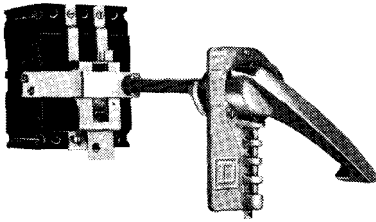


Door Mounted Operating Mechanisms

CONTENTS

| Circuit Breaker Size | | Page |
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| FAL, FHL | 9421 FN-1 | 2 |
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| KAL, KHL | 9421 FP-1 | 3 |
| LAL, LHL, Q4L | 9421 FR-1 | 4 |
| MAL, MEL, MHL | 9421 FT-1 | 4 |

OPERATING MECHANISMS
DOOR MOUNTED, VARIABLE DEPTH — FOR SQUARE D CIRCUIT BREAKERS



Type FN-1
(Breaker not included)

DESCRIPTION

The Class 9421 circuit breaker operating mechanisms are for use with Square D circuit breakers as main or branch circuit disconnect devices in control enclosures. They are designed to give maximum possible operator protection. Some of the features of the operating mechanisms are:

1. Padlock provisions in the "OFF" position allow up to four padlocks to be used.
2. An interlock latch which prevents opening the enclosure door with the circuit breaker in the "ON" position. Defeater provisions are provided.
3. A handle drilling template is supplied with each mechanism for ease of handle mounting.

Kits include the internal mechanism, external handle, and mounting hardware — NEMA 1, 3, 3R, 12 (Note: Circuit breakers are not included in kits.)

| Use With | | | Operating Mechanism | | |
|-----------------------------|--------------|--------------------|---------------------------------|------|--------------|
| Breaker or Interrupter Type | No. of Poles | Frame Size (Amps.) | Mounting Depth Range# Min.-Max. | Type | Price |
| FAL, FHL | 2-3 | 100 | 6 1/8-14 | FN-1 | \$60. |
| Q2L | 2-3 | 225 | 7-13 5/8 | FP-2 | 72. |
| KAL, KHL | 2-3 | 225 | 6 1/2-14 | FP-1 | 72. |
| LAL, LHL, Q4L | 2-3 | 400 | 7 5/8-14 | FR-1 | 84. |
| MEL | 2-3 | 800 | 8 3/8-14 | FT-1 | 92. |
| MAL, MHL | 2-3 | 1000 | 8 3/8-14 | FT-1 | 92. |

Depth measured from breaker mounting surface to outside of enclosure door (inches).

MODIFICATIONS

Electrical interlocks for Class 9421 circuit breaker operating mechanisms:

Single Pole Double Throw Class 9999 Type R18 — **\$30.0**

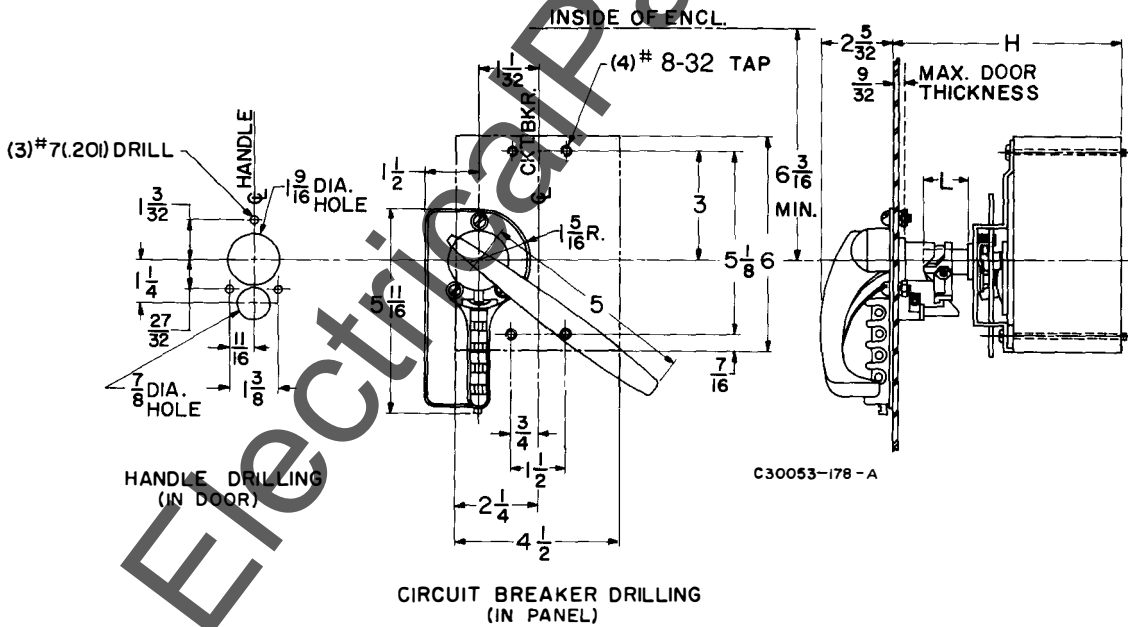
Two Pole Double Throw Class 9999 Type R19 — **\$58.0**

● D1B Discount

ORDERING INFORMATION REQUIRED

Class and type number of operating mechanism.

OUTLINE DIMENSIONS AND GENERAL LOCATION INFORMATION
For FAL, FHL Circuit Breakers and Circuit Interrupters



| Class | Type | ◆ To Find "L" | H ▲ | |
|-------|------|---------------|-------|------|
| | | | Min. | Max. |
| 9421 | FN-1 | L = H - 5 1/8 | 6 1/8 | 14 |

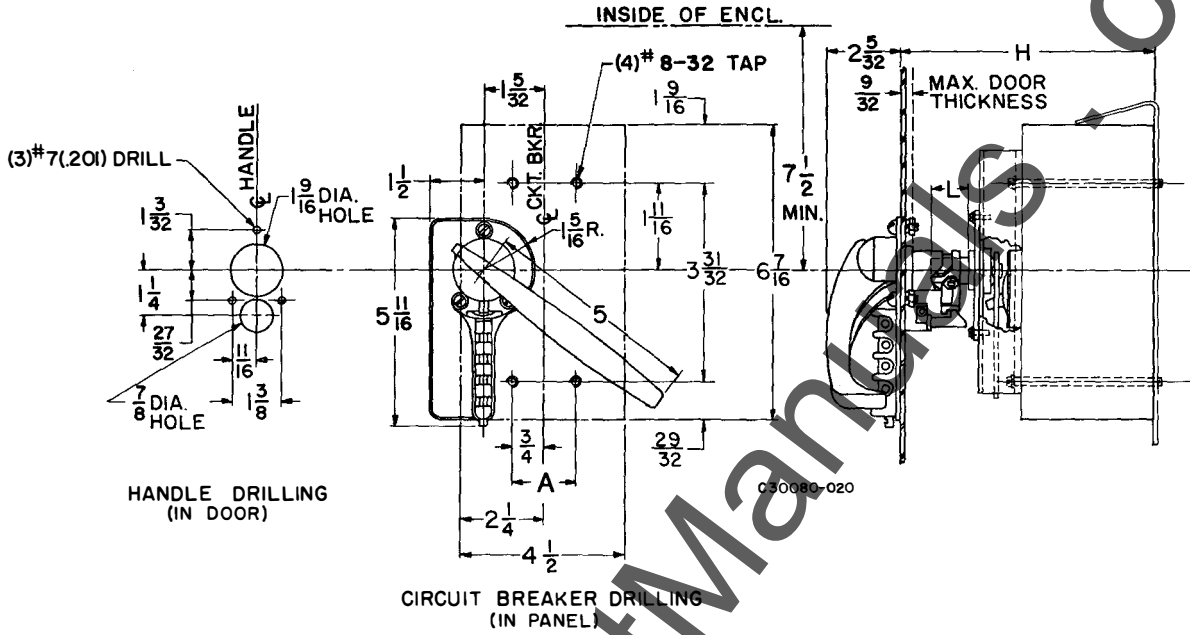
▲ Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.

OPERATING MECHANISMS

DOOR MOUNTED, VARIABLE DEPTH — FOR SQUARE D CIRCUIT BREAKERS

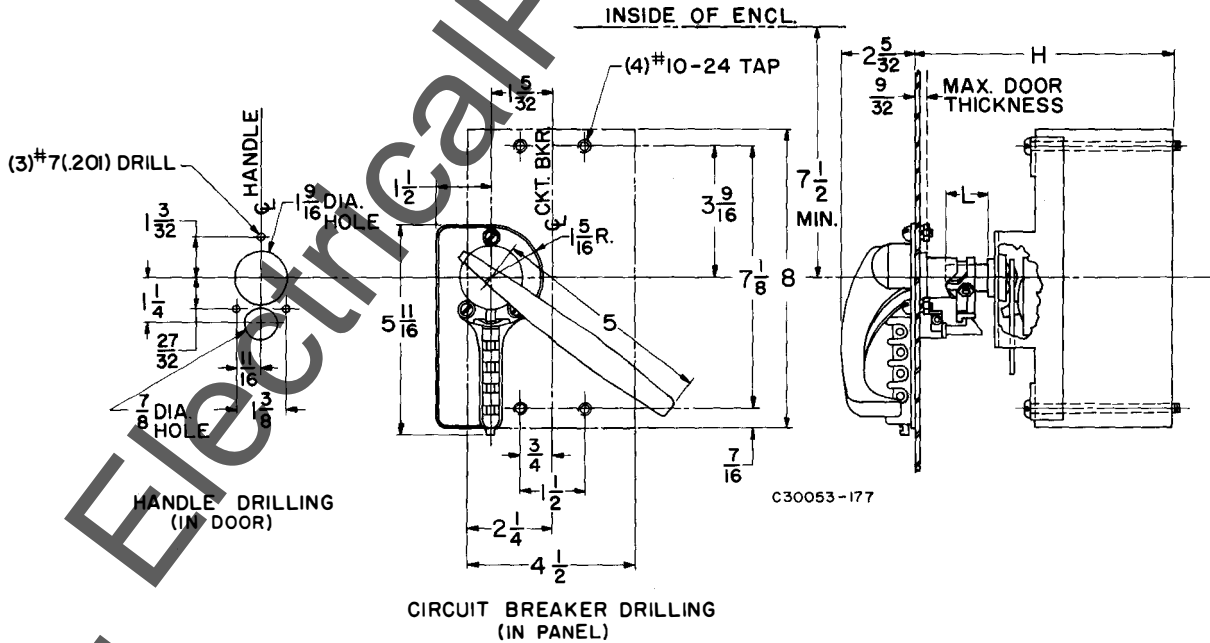
CLASS
9421

OUTLINE DIMENSIONS AND GENERAL LOCATION INFORMATION For Q2L Circuit Breakers and Circuit Interrupters



| Class | Type | To Find "L" | H▲ | | A | |
|-------|------|---------------|------|--------|--------|--------|
| | | | Min. | Max. | 3 Pole | 2 Pole |
| 9421 | FP-2 | L = H - 5 5/8 | 7 | 13 5/8 | 1 1/2 | 1 3/16 |

For KAL, KHL Circuit Breakers and Circuit Interrupters



| Class | Type | To Find "L" | H▲ | |
|-------|------|---------------|-------|------|
| | | | Min. | Max. |
| 9421 | FP-1 | L = H - 5 5/8 | 6 1/2 | 14 |

▲ Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.

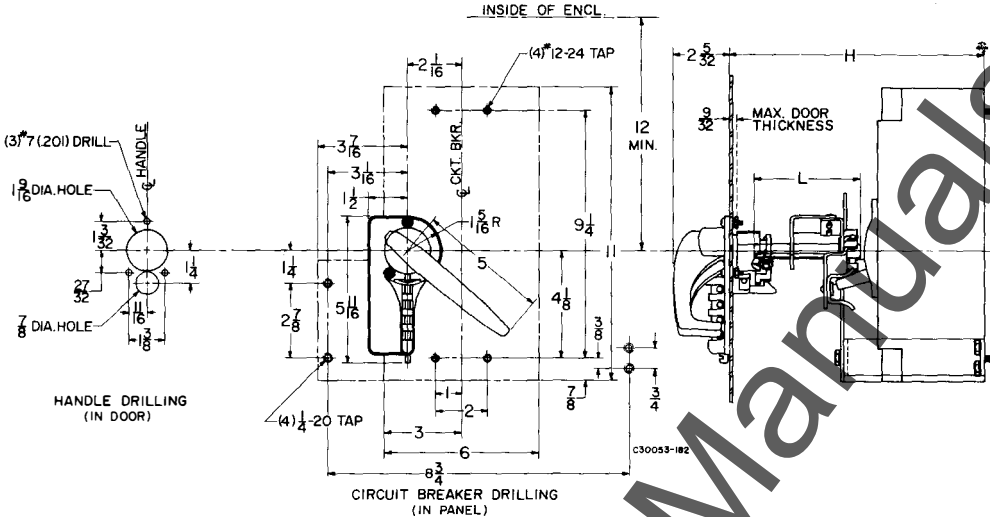
Note: Thread forming screws are supplied for mounting the circuit breaker to the panel. Use a #17 (.173 dia.) drill for the four (4) panel mounting holes. Tap as shown if desired.

