

## QY-Series Miniature Circuit Breakers

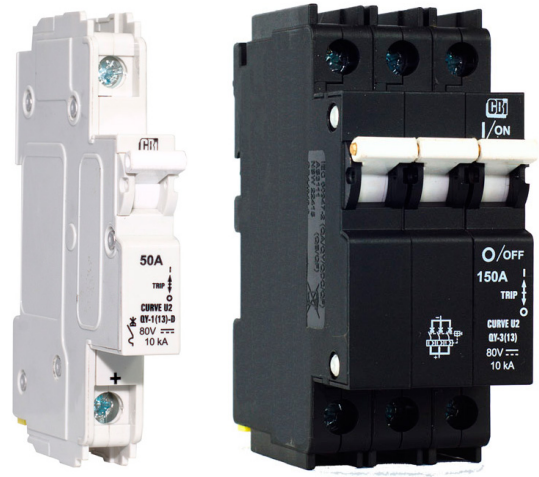
Very compact hydraulic magnetic circuit breaker for space-saving distributions and various forms of device protection. The CBI series QY frame consists of modular DC breakers in a rated current range of 0.5-200A with a 10kA breaking capacity. The QY frame circuit breakers are IEC, UL and CCC approved.

### Features

- DC Circuit Breaker
- Hydraulic-Magnetic Technology
- 100% Rating Capability Independent of Ambient Temperature
- Up to Two Poles (Four Poles Parallel)
- VDE, CE and CCC approved
- UL Listed (UL 489A)
- Ratings up to 200A
- Optional Auxiliary / Trip Alarm Switch
- Wide Range of Time Delays and Operating Currents
- Precision Tripping
- Ultra Compact – 13mm Width Module
- Trip Indication with Mid-Trip Handle
- Reset Immediately After Overload

### Applications

- DC branch circuit protection
- Telecommunication equipment
- UPS equipment
- Alternative energy equipment
- Battery protection & switching
- Telecommunication DC power distribution



### Technical Data

| Product Type                | Circuit Breaker   | Circuit Breaker |
|-----------------------------|---|-----------------|
| Approvals                   | UL 489A, IEC / EN 60947-2, VDE, CE, CCC                     | UL 489A         |
| Number of Poles             | 1, 2<br>2, 3, 4p parallel<br>2p series                      | 4p series       |
| Operating Voltages          | 80VDC, 125VDC, 250VDC                                       | 600VDC          |
| Minimum Current Rating      | 0.1A  | 0.5A            |
| Maximum Current Rating      | 200A  | 20A             |
| Interrupting Capacity       | 10kA  | 2.5kA           |
| Operating Temperature Range | -40°C - +85°C   |                 |
| Mounting Options            | DIN Rail, Dual Mounting (DIN & Mini), Surface Clip, Plug-in |                 |
| Tripping Curves             | 1, 9, U2, OP  |                 |

All specifications are subject to change without prior notice.

