Miniature Circuit Breakers and Supplementary Protectors

UL 1077 DIN Rail Supplementary Protectors

FAZ Circuit Breakers



Optimum and Efficient Protection for Every Application

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FAZ Circuit Breakers

Product Overview

Optimum product quality, tested reliability and safety stand for best protection of personnel, installations and plant. Eaton's FAZ DIN rail mountable circuit breaker is designed for use in control panel applications.

Powerful offering for machine and system builders

The FAZ is available with B, C, D, K, S, and Z characteristics in accordance with UL 1077, CSA C22.2 No.235 and IEC 60947-2. These devices are CE marked.

Application Description

- Supplementary protection
- Control circuits
- Lighting
- Business equipment
- Appliances

Features

- Complete range of UL 1077 recognized DIN rail mounted miniature circuit breakers up to 63A current rating
- Standard ratings of 10 kAIC up to 277/480 Vac
- Current limiting design provides fast short-circuit interruption that reduces the let-through energy, which can damage the circuit
- Suitable for supplementary protection
- Thermal-magnetic overcurrent protection
 - Six levels of short-circuit protection, categorized by B, C, D, K, S, and Z curves

- Trip-free design—breaker can not be defeated by holding the handle in the ON position
- Captive screws cannot be lost
- Fulfill UL 1077, CSA C22.2 No.235 and also IEC 60947-2 Standard
- Field-installable shunt trip and auxiliary switch subsequent mounting
- Module width of only 17.7 mm (per pole)
- Contact position indicator (red/green)
- Easy installation on DIN rail
- Possibility for sealing the toggle in ON or OFF position

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UL 1077 DIN Rail Supplementary Protectors

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Discover These Advanced Features

Breakers install on standard DIN rail

Available in one-, two-, three-, four-pole, 1+N and 3+N models

Color-coded indicator provides breaker status for easy troubleshooting

Catalog Number Selection



Captive Posidrive terminal screws with finger and back-ofhand protection (IP20)

Trip-free design; breaker cannot be defeated by holding the handle in the ON position

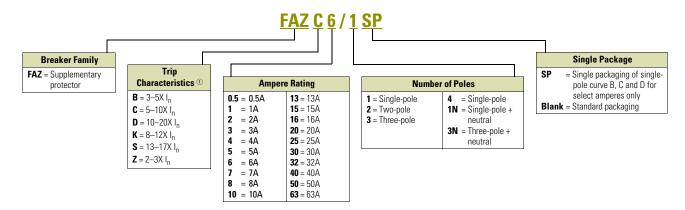
Breaker information printed on the front of the device for quick identification

Standards and Certifications

FAZ complies with the latest national and international standards.

- UL 1077, CSA C22.2 No. 235
 - Apply to supplementary protectors intended for use as overcurrent, or overvoltage or undervoltage protection within an appliance or other electrical equipment where branch circuit protection is already provided, or is not required
- RoHS compliant
- VDE compliant
 - Devices with B, C, and D curves are VDE compliant
- CCC
 - Devices with B, C, and D curves are CCC compliant
- ABS compliant





Note

 $^{(1)}$ I_n = Rated current for instantaneous trip characteristics.

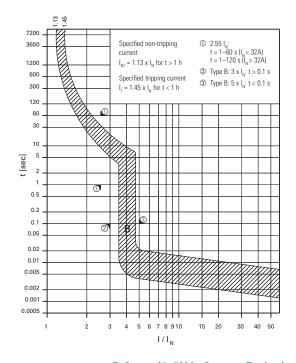
UL 1077 DIN Rail Supplementary Protectors

Product Selection

FAZ B curve (3–5X In current rating)

- · Designed for resistive or slightly inductive loads
- Response time of instantaneous trip: 3–5X In current rating
- UL recognized and CSA Certified as supplementary protectors
- For international and domestic use (conform to IEC 60947-2)
- UL file number 177451

Suitable for applications where protection against low-level short-circuit faults in control wiring is desired. Instantaneous trip is 3–5X continuous rating of device (In). Applications include PLC wiring, business equipment, lighting, appliances and some motors. Low magnetic trip point.



