

## QF(26)HR - Series Miniature Circuit Breakers



**1 Pole**  
Dual (DIN & mini rail)  
mount

**2 Pole**  
Dual (DIN & mini rail)  
mount

**3 Pole**  
Dual (DIN & mini rail)  
mount

**3 Pole + N**  
Dual (DIN & mini rail)  
mount

### Features

- AC circuit breaker
- Hydraulic-magnetic technology
- 100% rated current capability, independent of ambient temperature
- One, two, three pole, 1+N and 3+N (VDE)
- VC 8036 (SANS 556-1) and CE compliant
- VDE and EAC approved
- Ratings 60 A to 100 A (UL 489)
- Ratings 60 A to 125 A (IEC 60947-2)
- Available in various currents and time delays
- Precision tripping characteristics
- Can be switched immediately after tripping
- Dual (DIN & mini rail) mount, 57 mm front escutcheon (Black)
- Suitable to use for electrical isolation

### Applications

- AC branch circuit protection (DIN / EN 60947-2)
- Switch disconnecter (DIN / EN 60947-3, UL 508)
- Telecom / datacom equipment
- Lighting control
- UPS equipment
- Mobile power generation equipment
- Railway signalling equipment
- Residential equipment
- Industrial equipment

### Optional Accessories

- Handle lock - QFAP001
- Surface mounting clips - 2096001
- Escutcheon blank - SFEB000
- Safety blank - SAEB000

VC 8036 (SANS 556-1)  
(SANS IEC 60947-2)



(DIN / EN 60947-2/3)



(UL 508)  
(Switch only)



(UL 489)



(GB 14048.2 / 3)




(IEC 60947-2/3)



**Hydraulic-Magnetic Circuit Breakers 100% rated, unaffected by ambient temperature**

## QF(26)HR - Series Miniature Circuit Breakers

### Technical Data

| Product Type                         | Circuit Breaker                                       |         |         |   |         |
|--------------------------------------|---|---------|---------|---|---------|
| Approvals                            | DIN / EN 60947-2, EAC, CE, UKCA, VC 8036 (SANS 556-1) |         |         |   |         |
| Number of Poles                      | 1   | 2 (1+N) | 2       | 3 | 4 (3+N) |
| Operating Voltages                   | 240 Vac   |         | 415 Vac |   |         |
| Minimum Current Rating               | 70 A  |         |         |   |         |
| Maximum Current Rating               | 125 A   |         |         |   |         |
| Ultimate S/C Breaking Capacity (Icu) | 6 kA (IEC), 5 kA (VC 8036)                            |         |         |   |         |

| Product Type                         | Circuit Breaker |       |                |
|--------------------------------------|-----------------|-------|----------------|
| Approvals                            | GB/T14048.2     |       |                |
| Number of Poles                      | 1               | 1 + N | 2, 3, 3 + N, 4 |
| Operating Voltages                   | 240 Vac         |       | 415 Vac        |
| Minimum Current Rating               | 60 A            |       |                |
| Maximum Current Rating               | 125 A           |       |                |
| Ultimate S/C Breaking Capacity (Icu) | 6 kA            |       |                |

| Product Type                       | Circuit Breaker |               |
|------------------------------------|-----------------|---------------|
| Approvals                          | UL 489          |               |
| Number of Poles                    | 1               | 2             |
| Operating Voltages                 | 120 Vac         | 120 / 240 Vac |
| Minimum Current Rating             | 60 A            |               |
| Maximum Current Rating             | 100 A           |               |
| Ampere Interrupting Capacity (AIC) | 10 kA           |               |

| Product Type         | Switch Disconnecter   |         |   |   |         |
|----------------------|---|---------|---|---|---------|
| Approvals            | VC 8036 (SANS 556-1), DIN / EN 60947-3, UL 508, GB/T14048.3 |         |   |   |         |
| Number of Poles      | 1   | 2       | 3 | 4 | 4 (3+N) |
| Operating Voltages   | 240 Vac   | 415 Vac |   |   |         |
| Current Rating       | 125 A   |         |   |   |         |
| Short-time Withstand | 6 kA / 50 ms  |         |   |   |         |

