

10 kA



NC420A

## MCB 4P 10kA C-20A 4M

## **Technical characteristics**

Architecture	
Number of protected poles	4
Number of poles	4 P
Curve	С
Functions	
Concurrently switching N-neutral	No
Configuration	
Number of modules	4
Connectivity	
Top connection alignement for modular devices	Aligned terminal
Bottom connection alignement for modular devices	Aligned terminal
Main electrical features	
Rated short circuit breaking capacity Icn AC according IEC60898-1	10 kA
Rated operational voltage Ue	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 Ics AC according IEC 60898-1	7.5 kA
min/maxi threshold value of the AC thermal operation	1.13 / 1.45 ln
Magnetic regulating currrent	5 / 10 In
min/maxi threshold value of the DC magnetic operation	7 / 15 ln
min/maxi threshold value of the DC thermal operation	1.13 / 1.45 ln
Breaking capacity on 1 pole for IT 400V NF 60947-2	3 kA

Rated short circuit breaking capacity Icn under 400V AC according IEC60898-1

Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2	15 k/
Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2	15 k/
Electric current / temperature	
Rating current -25°C	24.6 /
Rating current -20°C	24.3 /
Rating current -15°C	23.9 /
Rating current -10°C	23.5 /
Rating current -5°C	23.1 /
Rating current 0°C	22.7
Rating current 5°C	22.2
Rating current 10°C	21.8 /
Rating current 15°C	21.4
Rating current 20°C	20.9
Rating current 25°C	20.5
Rating current 30°C	20 /
Rating current 35°C	19.5
Rating current 40°C	19 /
Rating current 45°C	18.5
Rating current 50°C	18 /
Rating current 55°C	17.5
Rating current 60°C	16.9
Rating current 65°C	16.4
Rating current 70°C	15.9 /
Current correction factors	
Correction factor of rating current for 2 devices placed side-by-side	:
Correction factor of rating current for 3 devices placed side-by-side	0.9
Correction factor of rating current for 4 and 5 devices placed side-by-side	0.
Correction factor of rating current for 6 devices placed side-by-side	0.8
Correction factor of magnetic tripping with 100 Hz	1.
Correction factor of magnetic tripping with 200 Hz	1.
Correction factor of magnetic tripping with 400 Hz	1.
Correction factor of magnetic tripping with 60 Hz	
Dimensions	
Depth of installed product	70 mr
Height of installed product	83 mr
Width of installed product	70 mr
Frequency	
Frequency	50 to 60 H

