

GHG 981 Ex-Safety switch for zone 22

Rated current from 25 A - 700 A

Safety first

Occupational safety always has top priority in any industrial facility. Whenever maintenance, cleaning, or repair work is necessary, it must be possible to safely and reliably isolate machines and installations from the electrical power supply. Safety switches are the most widely used and cost effective isolation method available.

However, not all isolator switches are created equal. If safety switches that meet the requirements of the Raw Materials and Chemical Industry Employers' Liability Insurance Association (BG RCI) are used, time-consuming measures (e.g. the complete disconnection of motors) can be eliminated. Eaton's Crouse-Hinds series GHG981 safety switches meet these standards.

In addition, the GHG981 safety switches have been approved for use in zone 22 areas containing explosive dust. With the built-in padlocking facilities, they can be used as a load break switch with full confidence they will provide the required safety and personnel protection.

Ready for harsh environments

The enclosures for our GHG 981 safety switches are designed with IP66 environmental protection and are available in powder-coated sheet steel, glass-reinforced polyester (GRP), or electro-polished stainless steel. They are impact resistant and robust, corrosion-resistant, and are suitable for use in harsh industrial environments with extreme ambient temperatures from -55 °C to +55 °C.

Lock-out/tag-out capable

All GHG981 safety switches come with built-in lock-out/tag-out capability and can be locked in the "OFF" position by means of max. 3 padlocks. While switched to the "OFF" position, the enclosure covers of safety switches cannot be opened without destroying the enclosure. This provides an extra level of safety as it prevents access to a switch locked in the "OFF" position, eliminating any risk of tampering with the switch position or electrical connections.

The right size for every application

The switches are available in 3-pole, 4-pole, and 6-pole versions in sizes ranging from 25 A to 400A. The 630 A and 700 A sizes are available in 3-pole or 4-pole versions. On the 25 A through 80 A sizes, they feature full AC3 switching capacity for squirrel-cage motors during starting or while running per EN 60947-3 Appendix A. This is the most typical industrial application for motors. Sizes 100 A and above feature full AC23 switching capacity for motor loads or other highly inductive loads per EN60947-3 Appendix A.

Optional emergency stop versions to EN 60204-1 featuring a red handle with a yellow backplate are also available. The additional leading or lagging auxiliary contact guarantees double safety for extreme switching conditions. All switch versions feature an earth terminal. Special features of the safety switches include designs for ease of installation and readily accessible connection terminals.

Safety switches rated 160 A and below are available in all 3 material types while those 250 A and above are built into enclosures made of powder-coated sheet steel or electro-polished stainless steel. These enclosures can be fitted with screw-on flanges.



Features

- Approved for use in Zone 22 explosive dust atmospheres and for industrial applications
- For max. currents from 25A up to 700A
- AC3 switching capacity (25A to 80A)
- AC23 switching capacity (100A and up)
- Environmental protection to IP66
- Reliable corrosion protection
- Wide temperature range from -55°C to +55°C
- Can be locked in "OFF" position by max. 3 padlocks

