

### 160 A, H-Frame

- IEC 60947-2
- CE
- KEMA
- CCC (3-pole)



160 A, H-Frame

### Interrupting Ratings

| Breaking Capacity (50 Hz)<br>$I_{cu} / I_{cs}$ [kA] |    |            |    |      |    |      |   | Interrupting Rating (60 Hz)<br>[kA] |      |          | Interrupt.<br>Rating @<br>380...415V |
|---|----|------------|----|------|----|------|---|-------------------------------------|------|----------|--------------------------------------|
| 220...240V  |    | 380...415V |    | 500V |    | 690V |   | 240V                                | 480V | 600/347V |                                      |
| 25  | 13 | 18         | 9  | —    | —  | —    | — | 25                                  | 14   | 10       | 18 kA                                |
| 35  | 18 | 25         | 25 | 22   | 17 | —    | — | 35                                  | 25   | 18       | 25 kA                                |
| 85  | 43 | 40         | 30 | 25   | 18 | 4    | 3 | 85                                  | 35   | 22       | 40 kA                                |
| 100   | 50 | 30         | 35 | 25   | 13 | 6    | 3 | 100                                 | 65   |          | 70 kA                                |

### Watt Loss

| Rated Current<br>$I_n$ [A] | Watt Loss [W] |        |                    |        |
|----------------------------|---------------|--------|--------------------|--------|
|                            | 3-Pole        | 4-Pole | Molded Case Switch |        |
|                            |               |        | 3-Pole             | 4-Pole |
| 15                         | 12            | 15     | —                  | —      |
| 20                         | 12            | 15     | —                  | —      |
| 25                         | 12            | 15     | —                  | —      |
| 30                         | 12            | 15     | —                  | —      |
| 35                         | 15            | 20     | —                  | —      |
| 40                         | 15            | 20     | —                  | —      |
| 45                         | 15            | 20     | —                  | —      |
| 50                         | 15            | 20     | —                  | —      |
| 60                         | 16            | 21     | —                  | —      |
| 70                         | 18            | 24     | —                  | —      |
| 80                         | 18            | 24     | —                  | —      |
| 90                         | 20            | 27     | —                  | —      |
| 100                        | 20            | 27     | —                  | —      |
| 110                        | 25            | 32     | —                  | —      |
| 125                        | 25            | 32     | —                  | —      |
| 160                        | 31            | 41     | 31                 | 41     |

# IEC Molded Case Circuit Breakers

## General Specifications

**160 A, H-Frame**

### Electrical Specifications

| Electrical Specifications — 160 A, H-Frame                                    |          |                          |
|---|----------|--------------------------|
| Max Rated Current $I_n$   | [A]      | 160                      |
| Frame Ratings   | [A]      | 160                      |
| No. of Poles  |          | 3, 4                     |
| Rated Insulation Voltage ( $U$ ) According to IEC 60947-2                     |          |                          |
| Main Poles  | [V]      | 500                      |
| Auxiliary Circuit   | [V]      | 690                      |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )                                 |          |                          |
| Main Conductors   | [kV]     | 6                        |
| Auxiliary Circuits  | [kV]     | 4                        |
| Rated Operational Voltage ( $U_p$ ) - AC                                      |          |                          |
| IEC (50 Hz)   | [V]      | 690                      |
| Standards Compliance  |          |                          |
| IEC 60947-2   |          | ✓                        |
| CCC   |          | ✓                        |
| KEMA  |          | ✓                        |
| Ambient Operating Temperature Range   |          |                          |
| +16...140 °F (-8.9...60 °C)   |          |                          |
| Permissible Ambient Temperature, Low Setting/High Setting Derating Factor (%) |          |                          |
| Molded Case Circuit Breaker   |          |                          |
| At 40 °C  |          | 100‡                     |
| At 50 °C  |          | 92                       |
| At 55 °C  |          | 87                       |
| At 60 °C  |          | 83                       |
| At 70 °C  |          | 73                       |
| Isolation Switch  |          |                          |
| At 40 °C  |          | 100                      |
| At 50 °C  |          | 100                      |
| At 55 °C  |          | 96                       |
| At 60 °C  |          | 81                       |
| At 70 °C  |          | 86                       |
| DC - Rated Short Circuit Breaking Capacity (kA)                               |          |                          |
| Time Constant < 8ms, non-inductive loads                                      |          |                          |
| 1 Pole  | 250V     | 10                       |
| 2 Poles in Series   | 440V     | 20                       |
| 3 Poles in Series   | 660V     | 20                       |
| Utilization Category  |          | A                        |
| Maximum Switching Frequency   | Ops/hour | 300                      |
| Power Loss  |          |                          |
| At maximum rated current ( $I_n$ ), 3-Phase Symmetrical Load                  |          |                          |
| Molded Case Circuit Breaker   | [W]      | 3-Pole: 31<br>4-Pole: 41 |
| Molded Case Switch  | [W]      | 3-Pole: 31<br>4-Pole: 41 |