## QF(26)HR - Series Miniature Circuit Breakers

### Technical Data

|  |  |
|--|--|
| <b>Product Type</b>                    | QF(26)HR   |
| <b>Ambient Operating Temperature</b>   | -40 °C to +85 °C   |
| <b>Mounting Options</b>                | Dual (DIN & mini rail) mount, surface mount  |
| <b>Time Delay Curves</b>               | 1, 2   |
| <b>Endurance</b>                       | 10000 operations - 1500 with current, 8500 without current (IEC 60947-2 Clause 7.2.4.2)*                                 |
| <b>Dielectric Strength</b>             | 1000 - 2000 Vac for one minute (IEC 60947-2 Clause 8.3.3.3)*   |
| <b>Rated Impulse Withstand Voltage</b> | 6 kV (IEC 60947-2 Clause 8.3.3.2)  |
| <b>Weight</b>                          | 200 g per pole (unpacked)  |
| <b>Altitude</b>                        | Certification tests done at altitude ≈ 2000 metres.<br>Will operate at higher altitudes.                                 |
| <b>Shock</b>                           | 50 G to MIL-STD-202G, test method 213B, test condition 1   |
| <b>Vibration</b>                       | 10 G to MIL-STD-202G test method 204D, test condition A  |
| <b>Flammability</b>                    | I3 - Ignition does not persist at 850 °C after<br>glow wire is withdrawn with an oxygen index of ≥ 28                    |
| <b>Toxicity</b>                        | F1 - Smoke index of ≤ 20 which determines the fume class   |
| <b>Pollution Degree</b>                | PD2 - Normally only non-conductive pollution occurs.<br>Temporary conductivity caused by condensation is to be expected. |

\* Refer to standard for details.

| Circuit Breaker       | Wire Size (IEC)                        | Wire Gauge (UL) | Torque (IEC) | Torque (UL) | Comments                  |
|-----------------------|--|-----------------|--------------|-------------|---------------------------|
| <b>Main Terminals</b> | 1 mm <sup>2</sup> - 50 mm <sup>2</sup> | 6 – 1 AWG       | 4 Nm         | 35.4 in-lb  | Pozidriv #2<br>Combi head |

## QF(26)HR - Series Miniature Circuit Breakers

### Long Code

Example Code: QF---3(26)-DM-2-125A-HR---

| Group       | 1        | 2                | 3   | 4           | 5            | 6          | 7                  | 8              | 9              | 10         | 11         | 12         | 13                |
|-------------|----------|------------------|-----|-------------|--------------|------------|--------------------|----------------|----------------|------------|------------|------------|-------------------|
| Requirement | QF Frame | Switch / neutral | N/A | No of poles | Module width | Dual mount | Medium delay curve | Current rating | Mechanism Type | Shunt trip | Future use | Future use | Customer specific |
| Long Code   | QF       | -                | -   | 3           | (26)         | DM         | 2                  | 125A           | HR             | -          | -          | -          | -                 |