OPERATING MECHANISMS

DOOR MOUNTED, VARIABLE DEPTH — FOR SQUARE D CIRCUIT BREAKERS

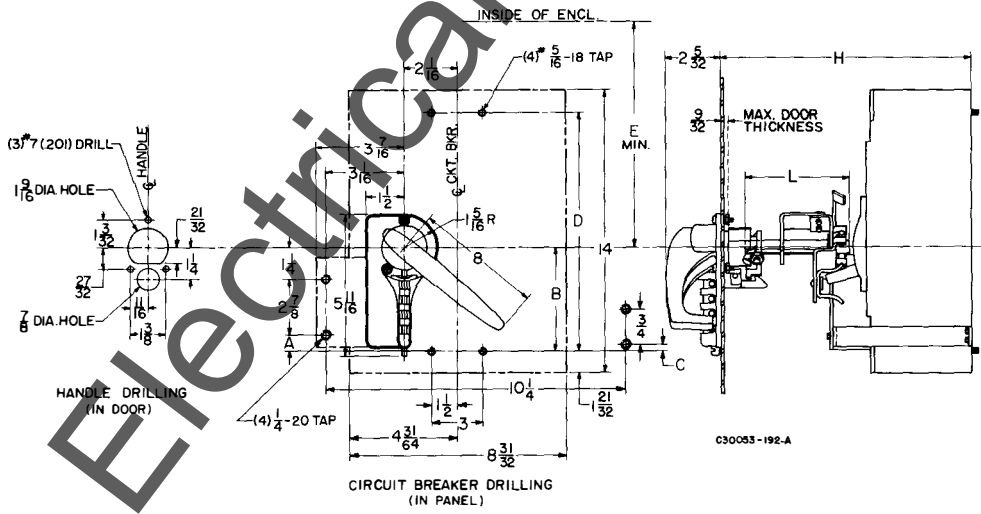
APRIL, 1983

OUTLINE DIMENSIONS AND GENERAL LOCATION INFORMATION For LAL, LHL, Q4L Circuit Breakers and Circuit Interrupters



| Class | Type | To Find "L" | H ▲ | |
|-------|------|-------------------------|-----------------|------|
| | | | Min. | Max. |
| 9421 | FR-1 | $L = H - 5\frac{1}{16}$ | 7 $\frac{7}{8}$ | 14 |

For MAL, MEL, MHL Circuit Breakers and Circuit Interrupters



| Class | Type | To Find "L" | H ▲ | |
|-------|------|-------------------------|-----------------|------|
| | | | Min. | Max. |
| 9421 | FR-1 | $L = H - 6\frac{7}{16}$ | 8 $\frac{3}{8}$ | 14 |

| Breaker Type | A | B | C | D | E |
|--------------|--------|--------|-------|---------|--------|
| MAL, MHL | 19/32 | 423/32 | 7/32 | 1011/16 | 197/32 |
| MEL | 113/64 | 511/32 | 27/32 | 117/16 | 193/8 |

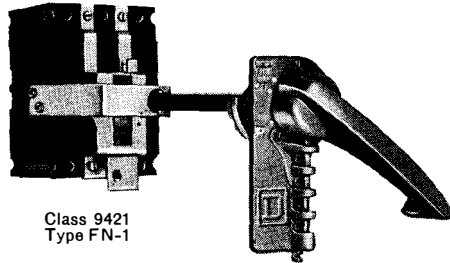
▲ Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.

SUPERSEDES:
 Class 9421-9420
 Price Sheet
 Page 3, Dated
 December 1966;
 Class 9421 Descriptive
 Page 1-2 Dated
 December, 1965
 Supplementary Page 1
 June, 1967

| | |
|---------------------|-------------|
| CLASS | 9421 |
| PAGE | 101 |
| AUGUST, 1969 | |



DOOR MOUNTED OPERATING MECHANISMS FOR USE WITH SQUARE D CIRCUIT BREAKERS



Class 9421
 Type FN-1

Circuit Breaker Operating Mechanisms — Kits include the internal mechanism, external handle, and mounting hardware — NEMA 12 (Note: Circuit breakers are not included in kits.)

| Use With | | | Operating Mechanism | | |
|-----------------------------|--------------|-------------------|---|-----------------|--------------|
| Breaker or Interrupter Type | No. of Poles | Frame Size (Amps) | Mounting Depth Range [‡] Min.-Max. | Class 9421 Type | Price |
| FAL or FAH | 2-3 | 100 | 6 1/8"-14" | FN-1 | \$15. |
| KAL or KAH | 2-3 | 225 | 6 1/8"-14" | FP-1 | 18. |
| LAL or LAH | 2-3 | 400 | 7 5/8"-14" | FR-1 | 21. |
| MAL or MAH | 2-3 | 1000 | 8 3/8"-14" | FT-1 | 23. |

[‡]Depth measured from breaker mounting surface to outside of enclosure door (inches)

DESCRIPTION

The Class 9421 circuit breaker operating mechanisms are for use with Square D circuit breakers as main or branch circuit disconnect devices in control enclosures. They are designed to give maximum possible operator safety. Some of the features of the operating mechanisms are:

1. Padlock provisions in the "OFF" position with up to three padlocks.
2. An interlock latch which prevents opening the enclosure door with the circuit breaker "ON". De-feater provisions are provided.

Installation is quick and easy. Dimensional information is given below and on page 102. More detailed information is given on the following instruction sheets supplied with each kit.

| | |
|-----------|-------------------|
| Kit | Instruction Sheet |
| 9421 FN-1 | 30072-300-18 |
| 9421 FP-1 | 30072-300-21 |
| 9421 FR-1 | 30072-300-41 |
| 9421 FT-1 | 30072-305-27 |

CIRCUIT BREAKERS

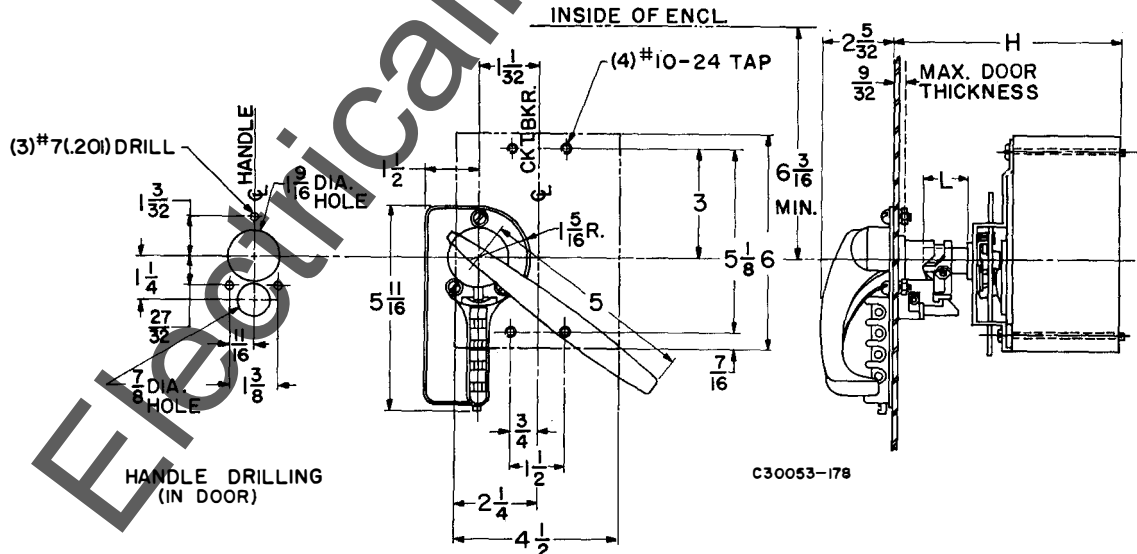
A listing of open type circuit breakers for use with Class 9421 operating mechanisms can be found in the Class 9422 catalog section.

MODIFICATIONS

Electrical interlocks for Class 9421 circuit breaker operating mechanisms:

- Single Pole Double Throw Class 9999 Type R18.
- Two Pole Double Throw Class 9999 Type R19.

APPROXIMATE DIMENSIONS For FA Circuit Breakers and Circuit Interrupters



CIRCUIT BREAKER DRILLING (IN PANEL)

| Class | Type | To Find "L" | H [▲] | |
|-------|------|----------------|----------------|------|
| | | | Min. | Max. |
| 9421 | FN-1 | L = H - 5 3/8" | 6 1/8" | 14" |

Note: Thread forming screws are supplied for mounting the circuit breaker to the panel. Use a #17 (.173 dia.) drill for the four (4) panel mounting holes. Tap as shown if desired.

[▲]Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.

ORDERING INFORMATION REQUIRED
 Class and type number

All dimensions are in inches.

SQUARE D COMPANY

Prices Subject to Change without notice

SCHEDULE DS-1 DISCOUNTS

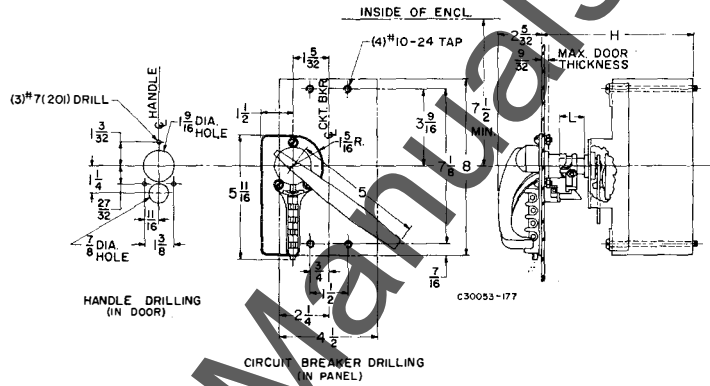


DOOR MOUNTED OPERATING MECHANISMS FOR USE WITH SQUARE D CIRCUIT BREAKERS

OUTLINE DIMENSIONS FOR KA CIRCUIT BREAKERS AND CIRCUIT INTERRUPTERS

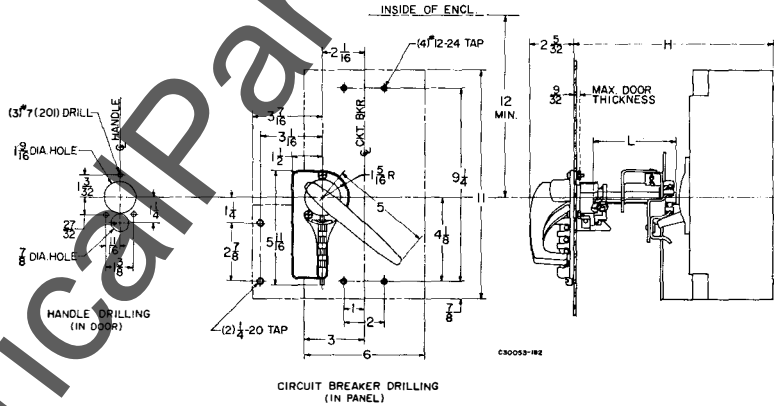
Note: Thread forming screws are supplied for mounting the circuit breaker to the panel. Use a #17 (.173 dia.) drill for the four (4) panel mounting holes. Tap as shown if desired.

| To Find "L" | H ▲ | |
|------------------------|------|------|
| | Min. | Max. |
| $L = H - 5\frac{5}{8}$ | 6½ | 14 |



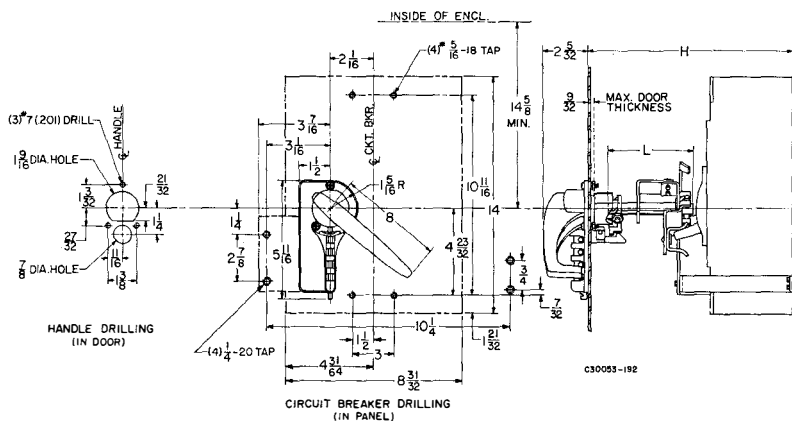
FOR LA CIRCUIT BREAKERS AND CIRCUIT INTERRUPTERS

| To Find "L" | H ▲ | |
|------------------------|------|------|
| | Min. | Max. |
| $L = H - 5\frac{1}{8}$ | 7¾ | 14 |



FOR MA CIRCUIT BREAKERS AND CIRCUIT INTERRUPTERS

| To Find "L" | H ▲ | |
|-------------------------|------|------|
| | Min. | Max. |
| $L = H - 6\frac{7}{16}$ | 8¾ | 14 |



▲ Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus ¼ inch to "H maximum" plus ¼ inch.

