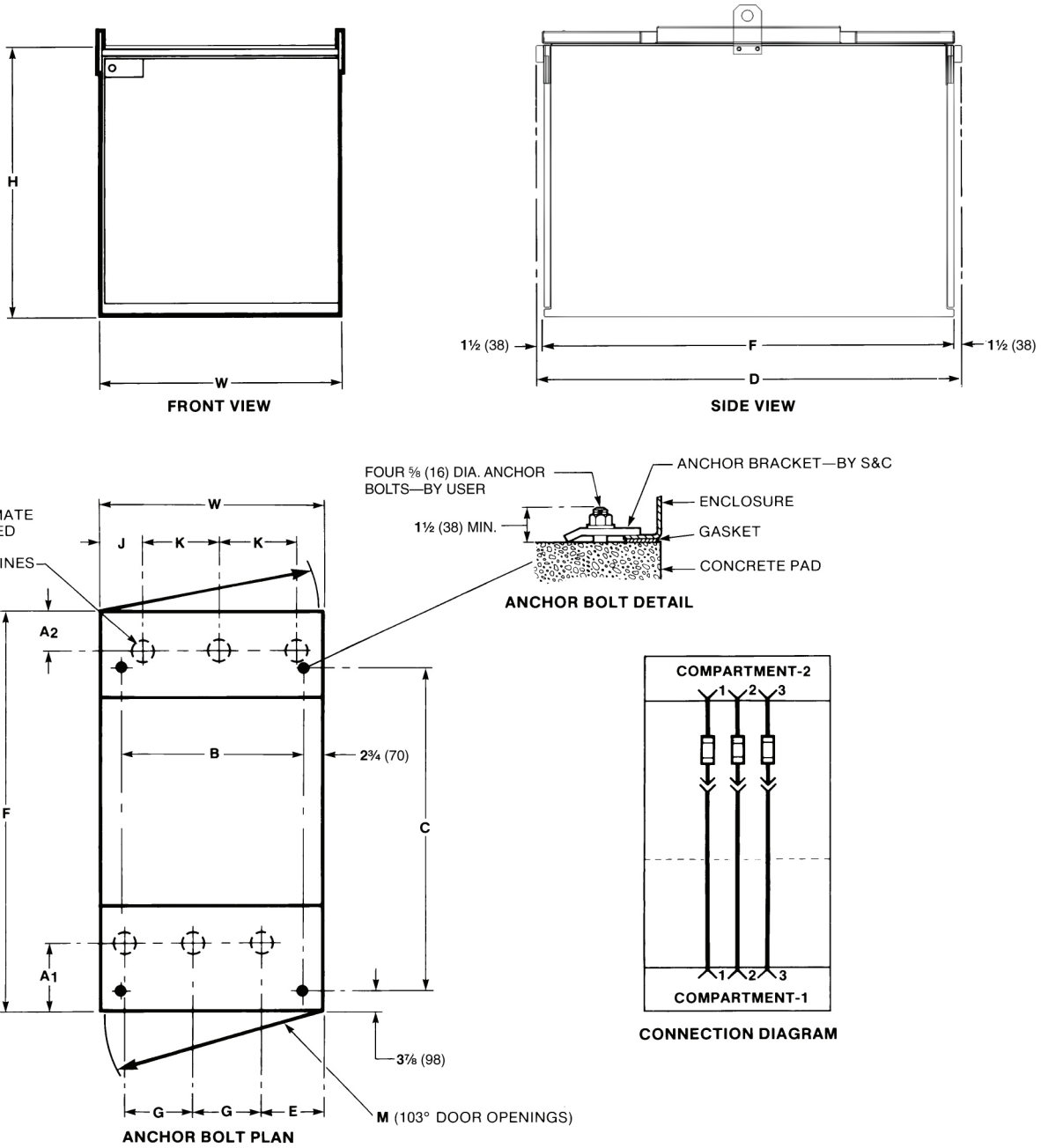
① For ultimate users other than electric utilities, also specify a shotgun clamp stick of the appropriate length.

Table 15. 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

Model PME-4

Dimensions in inches (mm)

