



## NBN220A

## MCB 2P 10kA/15kA B-20A 2M

## **Technical characteristics**

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Rated service breaking capacity ics under 230 V AC according to IEC 60947-2         15 kA           Rated ultimate short-circuit breaking capacity icy under 230 V AC IEC 60947-2         30 kA           Rated current -25°C         25.08 A           Rated current at -20°C         24.66 A           Rated current -15°C         23.80 A           Rated current -5°C         23.36 A           Rated current 5°C         22.91 A           Rated current 5°C         22.45 A           Rated current 10°C         21.98 A           Rated current 15°C         21.98 A           Rated current 15°C         21.98 A           Rated current 25°C         21.51 A           Rated current 25°C         20.51 A           Rated current 25°C         20.51 A           Rated current 30°C         20 A           Rated current 35°C         19.47 A           Rated current 35°C         18.37 A           Rated current 40°C         18.37 A           Rated current 45°C         17.20 A           Rated current 55°C         17.80 A           Rated current 55°C         17.80 A           Rated current 55°C         15.94 A           Rated current 60°C         15.94 A           Rated current 5°C         15.94 A	Rated current	20 A
Rated ultimate short-circuit breaking capacity Icu under 230 V AC IEC 60947-2         30 kA           Rated current -25°C         25.08 A           Rated current at -20°C         24.66 A           Rated current -15°C         24.24 A           Rated current -10°C         23.80 A           Rated current at 0°C         23.36 A           Rated current at 0°C         22.91 A           Rated current 10°C         21.98 A           Rated current 10°C         21.98 A           Rated current 15°C         21.98 A           Rated current 25°C         21.02 A           Rated current 30°C         20.31 A           Rated current 30°C         20.31 A           Rated current 35°C         19.47 A           Rated current 35°C         19.47 A           Rated current 45°C         18.37 A           Rated current 45°C         17.20 A           Rated current 55°C         17.20 A           Rated current 60°C         16.58 A           Rated current 70°C         15.28 A           Architecture         2P           Curve         B           Capacity           Number of modules         2           Installation, mounting         2.80 - 2.80 Nm           Nominal tighteni		15 kA
city Icu under 230 V AC IEC 60947-2         30 kA           Rated current -25°C         25.08 A           Rated current at -20°C         24.66 A           Rated current -15°C         24.24 A           Rated current -10°C         23.80 A           Rated current -5°C         23.36 A           Rated current at 0°C         22.91 A           Rated current 10°C         21.98 A           Rated current 15°C         21.51 A           Rated current 15°C         21.51 A           Rated current 25°C         20.51 A           Rated current 30°C         20 A           Rated current 35°C         19.47 A           Rated current 35°C         19.47 A           Rated current 40°C         18.93 A           Rated current 45°C         18.97 A           Rated current 55°C         17.20 A           Rated current 55°C         17.20 A           Rated current 60°C         16.58 A           Rated current 60°C         15.28 A           Architecture         15.94 A           Curve         8           Capacity           Number of modules         2           Installation, mounting         2.80 - 2.80 Nm           Nominal tightening torque down terminal         2		
Rated current at -20°C       24.66 A         Rated current -15°C       24.24 A         Rated current -10°C       23.80 A         Rated current -5°C       23.36 A         Rated current at 0°C       22.91 A         Rated current 5°C       22.45 A         Rated current 10°C       21.98 A         Rated current 15°C       21.51 A         Rated current at 20°C       21.02 A         Rated current 30°C       20.51 A         Rated current 30°C       20.4 A         Rated current 35°C       19.47 A         Rated current at 40°C       18.93 A         Rated current at 45°C       18.37 A         Rated current at 50°C       17.80 A         Rated current 55°C       17.20 A         Rated current 60°C       16.58 A         Rated current 70°C       15.28 A         Architecture       19.94 A         Type of pole       2P         Curve       8         Capacity         Number of modules       2         Installation, mounting       2.80 - 2.80 Nm         Nominal tightening torque top terminal       2.80 - 2.80 Nm         Nominal tightening torque down terminal       2.80 - 2.80 Nm         Type of bottom connection for m		30 kA