Ordering details

Rated current	Poles	Enclosure material	Cable entry (metal thread)	cable glands (plastic)	Enclosure sizes: GRP			Enclosure sizes: metal				Order No. ¹⁾
					size 1	size 2	size 3	size 1	size 2	size 3	size 4	
GHG 981 (25 A)												
25 A	3 pole	GRP		2xM32, 1xM25	X							GHG 981 0048 R1211
25 A	4 pole	GRP		2xM32, 1xM25	X							GHG 981 0048 R1212
25 A	6 pole	GRP		4xM32, 1xM25		X						GHG 981 0048 R1213
25 A	3 pole	Sheet steel, powder-coated	2xM32, 1xM25					X				GHG 981 0048 R1214
25 A	4 pole	Sheet steel, powder-coated	2xM32, 1xM25					X				GHG 981 0048 R1215
25 A	6 pole	Sheet steel, powder-coated	4xM32, 1xM25					X				GHG 981 0048 R1216
25 A	3 pole	316L stainless steel, electro-polished	2xM32, 1xM25					X				GHG 981 0048 R1217
25 A	4 pole	316L stainless steel, electro-polished	2xM32, 1xM25					X				GHG 981 0048 R1218
25 A	6 pole	316L stainless steel, electro-polished	4xM32, 1xM25					X				GHG 981 0048 R1219
GHG 981 (40 A)												
40 A	3 pole	GRP		2xM40, 1xM25		X						GHG 981 0048 R1221
40 A	4 pole	GRP		2xM40, 1xM25		X						GHG 981 0048 R1222
40 A	6 pole	GRP		4xM40, 1xM25		X						GHG 981 0048 R1223
40 A	3 pole	Sheet steel, powder-coated	2xM40, 1xM25					X				GHG 981 0048 R1224
40 A	4 pole	Sheet steel, powder-coated	2xM40, 1xM25					X				GHG 981 0048 R1225
40 A	6 pole	Sheet steel, powder-coated	4xM40, 1xM25					X				GHG 981 0048 R1226
40 A	3 pole	316L stainless steel, electro-polished	2xM40, 1xM25					X				GHG 981 0048 R1227
40 A	4 pole	316L stainless steel, electro-polished	2xM40, 1xM25					X				GHG 981 0048 R1228
40 A	6 pole	316L stainless steel, electro-polished	4xM40, 1xM25					X				GHG 981 0048 R1229
GHG 981 (80 A)												
80 A	3 pole	GRP		2xM50, 1xM25		X						GHG 981 0048 R1231
80 A	4 pole	GRP		2xM50, 1xM25		X						GHG 981 0048 R1232
80 A	6 pole	GRP		4xM50, 1xM25			X					GHG 981 0048 R1233
80 A	3 pole	Sheet steel, powder-coated	2xM50, 1xM25					X				GHG 981 0048 R1234
80 A	4 pole	Sheet steel, powder-coated	2xM50, 1xM25					X				GHG 981 0048 R1235
80 A	6 pole	Sheet steel, powder-coated	4xM50, 1xM25						X			GHG 981 0048 R1236
80 A	3 pole	316L stainless steel, electro-polished	2xM50, 1xM25					X				GHG 981 0048 R1237
80 A	4 pole	316L stainless steel, electro-polished	2xM50, 1xM25					X				GHG 981 0048 R1238
80 A	6 pole	316L stainless steel, electro-polished	4xM50, 1xM25						X			GHG 981 0048 R1239
GHG 981 (100 A)												
100 A	3 pole	GRP		2xM50, 1xM25		X						GHG 981 0048 R0241
100 A	4 pole	GRP		2xM63, 1xM25			X					GHG 981 0048 R0242
100 A	6 pole	GRP		4xM50, 1xM25			X					GHG 981 0048 R0243
100 A	3 pole	Sheet steel, powder-coated	2xM50, 1xM25					X				GHG 981 0048 R0244
100 A	4 pole	Sheet steel, powder-coated	2xM63, 1xM25						X			GHG 981 0048 R0245
100 A	6 pole	Sheet steel, powder-coated	4xM50, 1xM25						X			GHG 981 0048 R0246
100 A	3 pole	316L stainless steel, electro-polished	2xM50, 1xM25					X				GHG 981 0048 R0247
100 A	4 pole	316L stainless steel, electro-polished	2xM63, 1xM25						X			GHG 981 0048 R0248
100 A	6 pole	316L stainless steel, electro-polished	4xM50, 1xM25						X			GHG 981 0048 R0249

¹⁾ For an emergency stop switch (red handle/yellow back plate), change the 3rd to last digit from R*2** (standard version) to R*3** (emergency stop)