Tightening torque 2,8Nm  Type of top rail clip for modular devices NA  Type of bottom rail clip for modular devices metallic  Type of Bottom Connection for modular devices Blconnect  Top removability for modular devices No  Bottom removability for modular devices No  Connection  Connection  Connection cross-section of input and output with screws, for massive conductors 1/35 mm²  Connection cross section of access and exit with screws, for flexible conductor 1/25 mm²	Power	
Electric endurance in number of cycles 4000 Number of mechanical operations 20000  Installation, mounting Type of top connection for modular devices with screw 71ghtening torque 2.8Nm 7ype of top rail clip for modular devices netallic 7ype of Bottom rail clip for modular devices netallic 7ype of Bottom Connection for modular devices netallic 7ype of Bottom Connection for modular devices No 80 80 80 80 80 80 80 80 80 80 80 80 80	Total power loss under IN	11.6 W
Electric endurance in number of cycles 4000  Number of mechanical operations 20000  Installation, mounting  Type of top connection for modular devices with screw 71ghtening torque 2,8Nm 71ype of top rail clip for modular devices metallic 71ype of top rail clip for modular devices metallic 71ype of Bottom Connection for modular devices metallic 71ype of Bottom Connection for modular devices No 8  Biconnect 70p removability for modular devices No 8  Bottom removability for modular devices No 8  Connection Consection of input and output with screws, for massive conductors 1/35 mm²  Connection cross-section of access and exit with screws, for flexible conductor 1/25 mm²  Type of connection with screws, for flexible conductor 1/25 mm²  Electric endurance Protection index IP ReACH conform Yes ReACH conform Yes RoHs c	Power loss per pole at In	2.97 W
Number of mechanical operations  Installation, mounting Type of top connection for modular devices  Tightening torque  2,8Nm Type of top rail clip for modular devices  NA Type of bottom rail clip for modular devices  metallic Type of Bottom Connection for modular devices  Top removability for modular devices  No Bottom removability for modular devices  No Bottom removability for modular devices  No Connection  Connection  Connection cross-section of input and output with screws, for massive conductors  1/35 mm² Connection cross section of access and exit with screws, for flexible conductor  Type of connection  Standards  Standard text  EN 60898-1  Safety  Protection index IP REACH conform  Yes ROHS conform  Yes RoHS conform  Yes Halogen free  No Use conditions  Operating temperature  -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2  Class of energy limitation Pt  3 Altitude  2000 m	Endurance	
Installation, mounting Type of top connection for modular devices with screw 2,8Nm Type of top rail clip for modular devices NA Type of top rail clip for modular devices Metallic Type of Bottom rail clip for modular devices metallic Type of Bottom Connection for modular devices Blconnect Top removability for modular devices No Bottom removability for modular devices No Bottom removability for modular devices No Top removability for modular de	Electric endurance in number of cycles	4000
Type of top connection for modular devices Tightening torque 2,8Nm Type of top rail clip for modular devices NA Type of top rail clip for modular devices Type of bottom rail clip for modular devices Type of Bottom Connection for modular devices Blconnect Top removability for modular devices No Bottom removability for modular devices No Connection Connection Connection cross-section of input and output with screws, for massive conductors 1 / 35 mm² Connection cross section of access and exit with screws, for flexible conductor Type of connection With screws Standards Standard text EN 60898-1 Safety Protection index IP REACH conform Yes ROHS conform Yes Halogen free No Use conditions Operating temperature -2570 °C Degree of pollution according to IEC 60664 / IEC 60947-2 2 Class of energy limitation I²t 3 Altitude 2000 m	Number of mechanical operations	20000
Tightening torque 2,8Nm Type of top rail clip for modular devices NA Type of bottom rail clip for modular devices metallic Type of Bottom Connection for modular devices Blconnect Top removability for modular devices No Bottom removability for modular devices No  Connection  Connection  Connection cross-section of input and output with screws, for massive conductors 1/35 mm² Connection cross section of access and exit with screws, for flexible conductor 1/25 mm² Type of connection with screw  Standards  Standard text EN 60898-1  Safety  Protection index IP IP20 REACH conform Yes ROHS conform Yes Halogen free No  Use conditions  Operating temperature -2570 °C Degree of pollution according to IEC 60664 / IEC 60947-2  Class of energy limitation I²t 3  Altitude 2000 m	Installation, mounting	
Type of top rail clip for modular devices metallic Type of bottom rail clip for modular devices metallic Type of Bottom Connection for modular devices Blconnect Top removability for modular devices No Bottom removability for modular devices No  Connection  Connection  Connection cross-section of input and output with screws, for massive conductors 1/35 mm²  Connection cross section of access and exit with screws, for flexible conductor 1/25 mm²  Type of connection with screw  Standards  Standard text EN 60898-1  Safety  Protection index IP IP20  REACH conform Yes RoHS conform Yes RoHS conform Yes Halogen free No  Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2  Class of energy limitation I²t 3  Altitude 2000 m	Type of top connection for modular devices	with screw
