NEW

series FAZ supplementary protectors

Supplementary protection up to 10kA

Moeller's FAZ line of miniature circuit breakers includes a broad range of devices defined as "supplementary protectors." These breakers comply with UL 1077 and CSA 22.2 No. 235 regulations defining supplementary over-current protection. In these applications, branch circuit protection is not required, or is provided by a separate device like a fuse or molded case circuit breaker.

FAZ Supplementary Protectors are typically used for control circuits, lighting, business equipment, appliances and a range of other applications where "closer" protection is desired than that offered by a branch circuit protection device.

See page 43 about...
Applying FAZ in North America

- > Supplementary protector per UL 1077 / CSA 22.2 No. 235
- > Current limiting device
- > Very broad product range
- > Worldwide approvals

Extensive product range

Moeller Supplementary Protectors are available in one, two and three pole configurations and up to 17 different current ratings from 0.5A to 63A. One pole plus neutral, and three-pole plus neutral devices are also available. Six different trip characteristics including B, C, D, K, S and Z curves give you the ability to configure the exact protection scheme you require. Devices can be used in applications up to 480V AC and 48V DC with short circuit ratings up to 10kA.

Straightforward installation

All breakers mount on a standard 35mm DIN-rail. Each device has box terminals that accept multiple conductors. Bus Connectors and Feeder Terminals facilitate mounting and wiring of multiple miniature circuit breaker arrays in control panel assemblies. Power to the circuit breakers can also be fed from the line or load side.

Standard features enhance safety

As with most products from Moeller, FAZ breaker terminals provide finger and back-of-hand protection to guard against accidental contact with live parts.

A color-coded red/green indicator provides immediate visual indication of device status (green for OFF, red for ON) and isolation function.

All FAZ breakers also incorporate a "trip-free" mechanism. This prevents the trip function from being defeated by holding the operator in the ON position.

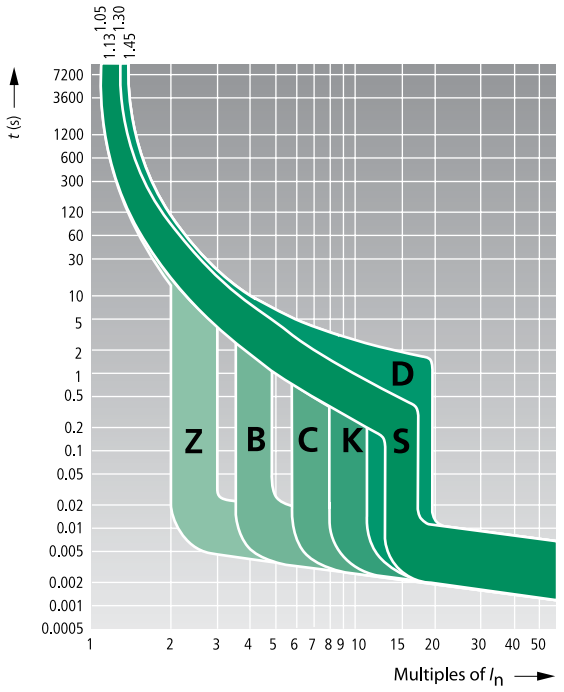
Worldwide acceptance

FAZ Supplementary Protectors are UL Recognized for use in the United States in accordance with NFPA 70 (NEC). The devices comply with UL 1077 and CSA 22.2 No.235, meeting the requirements for supplementary protectors. These devices also comply with IEC 60898 and are CE marked.

Six tripping curves to choose

Moeller FAZ Supplementary Protectors are available with six different tripping characteristics, including Type B, C, D, K, S and Z. Definitions for each trip curve are contained on the ordering pages and can be used to determine the optimal characteristic for your application. For example, low level short-circuit faults in control wiring, such as PLCs, are best protected by devices with Type B trip characteristics (3 to 5 X continuous rating of the device (I_n).

Even though not required by NEC or CEC for Supplementary Protectors, Moeller's FAZ devices are current limiting, which means they interrupt fault currents within one half cycle. Current limiting devices offer superior protection by reducing peak let-through current and energy.