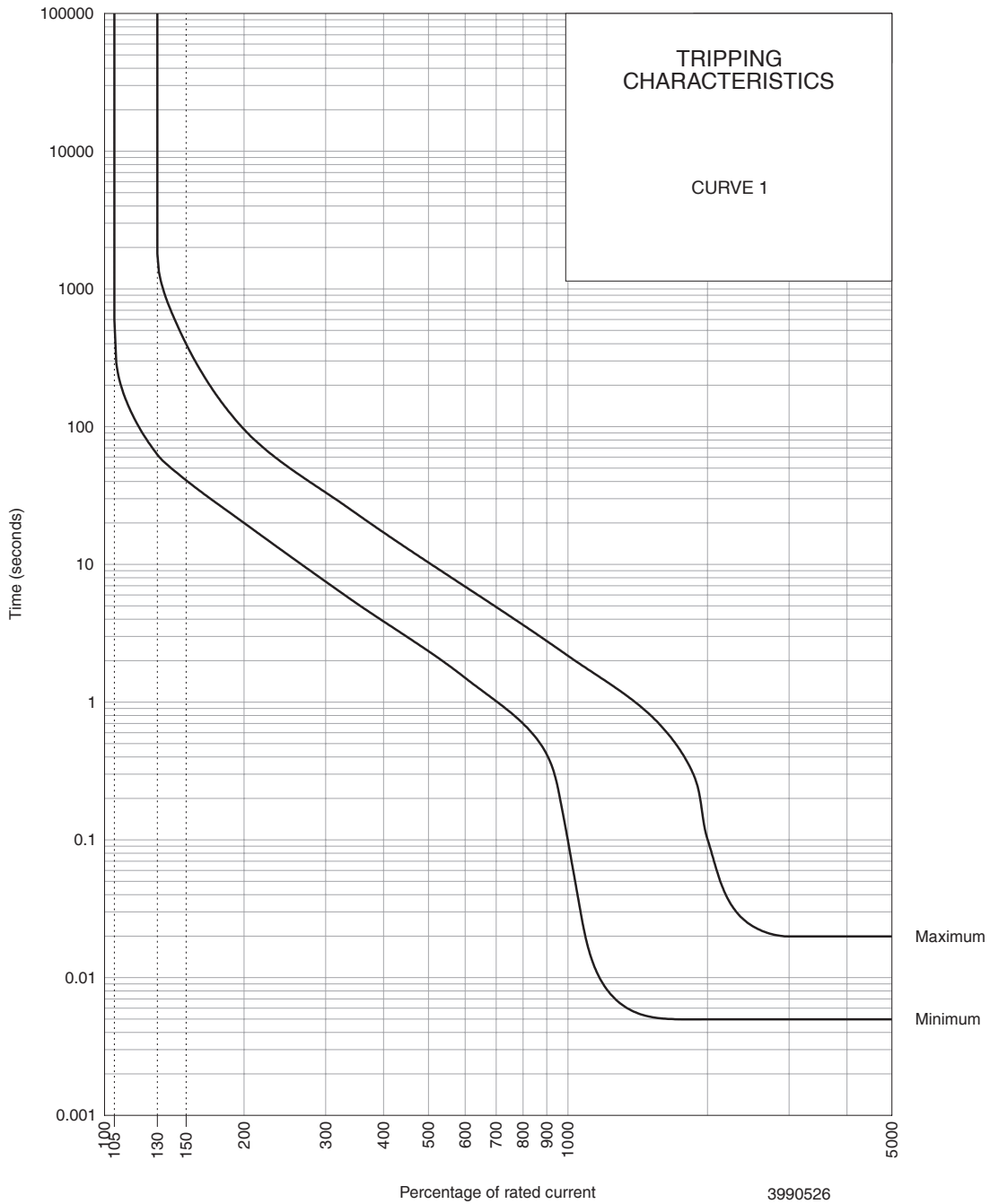
### Ordering Information

| Group 1: Frame Type          | Code                       | Description                              | Comments   |               |
|------------------------------|----------------------------|--|--|---------------|
|                              | QF                         | Miniature circuit breaker                |  |               |
| Group 2: Switch/Neutral      | Code                       | Description                              | Comments   |               |
|                              | -                          | Not applicable                           |  |               |
|                              | N                          | Neutral                                  | Green handle   |               |
| Group 3: Auxiliary           | Code                       | Description                              | Comments   |               |
|                              | -                          | Not applicable                           |  |               |
| Group 4: No. of Poles        | Code                       | Description                              | Comments   |               |
|                              | 1                          | Single pole                              |  |               |
|                              | 2                          | Double pole                              | 2 pole or 1+N  |               |
|                              | 3                          | Triple pole                              |  |               |
|                              | 4                          | Four pole                                | 3+N only   |               |
| Group 5: Module Width        | Code                       | Description                              | Comments   |               |
|                              | (26)                       | 26 mm module width                       |  |               |
| Group 6: Mounting            | Code                       | Description                              | Comments   |               |
|                              | DM                         | Dual (DIN & mini rail) mount             | Dual mount supplied in black only - 57 mm front escutcheon |               |
| Group 7: Time Delays         | Code                       | Description                              | Instantaneous Trip Point (x In)                            | Comments      |
|                              | 1                          | Long time delay, high instantaneous trip | 10 – 20  | Orange handle |
|                              | 2                          | Medium time delay                        | 5 – 10   | White handle  |
| Group 8: Current Ratings     | Code / Description         |  | Comments   |               |
|                              | 60, 70, 80, 90, 100, 125 A |  |  |               |
| Group 9: Type Mechanism      | Code                       | Description                              | Comments   |               |
|                              | HR                         | SF Mechanism, High rating                |  |               |
| Group 10: Shunt Trip         | Code                       | Description                              | Comments   |               |
|                              | -                          | Not applicable                           |  |               |
| Group 11                     | Code                       | Description                              | Comments   |               |
|                              | -                          | Not applicable                           | For future use   |               |
| Group 12 Special Termination | Code                       | Description                              | Comments   |               |
|                              | -                          | Not applicable                           | For future use   |               |
| Group 13 Customer Specific   | Code                       | Description                              | Comments   |               |
|                              | -                          | Not applicable                           | For future use   |               |