‡ Fixed Thermal

### Auxiliary Circuit Specifications

| Auxiliary Circuit Specifications — 125 A, H-Frame |                 |             |
|---|-----------------|-------------|
| Internal Control Module Terminations              |                 |             |
| with Terminal Connections - Cable Size            |                 |             |
| Wire size range                                   | AWG             | —           |
|   | mm <sup>2</sup> | —           |
| with Supplied Leads                               |                 |             |
| Lead Length                                       | cm (in.)        | 122 (48)    |
| Wire size range                                   | AWG             | #18         |
|   | mm <sup>2</sup> | 0.82        |
| Tightening Torque                                 | Lb-in           | 7..12.4     |
|   | N•m             | 0.8..1.4    |
| Auxiliary & Alarm Contacts                        |                 |             |
| Rated Thermal Current - $I_{th}$                  | [A]             | 6           |
| Rated Making Capacities                           | [A]             | 20          |
| Rated Operational Current (AC15)                  |                 |             |
| 230V  | [A]             | 6           |
| 400V  | [A]             | 3           |
| 480V  | [A]             |             |
| 690V  | [A]             | 0.25 (600V) |
| Rated Operational Current (DC13)                  |                 |             |
| 24V   | [A]             | 6           |
| 125V  | [A]             | 0.5         |
| 240V  | [A]             | 0.15        |
| Back-up Protection (max rating)                   |                 |             |
| Fuses   | [A]             | 6/4/4       |
| Miniature Circuit Breakers                        | [A]             | 6/4         |