This graph shows trip-time versus over-current for all FAZ Supplementary Protectors.

Discover these advanced features

Available in over 400 configurations including B, C, D, K, S and D trip curves

Breakers install on standard DIN-rail

Available in one, two and three pole models; one and three pole plus neutral also available

Color coded indicator provides breaker status for easy troubleshooting

Complete bus bar system available for quickly installing breaker arrays in panel assemblies

Captive posidrive terminal screws with finger and back-of-hand protection (IP20)

Short circuit rating to 10kA (@277V AC and 480Y/277V AC for multi-pole to 40A)

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

Box terminals accept #16 to #4 wire (1.5 to 25mm²)

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

- Designed for resistive or slightly inductive loads.
- Response time of instantaneous trip: 3 – 5 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

Type B Characteristics

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

Trip Characteristic B – *Designed for resistive or slightly inductive loads* ❶

Rated Current I_n [A]	1 pole	2 poles	3 poles	4 poles
				
	Catalog Number	**Catalog Number**	**Catalog Number**	**Catalog Number**
6	FAZ-B6/1	FAZ-B6/2	FAZ-B6/3	FAZ-B6/4
8	FAZ-B8/1	FAZ-B8/2	FAZ-B8/3	FAZ-B8/4
10	FAZ-B10/1	FAZ-B10/2	FAZ-B10/3	FAZ-B10/4
12	FAZ-B12/1	FAZ-B12/2	FAZ-B12/3	FAZ-B12/4
13	FAZ-B13/1	FAZ-B13/2	FAZ-B13/3	FAZ-B13/4
15	FAZ-B15/1	FAZ-B15/2	FAZ-B15/3	FAZ-B15/4
16	FAZ-B16/1	FAZ-B16/2	FAZ-B16/3	FAZ-B16/4
20	FAZ-B20/1	FAZ-B20/2	FAZ-B20/3	FAZ-B20/4
25	FAZ-B25/1	FAZ-B25/2	FAZ-B25/3	FAZ-B25/4
32	FAZ-B32/1	FAZ-B32/2	FAZ-B32/3	FAZ-B32/4
40	FAZ-B40/1	FAZ-B40/2	FAZ-B40/3	FAZ-B40/4
50	FAZ-B50/1	FAZ-B50/2	FAZ-B50/3	FAZ-B50/4
63	FAZ-B63/1	FAZ-B63/2	FAZ-B63/3	FAZ-B63/4

❶ 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 over-current protection within an appliance or other electrical equipment where branch circuit over-current protection is already provided, or is not required. See FAZ Branch Circuit Breakers in this catalog.

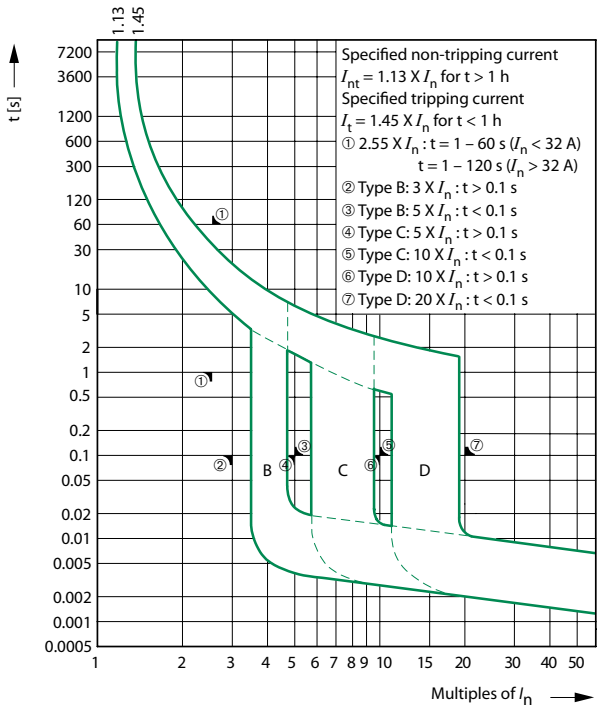
See Trip Curve chart on opposite page

- Designed for resistive or slightly inductive loads.
- Response time of instantaneous trip: 3 – 5 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