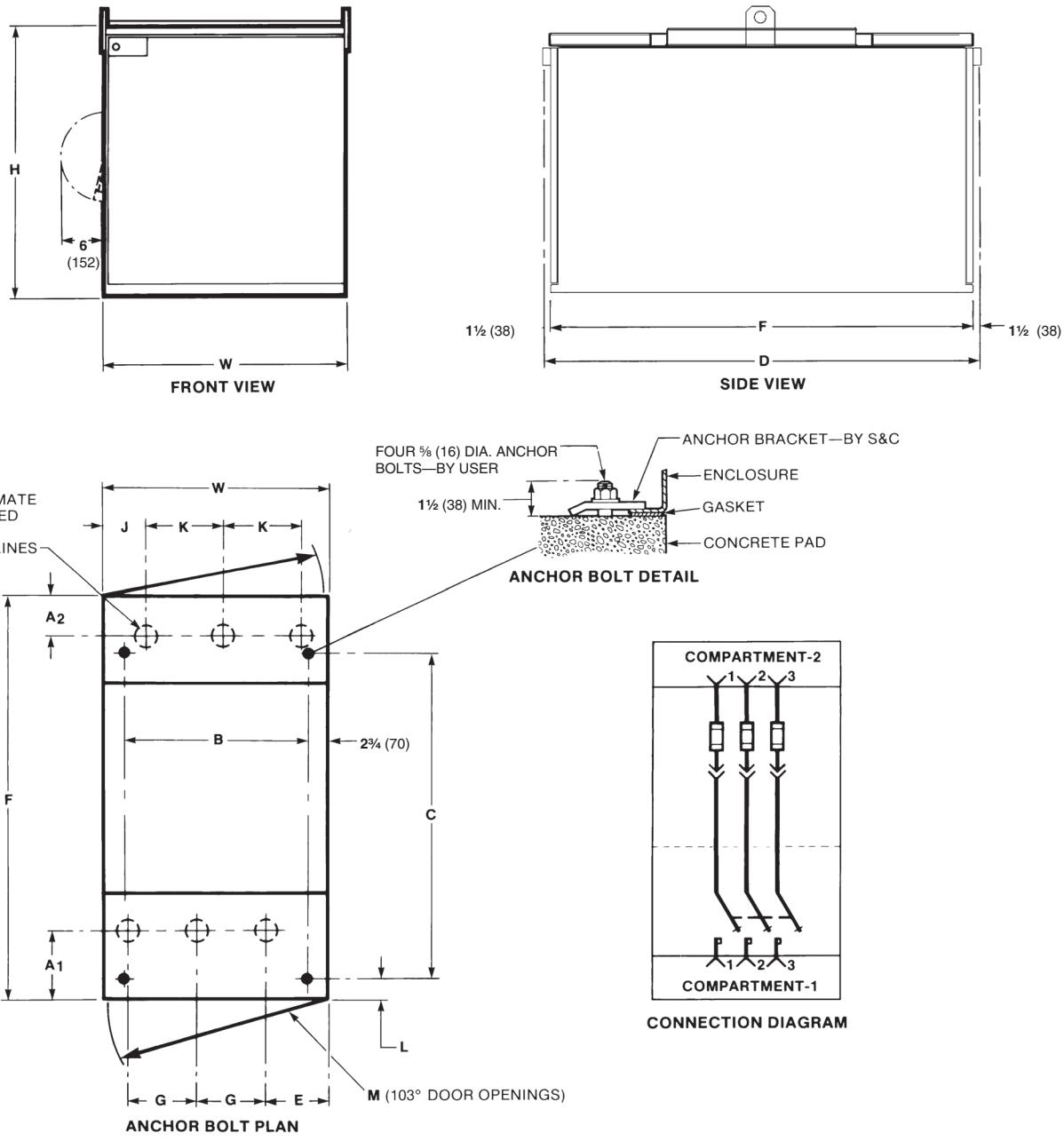


kV, Nominal	A_1●	A_2●	B	C	D	E	F	G	H	J	K	M	W
14.4	9⅛ (232)	7 (178)	35½ (902)	40¼ (1022)	55¾ (1416)	10½ (267)	52¾ (1340)	9¾ (248)	45½ (1156)	5⅜ (137)	10¾ (273)	40⅛ (1019)	41 (1041)
25	9⅛ (232)	8⅛ (206)	40½ (1029)	43 (1092)	65¼ (1657)	11¾ (298)	62¼ (1581)	12 (305)	51½ (1308)	6 (152)	12 (305)	45⅛ (1146)	46 (1168)

● Projected cable center lines are applicable for PME models with cable installed in a cable pit. For cable installed in conduit refer to pages 23 through 24.

Model PME-5

Dimensions in inches (mm)

