



HMB390



MCB 3P 15kA B-100A 4.5M

Technical properties

Architecture

| | |
|---------------------------|-----|
| Number of protected poles | 3 |
| Number of poles | 3 P |
| Type of pole | 3 P |
| Curve | B |

Functions

| | |
|----------------------------------|----|
| Concurrently switching N-neutral | No |
|----------------------------------|----|

Configuration

| | |
|-------------------|-----|
| Number of modules | 4.5 |
|-------------------|-----|

Connectivity

| | |
|---|------------------|
| Top connection alignment for modular devices | Aligned terminal |
| Bottom connection alignment for modular devices | Aligned terminal |

Main electrical features

| | |
|--|----------|
| Rated short circuit breaking capacity I_{cn} AC according IEC60898-1 | 15 kA |
| Rated operational voltage U_e | 415 V |
| Type of supply voltage | AC |
| Frequency | 50/60 Hz |

Voltage

| | |
|---------------------------------|--------|
| Rated insulation voltage | 500 V |
| Rated impulse withstand voltage | 6000 V |

Electric current

| | |
|---|-------------------|
| Rated current | 100 A |
| Rated service breaking capacity I_{cs} AC according IEC 60898-1 | 7.5 kA |
| min/maxi threshold value of the AC thermal operation | 1.13 / 1.45 I_n |
| Magnetic regulating current | 3 / 5 I_n |
| Rating current 10°C according to IEC 60947 | 124 A |
| Rating current 15°C according to IEC 60947 | 120 A |
| Rating current 20°C according to IEC 60947 | 116 A |
| Rating current 25°C according to IEC 60947 | 112 A |
| Rating current 30°C according to IEC 60947 | 108 A |
| Rating current 35°C according to IEC 60947 | 104 A |

| | |
|--|--------|
| Rating current 40°C according to IEC 60947 | 100 A |
| Rating current 45°C according to IEC 60947 | 96.6 A |
| Rating current 50°C according to IEC 60947 | 93.1 A |
| Rating current 55°C according to IEC 60947 | 89.4 A |
| Rating current 60°C according to IEC 60947 | 85.6 A |
| Rating current 65°C according to IEC 60947 | 81.6 A |
| Rating current 70°C according to IEC 60947 | 77.5 A |
| Breaking capacity on 1 pole for IT 400V NF 60947-2 | 4.5 kA |
| Breaking capacity on 1 pole for IT 415V NF 60947-2 | 4.5 kA |
| Rated short circuit breaking capacity I _{cn} under 230V AC according IEC60898-1 | 15 kA |
| Rated short circuit breaking capacity I _{cn} under 400V AC according IEC60898-1 | 15 kA |
| Rated service breaking capacity I _{cs} AC according IEC 60947-2 | 50 % |
| Rated ultimate short-circuit breaking capacity I _{cu} under 230V AC IEC 60947-2 | 15 kA |
| Rated ultimate short-circuit breaking capacity I _{cu} under 240V AC IEC 60947-2 | 15 kA |
| Rated ultimate short-circuit breaking capacity I _{cu} under 400V AC IEC 60947-2 | 15 kA |
| Rated ultimate short-circuit breaking capacity I _{cu} under 415V AC IEC 60947-2 | 15 kA |

Electric current / temperature

| | |
|---------------------|--------|
| Rating current 0°C | 124 A |
| Rating current 5°C | 120 A |
| Rating current 10°C | 116 A |
| Rating current 15°C | 112 A |
| Rating current 20°C | 108 A |
| Rating current 25°C | 104 A |
| Rating current 30°C | 100 A |
| Rating current 35°C | 96.6 A |
| Rating current 40°C | 93.1 A |
| Rating current 45°C | 89.4 A |
| Rating current 50°C | 85.6 A |
| Rating current 55°C | 81.6 A |
| Rating current 60°C | 77.5 A |

Current correction factors

| | |
|---|------|
| Correction factor of rating current for 2 devices placed side-by-side | 1 |
| Correction factor of rating current for 3 devices placed side-by-side | 0.95 |
| Correction factor of rating current for 4 and 5 devices placed side-by-side | 0.9 |
| Correction factor of rating current for 6 devices placed side-by-side | 0.85 |

Dimensions

| | |
|----------------------------|-------|
| Depth of installed product | 70 mm |
|----------------------------|-------|

| | |
|-----------------------------|-------|
| Height of installed product | 90 mm |
| Width of installed product | 80 mm |

Frequency

| | |
|-----------|-------------|
| Frequency | 50 to 60 Hz |
|-----------|-------------|

Power

| | |
|---------------------------|---------|
| Total power loss under IN | 21.66 W |
| Power loss per pole at In | 7.98 W |

Endurance

| | |
|--|-------|
| Electric endurance in number of cycles | 4000 |
| Number of mechanical operations | 20000 |

Installation, mounting

| | |
|---|------------|
| Type of top connection for modular devices | with screw |
| Tightening torque | 3,5 to 5Nm |
| Type of top rail clip for modular devices | Plastic |
| Type of bottom rail clip for modular devices | plastic |
| Type of Bottom Connection for modular devices | with screw |
| Top removability for modular devices | Yes |
| Bottom removability for modular devices | Yes |

Connection

| | |
|--|--|
| Connection cross-section at output with screw, for flexible conductor | 1 / 50 mm ² |
| Connection cross-section at output with screw, for massive conductor | 1 / 70 mm ² |
| Connection cross-sect. flexible conductor | 50mm ² |
| Connection cross-sect. rigid cable | 70mm ² |
| Connection cross-section for rigid conductor, upstream terminals with screws | 1 / 70 mm ² |
| Connection cross-section of the access with screws, with flexible conductor | 1 / 50 mm ² |
| Connection cross-section of input and output with screws, for massive conductors | 1 / 70 mm ² |
| Connection cross section of access and exit with screws, for flexible conductor | 1 / 50 mm ² |
| Type of connection | terminal with tightening compensation system |

Standards

| | |
|---------------|--------------------------|
| Standard text | EN 60898-1 ; IEC 60947-2 |
|---------------|--------------------------|

Safety

| | |
|---------------|-----|
| REACH conform | Yes |
| RoHS conform | Yes |
| Halogen free | No |

Use conditions

| | |
|--|--------|
| Degree of pollution according to IEC 60664 / IEC 60947-2 | 3 |
| Altitude | 2000 m |

Air humidity protection

for all climates

temperatur

Temperature of calibration

30 °C

Identification

Aesthetic for B.G. Protection devices

PD