



MBN320



MCB 3P 6kA B-20A 3M

Technical characteristics

Architecture

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

Functions

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

Configuration

| | |
|-------------------|---|
| Number of modules | 3 |
|-------------------|---|

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 | 20 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 Icu under 400V AC IEC 60947-2 | 10 kA |
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|--|-------|
| Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2 | 10 kA |
|--|-------|

Electric current / temperature

| | |
|----------------------|--------|
| Rating current -25°C | 25.3 A |
|----------------------|--------|

| | |
|----------------------|--------|
| Rating current -20°C | 24.9 A |
|----------------------|--------|

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|----------------------|--------|
| Rating current -15°C | 24.4 A |
|----------------------|--------|

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|----------------------|------|
| Rating current -10°C | 24 A |
|----------------------|------|

| | |
|---------------------|--------|
| Rating current -5°C | 23.5 A |
|---------------------|--------|

| | |
|--------------------|--------|
| Rating current 0°C | 23.1 A |
|--------------------|--------|

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|--------------------|--------|
| Rating current 5°C | 22.6 A |
|--------------------|--------|

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|---------------------|--------|
| Rating current 10°C | 22.1 A |
|---------------------|--------|

| | |
|---------------------|--------|
| Rating current 15°C | 21.6 A |
|---------------------|--------|

| | |
|---------------------|--------|
| Rating current 20°C | 21.1 A |
|---------------------|--------|

| | |
|---------------------|--------|
| Rating current 25°C | 20.5 A |
|---------------------|--------|

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|---------------------|------|
| Rating current 30°C | 20 A |
|---------------------|------|

| | |
|---------------------|--------|
| Rating current 35°C | 19.4 A |
|---------------------|--------|

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|---------------------|--------|
| Rating current 40°C | 18.7 A |
|---------------------|--------|

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|---------------------|------|
| Rating current 45°C | 18 A |
|---------------------|------|

| | |
|---------------------|--------|
| Rating current 50°C | 17.3 A |
|---------------------|--------|

| | |
|---------------------|--------|
| Rating current 55°C | 16.6 A |
|---------------------|--------|

| | |
|---------------------|--------|
| Rating current 60°C | 15.8 A |
|---------------------|--------|

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|---------------------|------|
| Rating current 65°C | 15 A |
|---------------------|------|

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|---------------------|--------|
| Rating current 70°C | 14.1 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 |
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| | |
|---|------|
| Correction factor of rating current for 6 devices placed side-by-side | 0.85 |
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| | |
|--|-----|
| 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 |
|---|---|

Dimensions

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

| | |
|-----------------------------|-------|
| Height of installed product | 83 mm |
|-----------------------------|-------|

| | |
|----------------------------|---------|
| Width of installed product | 52.5 mm |
|----------------------------|---------|

Frequency

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

Power

| | |
|---------------------------|-------|
| Total power loss under IN | 8.9 W |
| Power loss per pole at In | 3.1 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 | 2,8Nm |
| Type of Bottom Connection for modular devices | Blconnect |

Connection

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

Safety

| | |
|---------------------|------|
| Protection index IP | IP20 |
| REACH conform | No |
| RoHS conform | Yes |
| Halogen free | No |

Use conditions

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