



MCB 1P 6kA D-20A 1M

MDN120P

Architecture

Neutral position	without neutral
Number of protected poles	1
Number of poles	1 P
Type of pole	1 P
Fixing mode	DIN rail type O (symmetrical)
Curve	D

Functions

Concurrently switching N-neutral	no
Sealable	yes

Compatibility

Compatible with DIN rail mounting	yes
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Controls and indicators

With Contact position indicator	no
With fault indicator	no

Connectivity

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

Main electrical features

Rated operational voltage Ue	240 / 415 V
Type of supply voltage	AC

Voltage

Rated insulation voltage	500 V
Max operating voltage	440 V
Rated impulse withstand voltage	4000 V
Minimum threshold voltage (Ue min)	12 V

Electric current

Rated current	20 A
min/maxi threshold value of the AC thermal operation	1,13 / 1,45 I _n
Magnetic regulating current	10 / 15 I _n
Rated short circuit breaking capacity I _{cn} under 230V AC according IEC60898-1	6 kA
Rated short circuit breaking capacity I _{cn} under 400V AC according IEC60898-1	6 kA
Rated short circuit breaking capacity I _{cn} under 240V AC according IEC 60898-1	6 kA
Rated short circuit breaking capacity I _{cn} under 415V AC according IEC 60898-1	6 kA
Rated service breaking capacity I _{cs} under 240V AC according IEC 60898-1	6 kA
Rated service breaking capacity I _{cs} under 415V AC according IEC 60898-1	6 kA

Electric current / temperature

Rating current -25°C	25,08 A
Rating current -20°C	24,66 A
Rating current -15°C	24,24 A
Rating current -10°C	23,8 A
Rating current -5°C	23,36 A
Rating current 0°C	22,91 A
Rating current 5°C	22,45 A
Rating current 10°C	21,98 A
Rating current 25°C	20,51 A
Rating current 30°C	20 A
Rating current 35°C	19,47 A
Rating current 40°C	18,93 A
Rating current 45°C	18,37 A
Rating current 50°C	17,8 A
Rating current 55°C	17,2 A
Rating current 60°C	16,58 A
Rating current 65°C	15,94 A
Rating current 70°C	15,28 A

Current correction factors

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
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
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Power

Maximum power loss per pole according to the product standard	4,5 W
Total power loss under IN	2,7 W
Power loss per pole at In	2,7 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	84,6 mm
Width of installed product	17,7 mm

Installation, mounting

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

Connection

Connection cross-section at output with screw, for flexible conductor	1 / 25 mm ²
Connection cross-section at output with screw, for massive conductor	1 / 35 mm ²
Connection cross-section for rigid conductor, upstream terminals with screws	1 / 35 mm ²
Connection cross-section of the access with screws, with flexible conductor	1 / 25 mm ²
Downstream cage clamp delivery status	opened
Upstream cage clamp delivery status	opened

Equipment

Can be accessorized	yes
With transparent product label holder	yes

Standards

Standard text	EN 60898-1, AS/NZS 60898-1
European directive WEEE	concerned
Product categories described in the W3E directive 2012/19/EU	Category 5

Safety

Protection index IP	IP20
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Use conditions

Operating temperature	-25 70 °C
Degree of pollution according to IEC 60664 / IEC 60947-2	2
Altitude	2000 m
Air humidity protection	95% / 55°C
Storage/transport temperature	-25 80 °C

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Temperature of calibration	30 °C
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