*For options not listed, please contact CBI*

# QF(26)HR - Series Miniature Circuit Breakers

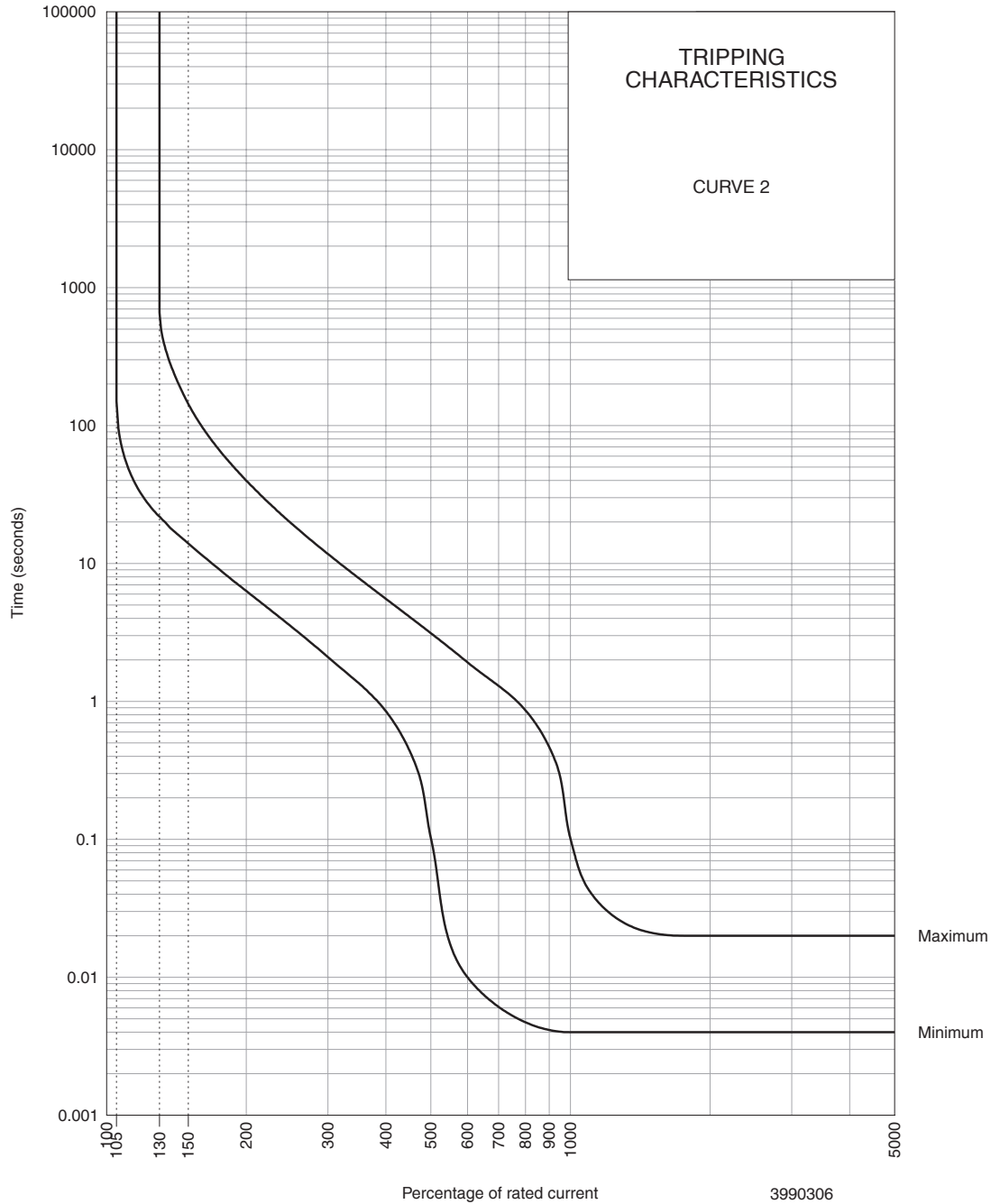
## Time Delay Curve



| PERCENTAGE OF RATED CURRENT  | 105%    | 130% | 145% | 150% | 200% | 300% | 400% | 500% | 600% | 700% | 800% | 900% | 1000% | 2000% |
|------------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| MINIMUM TRIP TIME IN SECONDS | NO TRIP | 63   | 45   | 41   | 20   | 7.5  | 3.8  | 2.3  | 1.5  | 1.01 | 0.7  | 0.42 | 0.1   | 0.005 |
| MAXIMUM TRIP TIME IN SECONDS | NO TRIP | 1800 | 503  | 400  | 96   | 34   | 17   | 10.3 | 6.8  | 4.9  | 3.6  | 2.8  | 2.2   | 0.1   |