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

Trip Characteristic B – *Designed for resistive or slightly inductive loads* ❶

Rated Current I_n [A]	1 pole + Neutral	3 poles + Neutral
		
	Catalog Number	Catalog Number
6	FAZ-B6/1N	FAZ-B6/3N
8	FAZ-B8/1N	FAZ-B8/3N
10	FAZ-B10/1N	FAZ-B10/3N
12	FAZ-B12/1N	FAZ-B12/3N
13	FAZ-B13/1N	FAZ-B13/3N
15	FAZ-B15/1N	FAZ-B15/3N
16	FAZ-B16/1N	FAZ-B16/3N
20	FAZ-B20/1N	FAZ-B20/3N
25	FAZ-B25/1N	FAZ-B25/3N
32	FAZ-B32/1N	FAZ-B32/3N
40	FAZ-B40/1N	FAZ-B40/3N
50	FAZ-B50/1N	FAZ-B50/3N
63	FAZ-B63/1N	FAZ-B63/3N



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- Designed for inductive loads.
- Response time of instantaneous trip: 5 –10 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

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

Trip Characteristic C – *Designed for inductive loads* ❶

Rated Current I_n [A]	1 pole	2 poles	3 poles	4 poles
				
	Catalog Number	**Catalog Number**	**Catalog Number**	**Catalog Number**
0.5	FAZ-C0,5/1	FAZ-C0,5/2	FAZ-C0,5/3	FAZ-C0,5/4
1	FAZ-C1/1	FAZ-C1/2	FAZ-C1/3	FAZ-C1/4
1.6	FAZ-C1,6/1	FAZ-C1,6/2	FAZ-C1,6/3	FAZ-C1,6/4
2	FAZ-C2/1	FAZ-C2/2	FAZ-C2/3	FAZ-C2/4
3	FAZ-C3/1	FAZ-C3/2	FAZ-C3/3	FAZ-C3/4
4	FAZ-C4/1	FAZ-C4/2	FAZ-C4/3	FAZ-C4/4
6	FAZ-C6/1	FAZ-C6/2	FAZ-C6/3	FAZ-C6/4
8	FAZ-C8/1	FAZ-C8/2	FAZ-C8/3	FAZ-C8/4
10	FAZ-C10/1	FAZ-C10/2	FAZ-C10/3	FAZ-C10/4
13	FAZ-C13/1	FAZ-C13/2	FAZ-C13/3	FAZ-C13/4
16	FAZ-C16/1	FAZ-C16/2	FAZ-C16/3	FAZ-C16/4
20	FAZ-C20/1	FAZ-C20/2	FAZ-C20/3	FAZ-C20/4
25	FAZ-C25/1	FAZ-C25/2	FAZ-C25/3	FAZ-C25/4
32	FAZ-C32/1	FAZ-C32/2	FAZ-C32/3	FAZ-C32/4
40	FAZ-C40/1	FAZ-C40/2	FAZ-C40/3	FAZ-C40/4
50	FAZ-C50/1	FAZ-C50/2	FAZ-C50/3	FAZ-C50/4
63	FAZ-C63/1	FAZ-C63/2	FAZ-C63/3	FAZ-C63/4

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See Trip Curve chart on opposite page

- Designed for inductive loads.
- Response time of instantaneous trip: 5 –10 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

