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Front-mounted narrow terminal kits on Magnum low voltage circuit breakers and cassettes

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Front-mounted narrow terminal kits on Magnum low voltage circuit breakers and cassettes

Required tools

• 3/8-inch socket drive (with torque measuring capability)
• 17 mm socket

Kit parts identification

Refer to Figure 1 for visual identification of the parts listed below for the different kits:

Kits # 2A10820

(A) Line terminal: G12, G13 (three) and G15, G16 (four)
(B) Load terminal: G12, G13 (three) and G15, G16 (four)
(C) Line terminal: G13 (three) and G16 (four)
(D) Load terminal: G13 (three) and G16 (four)
(E) Spacer: G12, G13 (six) and G15, G16 (eight)
(F) Terminal bracket: G12, G13 (two)
(G) Terminal bracket: G15, G16 (two)

Kits 2A10820G15 and G16

(I) M10 x 60 mm hex head bolt: G13 (six) and G16 (eight)
(l) M10 x 45 mm hex head bolt: G12 (18), G13 (12), G15 (24) and G16 (16)
(J) M10 flat washer: G12, G13 (18) and G15, G16 (48)
(K) M10 lock washer: G12, G13 (18) and G15, G16 (48)
(I) M10 hex nut: G12, G13 (18) and G15, G16 (24)

Section 1: General information

Front-mounted narrow terminal block kits are available for narrow frame fix-mounted circuit breakers and narrow frame drawout cassettes.

Kits 2A10820G12 and G13

Add front-mounted terminals to three-pole narrow frame breakers and cassettes (ANSI and IEC). G12 is used on 800–1250A units, G13 on 1600A ANSI units, and G13 on 1600–2000A IEC units.

Kits 2A10820G15 and G16

Add front-mounted terminals to four-pole narrow frame breakers and cassettes (ANSI and IEC). G15 is used on 800–1250A units, G16 on 1600A ANSI units, and G16 on 1600–2000A IEC units.
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Prior to installing a terminal kit, become familiar with the following information and illustration (Figure 2).

Kits for 800–1250A breakers and cassettes contain one conductor bar for each line and load conductor. The longer conductor bars are to be fastened to the top of the line (upper) conductors. The remaining (shorter) conductor bars are to be fastened to the bottom of the load (lower) conductors.

Kits for 1600–2000A breakers and cassettes contain two conductor bars for each line and load conductor. The longer conductor bars are to be fastened to the top of the line (upper) conductors. The remaining (shorter) conductor bars are to be fastened to the bottom of the load (lower) conductors.

Section 2: Installation of front-mounted terminal kit on fixed breaker

Step 1: Fasten the load conductors to the breaker load terminals using the hex bolts specified in the appropriate illustration with a spherical lock washer under the bolt head, and flat washers against the copper surfaces. Finger tighten only at this time.

Step 2: Fasten the terminal bracket across the load conductors using the hex bolts specified in the appropriate illustration with a spherical lock washer under the bolt head and flat washers against the copper surfaces. Finger tighten only at this time.

Step 3: Torque the hex bolts used in Step 1 to 40 ft-lbs (52 Nm).

Step 4: Fasten the line conductors to the breaker line conductors by repeating Steps 1 through 3. This completes the line and load connections.

Note: The spacers provided must be installed between the terminal brackets and the line and load conductors.

Section 3: Installation of front-mounted terminal kit on drawout cassette

To install the terminal kit, refer to the illustration provided. Also refer to Section 2 copy and the first two associated graphics for exact hardware identification and location for the specific ampere rating of the cassette. Proceed with the following four steps:

Step 1: Fasten the load conductors to the cassette load terminals using the hex bolts specified in the appropriate illustration with a spherical lock washer under the bolt head, and flat washers against the copper surfaces. Finger tighten only at this time.

Step 2: Fasten the terminal bracket across the load conductors using the hex bolts specified in the appropriate illustration with a spherical lock washer under the bolt head and flat washers against the mounting surfaces. Be certain to place insulating spacers between the terminal bracket and the load conductor. Torque the hex bolts to 40 ft-lbs (52 Nm).

Step 3: Torque the hex bolts used in Step 1 to 40 ft-lbs (52 Nm).

Step 4: Fasten the line conductors to the cassette line conductors by repeating Steps 1 through 3. This completes the line and load connections.

Note: The spacers provided must be installed between the terminal brackets and the line and load conductors.

Figure 1. Contents of Kits

Note: Dimensions in inches (millimeters)

Figure 2. Typical Four-Pole Narrow Frame Breaker

Figure 3. Steps 1–4: 2A10885G30 and G15 800–1250A

Figure 4. Steps 1–4: 2A10885G31 and G16 1600–2000A

Figure 5. Steps 1–4: Typical Three-Pole Narrow Cassette