Ordering details

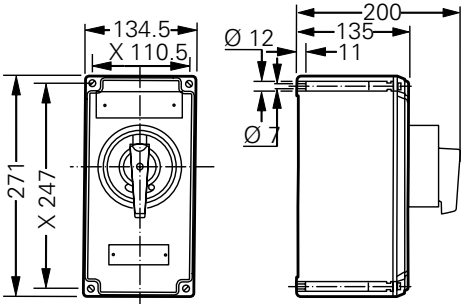
GHG 981 - 160 A - 700 A

Ordering details

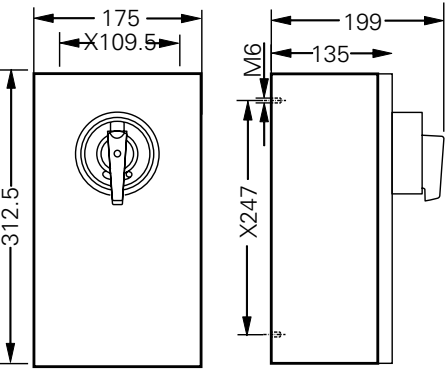
Rated current	Poles	Enclosure material	Cable entry (metal thread)	Cable gland (plastic)	Enclosure sizes: GRP			Enclosure sizes: metal				Order No. ¹⁾
					size 1	size 2	size 3	size 1	size 2	size 3	size 4	
GHG 981 (160 A)												
160 A	3 pole	GRP		2xM63, 1xM25	X							GHG 981 0048 R0251
160 A	4 pole	GRP		2xM63, 1xM25			X					GHG 981 0048 R0252
160 A	6 pole	GRP		4xM50, 1xM25			X					GHG 981 0048 R0253
160 A	3 pole	Sheet steel, powder-coated	2xM63, 1xM25					X				GHG 981 0048 R0254
160 A	4 pole	Sheet steel, powder-coated	2xM63, 1xM25						X			GHG 981 0048 R0255
160 A	6 pole	Sheet steel, powder-coated	4xM50, 1xM25						X	X		GHG 981 0048 R0256
160 A	3 pole	316L stainless steel, electro-polished	2xM63, 1xM25					X				GHG 981 0048 R0257
160 A	4 pole	316L stainless steel, electro-polished	2xM63, 1xM25						X			GHG 981 0048 R0258
160 A	6 pole	316L stainless steel, electro-polished	4xM50, 1xM25						X	X		GHG 981 0048 R0259
GHG 981 (250 A)												
250 A	3 pole	Sheet steel, powder-coated	2xM63, 1xM25							X		GHG 981 0048 R0264
250 A	4 pole	Sheet steel, powder-coated	2xM63, 1xM25							X		GHG 981 0048 R0265
250 A	6 pole	Sheet steel, powder-coated	4xM63, 1xM25							X		GHG 981 0048 R0266
250 A	3 pole	316L stainless steel, electro-polished	2xM63, 1xM25							X		GHG 981 0048 R0267
250 A	4 pole	316L stainless steel, electro-polished	2xM63, 1xM25							X		GHG 981 0048 R0268
250 A	6 pole	316L stainless steel, electro-polished	4xM63, 1xM25							X		GHG 981 0048 R0269
GHG 981 (400 A)												
400 A	3 pole	Sheet steel, powder-coated	2xM63, 1xM25							X		GHG 981 0048 R0274
400 A	4 pole	Sheet steel, powder-coated	2xM63, 1xM25							X		GHG 981 0048 R0275
400 A	6 pole	Sheet steel, powder-coated	4xM63, 1xM25							X		GHG 981 0048 R0276
400 A	3 pole	316L stainless steel, electro-polished	2xM63, 1xM25							X		GHG 981 0048 R0277
400 A	4 pole	316L stainless steel, electro-polished	2xM63, 1xM25							X		GHG 981 0048 R0278
400 A	6 pole	316L stainless steel, electro-polished	4xM63, 1xM25							X		GHG 981 0048 R0279
GHG 981 (630 A)												
630 A	3 pole	Sheet steel, powder-coated	4xM80, 1xM25							X		GHG 981 0048 R0284
630 A	4 pole	Sheet steel, powder-coated	4xM80, 1xM25							X		GHG 981 0048 R0285
630 A	3 pole	316L stainless steel, electro-polished	4xM80, 1xM25							X		GHG 981 0048 R0287
630 A	4 pole	316L stainless steel, electro-polished	4xM80, 1xM25							X		GHG 981 0048 R0288
GHG 981 (700 A)												
700 A	3 pole	Sheet steel, powder-coated	4xM80, 1xM25							X		GHG 981 0048 R0294
700 A	4 pole	Sheet steel, powder-coated	4xM80, 1xM25							X		GHG 981 0048 R0295
700 A	3 pole	316L stainless steel, electro-polished	4xM80, 1xM25							X		GHG 981 0048 R0297
700 A	4 pole	316L stainless steel, electro-polished	4xM80, 1xM25							X		GHG 981 0048 R0298

¹⁾ For an emergency stop switch (red handle/yellow back plate), change the 3rd to last digit from R*2** (standard version) to R*3** (emergency stop)