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

Trip Characteristic C – *Designed for inductive loads* ❶

Rated Current I_n [A]	1 pole + Neutral	3 poles + Neutral
		
	Catalog Number	**Catalog Number**
0.5	FAZ-C0,5/1N	FAZ-C0,5/3N
1	FAZ-C1/1N	FAZ-C1/3N
1.6	FAZ-C1,6/1N	FAZ-C1,6/3N
2	FAZ-C2/1N	FAZ-C2/3N
3	FAZ-C3/1N	FAZ-C3/3N
4	FAZ-C4/1N	FAZ-C4/3N
6	FAZ-C6/1N	FAZ-C6/3N
8	FAZ-C8/1N	FAZ-C8/3N
10	FAZ-C10/1N	FAZ-C10/3N
13	FAZ-C13/1N	FAZ-C13/3N
16	FAZ-C16/1N	FAZ-C16/3N
20	FAZ-C20/1N	FAZ-C20/3N
25	FAZ-C25/1N	FAZ-C25/3N
32	FAZ-C32/1N	FAZ-C32/3N
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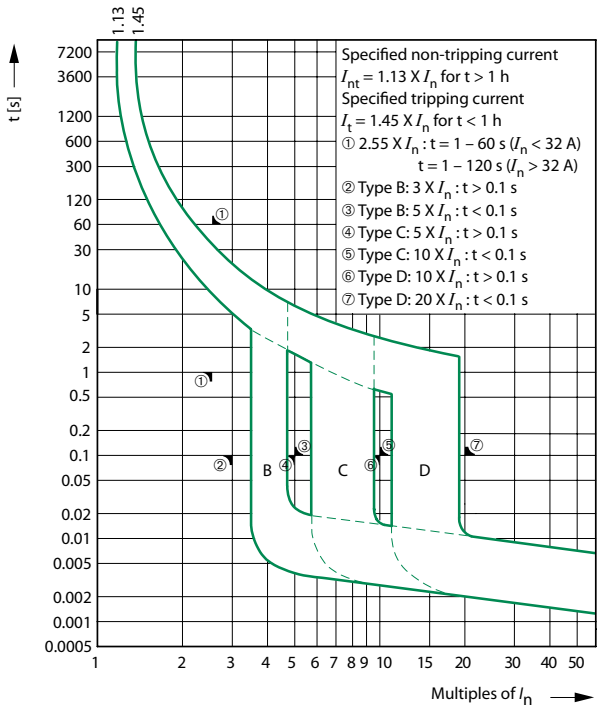
63	FAZ-C63/1N	FAZ-C63/3N



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- Designed for highly inductive loads.
- Response time of instantaneous trip: 10 –20 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

Type D Characteristics

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

Trip Characteristic D – *Designed for highly inductive loads* ❶

Rated Current I_n [A]	1 pole	2 poles	3 poles	4 poles
				
	Catalog Number	Catalog Number	Catalog Number	Catalog Number
6	FAZ-D6/1	FAZ-D6/2	FAZ-D6/3	FAZ-D6/4
8	FAZ-D8/1	FAZ-D8/2	FAZ-D8/3	FAZ-D8/4
10	FAZ-D10/1	FAZ-D10/2	FAZ-D10/3	FAZ-D10/4
13	FAZ-D13/1	FAZ-D13/2	FAZ-D13/3	FAZ-D13/4
16	FAZ-D16/1	FAZ-D16/2	FAZ-D16/3	FAZ-D16/4
20	FAZ-D20/1	FAZ-D20/2	FAZ-D20/3	FAZ-D20/4
25	FAZ-D25/1	FAZ-D25/2	FAZ-D25/3	FAZ-D25/4
32	FAZ-D32/1	FAZ-D32/2	FAZ-D32/3	FAZ-D32/4
40	FAZ-D40/1	FAZ-D40/2	FAZ-D40/3	FAZ-D40/4

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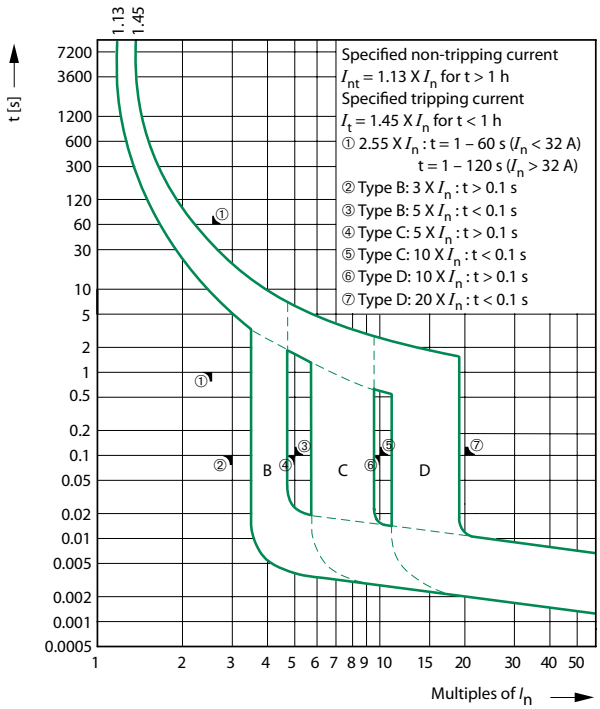
See Trip Curve chart on opposite page