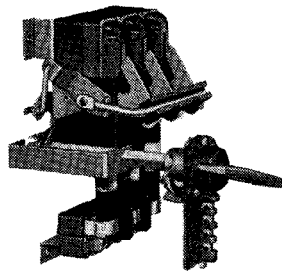
All dimensions are in inches.



HEAVY DUTY DISCONNECT SWITCHES WITH DOOR MOUNTED OPERATING MECHANISM

Disconnect Switches — 30 thru 200 ampere — Kits contain switch and mechanism, all mounting hardware, and external handle — NEMA 12.

600 V. AC MAX. 250 V. DC MAX.



| Disc. Sw. Size | Mtg. † Depth Range Min.-Max. | Maximum HP Ratings▲ | | | | Fuse Clip Rating (Amperes)† | | 3-Pole | | 4-Pole | | | | | |
|----------------|-----------------------------------|-------------------------------|------------|------------|-------------------------|-----------------------------|--------|-----------------|--------|-----------------|--------|-------|------|-------|------|
| | | AC Polyphase | | | DC Using 2-Poles 250 V. | 250 V. | 600 V. | Class 9421 Type | Price | Class 9421 Type | Price | | | | |
| | | 208-200 V. | 440-480 V. | 550-600 V. | | | | | | | | | | | |
| 30 Amp. | 6 ³ / ₈ -14 | 7 ¹ / ₂ | 15 | 20 | 5 | Non-Fusible | | G100C | \$ 30. | G200C | \$ 54. | | | | |
| | | | | | | 30 | — | | | | | G102C | 33. | G202C | 58. |
| | | | | | | 60 | 30 | | | | | G103C | | G209C |  | 61. |
| 60 Amp. | 6 ³ / ₈ -14 | 15 | 30 | 40 | 10 | Non-Fusible | | G101C | 39. | G201C | 67. | | | | |
| | | | | | | 60 | 30 | | | | | G108C | 44. | G208C | 74. |
| | | | | | | 100 | 60 | | | | | G106C | | G206C |  | 76. |
| 100 Amp. | 7 ³ / ₈ -14 | 30 | 50 | 50 | 20 | Non-Fusible | | G109C | 64. | G210C | 103. | | | | |
| | | | | | | 100 | 100 | | | | | G111C | 73. | G212C | 115. |
| | | | | | | 200 | 200 | | | | | G112C | | G213C |  | 146. |
| 200 Amp. | 8 ³ / ₈ -14 | 50 | 100 | 100 | 40 | Non-Fusible | | G110C | 93. | G211C | 140. | | | | |
| | | | | | | 200 | 200 | | | | | G113C | 110. | G214C | 163. |
| | | | | | | 400 | 400 | | | | | G114C | | G215C |  | 228. |

†Depth measured from switch mounting surface to outside surface of enclosure door (inches).
 ●Fuse clips are non-interchangeable type.
 ▲Refers to rating of switch only. Ratings given apply to 3-pole switches, and 4-pole switches when used on 2-phase, four wire systems.

DESCRIPTION

The Class 9421 Disconnect Switches are designed to be used in control enclosures as main or branch circuit disconnect devices. They are designed to give the greatest possible operator safety and yet allow inspection of the electrical equipment without the necessity of machine shutdown. Some of the features built in to the disconnect switches are:

1. Padlock provisions in the "OFF" position with up to three padlocks.
2. An interlock latch which prevents opening the enclosure door with switch "ON". Defeater provisions

are provided for authorized personnel.

3. Visible blade and dead front disconnect switch construction.

These disconnect switches consist basically of two assemblies: the switch and operating mechanism; and the external handle assembly. **INSTALLATION IS QUICK AND EASY.** Dimensional data is given on page 104 and more detailed information on installation is provided on the installation instruction sheet MO 144 furnished with each kit.

LINE LUG DATA

| Disconnect Switch Size | Wire Size | |
|------------------------|------------------------|------------|
| | Minimum | Maximum |
| 30 Ampere | #14- #2, | #10- #2 AL |
| 60 Ampere | #14- #2 Cu, #10- #2 AL | |
| 100 Ampere | #10-#00 Cu, #6-#00 AL | |
| 200 Ampere | #6-300 MCM, Cu or AL | |

MODIFICATIONS

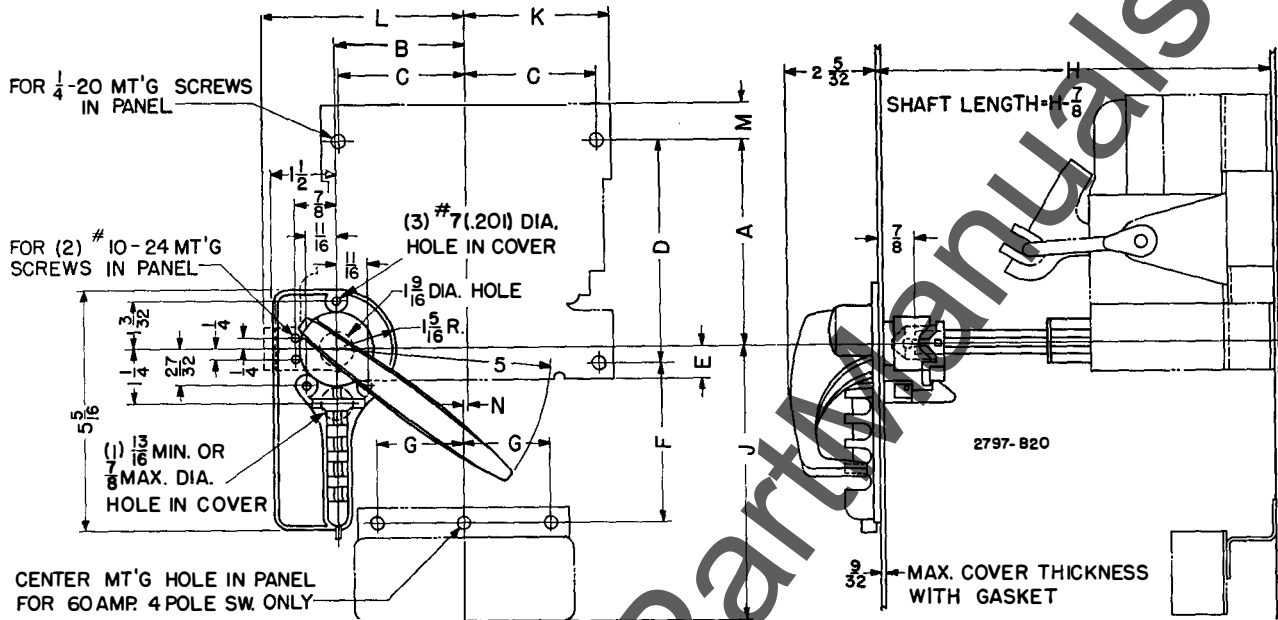
Electrical interlocks can be factory installed. Specify form Y74 for addition of 1 N.O.-1 N.C. SPDT interlock and Form Y75 for addition of 2 N.O.-2 N.C. 2PDT interlock. Add \$11 for Form Y74, and \$22 for Form Y75. Electrical interlocks cannot be field added.

ORDERING INFORMATION REQUIRED
 Class and type number



HEAVY DUTY DISCONNECT SWITCHES WITH DOOR MOUNTED OPERATING MECHANISM

For Switches with 30 or 60 Ampere Blades
 (See Page 105 for Switches with 100 or 200 Ampere Blades)



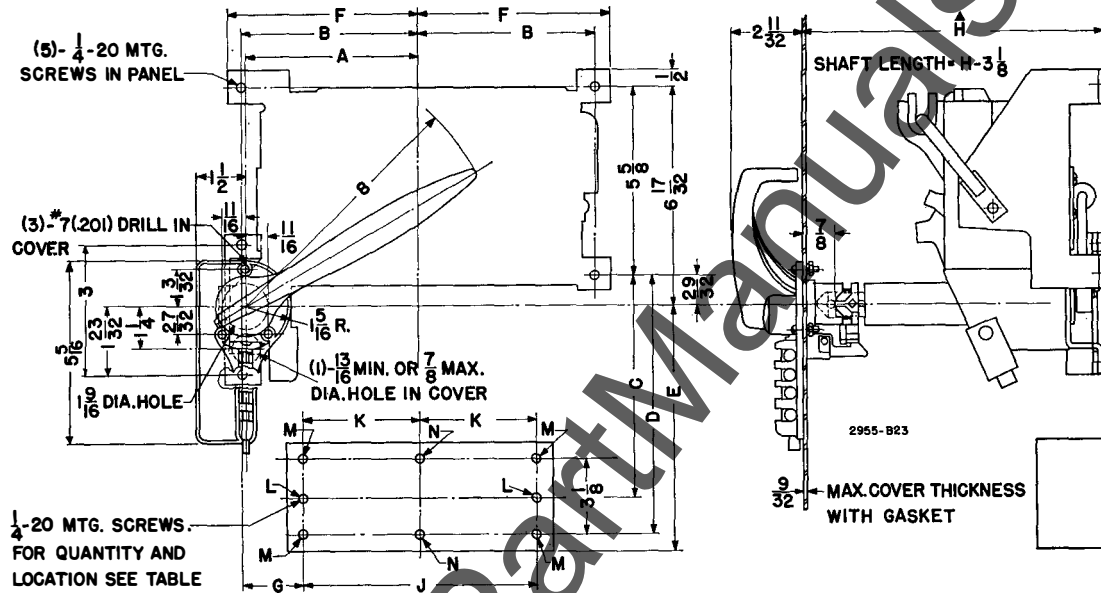
| No. of Poles | Description and Maximum Voltage | Ampere Rating | | Class 9421 Type | Drilling and Outline Dimensions | | | | | | | | | | | | | | |
|----------------------|---------------------------------------|---------------------------------------|------------|-----------------|---------------------------------|---------|---------|-------|-------|---------|---------|-------|-------|---------|---------|---------|---------|------|-----|
| | | Switch | Fuse Clips | | A | B | C | D | E | F | G | H ▲ | | J | K | L | M | N | |
| | | | | | Min. | Max. | | | | | | | | | | | | | |
| 3 | Non-Fusible 600 V. ac 250 V. dc | 30 | ... | G-100C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 5/8 | ... | ... | 6 3/8 | 14 | ... | 2 15/16 | 4 3/8 | 3/8 | ... | |
| | | 60 | ... | G-101C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | ... | ... | 6 7/8 | 14 | ... | 3 3/8 | 4 23/32 | 3/8 | ... | |
| | Fusible 250 V. ac 250 V. dc | 30 | 30 | G-102C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 1/2 | ... | ... | 6 3/8 | 14 | ... | 2 15/16 | 4 3/8 | 3/8 | ... | |
| | | 30 | 60 | G-103C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 1/2 | 1 15/16 | 1 1/2 | 6 3/8 | 14 | 2 27/64 | 2 15/16 | 4 3/8 | 3/8 | ... | |
| | | 60 | 60 | G-108C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 1 7/8 | 2 | 6 7/8 | 14 | 2 11/16 | 3 3/8 | 4 23/32 | 3/8 | ... | |
| | | 60 | 100 | G-105C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 4 3/4 | 2 | 6 7/8 | 14 | 5 9/16 | 3 3/8 | 4 23/32 | 3/8 | ... | |
| | | Fusible 600 V. ac | 30 | 30 | G-108C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 1 15/16 | 1 1/2 | 6 3/8 | 14 | 4 3/32 | 2 15/16 | 4 3/8 | 3/8 | ... |
| | | | 30 | 60 | G-115C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 1/2 | 2 3/16 | 1 1/2 | 6 3/8 | 14 | 4 13/32 | 2 15/16 | 4 3/8 | 3/8 | ... |
| | 4 | Non-Fusible 600 V. ac 250 V. dc | 30 | ... | G-200C | 4 1/4 | 3 7/8 | 3 7/8 | 4 3/8 | 2 5/8 | ... | ... | 6 3/8 | 14 | ... | 4 3/16 | 5 17/32 | 3/8 | ... |
| | | | 60 | ... | G-201C | 4 3/4 | 4 11/16 | 4 5/8 | 5 1/8 | 2 5/8 | ... | ... | 6 7/8 | 14 | ... | 5 | 6 11/32 | 3/8 | ... |
| | | Fusible 250 V. ac 250 V. dc | 30 | 30 | G-202C | 4 1/4 | 3 7/8 | 3 7/8 | 4 3/8 | 2 1/2 | ... | ... | 6 3/8 | 14 | ... | 4 3/16 | 5 17/32 | 3/8 | ... |
| | | | 30 | 60 | G-209C | 4 1/4 | 3 7/8 | 3 7/8 | 4 3/8 | 2 5/8 | 1 15/16 | 2 1/2 | 6 3/8 | 14 | 2 27/64 | 4 3/16 | 5 17/32 | 3/8 | ... |
| 60 | | | 60 | G-208C | 4 3/4 | 4 11/16 | 4 5/8 | 5 1/8 | 2 5/8 | 1 7/8 | 3 13/16 | 6 7/8 | 14 | 2 11/16 | 5 | 6 11/32 | 3/8 | 1/16 | |
| 60 | | | 100 | G-205C | 4 3/4 | 4 11/16 | 4 5/8 | 5 1/8 | 2 5/8 | 4 3/4 | 3 13/16 | 6 7/8 | 14 | 5 9/16 | 5 | 6 11/32 | 3/8 | 1/16 | |
| Fusible 600 V. ac | | | 30 | 30 | G-209C | 4 1/4 | 3 7/8 | 3 7/8 | 4 3/8 | 2 5/8 | 1 11/16 | 2 1/2 | 6 3/8 | 14 | 4 3/32 | 4 3/16 | 5 17/32 | 3/8 | ... |
| | | | 30 | 60 | G-216C | 4 1/4 | 3 7/8 | 3 7/8 | 4 3/8 | 2 5/8 | 2 3/16 | 2 1/2 | 6 3/8 | 14 | 4 19/32 | 4 3/16 | 5 17/32 | 3/8 | ... |
| Fusible 600 V. ac | | 60 | 30 | G-208C | 4 3/4 | 4 11/16 | 4 5/8 | 5 1/8 | 2 5/8 | 4 | 3 13/16 | 6 7/8 | 14 | 4 13/16 | 5 | 6 11/32 | 3/8 | 1/16 | |
| | | 60 | 60 | G-206C | 4 3/4 | 4 11/16 | 4 5/8 | 5 1/8 | 2 5/8 | 4 1/2 | 3 13/16 | 6 7/8 | 14 | 5 9/16 | 5 | 6 11/32 | 3/8 | 1/16 | |
| | | 60 | 100 | G-205C | 4 3/4 | 4 11/16 | 4 5/8 | 5 1/8 | 2 5/8 | 4 1/2 | 3 13/16 | 6 7/8 | 14 | 7 | 5 | 6 11/32 | 3/8 | 1/16 | |
| | | | | G-205C | 4 3/4 | 4 11/16 | 4 5/8 | 5 1/8 | 2 5/8 | 4 1/2 | 3 13/16 | 6 7/8 | 14 | 7 | 5 | 6 11/32 | 3/8 | 1/16 | |

Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.



HEAVY DUTY DISCONNECT SWITCHES WITH DOOR MOUNTED OPERATING MECHANISM

For Switches with 100 or 200 Ampere Blades
 (See Page 104 for Switches with 30 or 60 Ampere Blades)



| No. of Poles | Description and Maximum Voltage | Ampere Rating | | Class 9421 Type | Drilling and Outline Dimensions | | | | | | | | | | No. of Screws | | | | |
|-----------------------------------|---------------------------------------|---------------------------------------|------------|-----------------|---------------------------------|---------|---------|----------|----------|---------|---------|-------|----------|---------|---------------|-----|-----|-----|-----|
| | | Switch | Fuse Clips | | A | B | C | D | E | F | G | H ▲ | | J | K | L | M | N | |
| | | Min. | Max. | | | | | | | | | | | | | | | | |
| 3 | Non-Fusible 600 V. ac 250 V. dc | 100 | ... | G-109C | 5 1/4 | 5 3/8 | ... | ... | ... | 5 3/4 | ... | 7 3/8 | 14 | ... | ... | ... | ... | ... | |
| | | 200 | ... | G-110C | 5 3/8 | 5 7/8 | ... | ... | ... | 6 1/8 | ... | 8 3/8 | 14 | ... | ... | ... | ... | ... | |
| | Fusible 250 V. ac 250 V. dc | 100 | 100 | G-111C | 5 1/4 | 5 3/8 | 3 1/16 | ... | 3 25/32 | 5 3/4 | 1 13/16 | 7 7/8 | 14 | 8 3/4 | ... | 2 | ... | ... | |
| | | 100 | 200 | G-112C | 5 1/4 | 5 3/8 | 5 11/16 | ... | 6 1 1/2 | 5 3/4 | 2 3/8 | 7 7/8 | 14 | 8 3/4 | ... | 2 | ... | ... | |
| | | 200 | 200 | G-113C | 5 25/32 | 5 29/32 | 5 | ... | 5 27/32 | 6 3/8 | 1 13/16 | 8 3/8 | 14 | 9 3/8 | ... | 2 | ... | ... | |
| | | 200 | 400 | G-114C | 6 1 1/8 | 6 1 3/8 | ... | 9 3/8 | 10 1 1/8 | 6 2 1/8 | 2 35/64 | 8 3/8 | 14 | 10 1/4 | ... | 4 | ... | ... | |
| | Fusible 600 V. ac | 100 | 100 | G-111C | 5 1/4 | 5 3/8 | 5 1/16 | ... | 5 25/32 | 5 3/4 | 1 13/16 | 7 7/8 | 14 | 8 3/4 | ... | 2 | ... | ... | |
| | | 100 | 200 | G-112C | 5 1/4 | 5 3/8 | 8 3/16 | ... | 9 1/2 | 5 3/4 | 2 3/8 | 7 7/8 | 14 | 8 3/4 | ... | 2 | ... | ... | |
| | | 200 | 200 | G-113C | 5 25/32 | 5 29/32 | 7 1/2 | ... | 8 1 1/2 | 6 3/8 | 1 13/16 | 8 3/8 | 14 | 9 3/8 | ... | 2 | ... | ... | |
| | | 200 | 400 | G-114C | 6 1 1/8 | 6 1 3/8 | ... | 12 3/8 | 13 1 1/8 | 6 2 1/8 | 2 35/64 | 8 3/8 | 14 | 10 1/4 | ... | 4 | ... | ... | |
| | | Non-Fusible 600 V. ac 250 V. dc | 100 | ... | G-210C | 6 25/32 | 6 27/32 | ... | ... | ... | 7 1/8 | ... | 7 7/8 | 14 | ... | ... | ... | ... | ... |
| | | | 200 | ... | G-211C | 7 1/8 | 7 13/8 | ... | ... | ... | 7 25/32 | ... | 8 3/8 | 14 | ... | ... | ... | ... | ... |
| Fusible 250 V. ac 250 V. dc | 100 | | 100 | G-212C | 6 25/32 | 6 27/32 | 3 1/16 | ... | 3 25/32 | 7 1/8 | 1 13/16 | 7 7/8 | 14 | 11 3/16 | ... | 2 | ... | ... | |
| | 100 | | 200 | G-213C | 6 25/32 | 6 27/32 | 5 11/16 | ... | 6 1 1/2 | 7 1/8 | 2 3/8 | 7 7/8 | 14 | 11 3/16 | ... | 2 | ... | ... | |
| Fusible 600 V. ac | 200 | 200 | G-214C | 7 3/8 | 7 13/8 | 5 | ... | 5 27/32 | 7 25/32 | 1 13/16 | 8 3/8 | 14 | 12 5/8 | ... | 2 | ... | ... | | |
| | 200 | 400 | G-215C | 8 3/8 | 8 1/4 | ... | 9 3/8 | 10 1 1/8 | 8 3/8 | 2 35/64 | 8 3/8 | 14 | 13 13/16 | 6 25/32 | ... | 4 | 2 | | |
| | 100 | 100 | G-212C | 6 25/32 | 6 27/32 | 5 1/16 | ... | 5 25/32 | 7 1/8 | 1 13/16 | 7 7/8 | 14 | 11 3/16 | ... | 2 | ... | ... | | |
| | 100 | 200 | G-213C | 6 25/32 | 6 27/32 | 8 3/16 | ... | 9 1/8 | 7 1/8 | 2 3/8 | 7 7/8 | 14 | 11 3/16 | ... | 2 | ... | ... | | |
| | 200 | 200 | G-214C | 7 3/8 | 7 13/8 | 7 1/4 | ... | 8 1 1/8 | 7 25/32 | 1 13/16 | 8 3/8 | 14 | 12 5/8 | ... | 2 | ... | ... | | |
| | 200 | 400 | G-215C | 8 3/8 | 8 1/4 | ... | 12 3/8 | 13 1 1/8 | 8 3/8 | 2 35/64 | 8 3/8 | 14 | 13 13/16 | 6 25/32 | ... | 4 | 2 | | |

▲ Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.

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OPERATING MECHANISMS

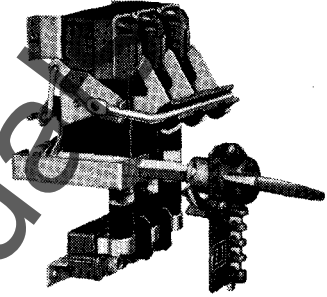
DOOR MOUNTED, VARIABLE DEPTH CONSTRUCTION FOR DISCONNECT SWITCHES AND CIRCUIT BREAKERS

CLASS 9421

DISCONNECT SWITCHES

30 thru 200 ampere—Kits contain switch and mechanism, all mounting hardware, and external handle—NEMA 12.

| Disc. Sw. Size | Mtg. † Depth Range Min.-Max. | Maximum HP Ratings▲ | | | | Fuse Clip Rating (Amperes)Ⓞ | 3-Pole | | |
|----------------|------------------------------|--------------------------|------------|------------|------------------------------|-----------------------------|--------|-------|--------|
| | | AC Polyphase 600 V. Max. | | | DC Using 2-Poles 250 V. Max. | | Type | Price | |
| | | 208-220 V. | 440-480 V. | 550-600 V. | | | | | |
| 30 Amp. | 6 3/8"-14 | 7 1/2 | 15 | 20 | 5 | Non-Fusible | | G100C | \$ 60. |
| | | | | | | 250 V. | 600 V. | G102C | 66. |
| | | | | | | 30 | 30 | G103C | 70. |
| 60 Amp. | 6 3/8"-14 | 15 | 30 | 40 | 10 | Non-Fusible | | G101C | 78. |
| | | | | | | 60 | 30 | G108C | 88. |
| | | | | | | 60 | 60 | G106C | 92. |
| 100 Amp. | 7 7/8"-14 | 30 | 50 | 50 | 20 | Non-Fusible | | G109C | 128. |
| | | | | | | 100 | 100 | G111C | 146. |
| | | | | | | 200 | 200 | G112C | 187. |
| 200 Amp. | 8 3/8"-14 | 50 | 125 | 100 | 40 | Non-Fusible | | G110C | 186. |
| | | | | | | 200 | 200 | G113C | 220. |



(Fuses Not Included)

†Depth measured from switch mounting surface to outside surface of enclosure door (inches).
 ⓄFuse clips are non-interchangeable type.
 ▲Refers to rating of switch only. Ratings given apply to 3-pole switches, and 4-pole switches when used on 2-phase, four wire systems.

