



NF120A

## MCB 1P 6/10kA C-20A 1M

## **Technical properties**

Arc	hit	ect	ure

Number of protected poles  Number of poles  Type of pole  Curve  Functions  Concurrently switching N-neutral  Configuration  Number of modules  Connectivity  Top connection alignement for modular devices  Bottom connection alignement for modular devices	1 P P C No No Aligned terminal
Type of pole  Curve  Functions  Concurrently switching N-neutral  Configuration  Number of modules  Connectivity  Top connection alignement for modular devices  Bottom connection alignement for modular	1 PCNo
Curve  Functions  Concurrently switching N-neutral  Configuration  Number of modules  Connectivity  Top connection alignement for modular devices  Bottom connection alignement for modular	No No
Functions  Concurrently switching N-neutral  Configuration  Number of modules  Connectivity  Top connection alignement for modular devices  Bottom connection alignement for modular	No 1
Concurrently switching N-neutral  Configuration  Number of modules  Connectivity  Top connection alignement for modular devices  Bottom connection alignement for modular	1
Configuration  Number of modules  Connectivity  Top connection alignement for modular devices  Bottom connection alignement for modular	1
Number of modules  Connectivity  Top connection alignement for modular devices  Bottom connection alignement for modular	
Connectivity  Top connection alignement for modular devices  Bottom connection alignement for modular	
Top connection alignement for modular devices  Bottom connection alignement for modular	Aligned terminal
devices  Bottom connection alignement for modular	Aligned terminal
	Aligned terminal
Main electrical features	
Rated short circuit breaking capacity Icn AC according IEC60898-1	6 kA
Rated operational voltage Ue	230 / 400 V
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	6 kA
min/maxi threshold value of the AC thermal operation	1.13 / 1.45 ln
Magnetic regulating currrent	5 / 10 ln
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 230V AC according IEC60898-1	6 kA