- Designed for highly inductive loads.
- Response time of instantaneous trip: 10 –20 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

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

Trip Characteristic D – *Designed for highly inductive loads* ❶

Rated Current I_n [A]	3 poles + Neutral  Catalog Number
6	FAZ-D6/3N
8	FAZ-D8/3N
10	FAZ-D10/3N
13	FAZ-D13/3N
16	FAZ-D16/3N
20	FAZ-D20/3N
25	FAZ-D25/3N
32	FAZ-D32/3N
40	FAZ-D40/3N



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- Designed for motors, transformers and upstream electronics.
- Response time of instantaneous trip: 8 –12 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

Type K Characteristics
Suitable for applications where high levels of inrush current are expected. Instantaneous trip is 8 to 12 x continuous rating of device (I_n). The high magnetic trip point is ideal for motors and transformers. The narrow range (compared with the type D curve) makes it ideal for applications where nuisance tripping is not an issue.

Trip Characteristic K – *Designed for motors, transformers and upstream electronics* ❶

Rated Current I_n [A]	1 pole	2 poles	3 poles	4 poles
				
	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0.5	FAZ-K0,5/1	FAZ-K0,5/2	FAZ-K0,5/3	FAZ-K0,5/4
1	FAZ-K1/1	FAZ-K1/2	FAZ-K1/3	FAZ-K1/4
1.6	FAZ-K1,6/1	FAZ-K1,6/2	FAZ-K1,6/3	FAZ-K1,6/4
2	FAZ-K2/1	FAZ-K2/2	FAZ-K2/3	FAZ-K2/4
3	FAZ-K3/1	FAZ-K3/2	FAZ-K3/3	FAZ-K3/4
4	FAZ-K4/1	FAZ-K4/2	FAZ-K4/3	FAZ-K4/4
6	FAZ-K6/1	FAZ-K6/2	FAZ-K6/3	FAZ-K6/4
8	FAZ-K8/1	FAZ-K8/2	FAZ-K8/3	FAZ-K8/4
10	FAZ-K10/1	FAZ-K10/2	FAZ-K10/3	FAZ-K10/4
13	FAZ-K13/1	FAZ-K13/2	FAZ-K13/3	FAZ-K13/4
16	FAZ-K16/1	FAZ-K16/2	FAZ-K16/3	FAZ-K16/4
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32	FAZ-K32/1	FAZ-K32/2	FAZ-K32/3	FAZ-K32/4
40	FAZ-K40/1	FAZ-K40/2	FAZ-K40/3	FAZ-K40/4
50	FAZ-K50/1	FAZ-K50/2	FAZ-K50/3	FAZ-K50/4
63	FAZ-K63/1	FAZ-K63/2	FAZ-K63/3	FAZ-K63/4

Special Order
These breakers are available by special order only. Contact your Moeller representative for more information.

❶ 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 over-current protection within an appliance or other electrical equipment where branch circuit over-current protection is already provided, or is not required. See FAZ Branch Circuit Breakers in this catalog.

See Trip Curve chart on opposite page

- Designed for motors, transformers and upstream electronics.
- Response time of instantaneous trip: 8 –12 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

Type K Characteristics
Suitable for applications where high levels of inrush current are expected. Instantaneous trip is 8 to 12 x continuous rating of device (I_n). The high magnetic trip point is ideal for motors and transformers. The narrow range (compared with the type D curve) makes it ideal for applications where nuisance tripping is not an issue.

