



MCB 4P 6kA B-50A 4M

MBN450

Architecture

Number of protected poles	4
Number of poles	4 P
Type of pole	4 P
Curve	B

Connectivity

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

Main electrical features

Frequency	50/60 Hz
Rated short circuit breaking capacity Icn AC according IEC60898-1	
Type of supply voltage	AC
Rated operational voltage Ue	230/400 V

Voltage

Rated insulation voltage	500 V
Rated impulse withstand voltage	4000 V

Electric current

Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2	10 kA
Rated short circuit breaking capacity Icn under 400V AC according IEC60898-1	6 kA
Rated service breaking capacity Ics AC according IEC 60898-1	6 kA
Breaking capacity on 1 pole with 400 V NF 60947-2	3 kA
Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2	10 kA
Magnetic regulating current at 40° C	3/5 In
min/maxi threshold value of the DC magnetic operation	4/7 In
min/maxi threshold value of the AC thermal operation	1,13/1,45 In
min/maxi threshold value of the DC thermal operation	1,13/1,45 In

Electric current / temperature

Rating current -15°C	61,4 A
Rating current -20°C	62,5 A
Rating current 0°C	57,9 A
Rating current 10°C	55,4 A
Rating current -10°C	60,2 A
Rating current 15°C	54,1 A
Rating current 20°C	52,8 A
Rating current 25°C	51,4 A
Rating current -25°C	63,7 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 5°C	56,6 A
Rating current -5°C	59,1 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 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
Correction factor of rating current for 2 devices placed 1 side-by-side	
Correction factor of rating current for 3 devices placed 0,95 side-by-side	
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

Power

Power loss per pole at I _n	5,2 W
Total power loss under I _N	19,8 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	70 mm

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

Standards

Standard text	EN 60898-1
European directive WEEE	concerned

Safety

Protection index IP	IP20
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Use conditions

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