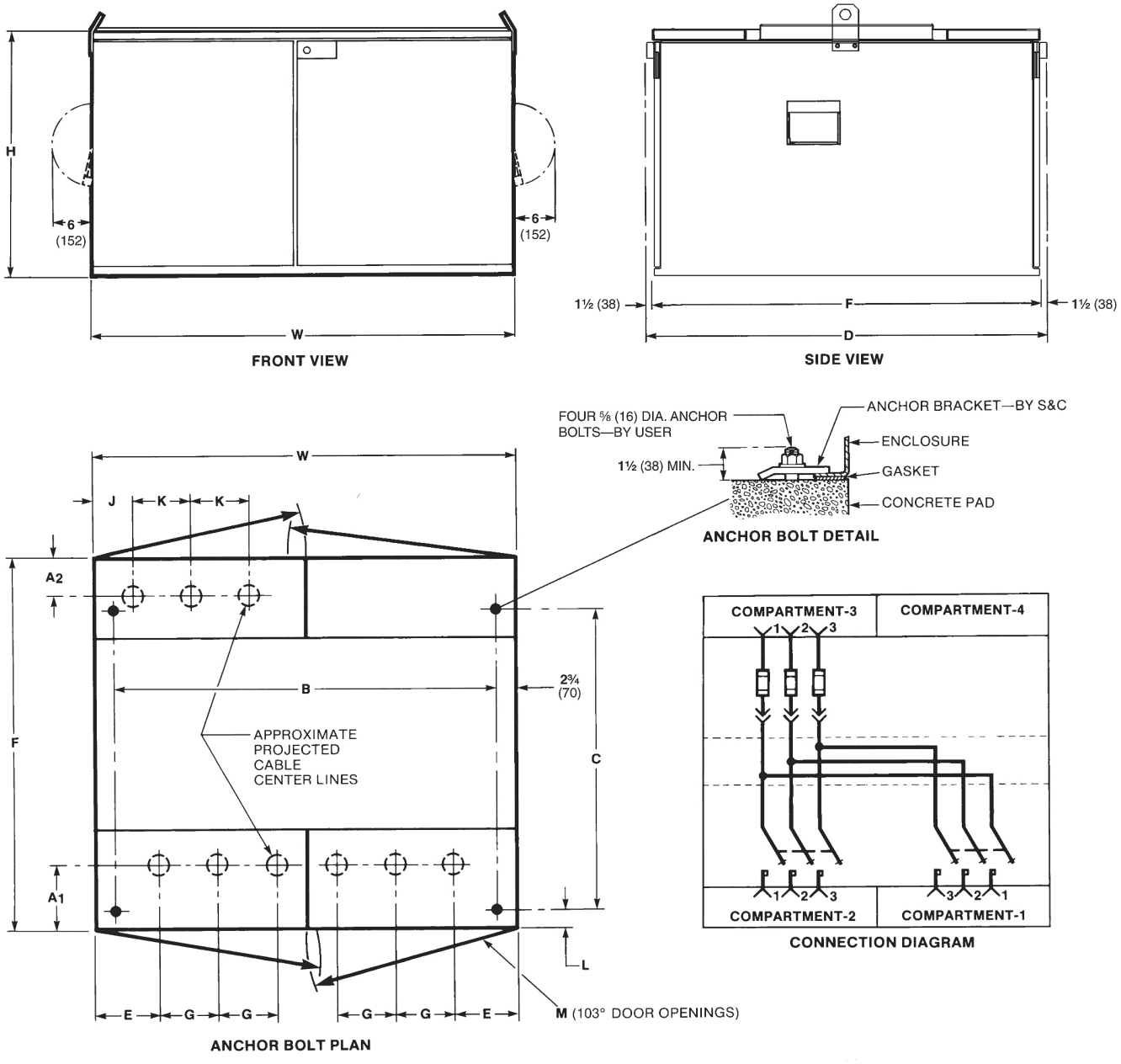


kV, Nominal	A_1●	A_2●	B	C	D	E	F	G	H	J	K	L	M	W
14.4	14½ (368)	7 (178)	35½ (902)	49½ (1257)	69¾ (1772)	12⅛ (308)	66¾ (1695)	8¼ (210)	45½ (1156)	5⅜ (137)	10¾ (273)	8⅝ (219)	40⅛ (1019)	41 (1041)
25	19 (483)	8⅛ (206)	40½ (1029)	52 (1321)	84¾ (2153)	16⅝ (422)	81¾ (2076)	8¼ (210)	51½ (1308)	6 (152)	12 (305)	14⅞ (378)	45⅛ (1146)	46 (1168)

● Projected cable center lines are applicable for PME models with cable installed in a cable pit. For cable installed in conduit, refer to pages 23 through 24.

Model PME-6

Dimensions in inches (mm)

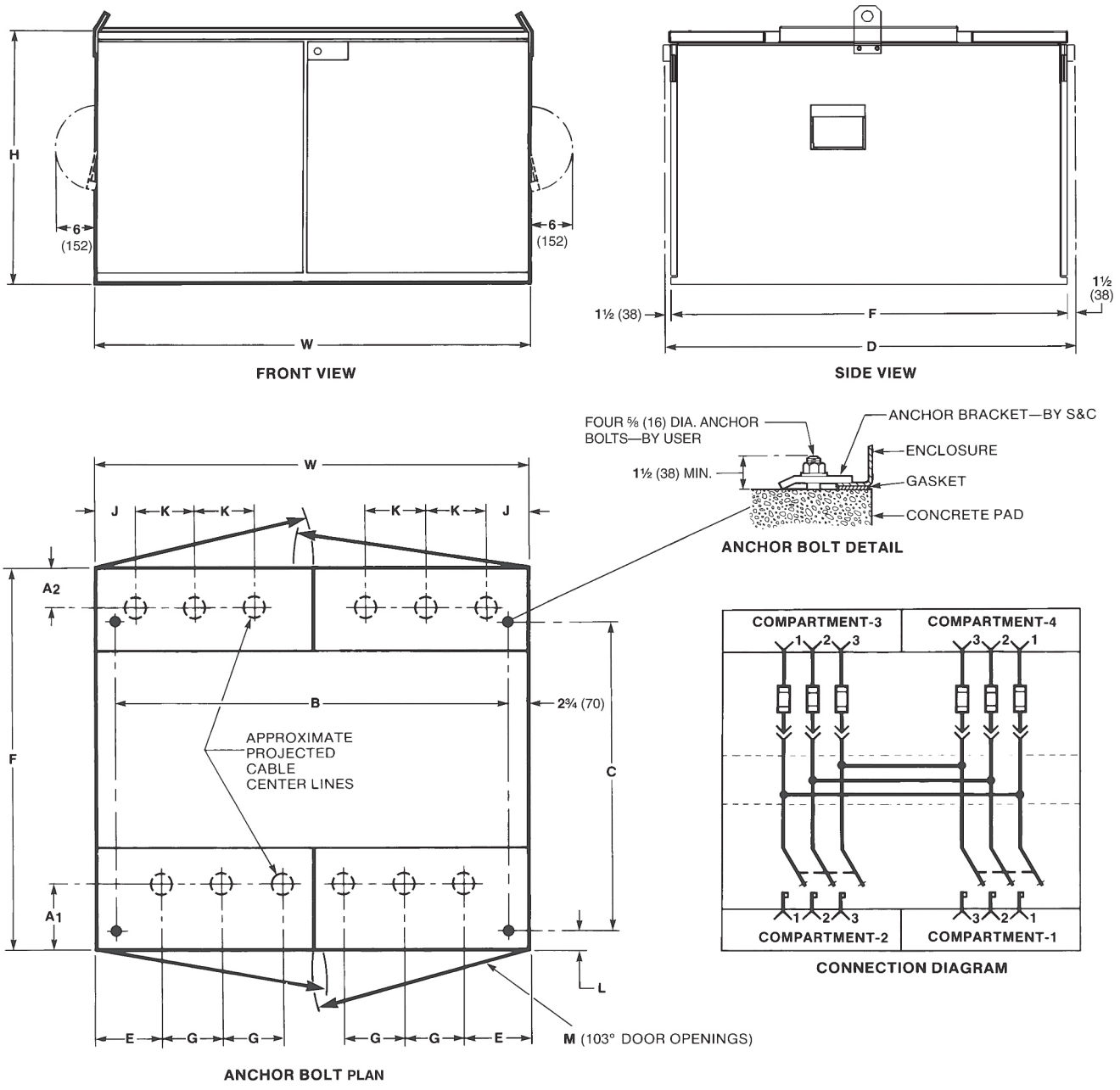


kV, Nominal	A_1◆	A_2●	B	C	D	E	F	G	H	J	K	L	M	W
14.4	14½ (368)	7 (178)	69½ (1765)	49½ (1257)	69¾ (1772)	12⅜ (314)	66¾ (1695)	8¼ (210)	45½ (1156)	5⅜ (137)	10¾ (273)	8⅝ (219)	38 (965)	75 (1905)
25	18½ (470)	8⅛ (206)	78½ (1994)	52 (1321)	84¾ (2153)	12⅞ (327)	81¾ (2076)	8¼ (210)	51½ (1308)	6 (152)	12 (305)	14⅞ (378)	42½ (1080)	84 (2134)

● Projected cable center lines are applicable for PME models with cable installed in a cable pit. For cable installed in conduit, refer to page 23 and page 24..