LINE LUG DATA

| Disconnect Switch Size | Wire Size | |
|------------------------|-------------------------|---------|
| | Minimum | Maximum |
| 30 Ampere | #14- #2 Cu, #10- #2 AL | |
| 60 Ampere | #14- #2 Cu, #10- #2 AL | |
| 100 Ampere | #10- #00 Cu, #6- #00 AL | |
| 200 Ampere | #6-300 MCM, Cu or AL | |

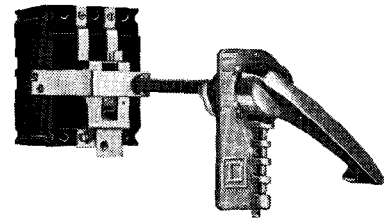
MODIFICATIONS

Electrical interlocks can be supplied by the factory only. Specify Form Y74-3 for addition of 1 SPDT contact on the shaft of disconnect switch and specify Form Y75-2 for the addition of 1 DPDT on the shaft of the disconnect switch. Add \$22. for Form Y74-3 and \$44. for Form Y75-2.

CIRCUIT BREAKER OPERATING MECHANISMS

Kits include the internal mechanism, external handle, and mounting hardware — NEMA 12 (Note: Circuit breakers are not included in kits.)

| Use With | | Operating Mechanism | | | |
|-----------------------------|--------------|---------------------|----------------------------------|------|-------|
| Breaker or Interrupter Type | No. of Poles | Frame Size (Amps.) | Mounting Depth ‡ Range Min.-Max. | Type | Price |
| FAL | 2-3 | 100 | 6 1/8"-14 | FN-1 | \$30. |
| KAL | 2-3 | 225 | 6 1/2"-14 | FP-1 | 36. |
| LAL | 2-3 | 400 | 7 5/8"-14 | FR-1 | 42. |
| MAL | 2-3 | 1000 | 8 3/8"-14 | FT-1 | 46. |



Type FN-1 (Breaker Not Included)

‡Depth measured from breaker mounting surface to outside of enclosure door (inches).

MODIFICATIONS

Electrical interlocks for Class 9421 circuit breaker operating mechanisms:

- Single Pole Double Throw Class 9999 Type R18 — \$15.
- Two Pole Double Throw Class 9999 Type R19 — \$29.

| Kit | Instruction Sheet |
|-----------|-------------------|
| 9421 FN-1 | 30072-300-18 |
| 9421 FP-1 | 30072-300-21 |
| 9421 FR-1 | 30072-300-41 |
| 9421 FT-1 | 30072-303-05 |

ORDERING INFORMATION REQUIRED

1. Class and type number of operating mechanism.
2. Order circuit breaker from Pages 54, 55 or 58, 59.

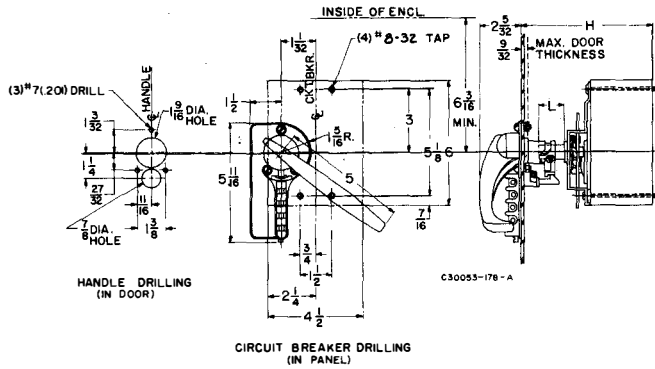


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OPERATING MECHANISMS DOOR MOUNTED — FOR USE WITH SQUARE D CIRCUIT BREAKERS

CLASS
9421

OUTLINE DIMENSIONS



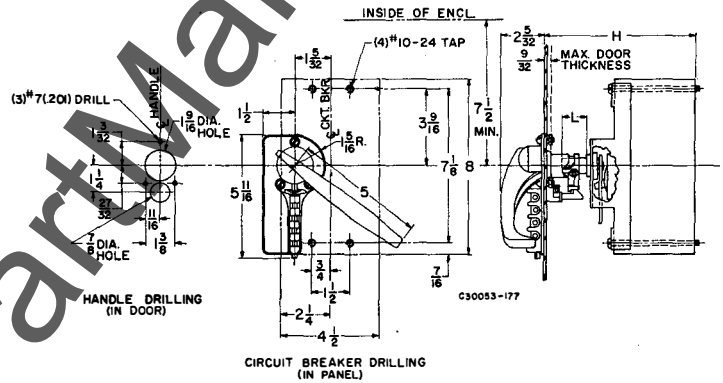
FOR FAL CIRCUIT BREAKERS AND MOLDED CASE SWITCHES

| Class | Type | To Find "L" | H▲ | |
|-------|------|-------------------------|----------------|------|
| | | | Min. | Max. |
| 9421 | FN-1 | $L = H - 5\frac{1}{16}$ | $6\frac{1}{8}$ | 14 |

FOR KAL CIRCUIT BREAKERS AND MOLDED CASE SWITCHES

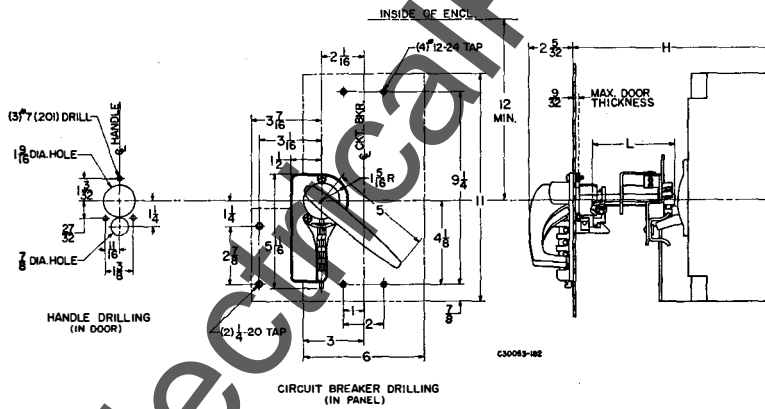
Note: Thread forming screws are supplied for mounting the circuit breaker to the panel. Use a #17 (.173 dia.) drill for the four (4) panel mounting holes. Tap as shown if desired.

| To Find "L" | H▲ | |
|------------------------|----------------|------|
| | Min. | Max. |
| $L = H - 5\frac{1}{8}$ | $6\frac{1}{2}$ | 14 |



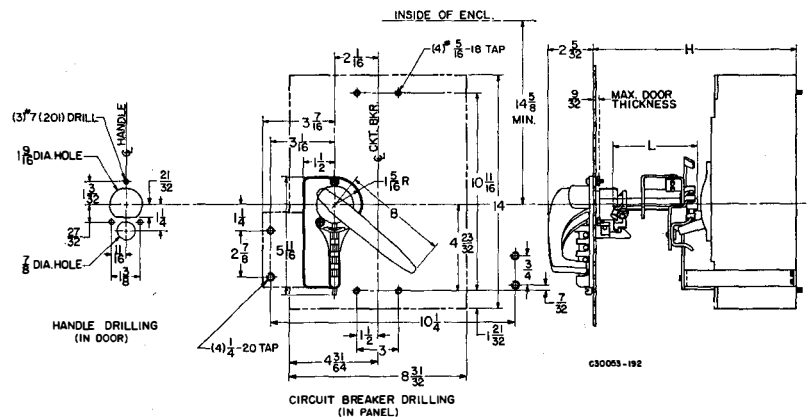
FOR LAL CIRCUIT BREAKERS AND MOLDED CASE SWITCHES

| To Find "L" | H▲ | |
|-------------------------|----------------|------|
| | Min. | Max. |
| $L = H - 5\frac{1}{16}$ | $7\frac{7}{8}$ | 14 |



FOR MAL CIRCUIT BREAKERS AND MOLDED CASE SWITCHES

| To Find "L" | H▲ | |
|-------------------------|----------------|------|
| | Min. | Max. |
| $L = H - 6\frac{1}{16}$ | $8\frac{3}{8}$ | 14 |



▲ Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.

12/77

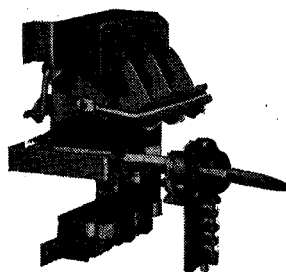
SQUARE D COMPANY

9421-2

OPERATING MECHANISMS

DOOR MOUNTED — HEAVY DUTY DISCONNECT SWITCHES

CLASS
9421



Type
G103-C

Disconnect Switches—30 thru 200 ampere—Kits contain switch and mechanism, all mounting hardware, and external handle—NEMA 1, 3, 3r, 4, 12.

| 600 V. AC MAX. | | 250 V. DC MAX. | | | | | | | | |
|----------------|------------------------------|---|-----------|-----------|-----------|-------------------------|---------------------------|--------|-----------------|--------|
| Disc. Sw. Size | Mtg. † Depth Range Min.-Max. | 3φ Maximum HP Ratings▲ | | | | DC Using 2-Poles 250 V. | Fuse Clip Rating AmperesⓄ | | 3-Pole | |
| | | AC Polyphase Motor Voltage (System Voltage) | | | | | 250 V. | 600 V. | Class 9421 Type | Price |
| | | 200 (208) | 230 (240) | 460 (480) | 575 (600) | | | | | |
| 30 Amp. | 6 3/8-14 | 5 | 7 1/2 | 15 | 20 | 5 | Non-Fusible | | G100C | \$ 60. |
| | | | | | | | 30 | — | G102C | 66. |
| | | | | | | | 60 | 30 | G103C | 70. |
| 60 Amp. | 6 7/8-14 | 10 | 15 | 30 | 40 | 10 | Non-Fusible | | G101C | 78. |
| | | | | | | | 60 | 30 | G108C | 88. |
| | | | | | | | 100 | 60 | G106C | 92. |
| 100 Amp. | 7 1/8-14 | 25 | 30 | 60 | 50 | 20 | Non-Fusible | | G109C | 128. |
| | | | | | | | 100 | 100 | G111C | 146. |
| | | | | | | | 200 | 200 | G112C | 192. |
| 200 Amp. | 8 3/8-14 | 40 | 60 | 60 | 60 | 40 | Non-Fusible | | G110C | 186. |
| | | | | | | | 200 | 200 | G113C | 220. |

† Depth measured from switch mounting surface to outside surface of enclosure door (inches).

Ⓞ Fuse clips are Class H non-interchangeable type.

▲ Refers to rating of switch only. Select switch size per NEC Article 430 Part I. Select fuse clip size per Article 430 Part II.

DESCRIPTION

The Class 9421 Disconnect Switches are designed to be used in control enclosures as main or branch circuit disconnect devices. They are designed to give the greatest possible operator protection and yet allow inspection of the electrical equipment without the necessity of machine shutdown. Some of the features built in to the disconnect switches are:

1. Padlock provisions in the "OFF" position with up to four padlocks.
2. An interlock latch which prevents opening the enclosure door with switch "ON". Defeater provisions are provided for authorized personnel.
3. Visible blade and dead front disconnect switch construction.

These disconnect switches consist basically of two assemblies: the switch and operating mechanism; and the external handle assembly. **INSTALLATION IS QUICK AND EASY.** Dimensional data is provided on the installat on instruction sheet MO 144 furnished with each kit.