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## Time Delay Curve

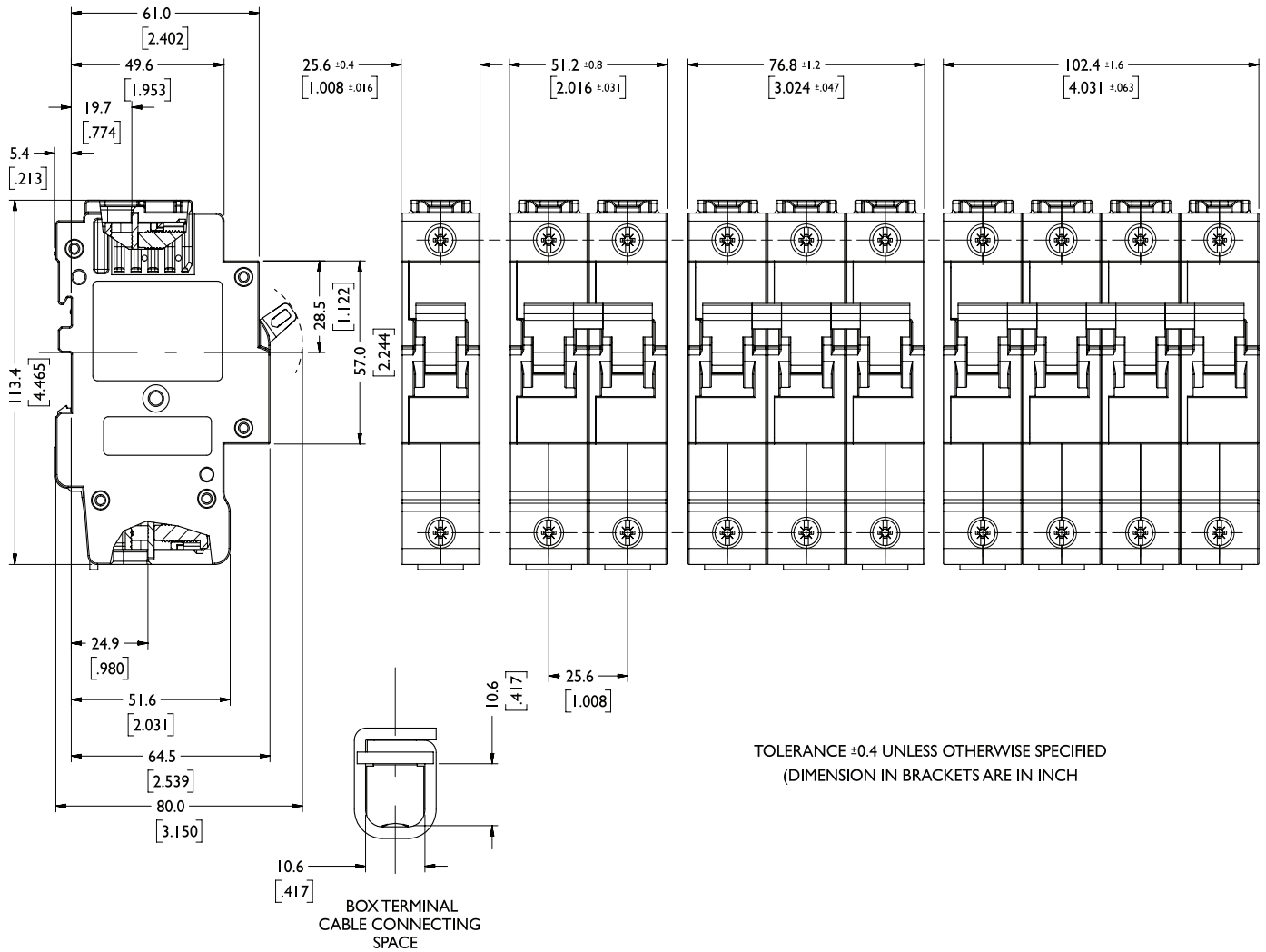


| PERCENTAGE OF RATED CURRENT  | 105%    | 130% | 145% | 150% | 200% | 300% | 400% | 500% | 600%  | 700%  | 800%  | 900%  | 1000% | 2000% |
|------------------------------|---------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| MINIMUM TRIP TIME IN SECONDS | NO TRIP | 22   | 15.4 | 14   | 6.3  | 2.1  | 0.85 | 0.1  | 0.001 | 0.006 | 0.005 | 0.041 | 0.004 | 0.004 |
| MAXIMUM TRIP TIME IN SECONDS | NO TRIP | 660  | 180  | 144  | 40   | 12   | 5.5  | 3    | 1.92  | 1.3   | 0.86  | 0.47  | 0.1   | 0.02  |

\* The published time delay curves are generated at 30°C ambient temperature with the circuit breaker mounted in the up-right position. The “must hold”, “must trip” and “instantaneous trip” current values are not affected by temperature, although delay time for the other operating current values may have to be adjusted using the temperature compensation curve which is available on request.

# QF(26)HR - Series Miniature Circuit Breakers

## Outline Dimensions: Dual (DIN & mini rail) mount



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