Trip Characteristic K – *Designed for motors, transformers and upstream electronics* ❶

Rated Current I_n [A]	3 poles + Neutral  Catalog Number
0.5	FAZ-K0,5/3N
1	FAZ-K1/3N
1.6	FAZ-K1,6/3N
2	FAZ-K2/3N
3	FAZ-K3/3N
4	FAZ-K4/3N
6	FAZ-K6/3N
8	FAZ-K8/3N
10	FAZ-K10/3N
13	FAZ-K13/3N
16	FAZ-K16/3N
20	FAZ-K20/3N
25	FAZ-K25/3N
32	FAZ-K32/3N
40	FAZ-K40/3N
50	FAZ-K50/3N
63	FAZ-K63/3N

Special Order
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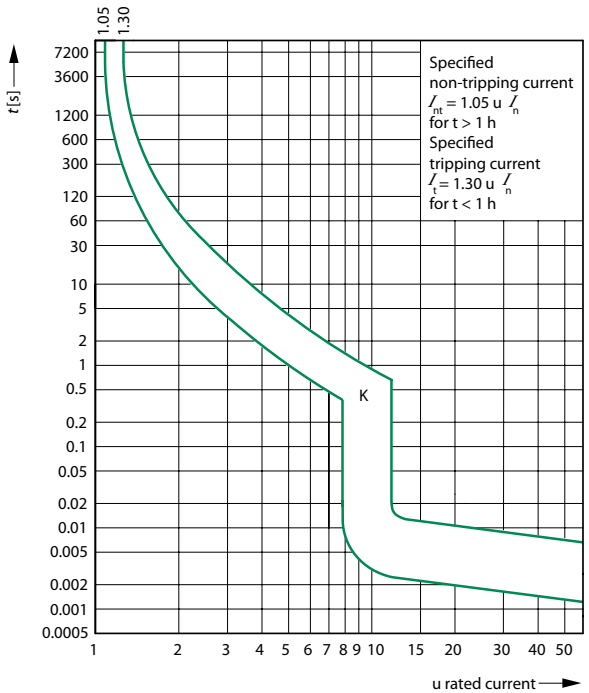

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- Designed for protection of electronic devices.
- Response time of instantaneous trip: 2 –3 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

Type Z Characteristics
Suitable for applications where semiconductors and other components that fail open are used. Instantaneous trip is 2 to 3 x continuous rating of device (I_n). The short thermal delay and low magnetic trip point are ideal for applications where devices and components have low surge and short circuit tolerances.

Trip Characteristic Z – *Designed for protection of electronic devices* ❶

Rated Current I_n [A]	1 pole	2 poles	3 poles	4 poles
				
	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0.5	FAZ-Z0,5/1	FAZ-Z0,5/2	FAZ-Z0,5/3	FAZ-Z0,5/4
1	FAZ-Z1/1	FAZ-Z1/2	FAZ-Z1/3	FAZ-Z1/4
1.6	FAZ-Z1,6/1	FAZ-Z1,6/2	FAZ-Z1,6/3	FAZ-Z1,6/4
2	FAZ-Z2/1	FAZ-Z2/2	FAZ-Z2/3	FAZ-Z2/4
3	FAZ-Z3/1	FAZ-Z3/2	FAZ-Z3/3	FAZ-Z3/4
4	FAZ-Z4/1	FAZ-Z4/2	FAZ-Z4/3	FAZ-Z4/4
6	FAZ-Z6/1	FAZ-Z6/2	FAZ-Z6/3	FAZ-Z6/4
8	FAZ-Z8/1	FAZ-Z8/2	FAZ-Z8/3	FAZ-Z8/4
10	FAZ-Z10/1	FAZ-Z10/2	FAZ-Z10/3	FAZ-Z10/4
13	FAZ-Z13/1	FAZ-Z13/2	FAZ-Z13/3	FAZ-Z13/4
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20	FAZ-Z20/1	FAZ-Z20/2	FAZ-Z20/3	FAZ-Z20/4
25	FAZ-Z25/1	FAZ-Z25/2	FAZ-Z25/3	FAZ-Z25/4
32	FAZ-Z32/1	FAZ-Z32/2	FAZ-Z32/3	FAZ-Z32/4
40	FAZ-Z40/1	FAZ-Z40/2	FAZ-Z40/3	FAZ-Z40/4
50	FAZ-Z50/1	FAZ-Z50/2	FAZ-Z50/3	FAZ-Z50/4
63	FAZ-Z63/1	FAZ-Z63/2	FAZ-Z63/3	FAZ-Z63/4