Single-Pole

Two-Pole

Three-Pole

Designed for Resistive or Slightly Inductive Loads ①

B Curve (3–5X In Current Rating)-

Amperes	Single-Pole ^② Catalog Number	Two-Pole Catalog Number	Three-Pole Catalog Number	
1	FAZ-B1/1-SP	FAZ-B1/2	FAZ-B1/3	
2	FAZ-B2/1-SP	FAZ-B2/2	FAZ-B2/3	
3	FAZ-B3/1-SP	FAZ-B3/2	FAZ-B3/3	
4	FAZ-B4/1-SP	FAZ-B4/2	FAZ-B4/3	
5	FAZ-B5/1-SP	FAZ-B5/2	FAZ-B5/3	
6	FAZ-B6/1-SP	FAZ-B6/2	FAZ-B6/3	
7	FAZ-B7/1-SP	FAZ-B7/2	FAZ-B7/3	
8	FAZ-B8/1-SP	FAZ-B8/2	FAZ-B8/3	
10	FAZ-B10/1-SP	FAZ-B10/2	FAZ-B10/3	
12	FAZ-B12/1-SP	FAZ-B12/2	FAZ-B12/3	
13	FAZ-B13/1-SP	FAZ-B13/2	FAZ-B13/3	
15	FAZ-B15/1-SP	FAZ-B15/2	FAZ-B15/3	
16	FAZ-B16/1-SP	FAZ-B16/2	FAZ-B16/3	
20	FAZ-B20/1-SP	FAZ-B20/2	FAZ-B20/3	
25	FAZ-B25/1-SP	FAZ-B25/2	FAZ-B25/3	
30	FAZ-B30/1-SP	FAZ-B30/2	FAZ-B30/3	
32	FAZ-B32/1-SP	FAZ-B32/2	FAZ-B32/3	
40	FAZ-B40/1-SP	FAZ-B40/2	FAZ-B40/3	
50	FAZ-B50/1-SP	FAZ-B50/2	FAZ-B50/3	
63	FAZ-B63/1-SP	FAZ-B63/2	FAZ-B63/3	

Four-Pole (2)

B Curve (3–5X I_n Current Rating)— Designed for Resistive or Slightly Inductive Loads, continued 10

	Inductive Loads, continued ()				
		Four-Pole	Single-Pole + Neutral	Three-Pole + Neutral	
	Amperes	Catalog Number	Catalog Number	Catalog Number	
0. 0. 0. 0.	1	FAZ-B1/4	FAZ-B1/1N	FAZ-B1/3N	
	2	FAZ-B2/4	FAZ-B2/1N	FAZ-B2/3N	
Single-Pole + Neutral	3	FAZ-B3/4	FAZ-B3/1N	FAZ-B3/3N	
	4	FAZ-B4/4	FAZ-B4/1N	FAZ-B4/3N	
· · ·	5	FAZ-B5/4	FAZ-B5/1N	FAZ-B5/3N	
	6	FAZ-B6/4	FAZ-B6/1N	FAZ-B6/3N	
A CONTRACTOR	7	FAZ-B7/4	FAZ-B7/1N	FAZ-B7/3N	
	8	FAZ-B8/4	FAZ-B8/1N	FAZ-B8/3N	
	10	FAZ-B10/4	FAZ-B10/1N	FAZ-B10/3N	
Three-Pole + Neutral	12	FAZ-B12/4	FAZ-B12/1N	FAZ-B12/3N	
Thee-Fole + Neural	13	FAZ-B13/4	FAZ-B13/1N	FAZ-B13/3N	
8 6 8 8 m	15	FAZ-B15/4	FAZ-B15/1N	FAZ-B15/3N	
12.4 H 2.3	16	FAZ-B16/4	FAZ-B16/1N	FAZ-B16/3N	
	20	FAZ-B20/4	FAZ-B20/1N	FAZ-B20/3N	
E = = = 1	25	FAZ-B25/4	FAZ-B25/1N	FAZ-B25/3N	
	30	FAZ-B30/4	FAZ-B30/1N	FAZ-B30/3N	
	32	FAZ-B32/4	FAZ-B32/1N	FAZ-B32/3N	
	40	FAZ-B40/4	FAZ-B40/1N	FAZ-B40/3N	
	50	FAZ-B50/4	FAZ-B50/1N	FAZ-B50/3N	
	63	FAZ-B63/4	FAZ-B63/1N	FAZ-B63/3N	