Rated current -15°C	Rated current -25°C	25.08 A
Rated current -10°C	Rated current at -20°C	24.66 A
Rated current -5°C       23.36 A         Rated current at 0°C       22.91 A         Rated current 5°C       22.45 A         Rated current 10°C       21.98 A         Rated current 15°C       21.51 A         Rated current at 20°C       21.02 A         Rated current 30°C       20.51 A         Rated current 35°C       19.47 A         Rated current at 40°C       18.93 A         Rated current at 45°C       18.37 A         Rated current at 50°C       17.80 A         Rated current 55°C       17.20 A         Rated current 60°C       16.58 A         Rated current 70°C       15.28 A         Architecture       B         Type of pole       2P         Curve       B         Capacity       B         Number of modules       2         Installation, mounting       2.80 - 2.80 Nm         Nominal tightening torque top terminal       2.80 - 2.80 Nm         Nominal tightening torque down terminal       2.80 - 2.80 Nm         Type of bottom connection for modular       2.80 - 2.80 Nm	Rated current -15°C	24.24 A
Rated current at 0°C         22.91 A           Rated current 5°C         22.45 A           Rated current 10°C         21.98 A           Rated current 15°C         21.51 A           Rated current at 20°C         21.02 A           Rated current 25°C         20.51 A           Rated current 30°C         20 A           Rated current 35°C         19.47 A           Rated current at 40°C         18.93 A           Rated current at 5°C         17.80 A           Rated current 55°C         17.20 A           Rated current 60°C         16.58 A           Rated current 60°C         15.94 A           Rated current 70°C         15.28 A           Architecture         2           Type of pole         2P           Curve         B           Capacity         B           Number of modules         2           Installation, mounting         2           Nominal tightening torque top terminal         2.80 - 2.80 Nm           Nominal tightening torque down terminal         2.80 - 2.80 Nm           Type of bottom connection for modular         2.80 - 2.80 Nm	Rated current -10°C	23.80 A
Rated current 5°C         22.45 A           Rated current 10°C         21.98 A           Rated current 15°C         21.51 A           Rated current at 20°C         21.02 A           Rated current 25°C         20.51 A           Rated current 30°C         20 A           Rated current 35°C         19.47 A           Rated current at 40°C         18.93 A           Rated current at 45°C         18.37 A           Rated current 55°C         17.80 A           Rated current 60°C         16.58 A           Rated current 60°C         15.94 A           Rated current 70°C         15.28 A           Architecture         2P           Curve         B           Capacity         2           Number of modules         2           Installation, mounting         2.80 - 2.80 Nm           Nominal tightening torque top terminal         2.80 - 2.80 Nm           Nominal tightening torque down terminal         2.80 - 2.80 Nm           Type of bottom connection for modular         2.80 - 2.80 Nm	Rated current -5°C	23.36 A
Rated current 10°C         21.98 A           Rated current 15°C         21.51 A           Rated current at 20°C         21.02 A           Rated current 25°C         20.51 A           Rated current 30°C         20 A           Rated current at 40°C         19.47 A           Rated current at 45°C         18.93 A           Rated current at 50°C         17.80 A           Rated current 55°C         17.20 A           Rated current 60°C         16.58 A           Rated current 70°C         15.94 A           Rated current 70°C         15.28 A           Architecture         2           Type of pole         2 P           Curve         8           Capacity         2           Number of modules         2           Installation, mounting         2           Nominal tightening torque top terminal         2.80 - 2.80 Nm           Nominal tightening torque down terminal         2.80 - 2.80 Nm           Type of bottom connection for modular         2.80 - 2.80 Nm	Rated current at 0°C	22.91 A
Rated current 15°C       21.51 A         Rated current at 20°C       21.02 A         Rated current 25°C       20.51 A         Rated current 30°C       20 A         Rated current at 40°C       19.47 A         Rated current at 45°C       18.93 A         Rated current at 50°C       17.80 A         Rated current 60°C       16.58 A         Rated current 65°C       15.94 A         Rated current 70°C       15.28 A         Architecture       2         Type of pole       2P         Curve       B         Capacity       2         Number of modules       2         Installation, mounting       2         Nominal tightening torque top terminal       2.80 - 2.80 Nm         Nominal tightening torque down terminal       2.80 - 2.80 Nm         Type of bottom connection for modular       2.80 - 2.80 Nm	Rated current 5°C	22.45 A