Model PME-9

Dimensions in inches (mm)

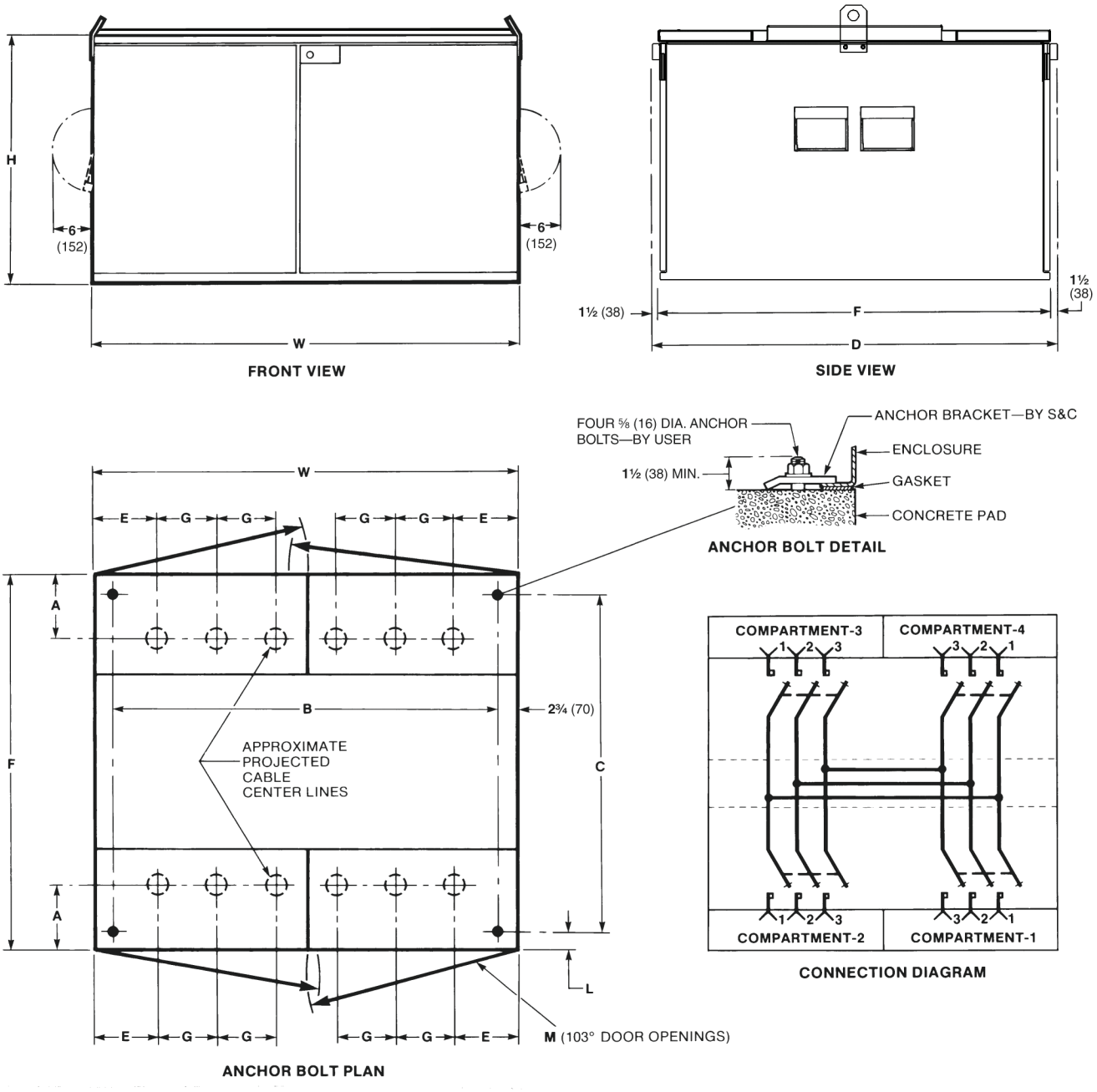


kV, Nominal	A_1●	A_2●	B	C	D	E	F	G	H	J	K	L	M	W
14.4	14½ (368)	7 (178)	69½ (1765)	49½ (1257)	69¾ (1772)	12⅜ (314)	66¾ (1695)	8¼ (210)	45½ (1156)	5⅜ (137)	10¾ (273)	8⅝ (219)	38 (965)	75 (1905)
25	18½ (470)	8⅛ (206)	78½ (1994)	52 (1321)	84¾ (2153)	12⅞ (327)	81¾ (2076)	8¼ (210)	51½ (1308)	6 (152)	12 (305)	14⅞ (378)	42½ (1080)	84 (2134)

● Projected cable center lines are applicable for PME models with cable installed in a cable pit. For cable installed in conduit, refer to pages 23 through 24.

Model PME-10

Dimensions in inches (mm)