LINE LUG DATA

| Disconnect Switch Size | Wire Size Minimum — Maximum |
|------------------------|-----------------------------|
| 30 Ampere | #14- #2 Cu, #10- #2 AL |
| 60 Ampere | #14- #2 Cu, #10- #2 AL |
| 100 Ampere | #10- #00 Cu, #6- #00 AL |
| 200 Ampere | #6-300 MCM, Cu or AL |

MODIFICATIONS

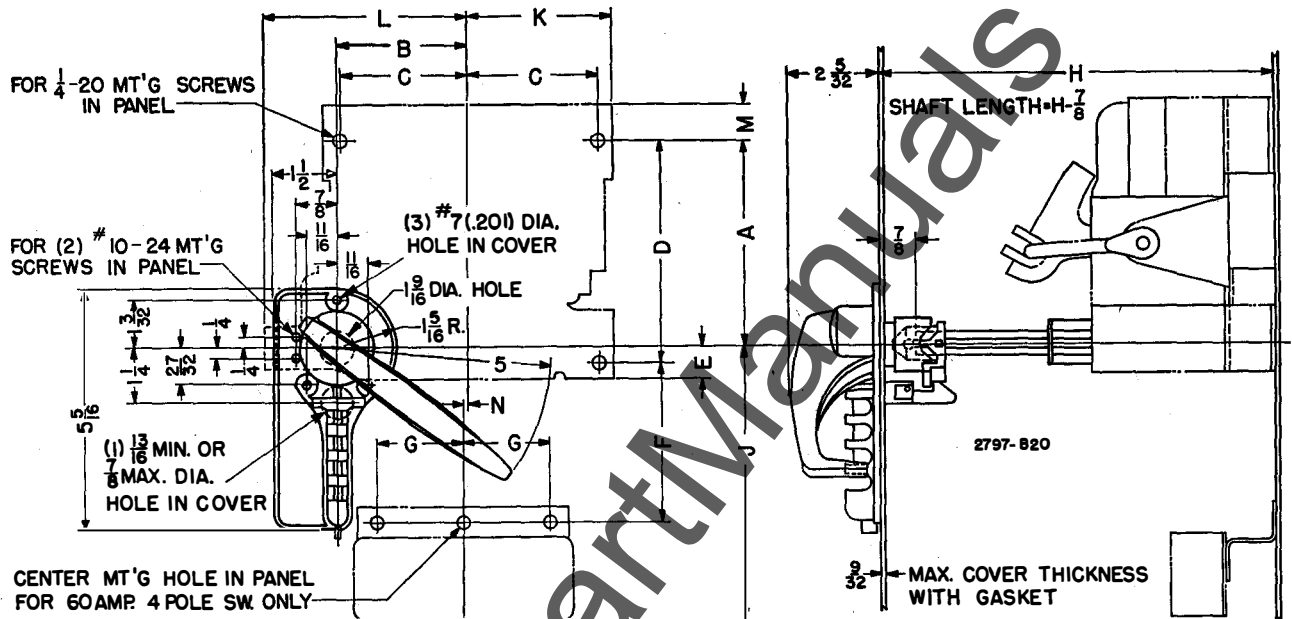
Electrical interlocks can be supplied by the factory only. Specify Form Y74-3 for addition of 1 SPDT contact on the shaft of disconnect switch and specify Form Y75-2 for the addition of 1 DPDT on the shaft of the disconnect switch. Add \$22. for Form Y74-3 and \$44. for Form Y75-2.

OPERATING MECHANISMS

DOOR MOUNTED — HEAVY DUTY DISCONNECT SWITCHES

CLASS
9421

For 30 or 60 Ampere Switches
(See Page 9421-5 for 100 or 200 Ampere Switches)



| No. of Poles | Description and Maximum Voltage | Ampere Rating | | Class 9421 Type | Drilling and Outline Dimensions | | | | | | | | | | | | | |
|--------------|---------------------------------------|---------------|------------|-----------------|---------------------------------|---------|-------|-------|-------|---------|---------|-------|----|---------|---------|---------|-----|------|
| | | Switch | Fuse Clips | | A | B | C | D | E | F | G | H ▲ | | J | K | L | M | N |
| | | | | | Min. | Max. | | | | | | | | | | | | |
| 3 | Non-Fusible 600 V. ac 250 V. dc | 30 | .... | G-100C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 5/8 | .... | .... | 6 3/8 | 14 | .... | 2 13/16 | 4 3/8 | 7/8 | .... |
| | | 60 | .... | G-101C | 4 1/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | .... | .... | 6 3/8 | 14 | .... | 3 3/8 | 4 23/32 | 7/8 | .... |
| | Fusible 250 V. ac 250 V. dc | 30 | 30 | G-102C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 1/2 | .... | .... | 6 3/8 | 14 | .... | 2 13/16 | 4 3/8 | 7/8 | .... |
| | | 30 | 60 | G-103C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 5/8 | 1 15/16 | 1 1/2 | 6 3/8 | 14 | 2 37/64 | 2 13/16 | 4 3/8 | 7/8 | .... |
| | | 60 | 60 | G-108C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 1 7/8 | 2 | 6 7/8 | 14 | 2 11/16 | 3 3/8 | 4 23/32 | 7/8 | .... |
| | | 60 | 100 | G-105C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 4 3/4 | 2 | 6 7/8 | 14 | 5 9/16 | 3 3/8 | 4 23/32 | 7/8 | .... |
| | Fusible 600 V. ac | 30 | 30 | G-103C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 5/8 | 1 11/16 | 1 1/2 | 6 3/8 | 14 | 4 3/8 | 2 13/16 | 4 3/8 | 7/8 | .... |
| | | 30 | 60 | G-115C | 4 1/4 | 2 3/8 | 2 3/8 | 4 3/8 | 2 5/8 | 2 3/16 | 1 1/2 | 6 3/8 | 14 | 4 19/32 | 2 13/16 | 4 3/8 | 7/8 | .... |
| | | 60 | 30 | G-108C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 4 | 2 | 6 7/8 | 14 | 4 13/16 | 3 3/8 | 4 23/32 | 7/8 | .... |
| | | 60 | 60 | G-106C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 4 1/2 | 2 | 6 7/8 | 14 | 5 5/8 | 3 3/8 | 4 23/32 | 7/8 | .... |
| | | 60 | 100 | G-105C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 4 1/2 | 2 | 6 7/8 | 14 | 7 | 3 3/8 | 4 23/32 | 7/8 | .... |
| | | 60 | 60 | G-106C | 4 3/4 | 3 1/8 | 3 | 5 1/8 | 2 5/8 | 4 1/2 | 2 | 6 7/8 | 14 | 5 5/8 | 3 3/8 | 4 23/32 | 7/8 | .... |
| 4 | Non-Fusible 600 V. ac 250 V. dc | 30 | .... | G-200C | 4 1/4 | 3 3/8 | 3 3/8 | 4 3/8 | 2 5/8 | .... | .... | 6 3/8 | 14 | .... | 4 3/16 | 5 11/32 | 7/8 | .... |
| | | 60 | .... | G-201C | 4 3/4 | 4 11/16 | 4 3/8 | 5 1/8 | 2 5/8 | .... | .... | 6 7/8 | 14 | .... | 5 | 6 11/32 | 7/8 | .... |
| | Fusible 250 V. ac 250 V. dc | 30 | 30 | G-202C | 4 1/4 | 3 3/8 | 3 3/8 | 4 3/8 | 2 1/2 | .... | .... | 6 3/8 | 14 | .... | 4 3/16 | 5 11/32 | 7/8 | .... |
| | | 30 | 60 | G-209C | 4 1/4 | 3 3/8 | 3 3/8 | 4 3/8 | 2 5/8 | 1 15/16 | 2 1/2 | 6 3/8 | 14 | 2 37/64 | 4 3/16 | 5 11/32 | 7/8 | .... |
| | | 60 | 60 | G-208C | 4 3/4 | 4 11/16 | 4 3/8 | 5 1/8 | 2 5/8 | 1 7/8 | 3 13/16 | 6 7/8 | 14 | 2 11/16 | 5 | 6 11/32 | 7/8 | 1/16 |
| | | 60 | 100 | G-205C | 4 3/4 | 4 11/16 | 4 3/8 | 5 1/8 | 2 5/8 | 4 3/4 | 3 13/16 | 6 7/8 | 14 | 5 9/16 | 5 | 6 11/32 | 7/8 | 1/16 |
| | Fusible 600 V. ac | 30 | 30 | G-209C | 4 1/4 | 3 3/8 | 3 3/8 | 4 3/8 | 2 5/8 | 1 11/16 | 2 1/2 | 6 3/8 | 14 | 4 3/8 | 4 3/16 | 5 11/32 | 7/8 | .... |
| | | 30 | 60 | G-216C | 4 1/4 | 3 3/8 | 3 3/8 | 4 3/8 | 2 5/8 | 2 3/16 | 2 1/2 | 6 3/8 | 14 | 4 19/32 | 4 3/8 | 5 11/32 | 7/8 | .... |
| | | 60 | 30 | G-208C | 4 3/4 | 4 11/16 | 4 3/8 | 5 1/8 | 2 5/8 | 4 | 3 13/16 | 6 7/8 | 14 | 4 13/16 | 5 | 6 11/32 | 7/8 | 1/16 |
| | | 60 | 60 | G-206C | 4 3/4 | 4 11/16 | 4 3/8 | 5 1/8 | 2 5/8 | 4 1/2 | 3 13/16 | 6 7/8 | 14 | 5 5/16 | 5 | 6 11/32 | 7/8 | 1/16 |
| | | 60 | 60 | G-206C | 4 3/4 | 4 11/16 | 4 3/8 | 5 1/8 | 2 5/8 | 4 1/2 | 3 13/16 | 6 7/8 | 14 | 5 5/16 | 5 | 6 11/32 | 7/8 | 1/16 |
| | | 60 | 100 | G-205C | 4 3/4 | 4 11/16 | 4 3/8 | 5 1/8 | 2 5/8 | 4 1/2 | 3 13/16 | 6 7/8 | 14 | 7 | 5 | 6 11/32 | 7/8 | 1/16 |

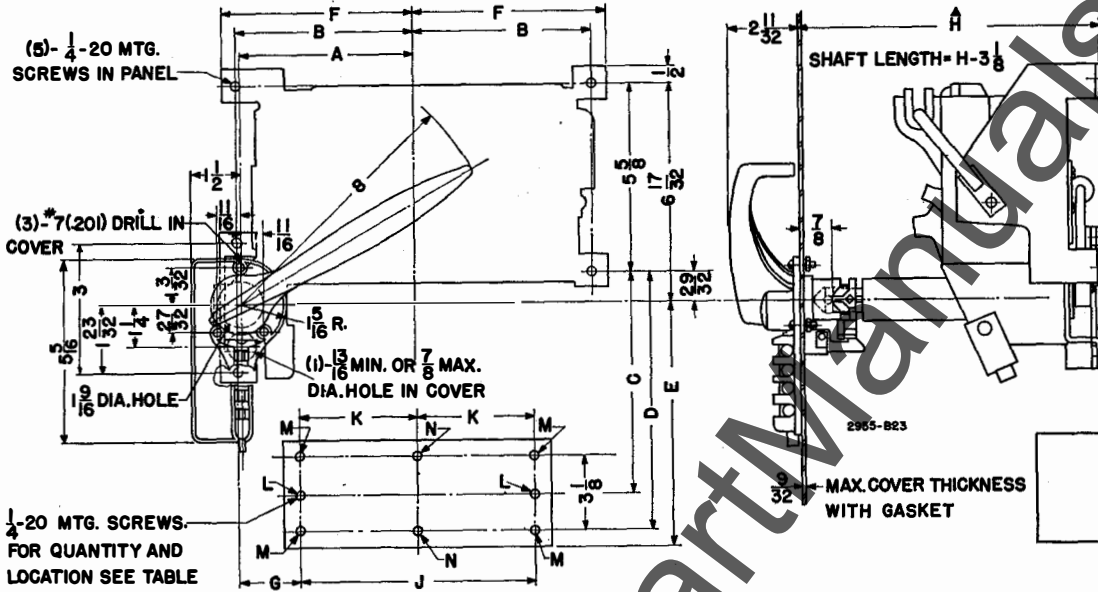
▲ Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.