V4-T1-69

Notes

1 In North America, these switches are UL recognized and CSA Certified as supplementary protection devices. Per the intent of NEC (National Electrical Code), Article 240, and CEC (Canadian Electrical Code), Part 1 C22.1, supplementary breakers cannot be used as a substitute for the branch circuit protective device. They can be used to provide overcurrent protection within an appliance or other electrical equipment where branch circuit overcurrent protection is already provided, or is not required.

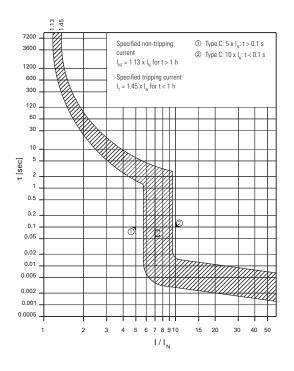
⁽²⁾ Option for single packaging on single-pole B, C and D curves only; add suffix SP when ordering.

UL 1077 DIN Rail Supplementary Protectors

FAZ C curve (5–10X I_n current rating)

- Designed for inductive loads
- Response time of instantaneous trip: 5–10X In current rating
- UL recognized and CSA Certified as supplementary protectors
- For international and domestic use (conform to IEC 60947-2)
- UL file number 177451

Suitable for applications where medium levels of inrush current are expected. Instantaneous trip is 5–10X rating of device (I_n) . Applications include small transformers, lighting, pilot devices, control circuits and coils. Medium magnetic trip point.



Single-Pole

Two-Pole







		Current Rating)	_
Designed	d Inducti	ive Loads 1	

Amperes	Single-Pole [©] Catalog Number	Two-Pole Catalog Number	Three-Pole Catalog Number
).5	FAZ-C0.5/1-SP	FAZ-C0.5/2	FAZ-C0.5/3
	FAZ-C1/1-SP	FAZ-C1/2	FAZ-C1/3
.6	FAZ-C1.6/1-SP	FAZ-C1.6/2	FAZ-C1.6/3
	FAZ-C2/1-SP	FAZ-C2/2	FAZ-C2/3
	FAZ-C3/1-SP	FAZ-C3/2	FAZ-C3/3
ŀ	FAZ-C4/1-SP	FAZ-C4/2	FAZ-C4/3
i	FAZ-C5/1-SP	FAZ-C5/2	FAZ-C5/3
6	FAZ-C6/1-SP	FAZ-C6/2	FAZ-C6/3
	FAZ-C7/1-SP	FAZ-C7/2	FAZ-C7/3
}	FAZ-C8/1-SP	FAZ-C8/2	FAZ-C8/3
0	FAZ-C10/1-SP	FAZ-C10/2	FAZ-C10/3
3	FAZ-C13/1-SP	FAZ-C13/2	FAZ-C13/3
5	FAZ-C15/1-SP	FAZ-C15/2	FAZ-C15/3
6	FAZ-C16/1-SP	FAZ-C16/2	FAZ-C16/3
20	FAZ-C20/1-SP	FAZ-C20/2	FAZ-C20/3
5	FAZ-C25/1-SP	FAZ-C25/2	FAZ-C25/3
30	FAZ-C30/1-SP	FAZ-C30/2	FAZ-C30/3
2	FAZ-C32/1-SP	FAZ-C32/2	FAZ-C32/3
10	FAZ-C40/1-SP	FAZ-C40/2	FAZ-C40/3
50	FAZ-C50/1-SP	FAZ-C50/2	FAZ-C50/3
53	FAZ-C63/1-SP	FAZ-C63/2	FAZ-C63/3

Four-Pole

C Curve (5–10X In Current Rating)-**Designed Inductive Loads, continued** ⁽¹⁾ Single-Pole Three-Pole