Type of bottom rail clip for modular devices  Type of Bottom Connection for modular devices  Roperation Removability for modular Removable for modular Removability for modular Removable for modular Rem	Tightening torque	2,8Nm
Type of Bottom Connection for modular devices Blconnect Top removability for modular devices No Bottom removability for modular devices No  Connection  Connection  Connection cross-section of input and output with screws, for massive conductors 1/35 mm² Connection cross section of access and exit with screws, for flexible conductor 1/25 mm² Type of connection with screw  Standards  Standards  Safety  Protection index IP IP20 REACH conform Yes RoHS conform Yes Halogen free No  Use conditions  Operating temperature -2570 °C Degree of pollution according to IEC 60664 / IEC 60947-2 2 Class of energy limitation I²t 3 Altitude 2000 m	Type of top rail clip for modular devices	NA
devices Blconnect Top removability for modular devices No Bottom removability for modular devices No  Connection  Connection  Connection cross-section of input and output with screws, for massive conductors 1 / 35 mm²  Connection cross section of access and exit with screws, for flexible conductor 1 / 25 mm²  Type of connection with screw  Standards  Standard text EN 60898-1  Safety  Protection index IP IP20  REACH conform Yes  RoHS conform Yes  Halogen free No  Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m	Type of bottom rail clip for modular devices	metallic
Bottom removability for modular devices  Connection  Connection cross-section of input and output with screws, for massive conductors 1/35 mm²  Connection cross section of access and exit with screws, for flexible conductor 1/25 mm²  Type of connection with screw  Standards  Standards  Safety  Protection index IP IP20  REACH conform Yes  Halogen free No  Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m	2.	Blconnect
Connection  Connection cross-section of input and output with screws, for massive conductors  Connection cross section of access and exit with screws, for flexible conductor  Type of connection  Standards  Standards  Standard text  EN 60898-1  Safety  Protection index IP  REACH conform  Yes RoHS conform  Yes Halogen free  No  Use conditions  Operating temperature  -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2  Class of energy limitation I <sup>2</sup> t  3  Altitude  Altitude	Top removability for modular devices	No
Connection cross-section of input and output with screws, for massive conductors  Connection cross section of access and exit with screws, for flexible conductor  Type of connection  Standards  Standard text  EN 60898-1  Safety  Protection index IP  REACH conform  Yes RoHS conform  Yes Halogen free  No  Use conditions  Operating temperature  Degree of pollution according to IEC 60664 / IEC 60947-2  Class of energy limitation I²t  Altitude  1/35 mm²  1/25 mm²  1/	Bottom removability for modular devices	No
output with screws, for massive conductors       1 / 35 mm²         Connection cross section of access and exit with screws, for flexible conductor       1 / 25 mm²         Type of connection       with screw         Standards         Standard text       EN 60898-1         Safety         Protection index IP       IP20         REACH conform       Yes         RoHS conform       Yes         Halogen free       No         Use conditions         Operating temperature       -2570 °C         Degree of pollution according to IEC 60664 / IEC 60947-2       2         Class of energy limitation I²t       3         Altitude       2000 m	Connection	
with screws, for flexible conductor 1 / 25 mm² Type of connection with screw  Standards  Standard text EN 60898-1  Safety  Protection index IP IP20  REACH conform Yes ROHS conform Yes Halogen free No  Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 22000 m	·	1 / 35 mm²
Standard text EN 60898-1  Safety  Protection index IP IP20  REACH conform Yes  ROHS conform Yes  Halogen free No  Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m		1 / 25 mm²
Standard text EN 60898-1  Safety  Protection index IP IP20  REACH conform Yes  RoHS conform Yes  Halogen free No  Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m	Type of connection	with screw
Safety  Protection index IP IP20  REACH conform Yes  RoHS conform Yes  Halogen free No  Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m	Standards	
Protection index IP IP20 REACH conform Yes RoHS conform Yes Halogen free No  Use conditions Operating temperature -2570 °C Degree of pollution according to IEC 60664 / IEC 60947-2 2 Class of energy limitation I²t 3 Altitude 2000 m	Standard text	EN 60898-1
REACH conform  ROHS conform  Yes  Halogen free  No  Use conditions  Operating temperature  Operating temperature  -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2  Class of energy limitation I²t  3  Altitude  Altitude	Safety	
RoHS conform Yes Halogen free No  Use conditions Operating temperature -2570 °C Degree of pollution according to IEC 60664 / IEC 60947-2 2 Class of energy limitation I²t 3 Altitude 2000 m	Protection index IP	IP20
Halogen free No  Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m	REACH conform	Yes
Use conditions  Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m	RoHS conform	Yes
Operating temperature -2570 °C  Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m	Halogen free	No
Degree of pollution according to IEC 60664 / IEC 60947-2 2  Class of energy limitation I²t 3  Altitude 2000 m	Use conditions	
IEC 60947-2         2           Class of energy limitation I²t         3           Altitude         2000 m	Operating temperature	-2570 °C
Altitude 2000 m		2
	Class of energy limitation I²t	3
Air humidity protection for all climates	Altitude	2000 m
	Air humidity protection	for all climates

-25...80 °C

Storage/transport temperature