OPERATING MECHANISMS

DOOR MOUNTED — HEAVY DUTY DISCONNECT SWITCHES

CLASS
9421

For 100 or 200 Ampere Switches
(See Page 9421-4 for 30 or 60 Ampere Switches)



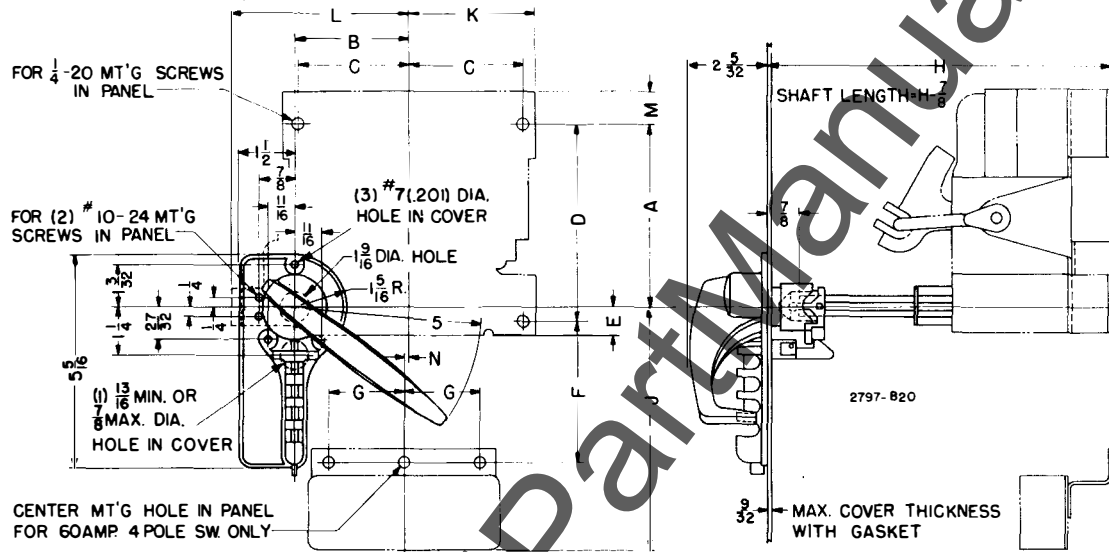
| No. of Poles | Description and Maximum Voltage | Ampere Rating | | Class 9421 Type | Drilling and Outline Dimensions | | | | | | | | | | | | | |
|-----------------------------------|---------------------------------------|---------------------------------------|------------|-----------------|---------------------------------|-------|---------|--------|--------|-------|--------|-------|-------|---------|-------|---------------|-----|-----|
| | | Switch | Fuse Clips | | A | B | C | D | E | F | G | H ▲ | | J | K | No. of Screws | | |
| | | | | | Min. | Max. | L | M | N | | | | | | | | | |
| 3 | Non-Fusible 600 V. ac 250 V. dc | 100 | ... | G-109C | 5 3/4 | 5 5/8 | ... | ... | ... | 5 3/4 | ... | 7 3/8 | 14 | ... | ... | ... | ... | ... |
| | | 200 | ... | G-110C | 5 3/8 | 5 3/4 | ... | ... | ... | 6 1/2 | ... | 8 3/8 | 14 | ... | ... | ... | ... | ... |
| | Fusible 250 V. ac 250 V. dc | 100 | 100 | G-111C | 5 3/4 | 5 5/8 | 3 1/16 | ... | 3 3/4 | 5 3/4 | 1 1/16 | 7 3/8 | 14 | 8 1/4 | ... | 2 | ... | ... |
| | | 100 | 200 | G-112C | 5 3/4 | 5 5/8 | 5 11/16 | ... | 6 1/2 | 5 3/4 | 2 3/8 | 7 3/8 | 14 | 8 1/4 | ... | 2 | ... | ... |
| | | 200 | 200 | G-113C | 5 3/8 | 5 3/4 | 5 | ... | 5 7/8 | 6 3/4 | 1 1/16 | 8 3/8 | 14 | 9 5/8 | ... | 2 | ... | ... |
| | | 200 | 400 | G-114C | 6 1/8 | 6 1/4 | ... | 9 3/8 | 10 1/2 | 6 7/8 | 2 3/4 | 8 3/8 | 14 | 10 1/4 | ... | 4 | ... | ... |
| | Fusible 600 V. ac | 100 | 100 | G-111C | 5 3/4 | 5 5/8 | 5 1/8 | ... | 5 3/4 | 5 3/4 | 1 1/16 | 7 3/8 | 14 | 8 1/4 | ... | 2 | ... | ... |
| | | 100 | 200 | G-112C | 5 3/4 | 5 5/8 | 8 3/8 | ... | 9 1/2 | 5 3/4 | 2 3/8 | 7 3/8 | 14 | 8 1/4 | ... | 2 | ... | ... |
| | | 200 | 200 | G-113C | 5 3/8 | 5 3/4 | 7 1/2 | ... | 8 1/2 | 6 3/4 | 1 1/16 | 8 3/8 | 14 | 9 5/8 | ... | 2 | ... | ... |
| | | 200 | 400 | G-114C | 6 1/8 | 6 1/4 | ... | 12 3/8 | 13 1/2 | 6 7/8 | 2 3/4 | 8 3/8 | 14 | 10 1/4 | ... | 4 | ... | ... |
| | 4 | Non-Fusible 600 V. ac 250 V. dc | 100 | ... | G-210C | 6 3/8 | 6 3/4 | ... | ... | ... | 7 1/2 | ... | 7 3/8 | 14 | ... | ... | ... | ... |
| | | | 200 | ... | G-211C | 7 3/8 | 7 1/2 | ... | ... | ... | 7 5/8 | ... | 8 3/8 | 14 | ... | ... | ... | ... |
| Fusible 250 V. ac 250 V. dc | | 100 | 100 | G-212C | 6 3/8 | 6 3/4 | 3 1/16 | ... | 3 3/4 | 7 1/2 | 1 1/16 | 7 3/8 | 14 | 11 3/16 | ... | 2 | ... | ... |
| | | 100 | 200 | G-213C | 6 3/8 | 6 3/4 | 5 11/16 | ... | 6 1/2 | 7 1/2 | 2 3/8 | 7 3/8 | 14 | 11 3/16 | ... | 2 | ... | ... |
| | | 200 | 200 | G-214C | 7 3/8 | 7 1/2 | 5 | ... | 5 7/8 | 7 3/4 | 1 1/16 | 8 3/8 | 14 | 12 3/8 | ... | 2 | ... | ... |
| | | 200 | 400 | G-215C | 8 3/8 | 8 3/4 | ... | 9 3/8 | 10 1/2 | 8 3/8 | 2 3/4 | 8 3/8 | 14 | 13 1/16 | 6 3/4 | ... | 4 | 2 |
| Fusible 600 V. ac | | 100 | 100 | G-212C | 6 3/8 | 6 3/4 | 5 1/8 | ... | 5 3/4 | 7 1/2 | 1 1/16 | 7 3/8 | 14 | 11 3/16 | ... | 2 | ... | ... |
| | | 100 | 200 | G-213C | 6 3/8 | 6 3/4 | 8 3/8 | ... | 9 1/2 | 7 1/2 | 2 3/8 | 7 3/8 | 14 | 11 3/16 | ... | 2 | ... | ... |
| | | 200 | 200 | G-214C | 7 3/8 | 7 1/2 | 7 1/2 | ... | 8 1/2 | 7 3/4 | 1 1/16 | 8 3/8 | 14 | 12 3/8 | ... | 2 | ... | ... |
| | | 200 | 400 | G-215C | 8 3/8 | 8 3/4 | ... | 12 3/8 | 13 1/2 | 8 3/8 | 2 3/4 | 8 3/8 | 14 | 13 1/16 | 6 3/4 | ... | 4 | 2 |

▲Dimensional limits shown for "H" are nominal values. A built-in adjustment allows actual enclosure depth "H" to be "H minimum" minus 1/4 inch to "H maximum" plus 1/4 inch.

INSTALLATION INSTRUCTIONS FOR CLASS 9421 TYPE G DISCONNECT SWITCHES

30, 60, 100 and 200 Ampere Blades

1. Drill and tap mounting panel. Drill cover and mount operating handle assembly. See drilling template and outline dimension drawing – for 30 and 60 ampere blade switches see below, for 100 and 200 ampere blade switches see reverse side of sheet.
2. Determine cabinet mounting depth ("H" on dimension drawings) and calculate length of shaft. Saw off shaft to length calculated (if necessary). Compensation of $\pm \frac{1}{4}$ " for cabinet depth variation can be made with the built-in adjustment of the shaft and shaft coupling engagement.
3. Mount switch mechanism on mounting panel. Install shaft coupling and tighten set screws with fingers. (Installation instructions continued on reverse side of sheet).



| No. of Poles | Class | Type | | | Description | Ampere Rating | | Drilling and Outline Dimensions | | | | | | | | | | | | | | |
|--------------|-------|-------------|------------|------------|---|---------------|-------------------------------|---------------------------------|--------------------------------|-------------------------------|--------------------------------|--------------------------------|---------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|----|
| | | Short Shaft | Med. Shaft | Long Shaft | | Switch | Clip | A | B | C | D | E | F | G | Short Shaft HA | Med. Shaft HA Max. | Long Shaft HA Max. | J | K | L | M | N |
| 3 | 9421 | G-100A | G-100B | G-100C | Non-Fusible 600 V. A.C. 250 V. D.C. | 30 | ... | 4 ⁷ / ₆₄ | 2 ⁵ / ₈ | 2 ⁵ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | ... | ... | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | ... | 2 ¹⁵ / ₁₆ | 4 ⁹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-101A | G-101B | G-101C | | 60 | ... | 4 ³ / ₄ | 3 ¹ / ₁₆ | 3 | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | ... | ... | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | ... | 3 ³ / ₈ | 4 ²³ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-102A | G-102B | G-102C | Fusible 250 V. A.C. 250 V. D.C. | 30 | 30 | 4 ⁷ / ₆₄ | 2 ⁵ / ₈ | 2 ⁵ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | ... | ... | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | ... | 2 ¹⁵ / ₁₆ | 4 ⁹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-103A | G-103B | G-103C | | 30 | 60 | 4 ⁷ / ₆₄ | 2 ⁵ / ₈ | 2 ⁵ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | 1 ¹¹ / ₁₆ | 1 ¹ / ₂ | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | 2 ³ / ₆₄ | 2 ¹⁵ / ₁₆ | 4 ⁹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-108A | G-108B | G-108C | 60 | 60 | 4 ³ / ₄ | 3 ¹ / ₁₆ | 3 | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 1 ⁷ / ₈ | 2 | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 2 ¹¹ / ₁₆ | 3 ³ / ₈ | 4 ²³ / ₃₂ | 7 ¹ / ₈ | .. | |
| | | G-105A | G-105B | G-105C | 60 | 100 | 4 ³ / ₄ | 3 ¹ / ₁₆ | 3 | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 4 ³ / ₄ | 2 | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 5 ⁵ / ₁₆ | 3 ³ / ₈ | 4 ²³ / ₃₂ | 7 ¹ / ₈ | .. | |
| | | G-103A | G-103B | G-103C | Fusible 600 V. A.C. | 30 | 30 | 4 ⁷ / ₆₄ | 2 ⁵ / ₈ | 2 ⁵ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | 1 ¹¹ / ₁₆ | 1 ¹ / ₂ | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | 4 ³ / ₂ | 2 ¹⁵ / ₁₆ | 4 ⁹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-115A | G-115B | G-115C | | 30 | 60 | 4 ⁷ / ₆₄ | 2 ⁵ / ₈ | 2 ⁵ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | 2 ³ / ₁₆ | 1 ¹ / ₂ | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | 4 ¹³ / ₃₂ | 2 ¹⁵ / ₁₆ | 4 ⁹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-108A | G-108B | G-108C | 60 | 30 | 4 ³ / ₄ | 3 ¹ / ₁₆ | 3 | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 4 | 2 | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 4 ¹³ / ₁₆ | 3 ³ / ₈ | 4 ²³ / ₃₂ | 7 ¹ / ₈ | .. | |
| | | G-106A | G-106B | G-106C | 60 | 60 | 4 ³ / ₄ | 3 ¹ / ₁₆ | 3 | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 4 ¹ / ₂ | 2 | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 5 ⁵ / ₁₆ | 3 ³ / ₈ | 4 ²³ / ₃₂ | 7 ¹ / ₈ | .. | |
| | | G-105A | G-105B | G-105C | 60 | 100 | 4 ³ / ₄ | 3 ¹ / ₁₆ | 3 | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 4 ¹ / ₂ | 2 | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 7 | 3 ³ / ₈ | 4 ²³ / ₃₂ | 7 ¹ / ₈ | .. | |
| 4 | 9421 | G-200A | G-200B | G-200C | Non-Fusible 600 V. A.C. 250 V. D.C. | 30 | ... | 4 ⁷ / ₆₄ | 3 ⁷ / ₈ | 3 ⁷ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | ... | ... | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | ... | 4 ³ / ₁₆ | 5 ¹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-201A | G-201B | G-201C | | 60 | ... | 4 ³ / ₄ | 4 ¹ / ₁₆ | 4 ⁵ / ₈ | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | ... | ... | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | ... | 5 | 6 ¹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-202A | G-202B | G-202C | Fusible 250 V. A.C. 250 V. D.C. | 30 | 30 | 4 ⁷ / ₆₄ | 3 ⁷ / ₈ | 3 ⁷ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | ... | ... | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | ... | 4 ³ / ₁₆ | 5 ¹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-209A | G-209B | G-209C | | 30 | 60 | 4 ⁷ / ₆₄ | 3 ⁷ / ₈ | 3 ⁷ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | 1 ¹¹ / ₁₆ | 2 ¹ / ₂ | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | 2 ³ / ₆₄ | 4 ³ / ₁₆ | 5 ¹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-208A | G-208B | G-208C | 60 | 60 | 4 ³ / ₄ | 4 ¹ / ₁₆ | 4 ⁵ / ₈ | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 1 ⁷ / ₈ | 3 ¹³ / ₁₆ | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 2 ¹¹ / ₁₆ | 5 | 6 ¹ / ₃₂ | 7 ¹ / ₈ | 1 ¹ / ₁₆ | |
| | | G-205A | G-205B | G-205C | 60 | 100 | 4 ³ / ₄ | 4 ¹ / ₁₆ | 4 ⁵ / ₈ | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 4 ³ / ₄ | 3 ¹³ / ₁₆ | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 5 ⁵ / ₁₆ | 5 | 6 ¹ / ₃₂ | 7 ¹ / ₈ | 1 ¹ / ₁₆ | |
| | | G-209A | G-209B | G-209C | Fusible 600 V. A.C. | 30 | 30 | 4 ⁷ / ₆₄ | 3 ⁷ / ₈ | 3 ⁷ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | 1 ¹¹ / ₁₆ | 2 ¹ / ₂ | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | 4 ³ / ₂ | 4 ³ / ₁₆ | 5 ¹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-216A | G-216B | G-216C | | 30 | 60 | 4 ⁷ / ₆₄ | 3 ⁷ / ₈ | 3 ⁷ / ₈ | 4 ³ / ₈ | 2 ⁵ / ₃₂ | 2 ³ / ₁₆ | 2 ¹ / ₂ | 6 ³ / ₈ | 9 ⁷ / ₈ | 14 | 4 ¹³ / ₃₂ | 4 ³ / ₁₆ | 5 ¹ / ₃₂ | 7 ¹ / ₈ | .. |
| | | G-208A | G-208B | G-208C | 60 | 30 | 4 ³ / ₄ | 4 ¹ / ₁₆ | 4 ⁵ / ₈ | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 4 | 3 ¹³ / ₁₆ | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 4 ¹³ / ₁₆ | 5 | 6 ¹ / ₃₂ | 7 ¹ / ₈ | 1 ¹ / ₁₆ | |
| | | G-206A | G-206B | G-206C | 60 | 60 | 4 ³ / ₄ | 4 ¹ / ₁₆ | 4 ⁵ / ₈ | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 4 ¹ / ₂ | 3 ¹³ / ₁₆ | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 5 ⁵ / ₁₆ | 5 | 6 ¹ / ₃₂ | 7 ¹ / ₈ | 1 ¹ / ₁₆ | |
| | | G-205A | G-205B | G-205C | 60 | 100 | 4 ³ / ₄ | 4 ¹ / ₁₆ | 4 ⁵ / ₈ | 5 ⁷ / ₈ | 2 ⁵ / ₃₂ | 4 ¹ / ₂ | 3 ¹³ / ₁₆ | 6 ⁷ / ₈ | 9 ⁷ / ₈ | 14 | 7 | 5 | 6 ¹ / ₃₂ | 7 ¹ / ₈ | 1 ¹ / ₁₆ | |