Electric current / temperature  Rating current -25°C 2 Rating current -15°C 2 Rating current -15°C 2 Rating current -10°C 2 Rating current -10°C 2 Rating current -5°C 2 Rating current 5°C 2 Rating current 5°C 2 Rating current 5°C 2 Rating current 5°C 2 Rating current 15°C 3 Rating current 15°C 3 Rating current 20°C 3 Rating current 20°C 3 Rating current 25°C 3 Rating current 25°C 3 Rating current 35°C 3 Rating current 35°C 3 Rating current 35°C 3 Rating current 55°C 3 Rating current 60°C 3 Rating current 60°C 3 Rating current 60°C 3 Rating current 60°C 3 Rating current for 5°C 3 Rating current for 5°C 3 Rating current for 6°C 4 Rating current for 6°C 4 Rating current for 6°C 4 Rating current for 6°C 5 Rating current for 6°C 6 Rating current for 6°C 7 Rating current for 6°C 8 Rating current for 6°C 8 Rating current for 6°C 8 Rating current for 6°C 9 Rating current for 8°C 9 Rating current for 9°C 9 Rating	Rated ultimate short-circuit breaking capa- city Icu under 230V AC IEC 60947-2	10 kA
Rating current -25°C Rating current -10°C Rating current -10°C Rating current -10°C Rating current -10°C Rating current 10°C Rating current 20°C Rating current 20°C Rating current 30°C Rating current 40°C Rating current 55°C Rating current 55°C Rating current 50°C Rating current 60°C Currection factor of rating current for 2 deevices placed side-by-side Correction factor of rating current for 3 devices placed side-by-side Correction factor of rating current for 4 and 5 devices placed side-by-side Correction factor of rating current for 6 devices placed side-by-side Correction factor of magnetic tripping with 200 Hz Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product Height of installed product Height of installed product Width of installed product Night of installed product Rating current 10°C  2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		10 kA
Rating current -20°C Rating current -15°C Rating current -15°C Rating current -5°C Rating current 5°C Rating current 5°C Rating current 10°C Rating current 10°C Rating current 15°C Rating current 20°C Rating current 20°C Rating current 30°C Rating current 30°C Rating current 30°C Rating current 35°C Rating current 40°C Rating current 55°C Rating current 55°C Rating current 55°C Rating current 55°C Rating current 50°C Rating current 60°C Current correction factors Correction factor of rating current for 2 deevices placed side-by-side Correction factor of rating current for 3 devices placed side-by-side Correction factor of rating current for 6 devices placed side-by-side Correction factor of rating current for 6 devices placed side-by-side Correction factor of magnetic tripping with Hoo Hz Correction factor of magnetic tripping with Correction factor of magnetic tripping with Hoo Hz Correction factor of magnetic tripping with Height of installed product Height of installed product Ridth of installed product	Electric current / temperature	
Rating current -15°C Rating current 5°C Rating current 10°C Rating current 15°C Rating current 15°C Rating current 15°C Rating current 25°C Rating current 25°C Rating current 35°C Rating current 35°C Rating current 40°C Rating current 40°C Rating current 45°C Rating current 55°C Rating current 55°C Rating current 55°C Rating current 55°C Rating current 65°C Rating current for 2 devices placed side-by-side Correction factor of rating current for 2 devices placed side-by-side Correction factor of rating current for 4 and 5 devices placed side-by-side Correction factor of rating current for 6 devices placed side-by-side Correction factor of magnetic tripping with 200 Hz Correction factor of magnetic tripping with 60 Hz Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product Right of	Rating current -25°C	23.8 /
Rating current -10°C Rating current 5°C Rating current 5°C Rating current 5°C Rating current 5°C Rating current 10°C Rating current 10°C Rating current 15°C Rating current 20°C Rating current 20°C Rating current 30°C Rating current 30°C Rating current 40°C Rating current 40°C Rating current 40°C Rating current 55°C Rating current 55°C Rating current 55°C Rating current 60°C Rating current for 2 devices placed side-by-side Correction factor of rating current for 2 devices placed side-by-side Correction factor of rating current for 4 and 5 devices placed side-by-side Correction factor of rating current for 6 devices placed side-by-side Correction factor of magnetic tripping with 200 Hz Correction factor of magnetic tripping with 60 Hz Correction factor of magnetic tripping with 60 Hz  Dimensions Depth of installed product Relight of installed product Relight of installed product Relight of installed product Rick Width of installed product Rick Rating current 5°C Rating current 5°C Rating current 50°C Rating current 60°C Rating curre	Rating current -20°C	23.5 /
Rating current -5°C 2 Rating current 10°C 2 Rating current 10°C 2 Rating current 10°C 2 Rating current 15°C 2 Rating current 20°C 2 Rating current 20°C 2 Rating current 20°C 2 Rating current 30°C 3 Rating current 30°C 3 Rating current 35°C 3 Rating current 35°C 3 Rating current 40°C 3 Rating current 45°C 3 Rating current 45°C 3 Rating current 55°C 3 Rating current 55°C 3 Rating current 55°C 3 Rating current 50°C 3 Rating current 60°C 4 Rating current 60°C 5 Currection factor of rating current for 2 devices placed side-by-side 5 Correction factor of rating current for 3 devices placed side-by-side 5 Correction factor of rating current for 6 devices placed side-by-side 5 Correction factor of magnetic tripping with 100 Hz Correction factor of magnetic tripping with 200 Hz Correction factor of magnetic tripping with 60 Hz  Dimensions Depth of installed product 7 Height of installed product 8 Width of installed product 8 Width of installed product 9 Width of installed product 17.	Rating current -15°C	23.2 /
