



MBN350A

MCB 3P 6kA B-50A 3M

Product Datasheet

Architecture

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

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 | 6 kA |
| Rated operational voltage U_e | 230 / 400 V |
| Type of supply voltage | AC |
| Frequency | 50/60 Hz |

Voltage

| | |
|---------------------------------|--------|
| Rated insulation voltage | 500 V |
| Rated impulse withstand voltage | 4000 V |

Electric current

| | |
|---|-------------------|
| Rated current | 50 A |
| Rated service breaking capacity I_{cs} AC according IEC 60898-1 | 6 kA |
| min/maxi threshold value of the AC thermal operation | 1,13 / 1,45 I_n |
| Magnetic regulating current | 3 / 5 I_n |
| min/maxi threshold value of the DC magnetic operation | 4 / 7 I_n |
| min/maxi threshold value of the DC thermal operation | 1,13 / 1,45 I_n |
| Breaking capacity on 1 pole for IT 400V NF 60947-2 | 3 kA |
| Rated short circuit breaking capacity I_{cn} under 400V AC according IEC60898-1 | 6 kA |
| Rated ultimate short-circuit breaking capacity I_{cu} under 400V AC IEC 60947-2 | 10 kA |
| Rated ultimate short-circuit breaking capacity I_{cu} under 415V AC IEC 60947-2 | 10 kA |

Electric current / temperature

| | |
|----------------------|--------|
| Rating current -25°C | 63,7 A |
| Rating current -20°C | 62,5 A |
| Rating current -15°C | 61,4 A |
| Rating current -10°C | 60,2 A |
| Rating current -5°C | 59,1 A |
| Rating current 0°C | 57,9 A |
| Rating current 5°C | 56,6 A |
| Rating current 10°C | 55,4 A |
| Rating current 15°C | 54,1 A |
| Rating current 20°C | 52,8 A |
| Rating current 25°C | 51,4 A |
| Rating current 30°C | 50 A |
| Rating current 35°C | 48,5 A |
| Rating current 40°C | 47 A |
| Rating current 45°C | 45,4 A |
| Rating current 50°C | 43,7 A |
| Rating current 55°C | 42 A |
| Rating current 60°C | 40,2 A |
| Rating current 65°C | 38,3 A |
| Rating current 70°C | 36,3 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 |
| Correction factor of magnetic tripping with 100 Hz | 1,1 |
| Correction factor of magnetic tripping with 200 Hz | 1,2 |
| Correction factor of magnetic tripping with 400 Hz | 1,5 |
| Correction factor of magnetic tripping with 60 Hz | 1 |

Frequency

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

Power

| | |
|---------------------------------------|--------|
| Total power loss under I _N | 16,3 W |
| Power loss per pole at I _n | 6,4 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 | 83 mm |
| Width of installed product | 52,5 mm |

Installation, mounting

| | |
|---|------------|
| Type of top connection for modular devices | with screw |
| Tightening torque | 2,8Nm |
| Type of Bottom Connection for modular devices | Blconnect |
| 360° product mounting position | yes |

Connection

| | |
|--|------------------------|
| Connection cross-sect. flexible conductor | 1 / 25mm ² |
| Connection cross-sect. rigid cable | 1 / 35mm ² |
| Connection cross-section of input and output with screws, for massive conductors | 1 / 35 mm ² |
| Connection cross section of access and exit with screws, for flexible conductor | 1 / 25 mm ² |
| Type of connection | with screw |

Standards

| | |
|-------------------------|------------|
| Standard text | EN 60898-1 |
| European directive WEEE | concerned |

Safety

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

Use conditions

| | |
|--|------------------|
| Operating temperature | -25...70 °C |
| Degree of pollution according to IEC 60664 / IEC 60947-2 | 2 |
| Class of energy limitation I ² t | 3 |
| Altitude | 2000 m |
| Air humidity protection | for all climates |
| Storage/transport temperature | -25...80 °C |