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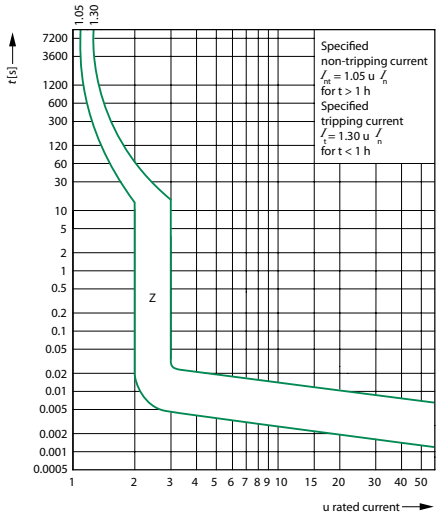

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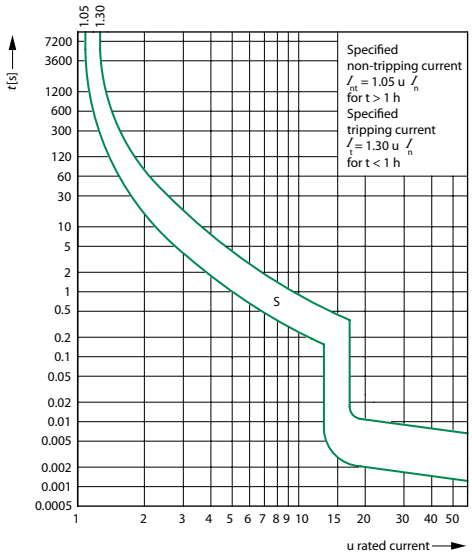
- Designed for control circuits with high inrush
- Response time of instantaneous trip: 13 –17 x I_n current rating
- UL Recognized and CSA Certified as Supplementary Protectors
- For international and domestic use (conform to IEC / EN60898)

Type S Characteristics
Suitable for applications with highly inductive loads, especially in control circuits with coils and light filaments. Instantaneous response between 13 to 17 x rating of device (I_n).

Trip Characteristic S – *Designed for control circuits with high inrush* ❶

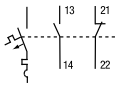
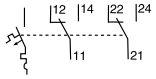
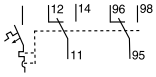
Rated Current I_n [A]	1 pole	2 poles
		
	Catalog Number	Catalog Number
1	FAZ-S1/1	FAZ-S1/2
2	FAZ-S2/1	FAZ-S2/2
3	FAZ-S3/1	FAZ-S3/2
4	FAZ-S4/1	FAZ-S4/2
6	FAZ-S6/1	FAZ-S6/2
10	FAZ-S10/1	FAZ-S10/2
16	FAZ-S16/1	FAZ-S16/2
20	FAZ-S20/1	FAZ-S20/2
25	FAZ-S25/1	FAZ-S25/2
32	FAZ-S32/1	FAZ-S32/2
40	FAZ-S40/1	FAZ-S40/2

Special Order
These breakers are available by special order only.
Contact your Moeller representative for more information.