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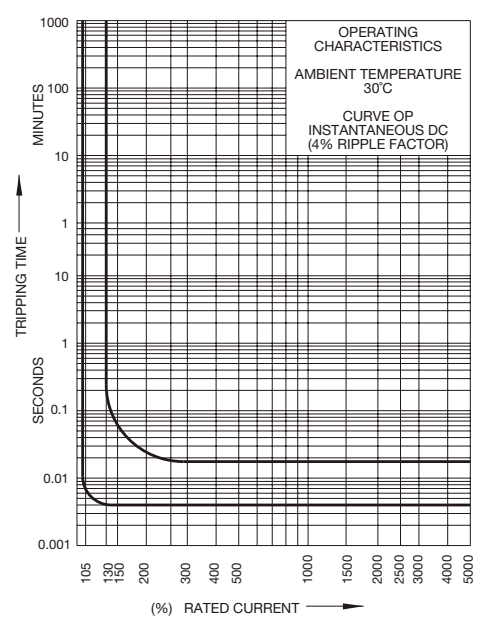
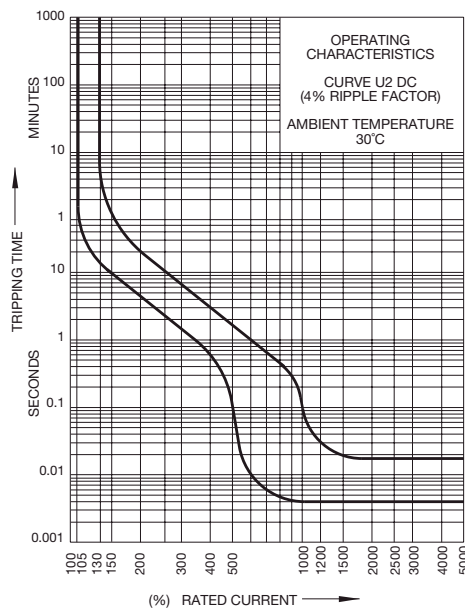
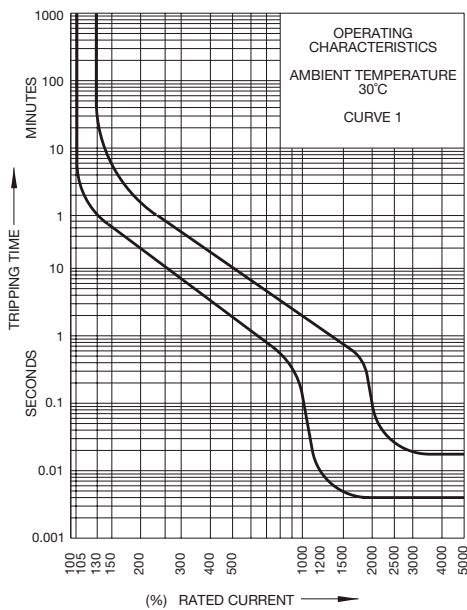
## Optional Accessories

- Auxiliary Switch
- Auxiliary Switch + Trip Alarm
- Trip Alarm
- Handle Lock
- Surface Mounting Clips
- Busbar
- 57mm Escutcheon Blank

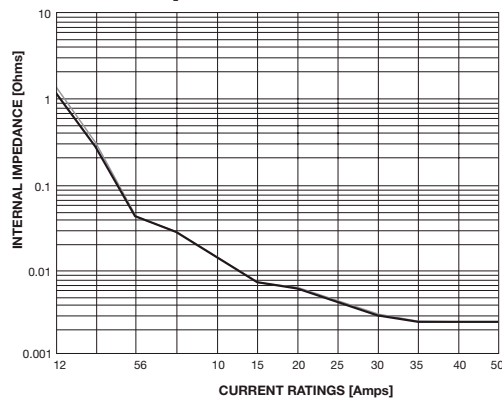
## Auxiliary Switch, Trip Alarm & Combo: Features

- AC and DC Voltages
- UL 489 Listed (Auxiliary switch: 6A 250V AC, 0.5A 80V DC; Trip alarm: 5A 250V AC, 0.5A 125V DC)
- EC 60947-5-1 Approved (Auxiliary switch: 6A 250V AC, 0.5A 80V DC; Trip alarm: 5A 250V AC, 0.5A 125V DC)
- Factory Fitted
- Attached to Right Hand Side of Circuit Breaker
- Compact 6.5mm Width
- Available in Dual and DIN Rail Mounting

