



HMD390

MCB 3P 15kA D-100A 4.5M

Product Datasheet

Architecture

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

Functions

| | |
|----------------------------------|----|
| Concurrently switching N-neutral | no |
|----------------------------------|----|

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 Ics AC according IEC 60898-1 | 7,5 kA |
| min/maxi threshold value of the AC thermal operation | 1,13 / 1,45 In |
| Magnetic regulating current | 10 / 20 In |
| Rating current 10°C according to IEC 60947 | 124 A |
| Rating current 150°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 Icn under 230V AC according IEC60898-1 | 15 kA |
| Rated short circuit breaking capacity Icn under 400V AC according IEC60898-1 | 15 kA |
| Rated service breaking capacity Ics AC according IEC 60947-2 | 50 % |
| Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 | 15 kA |
| Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 | 15 kA |
| Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2 | 15 kA |
| Rated ultimate short-circuit breaking capacity Icu 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 |

Frequency

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

Power

| | |
|---------------------------------------|---------|
| Total power loss under I _N | 21,66 W |
| Power loss per pole at I _n | 7,98 W |

Endurance

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

Dimensions

| | |
|-----------------------------|-------|
| Depth of installed product | 70 mm |
| Height of installed product | 90 mm |
| Width of installed product | 80 mm |

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 |
| 360° product mounting position | 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 |
| Nominal tightening torque bottom terminal | 3,6 Nm |
| Nominal tightening torque top terminal | 3,6 Nm |

Standards

| | |
|--|-------------------------|
| Standard text | EN 60898-1, IEC 60947-2 |
| European directive WEEE | concerned |
| Product categories described in the W3E directive 2012/19/EU | Category 5 |

Safety

| | |
|---------------------|------|
| Protection index IP | IP20 |
|---------------------|------|

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 |
|----------------------------|-------|