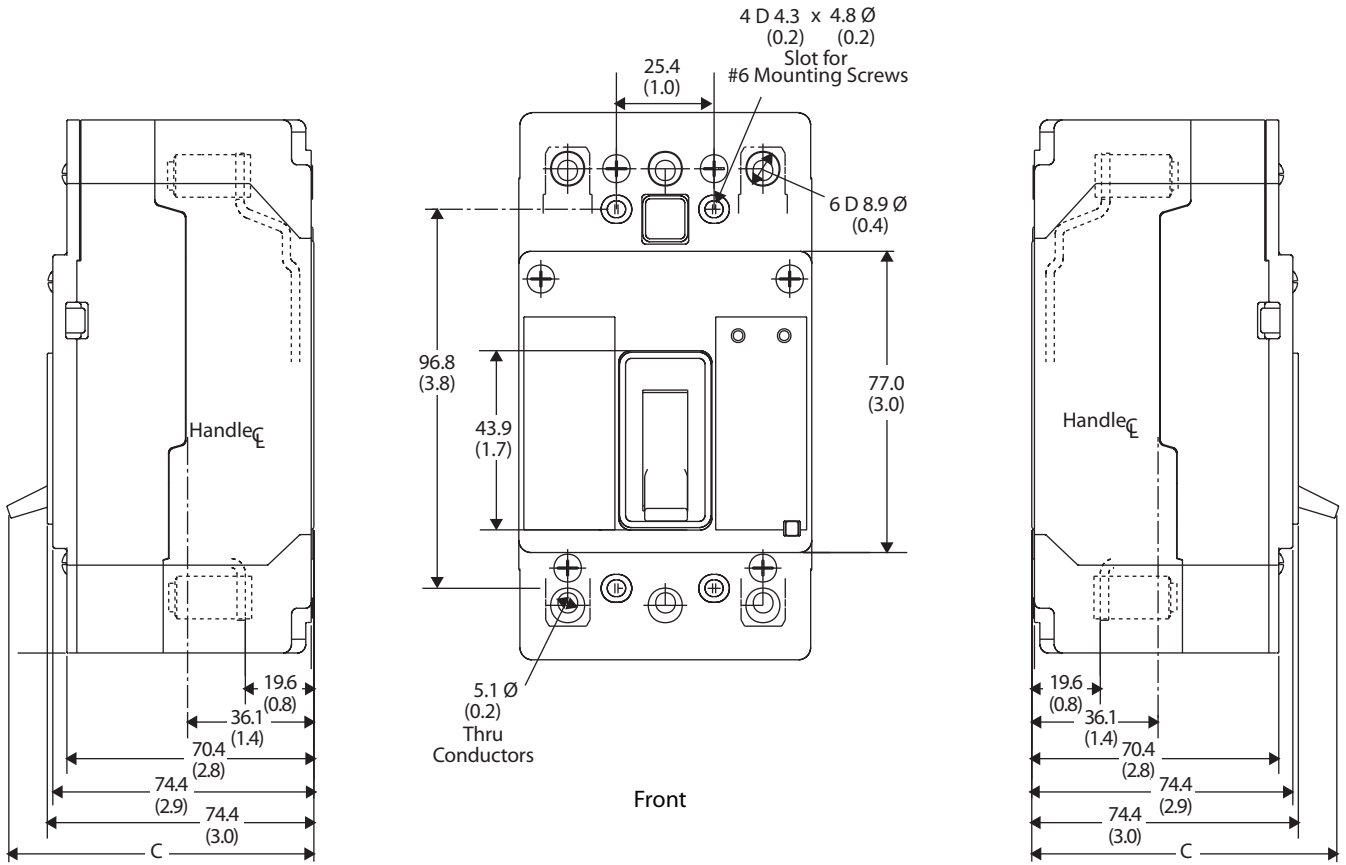


# IEC Molded Case Circuit Breakers

## General Specifications

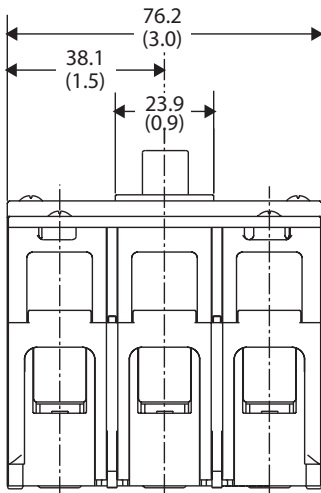
Dimensions are in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.

160 A, H-Frame



Right Side

Left Side



Top

| Breaker Status | Dimension     |               |               |               |               |
|----------------|---------------|---------------|---------------|---------------|---------------|
|                | A             | B             | C             | D             | E             |
| On             | 68.8<br>(2.7) | 64.3<br>(2.5) | 87.9<br>(3.5) | 71.9<br>(2.8) | 69.9<br>(2.7) |
| Off            | 39.1<br>(1.5) | 41.2<br>(1.6) | 87.9<br>(3.4) | 42.2<br>(1.7) | 46.7<br>(1.8) |
| Tripped        | 59.2<br>(2.3) | 56.6<br>(2.2) | 89.9<br>(3.5) | 67.5<br>(2.5) | 62.2<br>(2.5) |
| Reset          | 35.3<br>(1.4) | 37.9<br>(1.4) | 86.9<br>(3.4) | 38.6<br>(1.5) | 43.9<br>(1.7) |