## Standard Time Delay Curves



## Internal Impedance vs Current Rating



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## Long Code

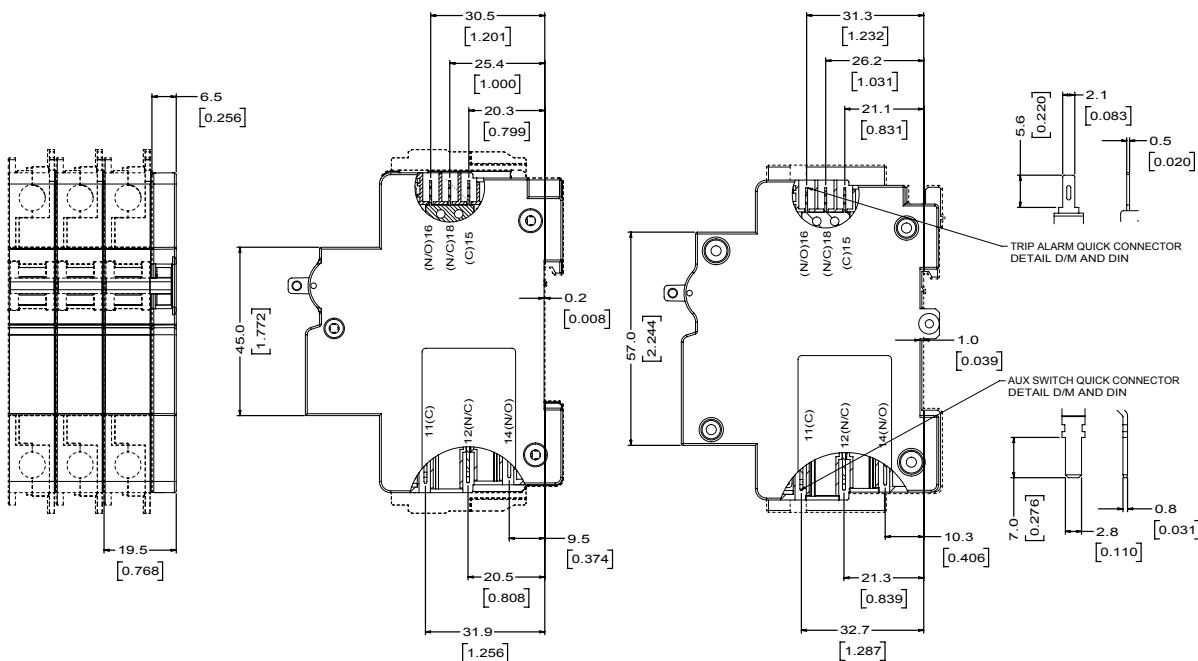
| Group 1:<br>Frame Type       | Code | Description                          | Comments                                |                                |   |
|------------------------------|------|--------------------------------------|---|--------------------------------|---|
|                              | QY   | 13mm width miniature circuit breaker | UL 489A, IEC / EN 60947-2, VDE, CE, CCC |                                |   |
| Group 2:<br>Auxiliary Switch | Code | Description                          | Comments                                |                                |   |
|                              | A    | Auxiliary Switch                     | Leave blank if not applicable           |                                |   |
|                              | T    | Trip Alarm                           |   |                                |   |
|                              | AT   | Auxiliary Switch + Trip Alarm Combo  |   |                                |   |
| Group 3:<br>Number of Poles  | Code | Description                          | Code                                    | Description                    |   |
|                              | 1    | Single pole                          | 3                                       | Triple pole                    |   |
|                              | 2    | Double pole                          | 4                                       | Four pole                      |   |
| Group 4:<br>Module Width     | Code | Description                          | Comments                                |                                |   |
|                              | (13) | 13mm module width                    | 13mm per pole                           |                                |   |
| Group 5:<br>Mounting         | Code | Description                          | Comments                                |                                |   |
|                              | D    | DIN rail mount                       | 45mm Escutcheon, Grey body              |                                |   |
|                              | DM   | Dual mount                           | 57mm Escutcheon, Black body             |                                |   |
| Group 6:<br>Time Delays      | Code | Description                          | Instantaneous Trip Point (x In)         | Comments                       |   |
|                              | 1    | Long, high instantaneous trip        | 10 – 20                                 | Orange handle                  |   |
|                              | 9    | Long                                 | 7 – 12                                  | White handle                   |   |
|                              | U2   | Medium                               | 6 – 11                                  | White handle                   |   |
|                              | OP   | Instantaneous                        | None                                    | White handle                   |   |
| Group 7:<br>Current Ratings  | Code | Description                          | Code                                    | Description                    | Comments  |
|                              | 0.1A | 0.1A                                 | 10A                                     | 10A                            | Examples only. Any rating possible, from 0.1 - 200A.<br>0.1 - 63A (1p), 0.1A - 50A (2p), 20 - 100A (2p par)<br>110 - 150A (3p par), 200A (4p par) |
|                              | 1A   | 1A                                   | 25A                                     | 25A                            |   |
|                              | 1.5A | 1.5A                                 | 100A                                    | 100A                           |   |
|                              | 5A   | 5A                                   | 150A                                    | 150A                           |   |
| Group 8:<br>Additional       | Code | Description                          | Code                                    | Description                    | Comments  |
|                              | B0   | 80 VDC Bottom Positive               | Z                                       | DC-Bridged (link not supplied) | Leave blank if not applicable   |
|                              | B1   | 125 VDC Bottom Positive              | ZL                                      | DC-Bridged (link supplied)     |   |
|                              | T3   | 250 VDC Series Connected             |   |                                |   |