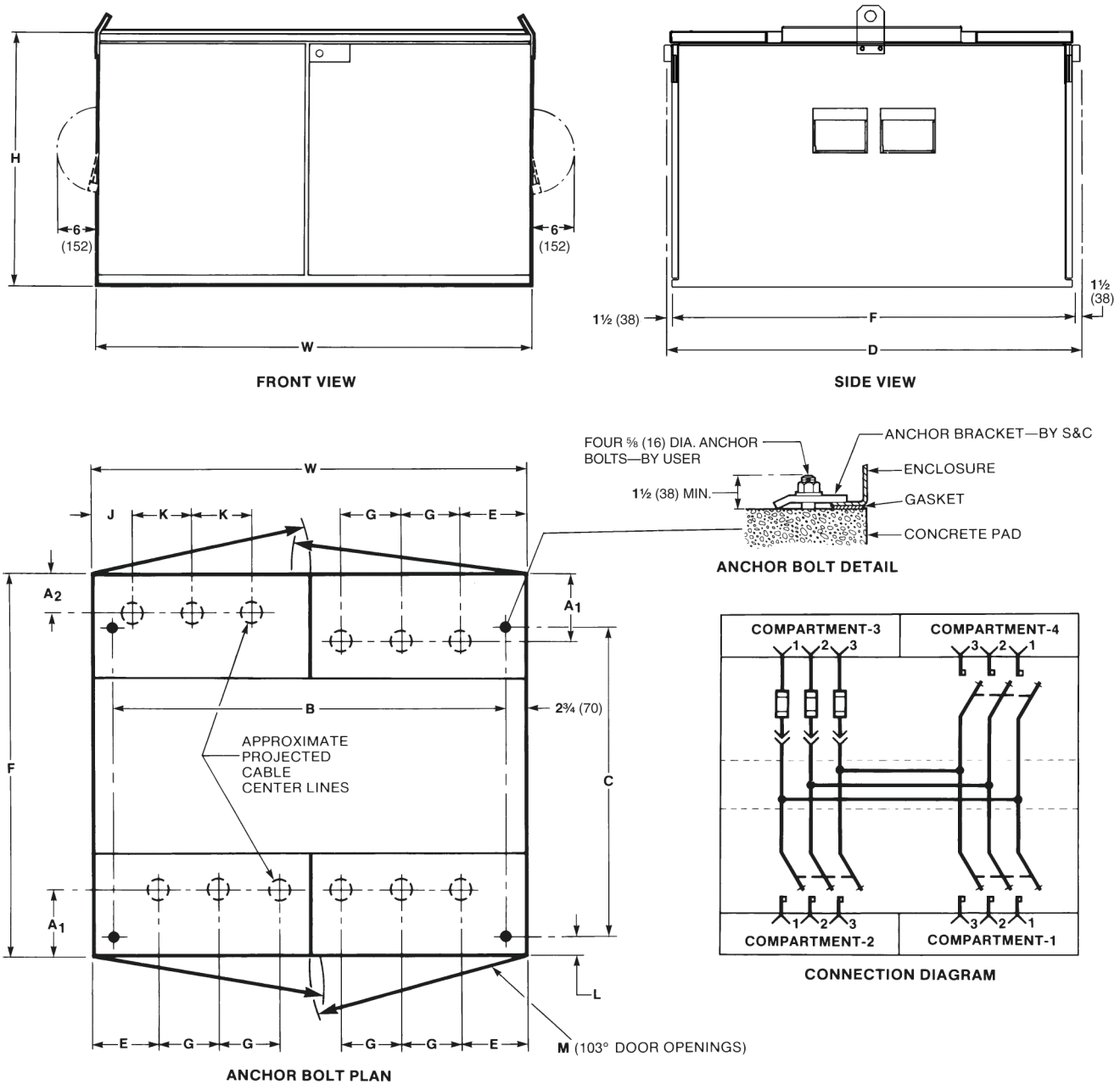


kV, Nominal	A①	B	C	D	E	F	G	H	L	M	W
14.4	14½ (368)	69½ (1765)	55½ (1410)	75¾ (1924)	12⅜ (314)	72¾ (1848)	8¼ (210)	45½ (1156)	8⅝ (219)	38 (965)	75 (1905)
25	14½ (368)	78½ (1994)	58½ (1486)	91¼ (2318)	12⅞ (327)	88¼ (2242)	8¼ (210)	51½ (1308)	14⅞ (378)	42½ (1080)	84 (2134)

① Projected cable center lines are applicable for PME models with cable installed in a cable pit. For cable installed in conduit, refer to page 24.

Model PME-11

Dimensions in inches (mm)