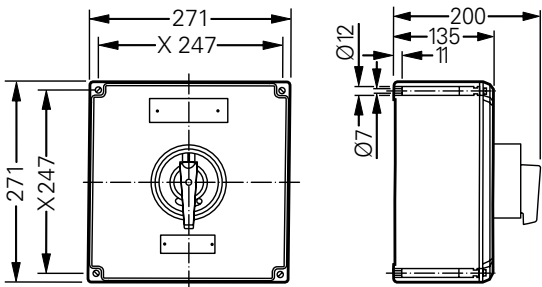
Size 1 GRP enclosure



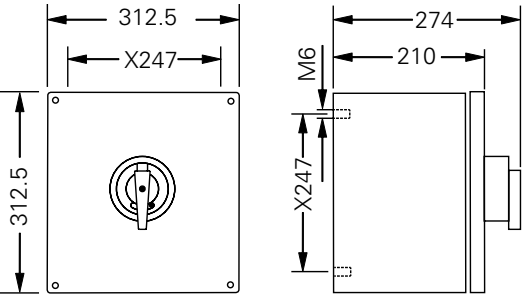
Size 1 metal enclosure



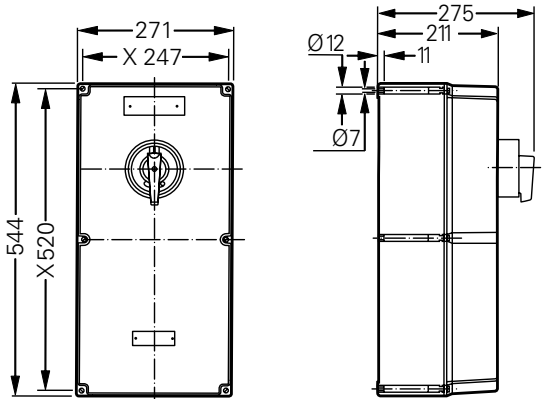
Size 2 GRP enclosure



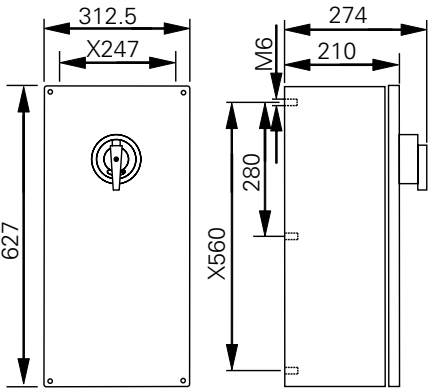
Size 2 metal enclosure



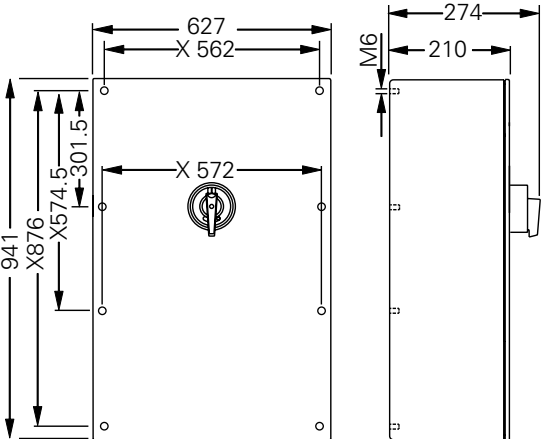
Size 3 GRP enclosure



Size 3 metal enclosure



Size 4 metal enclosure



Technical data

GHG 981



Technical data

GHG 981...	
Marking to 94/9/EC	⊕ II 3 D Ex tc IIIc T80°C Dc
Type Examination Certificate	CCH 15 ATEX 1001
Permissible ambient temperature	-55 °C up to +40 °C/45 °C/50 °C/55 °C see instruction manual
IK-class according to EN 50102	IK 9 Δ 10 J
Rated voltage	up to 690 V
Rated current	see ordering information
Frequency	50 - 60 Hz
Protection class	I and II
Degree of protection accd. to EN 60529	IP66
Auxiliary contact	1 x NO making - lagging; breaking - leading
Padlocking	can be logged in OFF position with 3 commercially padlocks
Enclosure colour	Plastic = black / sheet steel = RAL 7032 / stainless steel 316L = electro-polished

	GHG 981 (25 A)		GHG 981 (40 A)		GHG 981 (80 A)	
Back-up fuse	up to 415 V AC 40 A gG	up to 690 V AC 25 A gG	up to 415 V AC 100 A gG	up to 690 V AC 80 A gG	up to 415 V AC 125 A gG	up to 690 V AC 125 A gG
Rated making-/breaking capacity AC-3 accd. to EN 60947-3 Appendix A	25 A / 3 pole 23 A / 4/6 pole	14 A / 3-pole 14 A / 4/6-pole	40 A / 3 pole 40 A / 6 pole	22 A / 3-pole 17 A / 6-pole	71 A / 3 pole 55 A / 6 pole	23 A / 3-pole 17 A / 6-pole
Connecting terminals	4 mm ² - 10 mm ²		16 mm ² - 35 mm ²		50 mm ² - 70 mm ²	

	GHG 981 (100 A)		GHG 981 (160 A)		GHG 981 (250 A)	
Back-up fuse	up to 415 V AC 315 A gG	up to 690 V AC 355 A gG	up to 415 V AC 315 A gG	up to 690 V AC 355 A gG	up to 415 V AC 500 A gG	up to 690 V AC 500 A gG
Rated making-/breaking capacity AC-23 accd. to EN 60947-3	100 A	100 A	160 A	160 A	250 A	250 A
Connecting terminals	50 mm ² - 70 mm ²		95 mm ² - M8 x 25		185 mm ² - M10 x 30	

	GHG 981 (400 A)		GHG 981 (630 A)		GHG 981 (700 A)	
Back-up fuse	up to 415 V AC 500 A gG	up to 690 V AC 500 A gG	up to 415 V AC 800 A gG	up to 690 V AC 800 A gG	up to 415 V AC 800 A gG	up to 690 V AC 800 A gG
Rated making-/breaking capacity AC-23 accd. to EN 60947-3	400 A	400 A	630 A	630 A	700 A	700 A
Connecting terminals	1 x 240 mm ²		2x185 mm ² - M12 x 40		2x240 mm ² - M12 x 40	