



AFC820F

**RCBO 1P+N 4.5kA C-20A 300mA AC**

Product Datasheet

**Architecture**

Neutral position	left
Number of protected poles	1
Number of poles	2 P
Type of pole	1P+N
Curve	C

**Connectivity**

Top connection alignment for modular devices	Shifted terminal
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**Main electrical features**

Rated short circuit breaking capacity $I_{cn}$ AC according IEC60898-1	4,5 kA
Rated operational voltage $U_e$	240 V
Frequency	50 Hz

**Voltage**

Rated insulation voltage	500 V
Max operating voltage	240 V
Rated impulse withstand voltage	4000 V

**Electric current**

Rated residual operating current	300 mA
Rated current	20 A
Withstand not tripping on 8-20 $\mu$ s wave	250 A
Breaking and opening capacity	4,5 kA
min/maxi threshold value of the AC thermal operation	1,13 / 1,45 $I_n$
Magnetic regulating current	5 / 10 $I_n$
Rated short circuit breaking capacity $I_{cn}$ under 230V AC according IEC60898-1	4,5 kA
Rated ultimate short-circuit breaking capacity $I_{cu}$ under 230V AC IEC 60947-2	6 kA
Rated ultimate short-circuit breaking capacity $I_{cu}$ under 240V AC IEC 60947-2	6 kA

**Electric current / temperature**

Rating current -25°C	22,7 A
Rating current -20°C	22,5 A
Rating current -15°C	22,2 A
Rating current -10°C	22 A
Rating current -5°C	21,8 A
Rating current 0°C	21,5 A
Rating current 5°C	21,3 A
Rating current 10°C	21 A
Rating current 15°C	20,8 A
Rating current 20°C	20,5 A
Rating current 25°C	20,3 A
Rating current 30°C	20 A
Rating current 35°C	19,8 A
Rating current 40°C	19,6 A
Rating current 45°C	19,4 A
Rating current 50°C	19,2 A
Rating current 55°C	19 A
Rating current 60°C	18,8 A

**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	0,95
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

**Frequency**

Frequency	50 Hz
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**Selectivity**

Maximal rating current of downstream aM fuse for selectivity on short-circuit	4 A
Maximal rating current of downstream gL fuse for selectivity on short-circuit	12 A
Minimal rating current of upstream aM fuse for selectivity on short-circuit	25 A
Minimal rating current of upstream gL fuse for selectivity on short-circuit	32 A

**Power**

Total power loss under I <sub>N</sub>	5,2 W
Power loss per pole at I <sub>N</sub>	4 W

**Tripping**

Protected against nuisance tripping	no
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### Endurance

Electric endurance in number of cycles	2000
Number of mechanical operations	2000

### Dimensions

Depth of installed product	68 mm
Height of installed product	83 mm
Width of installed product	35 mm

### Installation, mounting

Tightening torque	2,1Nm
360° product mounting position	yes

### Connection

Connection cross-section at output with screw, for flexible conductor	1 / 16 mm <sup>2</sup>
Connection cross-section at output with screw, for massive conductor	1 / 25 mm <sup>2</sup>
Connection cross-sect. flexible conductor	1 / 16mm <sup>2</sup>
Connection cross-sect. rigid cable	1 / 25mm <sup>2</sup>
Connection cross-section for rigid conductor, upstream terminals with screws	1 / 25 mm <sup>2</sup>
Connection cross-section of the access with screws, with flexible conductor	1 / 16 mm <sup>2</sup>
Type of connection	with screw

### Standards

Standard text	EN 61009-1
European directive WEEE	not concerned

### Safety

Protection index IP	IP20
Residual current type	AC

### Use conditions

Operating temperature	-25...40 °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	-25...70 °C

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Temperature of calibration	30 °C
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