



**GM-SG NON-ARC-RESISTANT, DRAWOUT, METAL-CLAD**

# Medium-voltage air-insulated switchgear

Up to 27 kV, 63 kA, 125 kV BIL  
[usa.siemens.com/mvswitchgear](http://usa.siemens.com/mvswitchgear)

## Features and benefits:

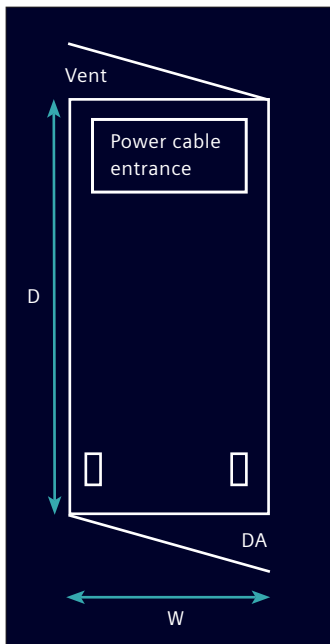
- One-high or two-high construction; indoor or outdoor types available
- Up to 100 full-fault interruptions; 10,000 operations to overhaul
- Horizontal drawout GMSG vacuum circuit breaker with 3AH3 operating mechanism
- Common 3AH3 operator for all ratings; >200,000 3AH3 operators produced since 1998
- Universal spare circuit breaker by rating
- Uses the latest developments in vacuum interrupter technology
- Interlocks permit insertion of higher rated vacuum circuit breaker into lower rated cell but not vice versa
- Closed door racking
- Front-accessible circuit breaker operating mechanism
- Visible secondary disconnect
- Floor rollout circuit breaker in lower cell without a dolly
- Main and transfer bus arrangements
- Highly reliable vacuum interrupters MTTF >55,000 years
- Generator circuit breakers to IEC/IEEE 62271-37-013
- Three-cycle interrupting time\*
- Pair with Siemens protective relays to match any typical application
- Meets or exceeds the latest ANSI, IEEE, and NEMA standards; UL or c-UL Listing available
- SIERS\* integrated electrical-racking system
- Sm@rtGear\* functionality provides predictive diagnostics, continuous monitoring, and control from a remote location
- Trained and certified local personnel in U.S. available for start-up, commissioning, and maintenance.

\*Optional

**SIEMENS**

**Technical ratings**

Characteristics	Unit	Voltage class				
Rated maximum voltage	kV	4.76	8.25	15.0	17.5	27.0
Rated interrupting rating	kA	40, 50, 63	40	25, 40, 50, 63	50, 63	25, 40
Maximum interrupting and short-time <sup>1, 2</sup>	kA	40, 50, 63	40	25, 40, 50, 63	50, 63	25, 40
Voltage range factor	k	1.0	1.0	1.0	1.0	1.0
Continuous current <sup>3</sup>	A	1,200, 2,000, 3,000, 4,000FC	1,200, 2,000, 3,000, 4,000FC	1,200, 2,000, 3,000, 4,000FC	1,200, 2,000, 3,000, 4,000FC	1,200, 2,000, 2,800FC
Withstand voltage: power frequency	kV rms	19	36	36	36	60
Withstand voltage: lightning impulse	kV peak	60	95	95	95	125
Closing and latching (momentary): asymmetrical	1.55 x I kA rms	62, 78, 98	62	39, 62, 78, 98	78, 98	39, 62
Closing and latching (momentary): peak	2.6 x I kA peak	104, 130, 164	104	65, 104, 130, 164	130, 164	65, 104



**Dimensions in inches (mm)<sup>4, 5, 6, 7</sup>; weight in lbs (kg)**

Type	Height (H)	Width (W)	Depth (D)	Drawout aisle (DA)	Weight
GM-SG up to 17.5 kV	95.3 (2,419)	36.0 (914)	98.7 (2,507)	72.0 (1,829) recommended	3,300 (1,497)
SGM-SG up to 17.5 kV	114.8 (2,915)	36.0 (914)	173.4 (4,404)	72.0 (1,829) included	5,000 (2,268)
OGM-SG up to 17.5 kV	113.6 (2,886)	36.0 (914)	101.9 (2,588)	72.0 (1,829) recommended	3,950 (1,792)
GM-SG 27 kV	103.0 (2,616)	36.0 (914)	120.0 (3,048)	72.0 (1,829) recommended	3,800 (1,723)

**Footnotes:**

- All values apply to polyphase and line-to-line faults.
- Standard duty cycle is 0 - 0.3 s - CO - 3 min. - CO.
- Fan-cooled rating available using a circuit breaker together with a modified switchgear structure incorporating fan-cooling equipment. Consult factory for rating in Shelter-Clad and Shelter-Clad+ outdoor switchgear. FC rating is not available in OGM-SG non-walk-in. When FC circuit breakers are furnished, main bus is self-cooled.
- Dimensions are approximate.
- Add 6" (152 mm) to each end of a lineup for aisle extension 12" (304 mm) total.
- 72" (1,829 mm) aisle space recommended allows room for interchange of circuit breakers. Minimum aisle space required for handling circuit breaker with lift truck is 65" (1,651 mm). Minimum aisle space required if all circuit breakers are at floor level is 55" (1,397 mm).
- If indoor switchgear is installed on a raised housekeeping pad, the pad must not extend farther than 3" (75 mm) from the front of the switchgear to avoid interference with the use of the portable lift truck. Add for roof & enclosure overhang:  

Rear (cable side):	Front (drawout side):
OGM-SG: 3.6" (92 mm)	OGM-SG: 3.7" (94 mm)
SGM-SG: 3.6" (92 mm)	SGM-SG: 1.7" (43 mm)
- The switchgear must have at least 6" (152 mm) horizontal clearance:
- Add 4.5" (114 mm) to depth for front and rear doors.
- Add weight of circuit breakers.
- Maximum shipping group five sections.
- Shelter-Clad+ switchgear assemblies (types S+GM-SG) are built in partnership with Siemens-qualified vendors, who provide detailed drawings of each custom assembly, which include dimensions and weights. Please be sure to carefully review and follow all instructions provided in the order-specific Shelter-Clad+ drawing package.
- For transfer bus arrangements, add 15" (381 mm) to the depth.

Types available:

- Indoor (GM-SG)
- Outdoor, walk-in, Shelter-Clad (SGM-SG)
  - Single-aisle (factory-assembled aisle)
  - Factory insulated and assembled aisle (optional)
- Outdoor, walk-in, Shelter-Clad+, factory-assembled switchgear and aisle on common base with power equipment center (S+GM-SG)
- Outdoor, aisleless, non-walk-in (OGM-SG).

**Legal Manufacturer**

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Order No. EMMS-B40095-01-4AUS  
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