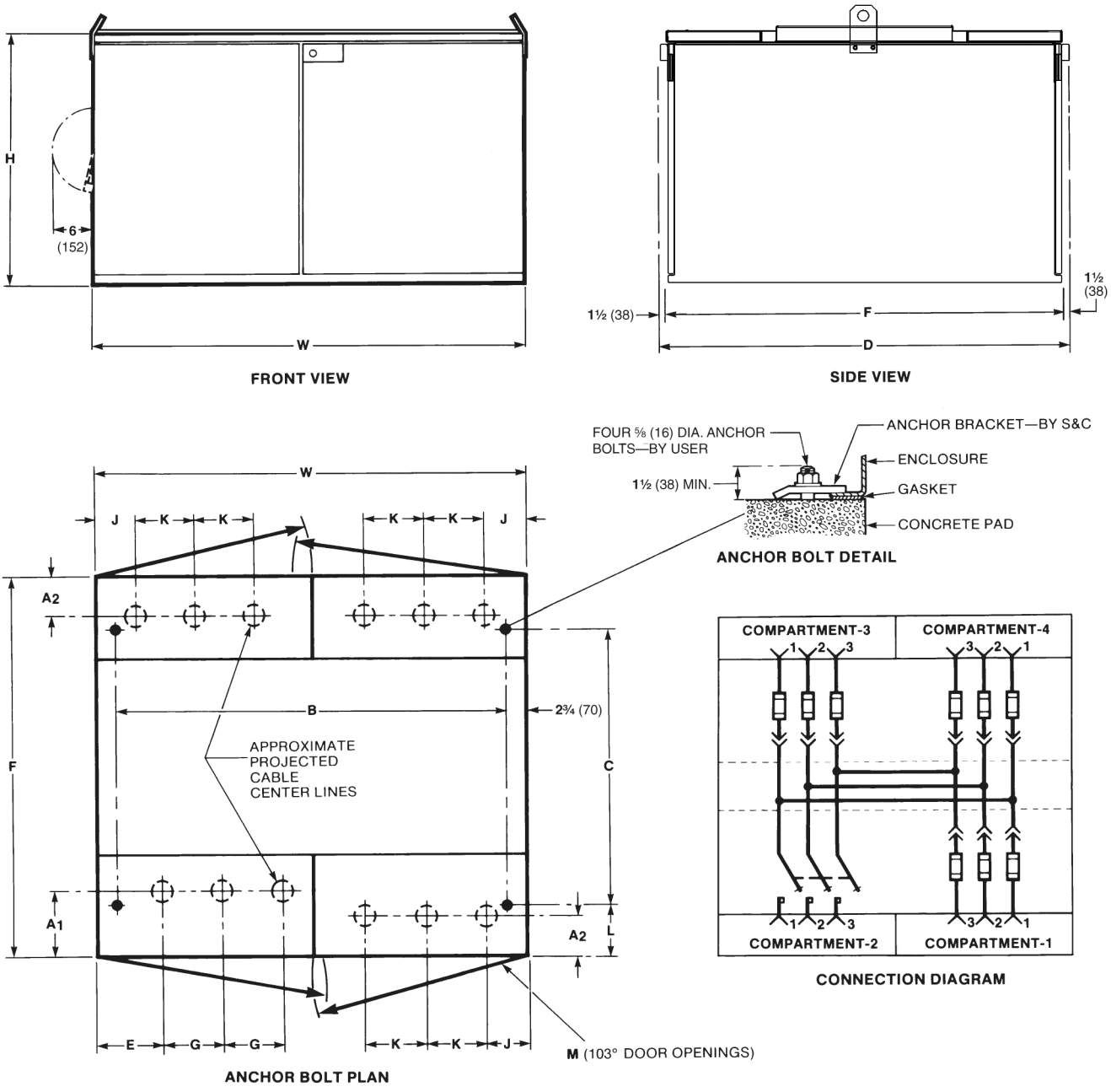


kV, Nominal	A_1●	A_2●	B	C	D	E	F	G	H	J	K	L	M	W
14.4	14½ (368)	7 (178)	69½ (1765)	55½ (1410)	75¾ (1924)	12⅜ (314)	72¾ (1848)	8¼ (210)	45½ (1156)	5⅜ (137)	10¾ (273)	8⅝ (219)	38 (965)	75 (1905)
25	18½ (470)	8⅛ (206)	78½ (1994)	58½ (1486)	91¼ (2318)	12⅞ (327)	88¼ (2242)	8¼ (210)	51½ (1308)	6 (152)	12 (305)	14⅞ (378)	42½ (1080)	84 (2134)

● Projected cable center lines are applicable for PME models with cable installed in a cable pit. For cable installed in conduit, refer to pages 23 through 24.

Model PME-12

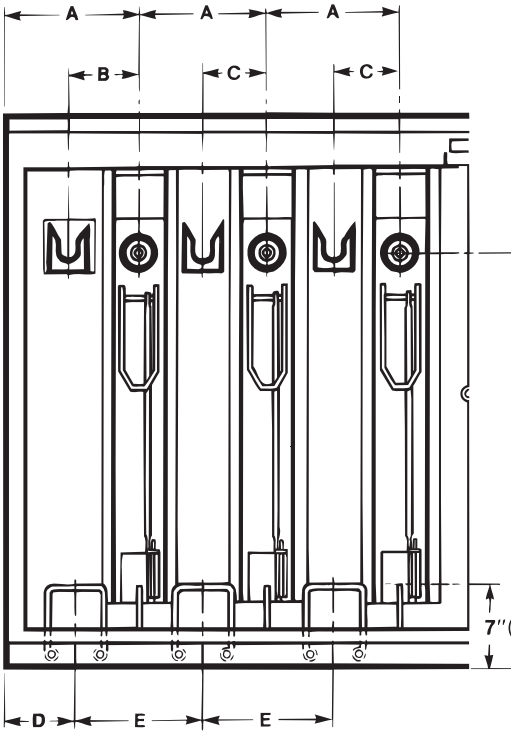
Dimensions in inches (mm)



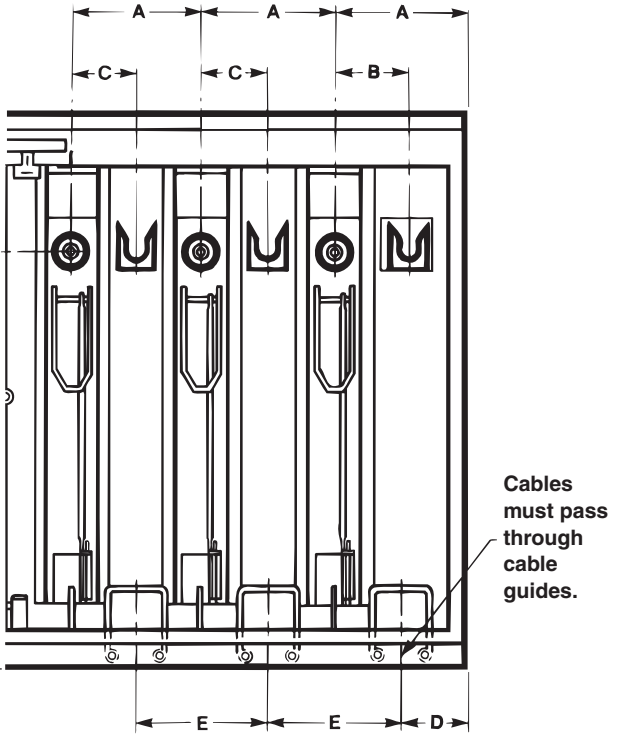
kV, Nominal	A_1●	A_2●	B	C	D	E	F	G	H	J	K	L	M	W
14.4	14½ (368)	7 (178)	69½ (1765)	49½ (1257)	69¾ (1772)	12⅜ (314)	66¾ (1695)	8¼ (210)	45½ (1156)	5⅜ (137)	10¾ (273)	8⅝ (219)	38 (965)	75 (1905)
25	18½ (470)	8⅛ (206)	78½ (1994)	52 (1321)	84¾ (2153)	12⅞ (327)	81¾ (2076)	8¼ (210)	51½ (1308)	6 (152)	12 (305)	14⅞ (378)	42½ (1080)	84 (2134)

● Projected cable center lines are applicable for PME models with cable installed in a cable pit. For cable installed in conduit, refer to pages 23 through 24.