All switches have a built-in adjustment for "H" of plus or minus $\frac{1}{4}$ " to compensate for variations in depth between individual cabinets. The "H" dimension shown is nominal and can be varied plus or minus $\frac{1}{4}$ " with a given shaft length by using the built-in adjustment.

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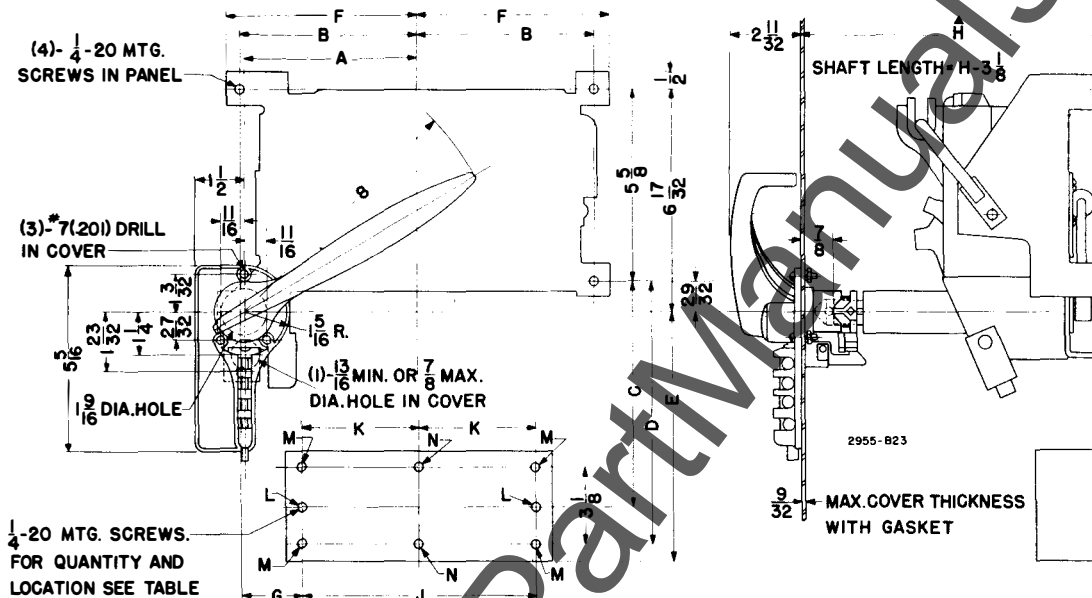
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4. If switch is fusible, mount lower fuse clip assembly below the disconnect switch in holes called for on the applicable drilling template. **Note:** Fuse block mounting bracket may be reversed to accommodate various fuse sizes.

NOTE: If switch is fused for 30 amperes, 250 volts, the lower fuse clip assembly will be mounted on the lower part of the disconnect switch at the factory and instructions under section 4 do not apply.

5. Close enclosure door and operate mechanism several times to be certain it operates without binding. Check the play between the handle latch and the shaft coupling. Play can be decreased by moving the coupling towards the disconnect switch; increased by moving the coupling away from the disconnect switch.
6. Tighten the set screw on the shaft coupling with pliers or wrench.



| No. of Poles | Class | Type | | | Description | Drilling and Outline Dimensions | | | | | | | | | | | | | | | | |
|--------------|--------|-------------|------------|------------|---|---------------------------------|---------|---------|---------|----------|---------|----------|---------|---------|----------------------------|--------------------------------|--------------------------------|---------|---------|---------------|-----|-----|
| | | Short Shaft | Med. Shaft | Long Shaft | | Ampere Rating | | A | B | C | D | E | F | G | Short Shaft H _A | Med. Shaft H _A Max. | Long Shaft H _A Max. | J | K | 1/4-20 Screws | | |
| | | | | | | Switch | Clip | | | | | | | | | | | | | L | M | N |
| 3 | 9421 | G-109A | G-109B | G-109C | Non-Fusible 600 V. A. C. 250 V. D. C. | 100 | ... | 5 3/4 | 5 3/8 | ... | ... | ... | 5 3/4 | ... | 7 7/8 | 9 1/8 | 14 | ... | ... | ... | ... | ... |
| | | G-110A | G-110B | G-110C | | 200 | ... | 5 25/32 | 5 29/32 | ... | ... | ... | 6 3/32 | ... | 8 3/8 | 9 1/8 | 14 | ... | ... | ... | ... | ... |
| | | G-111A | G-111B | G-111C | | 100 | 100 | 5 1/4 | 5 3/8 | 3 7/16 | ... | 3 25/32 | 5 3/4 | 1 13/16 | 7 7/8 | 9 1/8 | 14 | 8 3/4 | ... | 2 | ... | ... |
| | | G-112A | G-112B | G-112C | Fusible 250 V. A. C. 250 V. D. C. | 100 | 200 | 5 1/4 | 5 3/8 | 5 11/16 | ... | 6 17/32 | 5 3/4 | 2 3/8 | 7 7/8 | 9 1/8 | 14 | 8 3/4 | ... | 2 | ... | ... |
| | | G-113A | G-113B | G-113C | | 200 | 200 | 5 25/32 | 5 29/32 | 5 | ... | 5 27/32 | 6 3/32 | 1 13/16 | 8 3/8 | 9 1/8 | 14 | 9 5/8 | ... | 2 | ... | |
| | | G-114A | G-114B | G-114C | | 200 | 400 | 6 11/32 | 6 15/32 | ... | 9 9/16 | 10 11/32 | 6 27/32 | 2 35/64 | 8 3/8 | 9 1/8 | 14 | 10 1/4 | ... | 4 | ... | |
| | | G-111A | G-111B | G-111C | Fusible 600 V. A. C. | 100 | 100 | 5 1/4 | 5 3/8 | 5 7/16 | ... | 5 25/32 | 5 3/4 | 1 13/16 | 7 7/8 | 9 1/8 | 14 | 8 3/4 | ... | 2 | ... | |
| | | G-112A | G-112B | G-112C | | 100 | 200 | 5 1/4 | 5 3/8 | 8 3/16 | ... | 9 3/32 | 5 3/4 | 2 3/8 | 7 7/8 | 9 1/8 | 14 | 8 3/4 | ... | 2 | ... | |
| | | G-113A | G-113B | G-113C | | 200 | 300 | 5 25/32 | 5 29/32 | 7 1/2 | ... | 8 11/32 | 6 3/32 | 1 13/16 | 8 3/8 | 9 1/8 | 14 | 9 5/8 | ... | 2 | ... | |
| G-114A | G-114B | G-114C | 200 | 400 | | 6 11/32 | 6 15/32 | ... | 12 9/16 | 13 11/32 | 6 27/32 | 2 35/64 | 8 3/8 | 9 1/8 | 14 | 10 1/4 | ... | 4 | ... | | | |
| 4 | 9421 | G-210A | G-210B | G-210C | Non-Fusible 600 V. A. C. 250 V. D. C. | 100 | ... | 6 23/32 | 6 27/32 | ... | ... | ... | 7 7/32 | ... | 7 7/8 | 9 1/8 | 14 | ... | ... | ... | ... | |
| | | G-211A | G-211B | G-211C | | 200 | ... | 7 3/32 | 7 13/32 | ... | ... | ... | 7 25/32 | ... | 8 3/8 | 9 1/8 | 14 | ... | ... | ... | | |
| | | G-212A | G-212B | G-212C | | 100 | 100 | 6 23/32 | 6 27/32 | 3 7/16 | ... | 3 25/32 | 7 7/32 | 1 13/16 | 7 7/8 | 9 1/8 | 14 | 11 3/16 | ... | 2 | ... | |
| | | G-213A | G-213B | G-213C | Fusible 250 V. A. C. 250 V. D. C. | 100 | 200 | 6 23/32 | 6 27/32 | 5 11/16 | ... | 6 17/32 | 7 7/32 | 2 3/8 | 7 7/8 | 9 1/8 | 14 | 11 3/16 | ... | 2 | ... | |
| | | G-214A | G-214B | G-214C | | 200 | 200 | 7 3/32 | 7 13/32 | 5 | ... | 5 27/32 | 7 25/32 | 1 13/16 | 8 3/8 | 9 1/8 | 14 | 12 5/8 | ... | 2 | ... | |
| | | G-215A | G-215B | G-215C | | 200 | 400 | 8 1/8 | 8 1/4 | ... | 9 9/16 | 10 11/32 | 8 5/8 | 2 35/64 | 8 3/8 | 9 1/8 | 14 | 13 3/16 | 6 29/32 | 4 | 2 | |
| | | G-212A | G-212B | G-212C | Fusible 600 V. A. C. | 100 | 100 | 6 23/32 | 6 27/32 | 5 7/16 | ... | 5 25/32 | 7 7/32 | 1 13/16 | 7 7/8 | 9 1/8 | 14 | 11 3/16 | ... | 2 | ... | |
| | | G-213A | G-213B | G-213C | | 100 | 200 | 6 23/32 | 6 27/32 | 8 3/16 | ... | 9 3/32 | 7 7/32 | 2 3/8 | 7 7/8 | 9 1/8 | 14 | 11 3/16 | ... | 2 | ... | |
| | | G-214A | G-214B | G-214C | | 200 | 200 | 7 3/32 | 7 13/32 | 7 1/2 | ... | 8 11/32 | 7 25/32 | 1 13/16 | 8 3/8 | 9 1/8 | 14 | 12 5/8 | ... | 2 | ... | |
| G-215A | G-215B | G-215C | 200 | 400 | | 8 1/8 | 8 1/4 | ... | 12 9/16 | 13 11/32 | 8 5/8 | 2 35/64 | 8 3/8 | 9 1/8 | 14 | 13 3/16 | 6 29/32 | 4 | 2 | | | |

▲ All switches have a built in adjustment for "H" dimension of plus or minus 1/4" to compensate for variations in depth between individual cabinets. The "H" dimension shown above is nominal and with one exception can be varied plus or minus 1/4" by using the built in adjustment. The exception occurs with the short shaft on a cover thickness of more than 1/8". In that case the built in adjustment will have a plus variation of 1/4" and a minus variation equal to (3/8" minus cover thickness).