*For options not listed, please contact Emcomp for assistance*

**Example Code: QY-1(13)-D-U2-20A-B0**

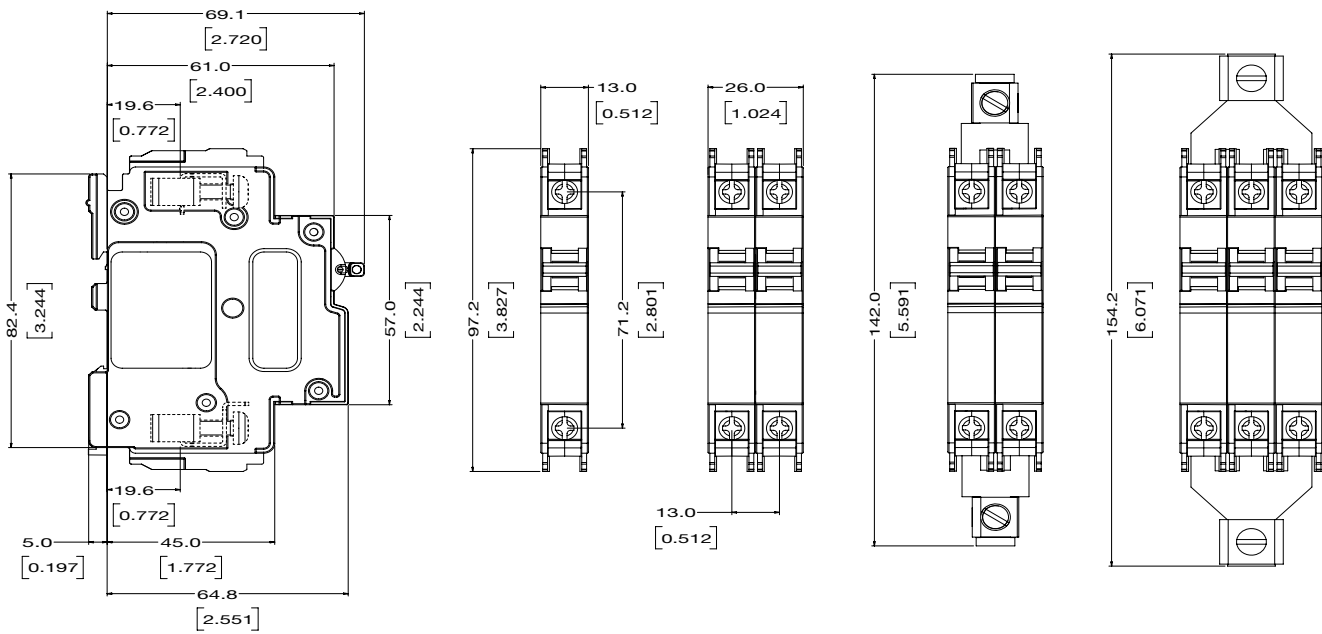
| Group       | 1        | 2            | 3           | 4    | 5        | 6            | 7   | 8     |
|-------------|----------|--------------|-------------|------|----------|--------------|-----|-------|
| Requirement | QY Frame | No Auxiliary | Single Pole | 13mm | DIN Rail | Medium Delay | 20A | 80VDC |
| Long Code   | QY       | -            | 1           | (13) | D        | U2           | 20A | B0    |

## Auxiliary Outline Dimensions: DIN and Dual Mount



# QY-Series Miniature Circuit Breakers

## Outline Dimensions: Dual Mount



## Outline Dimensions: DIN Mount