Rated current at 20°C       21.02 A         Rated current 25°C       20.51 A         Rated current 30°C       20 A         Rated current 35°C       19.47 A         Rated current at 40°C       18.93 A         Rated current at 45°C       17.80 A         Rated current at 50°C       17.80 A         Rated current 60°C       16.58 A         Rated current 65°C       15.94 A         Rated current 70°C       15.28 A         Architecture         Type of pole       2P         Curve       B         Capacity       2         Number of modules       2         Installation, mounting       2         Nominal tightening torque top terminal       2.80 - 2.80 Nm         Nominal tightening torque down terminal       2.80 - 2.80 Nm         Nominal tightening torque       2.80 - 2.80 Nm         Type of bottom connection for modular	Rated current 10°C	21.98 A
Rated current 25°C         20.51 A           Rated current 30°C         20 A           Rated current 35°C         19.47 A           Rated current at 40°C         18.93 A           Rated current at 45°C         18.37 A           Rated current at 50°C         17.80 A           Rated current 60°C         16.58 A           Rated current 65°C         15.94 A           Rated current 70°C         15.28 A           Architecture           Type of pole         2P           Curve         B           Capacity         2           Number of modules         2           Installation, mounting         2           Nominal tightening torque top terminal         2.80 - 2.80 Nm           Nominal tightening torque down terminal         2.80 - 2.80 Nm           Nominal tightening torque         2.80 - 2.80 Nm           Type of bottom connection for modular         2.80 - 2.80 Nm	Rated current 15°C	21.51 A
Rated current 30°C       20 A         Rated current 35°C       19.47 A         Rated current at 40°C       18.93 A         Rated current at 45°C       18.37 A         Rated current at 50°C       17.80 A         Rated current 60°C       16.58 A         Rated current 65°C       15.94 A         Rated current 70°C       15.28 A         Architecture       2P         Curve       B         Capacity       2         Number of modules       2         Installation, mounting       2         Nominal tightening torque top terminal       2.80 - 2.80 Nm         Nominal tightening torque down terminal       2.80 - 2.80 Nm         Nominal tightening torque       2.80 - 2.80 Nm         Type of bottom connection for modular	Rated current at 20°C	21.02 A
Rated current 35°C 19.47 A Rated current at 40°C 18.93 A Rated current at 45°C 18.37 A Rated current at 50°C 17.80 A Rated current 55°C 17.20 A Rated current 60°C 16.58 A Rated current 65°C 15.94 A Rated current 70°C 15.28 A  Architecture  Type of pole 2P Curve 8  Capacity Number of modules 2  Installation, mounting Nominal tightening torque top terminal 2.80 - 2.80 Nm Nominal tightening torque Momentum 17,000 Nm Nominal tightening torque 2.80 - 2.80 Nm Type of bottom connection for modular	Rated current 25°C	20.51 A
Rated current at 40°C 18.93 A Rated current at 45°C 18.37 A Rated current at 50°C 17.80 A Rated current 55°C 17.20 A Rated current 60°C 16.58 A Rated current 65°C 15.94 A Rated current 70°C 15.28 A  Architecture Type of pole 2P Curve 8  Capacity Number of modules 2  Installation, mounting Nominal tightening torque top terminal 2.80 - 2.80 Nm Nominal tightening torque Momentum 17,000 Nm Nominal tightening torque 2.80 - 2.80 Nm Type of bottom connection for modular	Rated current 30°C	20 A
Rated current at 45°C 18.37 A Rated current at 50°C 17.80 A Rated current 55°C 17.20 A Rated current 60°C 16.58 A Rated current 65°C 15.94 A Rated current 70°C 15.28 A  Architecture Type of pole 2P Curve 8  Capacity Number of modules 2  Installation, mounting Nominal tightening torque top terminal 2.80 - 2.80 Nm Nominal tightening torque down terminal 2.80 - 2.80 Nm Nominal tightening torque  2.80 - 2.80 Nm Nominal tightening torque  2.80 - 2.80 Nm Type of bottom connection for modular	Rated current 35°C	19.47 A
Rated current at 50°C 17.80 A Rated current 55°C 17.20 A Rated current 60°C 16.58 A Rated current 65°C 15.94 A Rated current 70°C 15.28 A  Architecture Type of pole 2P Curve 8  Capacity Number of modules 2  Installation, mounting Nominal tightening torque top terminal 2.80 - 2.80 Nm Nominal tightening torque Momentum 17 yee of bottom connection for modular	Rated current at 40°C	18.93 A