रेरेरे ह	Amperes	Four-Pole Catalog Number	Single-Pole + Neutral Catalog Number	Three-Pole + Neutral Catalog Number
	0.5	FAZ-C0.5/4	FAZ-C0.5/1N	FAZ-C0.5/3N
	1	FAZ-C1/4	FAZ-C1/1N	FAZ-C1/3N
	1.6	FAZ-C1.6/4	FAZ-C1.6/1N	FAZ-C1.6/3N
Single-Pole + Neutral	2	FAZ-C2/4	FAZ-C2/1N	FAZ-C2/3N
0 0 m	3	FAZ-C3/4	FAZ-C3/1N	FAZ-C3/3N
800 11 11 1	4	FAZ-C4/4	FAZ-C4/1N	FAZ-C4/3N
L LICE	5	FAZ-C5/4	FAZ-C5/1N	FAZ-C5/3N
No dia mandri di seconda di secon	6	FAZ-C6/4	FAZ-C6/1N	FAZ-C6/3N
C. O.	7	FAZ-C7/4	FAZ-C7/1N	FAZ-C7/3N
	8	FAZ-C8/4	FAZ-C8/1N	FAZ-C8/3N
Three-Pole + Neutral	10	FAZ-C10/4	FAZ-C10/1N	FAZ-C10/3N
	13	FAZ-C13/4	FAZ-C13/1N	FAZ-C13/3N
· · · · · ·	15	FAZ-C15/4	FAZ-C15/1N	FAZ-C15/3N
	16	FAZ-C16/4	FAZ-C16/1N	FAZ-C16/3N
	20	FAZ-C20/4	FAZ-C20/1N	FAZ-C20/3N
	25	FAZ-C25/4	FAZ-C25/1N	FAZ-C25/3N
	30	FAZ-C30/4	FAZ-C30/1N	FAZ-C30/3N
	32	FAZ-C32/4	FAZ-C32/1N	FAZ-C32/3N
	40	FAZ-C40/4	FAZ-C40/1N	FAZ-C40/3N
	50	FAZ-C50/4	FAZ-C50/1N	FAZ-C50/3N
	63	FAZ-C63/4	FAZ-C63/1N	FAZ-C63/3N

Notes

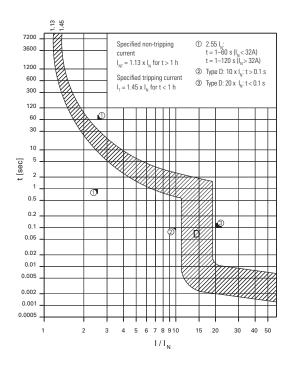
① In North America, these switches are UL recognized and CSA Certified as supplementary protection devices. Per the intent of NEC (National Electrical Code), Article 240, and CEC (Canadian Electrical Code), Part 1 C22.1, supplementary breakers cannot be used as a substitute for the branch circuit protective device. They can be used to provide overcurrent protection within an appliance or other electrical equipment where branch circuit overcurrent protection is already provided, or is not required. (2) Option for single packaging on single-pole B, C and D curves only; add suffix SP when ordering.

UL 1077 DIN Rail Supplementary Protectors

FAZ D curve (10–20X I_n current rating)

- · Designed for highly inductive loads
- Response time of instantaneous trip: 10–20X In current rating
- · UL recognized and CSA Certified as supplementary protectors
- For international and domestic use (conform to IEC 60947-2)
- UL file number 177451

Suitable for applications where high levels of inrush current are expected. Instantaneous trip is 10–20X rating of device (In). The high magnetic trip point prevents nuisance tripping in high inductive applications such as motors, transformers and power supplies.



Single-Pole



Two-Pole



Three-Pole



D Curve (10–20X I _n Current Rating)–
Designed for Inductive Loads ()