Rating current 0°C 2 Rating current 10°C 2 Rating current 10°C 2 Rating current 10°C 2 Rating current 20°C 2 Rating current 20°C 2 Rating current 20°C 2 Rating current 30°C 3 Rating current 30°C 3 Rating current 35°C 3 Rating current 35°C 3 Rating current 40°C 3 Rating current 40°C 3 Rating current 40°C 3 Rating current 50°C 3 Rating current 50°C 3 Rating current 50°C 3 Rating current 50°C 3 Rating current 60°C 3 Rating current 60°C 3 Rating current 60°C 3 Rating current 70°C 3 Current correction factor of rating current for 2 3 devices placed side-by-side 3 Correction factor of rating current for 3 devices placed side-by-side 4 Correction factor of rating current for 6 devices placed side-by-side 4 Correction factor of magnetic tripping with 100 Hz Correction factor of magnetic tripping with 200 Hz Correction factor of magnetic tripping with 60 Hz  Dimensions Depth of installed product 7 Reight of installed product 8 Width of installed product 8	Rating current -10°C	22.8 <i>A</i>
Rating current 5°C 2 Rating current 10°C 2 Rating current 10°C 2 Rating current 20°C 2 Rating current 20°C 2 Rating current 30°C Rating current 30°C Rating current 30°C 3 Rating current 40°C 3 Rating current 45°C 4 Rating current 50°C 5 Rating current 50°C 5 Rating current 50°C 7 Rating current 60°C 8 Rating current 60°C 9 Ratin	Rating current -5°C	22.5 A
Rating current 10°C Rating current 20°C Rating current 25°C Rating current 25°C Rating current 35°C Rating current 35°C Rating current 40°C Rating current 45°C Rating current 45°C Rating current 55°C Rating current 55°C Rating current 65°C Rating current 60°C Rating current 65°C Rating current 60°C Rating current 60°C Rating current 60°C Current correction factor of rating current for 2 devices placed side-by-side Correction factor of rating current for 3 devices placed side-by-side Correction factor of rating current for 6 devices placed side-by-side Correction factor of magnetic tripping with 200 Hz Correction factor of magnetic tripping with Correction factor of magnetic tripping with Correction factor of magnetic tripping with Dimensions Depth of installed product Right of installed product	Rating current 0°C	22.2 <i>F</i>
Rating current 15°C  Rating current 20°C  Rating current 30°C  Rating current 35°C  Rating current 35°C  Rating current 40°C  Rating current 45°C  Rating current 55°C  Rating current 50°C  Rating current 50°C  Rating current 50°C  Rating current 50°C  Rating current 60°C  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  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with  100 Hz  Correction factor of magnetic tripping with  On Hz  Dimensions  Depth of installed product  Right of installed product	Rating current 5°C	21.8 /
Rating current 20°C Rating current 30°C Rating current 35°C Rating current 35°C Rating current 40°C Rating current 40°C Rating current 45°C Rating current 50°C Rating current 50°C Rating current 50°C Rating current 50°C Rating current 60°C Rating current for 2 devices placed side-by-side Correction factor of rating current for 3 devices placed side-by-side Correction factor of rating current for 4 and 5 devices placed side-by-side Correction factor of rating current for 6 devices placed side-by-side Correction factor of magnetic tripping with 100 Hz Correction factor of magnetic tripping with High tof installed product Right of installed product	Rating current 10°C	21.5 /
Rating current 25°C Rating current 30°C Rating current 35°C Rating current 40°C Rating current 40°C Rating current 45°C Rating current 50°C Rating current 50°C Rating current 50°C Rating current 60°C Rating current 60°C Rating current 60°C Rating current 70°C  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  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 2000 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product  Rating current 35°C  1 Rating current 45°C 1 Rating current 60°C 1 Rating current	Rating current 15°C	21.1 /
Rating current 30°C  Rating current 40°C  Rating current 40°C  Rating current 45°C  Rating current 50°C  Rating current 50°C  Rating current 50°C  Rating current 60°C  Rating current 60°C  Rating current 60°C  Rating current 70°C  1  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  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product  Rating current 35°C  1  Rating current 45°C  1  Rating current 60°C  1  Rating cu	Rating current 20°C	20.7
Rating current 45°C 1 Rating current 45°C 1 Rating current 45°C 1 Rating current 50°C 1 Rating current 50°C 1 Rating current 50°C 1 Rating current 60°C 1 Rating current 60°C 1 Rating current 65°C 1 Rating current 65°C 1 Rating current 70°C 1 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 1 Correction factor of rating current for 4 and 5 devices placed side-by-side 1 Correction factor of magnetic tripping with 100 Hz 1 Correction factor of magnetic tripping with 2 Correction factor of magnetic tripping with 100 Hz 1 Correction factor of mag	Rating current 25°C	20.4 /