Typical Cable Compartments for Fuses



Compartment 4: Models PME-9 and PME-12



Compartment 1: Model PME-12

Compartment 2: Models PME-4 and PME-5

Compartment 3: Models PME-6, PME-9, PME-11, and PME-12

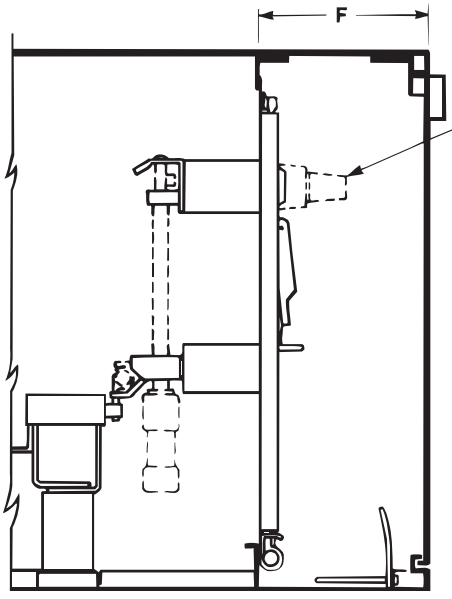
Voltage, kV			Dimensions in Inches (mm)①						
Nom.	Max②	BIL	A	B	C	D	E	F	H③
14.4	17	95	10¾ (273)	7⅛ (181)	5⅜ (137)	5⅜ (137)	10¾ (273)	14 (356)	33 (838)
25	27●	125	12 (305)	8½ (216)	6 (152)	6 (152)	12 (305)	17 (432)	38¾ (984)

① To the nearest ⅛-inch (3 mm).

② Maximum rating may be lower when current-limiting fuses are used. Consult appropriate current-limiting fuse manufacturer for complete fuse ratings.

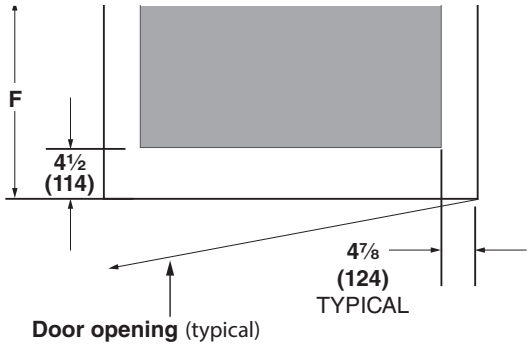
③ For models equipped with optional base-adapter catalog number suffix "-K," increase Dimension H by 6 inches (152 mm).

● Maximum voltage is 29 kV for models equipped with Fault Fiter Electronic Power Fuse mountings.

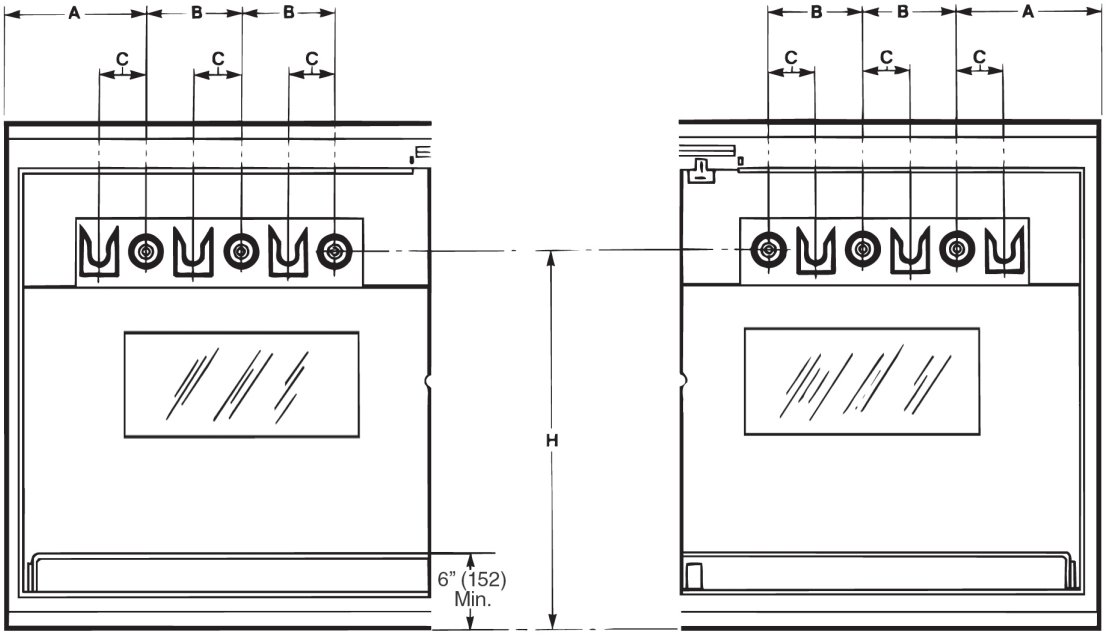


CONDUIT ENTRANCE

Shaded area indicates available area for conduit entrance. See applicable pages 16 through 19 or 21 through 22 for approximate projected cable center lines for the cables to pass through the cable guides.



Typical Cable Compartments for Switches



Compartment 2: Models PME-6, PME-9, PME-10, PME-11, and PME-12

Compartment 1: Models PME-5, PME-6, PME-9, PME-10, and PME-11

Compartment 4: Models PME-10 and PME-11

Compartment 3: Model PME-10

Voltage, kV			Dimensions in Inches (mm)①					
Nom.	Max②	BIL	A	B	C	D	E	H③
14.4	17●	95	12⅜ (314)	8¼ (210)	4⅛ (105)	20 (508)	15½ (394)	33 (838)
25	27■	125	12⅞ (327)	8¼ (210)	4⅛ (105)	24 (610)	19½ (495)	34¼ (870)

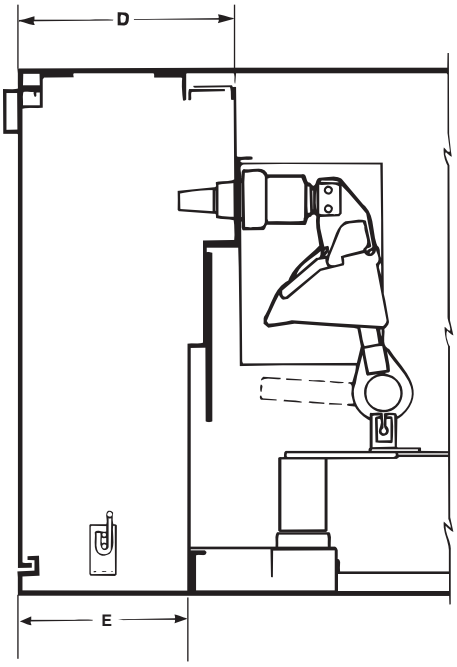
① To the nearest ⅛-inch (3 mm).