Rated current 55°C 17.20 A Rated current 60°C 16.58 A Rated current 65°C 15.94 A Rated current 70°C 15.28 A  Architecture Type of pole 2P Curve B  Capacity Number of modules 2  Installation, mounting Nominal tightening torque top terminal 2.80 - 2.80 Nm Nominal tightening torque down terminal 2.80 - 2.80 Nm Nominal tightening torque 2.80 - 2.80 Nm Nominal tightening torque 2.80 - 2.80 Nm	Rated current at 45°C	18.37 A
Rated current 60°C 16.58 A Rated current 65°C 15.94 A Rated current 70°C 15.28 A  Architecture Type of pole 2P Curve B  Capacity Number of modules 2  Installation, mounting  Nominal tightening torque top terminal 2.80 - 2.80 Nm Nominal tightening torque down terminal 2.80 - 2.80 Nm Nominal tightening torque  2.80 - 2.80 Nm Nominal tightening torque  2.80 - 2.80 Nm	Rated current at 50°C	17.80 A
Rated current 65°C 15.94 A Rated current 70°C 15.28 A  Architecture  Type of pole 2P  Curve B  Capacity  Number of modules 2  Installation, mounting  Nominal tightening torque top terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Nominal tightening torque 40 Nm  Nominal tightening torque 2.80 - 2.80 Nm  Type of bottom connection for modular	Rated current 55°C	17.20 A
Rated current 70°C 15.28 A  Architecture  Type of pole 2P  Curve B  Capacity  Number of modules 2  Installation, mounting  Nominal tightening torque top terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Type of bottom connection for modular	Rated current 60°C	16.58 A
Architecture Type of pole 2P Curve B  Capacity Number of modules 2  Installation, mounting Nominal tightening torque top terminal 2.80 - 2.80 Nm Nominal tightening torque down terminal 2.80 - 2.80 Nm Nominal tightening torque 2.80 - 2.80 Nm Type of bottom connection for modular	Rated current 65°C	15.94 A
Type of pole 2P Curve B  Capacity  Number of modules 2  Installation, mounting  Nominal tightening torque top terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Type of bottom connection for modular	Rated current 70°C	15.28 A
Curve B  Capacity  Number of modules 2  Installation, mounting  Nominal tightening torque top terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Nominal tightening torque  2.80 - 2.80 Nm  Type of bottom connection for modular	Architecture	
Capacity  Number of modules 2  Installation, mounting  Nominal tightening torque top terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Nominal tightening torque  2.80 - 2.80 Nm  Type of bottom connection for modular	Type of pole	2P
Number of modules 2  Installation, mounting  Nominal tightening torque top terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Nominal tightening torque 2.80 - 2.80 Nm  Type of bottom connection for modular	Curve	В
Installation, mounting  Nominal tightening torque top terminal 2.80 - 2.80 Nm  Nominal tightening torque down terminal 2.80 - 2.80 Nm  Nominal tightening torque 2.80 - 2.80 Nm  Type of bottom connection for modular	Capacity	
Nominal tightening torque top terminal  2.80 - 2.80 Nm  Nominal tightening torque down terminal  2.80 - 2.80 Nm  Nominal tightening torque  2.80 - 2.80 Nm  Type of bottom connection for modular	Number of modules	2
Nominal tightening torque down terminal  2.80 - 2.80 Nm  Nominal tightening torque  2.80 - 2.80 Nm  Type of bottom connection for modular	Installation, mounting	
Nominal tightening torque 2.80 - 2.80 Nm  Type of bottom connection for modular	Nominal tightening torque top terminal	2.80 - 2.80 Nm
Type of bottom connection for modular	Nominal tightening torque down terminal	2.80 - 2.80 Nm
	Nominal tightening torque	2.80 - 2.80 Nm
		biconnect

Type of top connection for modular devices	Screw termina
360° mounting position possible	Yes
Main electrical attributes	
Rated short-circuit breaking capacity Icn AC according to IEC 60898-1	10 kA
Voltage	
Rated operational voltage Ue	400 - 400 \
Type voltage supply	AC
Rated insulation voltage Ui	500 V
Rated impulse withstand voltage Uimp	6,000 \
Frequency	
Frequency	50 - 60 Hz
Connection	
Cross-section of input and output with screws, for massive conductors	1 - 35 mm
Cross-section of input and output with screws, for flexible conductors	1 - 25 mm
Cross-section of input with screws, for flex- ible conductors	1 - 25 mm
Cross-section of input with screws, for massive conductors	1 - 35 mm
Safety	
Ingress Protection (IP) class	IP20
Use conditions	
Degree of pollution according to IEC 60664 / IEC 60947-2	-
Class of energy limitation I²t	3
Operating temperature	-25 - 70 °C
Power	
Total power loss under IN	5.29 V
Endurance	
Electric endurance in number of cycles	4,000
Number of mechanical operations	20,000
Connectivity	
Type of connection	Screw termina
Top connection alignment for modular devices	Aligned termina
Down connection alignment for modular devices	Aligned termina
Dimensions	
Height	83 mn
Width	35 mm
Depth	70 mm