	Single-Pole $^{\textcircled{2}}$	Two-Pole	Three-Pole
Amperes	Catalog Number	Catalog Number	Catalog Number
0.5	FAZ-D0.5/1-SP	FAZ-D0.5/2	FAZ-D0.5/3
1	FAZ-D1/1-SP	FAZ-D1/2	FAZ-D1/3
2	FAZ-D2/1-SP	FAZ-D2/2	FAZ-D2/3
3	FAZ-D3/1-SP	FAZ-D3/2	FAZ-D3/3
4	FAZ-D4/1-SP	FAZ-D4/2	FAZ-D4/3
5	FAZ-D5/1-SP	FAZ-D5/2	FAZ-D5/3
6	FAZ-D6/1-SP	FAZ-D6/2	FAZ-D6/3
7	FAZ-D7/1-SP	FAZ-D7/2	FAZ-D7/3
8	FAZ-D8/1-SP	FAZ-D8/2	FAZ-D8/3
10	FAZ-D10/1-SP	FAZ-D10/2	FAZ-D10/3
13	FAZ-D13/1-SP	FAZ-D13/2	FAZ-D13/3
15	FAZ-D15/1-SP	FAZ-D15/2	FAZ-D15/3
16	FAZ-D16/1-SP	FAZ-D16/2	FAZ-D16/3
20	FAZ-D20/1-SP	FAZ-D20/2	FAZ-D20/3
25	FAZ-D25/1-SP	FAZ-D25/2	FAZ-D25/3
30	FAZ-D30/1-SP	FAZ-D30/2	FAZ-D30/3
32	FAZ-D32/1-SP	FAZ-D32/2	FAZ-D32/3
40	FAZ-D40/1-SP	FAZ-D40/2	FAZ-D40/3
50 3	FAZ-D50/1-SP	FAZ-D50/2	FAZ-D50/3
63 3	FAZ-D63/1-SP	FAZ-D63/2	FAZ-D63/3

Four-Pole

D Curve (10–20X I_n Current Rating)-**Designed for Inductive Loads, continued** ^①

••••	Amperes	Four-Pole Catalog Number	Single-Pole + Neutral Catalog Number	Three-Pole + Neutral Catalog Number
	0.5	FAZ-D0.5/4	FAZ-D0.5/1N	FAZ-D0.5/3N
	1	FAZ-D1/4	FAZ-D1/1N	FAZ-D1/3N
	2	FAZ-D2/4	FAZ-D2/1N	FAZ-D2/3N
Single-Pole + Neutral	3	FAZ-D3/4	FAZ-D3/1N	FAZ-D3/3N
0 0 m	4	FAZ-D4/4	FAZ-D4/1N	FAZ-D4/3N
200 11 11 1	5	FAZ-D5/4	FAZ-D5/1N	FAZ-D5/3N
A dite	6	FAZ-D6/4	FAZ-D6/1N	FAZ-D6/3N
	7	FAZ-D7/4	FAZ-D7/1N	FAZ-D7/3N
C. O.	8	FAZ-D8/4	FAZ-D8/1N	FAZ-D8/3N
	10	FAZ-D10/4	FAZ-D10/1N	FAZ-D10/3N
Three-Pole + Neutral	13	FAZ-D13/4	FAZ-D13/1N	FAZ-D13/3N
	15	FAZ-D15/4	FAZ-D15/1N	FAZ-D15/3N
	16	FAZ-D16/4	FAZ-D16/1N	FAZ-D16/3N
The Party of the P	20	FAZ-D20/4	FAZ-D20/1N	FAZ-D20/3N
	25	FAZ-D25/4	FAZ-D25/1N	FAZ-D25/3N
0.0.0.0	30	FAZ-D30/4	FAZ-D30/1N	FAZ-D30/3N
	32	FAZ-D32/4	FAZ-D32/1N	FAZ-D32/3N
	40	FAZ-D40/4	FAZ-D40/1N	FAZ-D40/3N
	50 3	FAZ-D50/4	FAZ-D50/1N	FAZ-D50/3N
	63 (3)	FAZ-D63/4	FAZ-D63/1N	FAZ-D63/3N

Notes

① In North America, these switches are UL recognized and CSA Certified as supplementary protection devices. Per the intent of NEC (National Electrical Code), Article 240, and CEC (Canadian Electrical Code), Part 1 C22.1, supplementary breakers cannot be used as a substitute for the branch circuit protective device. They can be used to provide overcurrent protection within an appliance or other electrical equipment where branch circuit overcurrent protection is already provided, or is not required.

⁽²⁾ Option for single packaging on single-pole B, C and D curves only; add suffix SP when ordering.

③ IEC 60947-2 only.