② Maximum rating may be lower when current-limiting fuses are used. Consult appropriate current-limiting fuse manufacturer for complete fuse ratings.

③ For models equipped with optional base-adapter catalog number suffix "-K," increase Dimension H by 6 inches (152 mm).

● Maximum voltage rating is 17.5 kV for Model PME-10.

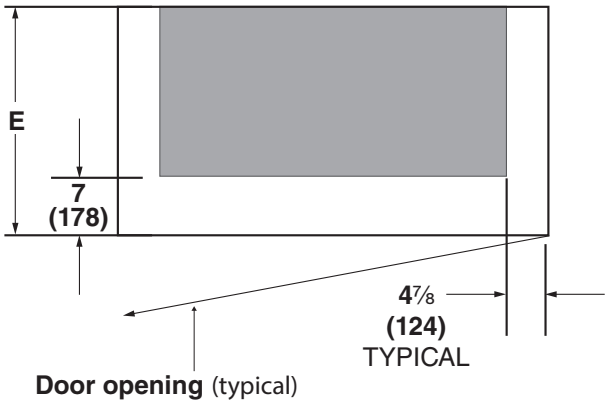
■ Maximum voltage is 29 kV for models equipped with S&C Fault Fiter® Electronic Power Fuse Mountings.



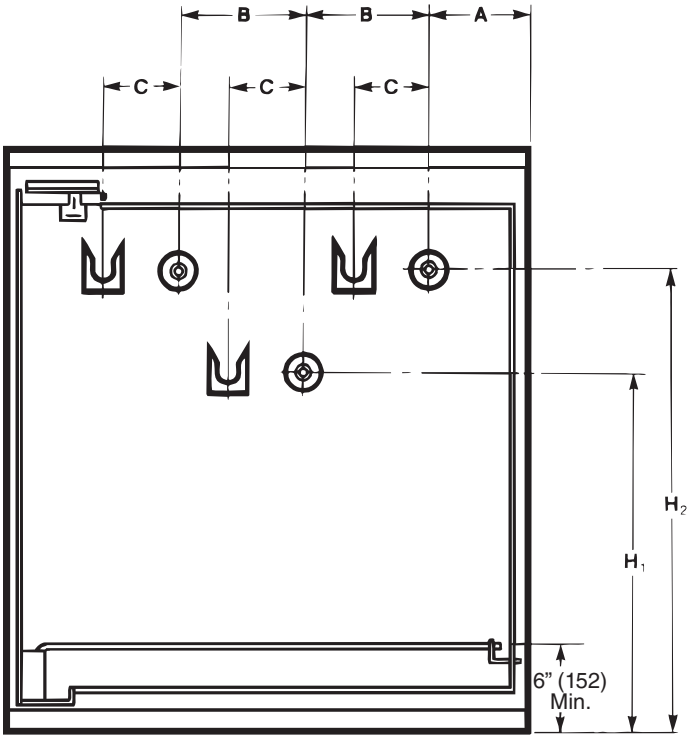
Side View

CONDUIT ENTRANCE

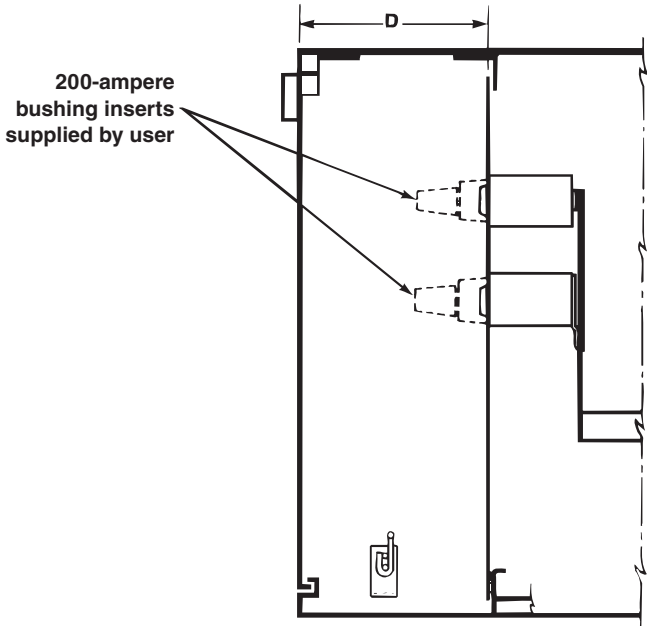
Shaded area indicates available area for conduit entrance.



Typical Cable Compartments for Bus



Compartment 1: Model PME-4



Side View

Voltage, kV			Dimensions in Inches①					
Nom.	Max②	BIL	A	B	C	D	H_1●	H_2●
14.4	17	95	7½ (191)	9¾ (248)	6 (152)	16 (406)	25 (635)	33 (838)
25	27	125	7¾ (197)	12 (305)	8 (203)	17 (432)	30¾ (781)	38¾ (984)

① To the nearest ⅛-inch (3 mm).

② Maximum rating may be lower when current-limiting fuses are used. Consult appropriate current-limiting fuse manufacturer for complete fuse ratings.

● For models equipped with optional base-adapter catalog number suffix "-K," increase Dimension H by 6 inches (152 mm).

CONDUIT ENTRANCE

Shaded area indicates available area for conduit entrance.