Rating current 40°C 1 Rating current 45°C 1 Rating current 50°C 1 Rating current 50°C 1 Rating current 60°C 1 Rating current 60°C 1 Rating current 65°C 1 Rating current 65°C 1 Rating current 70°C 1 Rating current 70°C 1 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 2 Correction factor of rating current for 4 and 5 devices placed side-by-side 2 Correction factor of rating current for 6 devices placed side-by-side 2 Correction factor of magnetic tripping with 100 Hz 2 Correction factor of magnetic tripping with 200 Hz Correction factor of magnetic tripping with 400 Hz Correction factor of magnetic tripping with 60 Hz  Dimensions Depth of installed product 7 Height of installed product 8 Width of installed product 17.5	Rating current 30°C	20 /
Rating current 45°C 1 Rating current 50°C 1 Rating current 50°C 1 Rating current 60°C 1 Rating current 65°C 1 Rating current 65°C 1 Rating current 65°C 1 Rating current 70°C 1  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  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Dimensions  Depth of installed product 7 Height of installed product 8 Width of installed product 17.5	Rating current 35°C	19.6
Rating current 50°C  Rating current 60°C  Rating current 60°C  Rating current 65°C  1  Rating current 65°C  1  Rating current 70°C  1  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  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product  Rating current 50°C  1  1  1  1  1  1  1  1  1  1  1  1  1	Rating current 40°C	19.2
Rating current 55°C Rating current 60°C Rating current 65°C 1 Rating current 70°C 1 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  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product  77. Selection factor of magnetic product  88. Width of installed product  17. Selection factor of magnetic product  18. Width of installed product  17. Selection factor of magnetic product  18. Selection factor of magnetic product  19. Selection factor of magneti	Rating current 45°C	18.8
Rating current 60°C 1 Rating current 65°C 1 Rating current 70°C 1  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  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product 70  Height of installed product 85  Width of installed product 17.5	Rating current 50°C	18.4 /
Rating current 65°C 1 Rating current 70°C 1  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  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product 70  Height of installed product 17.3	Rating current 55°C	18 /
Rating current 70°C 1  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  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product 70  Height of installed product 17.3	Rating current 60°C	17.6
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  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product 70  Height of installed product 8.  Width of installed product 17.5	Rating current 65°C	17.2
Correction factor of rating current for 2 devices placed side-by-side  Correction factor of rating current for 3 devices placed side-by-side  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product 70 Midth of installed product 85 Midth of installed product 17.5	Rating current 70°C	16.8 A
devices placed side-by-side  Correction factor of rating current for 3 devices placed side-by-side  Correction factor of rating current for 4 and 5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product 70  Height of installed product 83  Width of installed product 17.5	Current correction factors	
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5 devices placed side-by-side  Correction factor of rating current for 6 devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product  Width of installed product  17.3		0.95
devices placed side-by-side  Correction factor of magnetic tripping with 100 Hz  Correction factor of magnetic tripping with 200 Hz  Correction factor of magnetic tripping with 400 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product 70  Height of installed product 83  Width of installed product 17.5	5	2.0
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A00 Hz  Correction factor of magnetic tripping with 60 Hz  Dimensions  Depth of installed product 70  Height of installed product 8.  Width of installed product 17.5		1.:
Dimensions  Depth of installed product  Height of installed product  Width of installed product  17.5		1.:
Depth of installed product 70 Height of installed product 8: Width of installed product 17.5		:
Height of installed product 8:  Width of installed product 17.5	Dimensions	
Width of installed product 17.5	Depth of installed product	70 mn
	Height of installed product	83 mn
Frequency	Width of installed product	17.5 mn
	Frequency	
Frequency 50 to 0	Frequency	50 to 60 H.

Power	
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
Installation, mounting	
Type of top connection for modular devices	with screw
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 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
European directive WEEE	not concerned
Safety	
REACH conform	No
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 I <sup>2</sup> t	3
Altitude	2000 m
Air humidity protection	for all climates
Storage/transport temperature	-2580 °C
Identification	

FD

Aesthetic for B.G. Protection devices