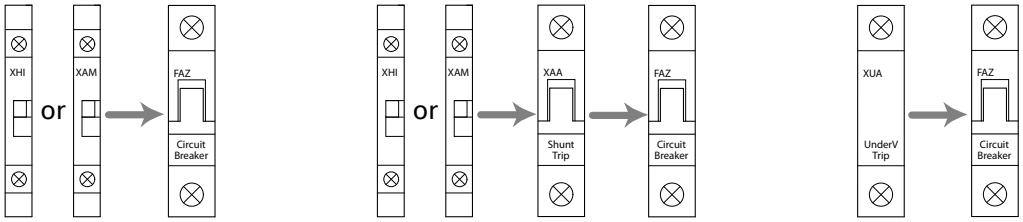


❶ In North America, these switches are UL recognized and CSA certified as Supplementary Protection devices. Per the intent of NEC (National Electrical Code), article 240, and CEC (Canadian Electrical Code), part 1 C22.1, supplementary breakers cannot be used as a substitute for the branch circuit protective device. They can be used to provide over-current protection within an appliance or other electrical equipment where branch circuit over-current protection is already provided, or is not required. See FAZ Branch Circuit Breakers in this catalog.

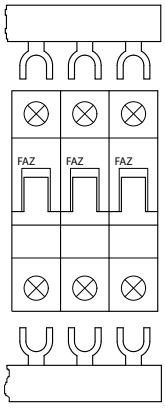
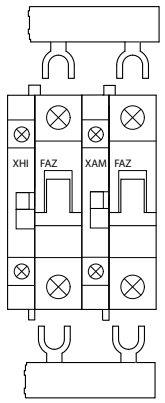
Auxiliary Contacts and Voltage Trips

Module	Circuit Diagram	Description	Rated Operational Voltage	Catalog Number
Standard Auxiliary Contacts				
		• 1 NO / 1 NC • Installs on left side of FAZ or Shunt Trip • Max. one per FAZ (1077) device • Switches when FAZ is tripped electrically or manually	230V AC	**FAZ-XHIN11**
		• 1 changeover contact • Installs on left side of FAZ or Shunt Trip • Max. one per FAZ (1077) device • Switches when FAZ is tripped electrically or manually		**FAZ-XHINW1**
Auxiliary / Trip Indicating Contact				
	 Two-pole auxiliary mode  Trip indicating mode	• Small selector screw changes mode • Two Form C (changeover) contacts • Installs on left side of FAZ or Shunt Trip • Auxiliary contacts switch when FAZ is tripped electrically or manually • Trip indicating contact switches only when FAZ is tripped electrically	230V AC	**FAZ-XAM002**
Undervoltage Trip				
		• Prevents FAZ from operating unless voltage is present • Installs on left side of FAZ • Includes test button	115V AC	**FAZ-XUA(115VAC)**
			230V AC	**FAZ-XUA(230VAC)**
			400V AC	**FAZ-XUA(400VAC)**
Shunt Trip				
		• Allows remote trip of FAZ • Installs on left side of FAZ	110–415V AC 110–230V DC	**FAZ-XAA-C-12-110VAC**
			12 – 110V AC 12 – 60V DC	**FAZ-XAA-C-110-415VAC**

Allowable combinations of accessories

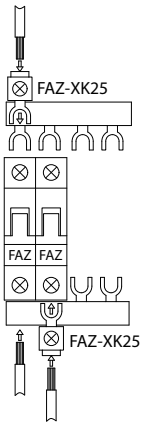


Bus Bar System [1]

Description	Number of Poles per Device	Number of Terminals	Rated Operational Current (A) [1]	Catalog Number
Without auxiliary contacts				
For connecting FAZ Supplementary Protectors without auxiliary contacts. May be fed from line or load side. 	1	2	80	EVG-16/1PHAS/2MODUL
		6		EVG-16/1PHAS/6MODUL
		12		EVG-16/1PHAS/12MODUL
	2	4		EVG-16/2PHAS/4MODUL
		6		EVG-16/2PHAS/6MODUL
		12		EVG-16/2PHAS/12MODUL
	3	6		EVG-16/3PHAS/6MODUL
		9		EVG-16/3PHAS/9MODUL
		12		EVG-16/3PHAS/12MODUL
		16		EVG-16/3PHAS/16MODUL
		20		EVG-16/3PHAS/20MODUL
	4	8		EVG-16/4PHAS/8MODUL
		12		EVG-16/4PHAS/12MODUL
With auxiliary contacts				
For connecting FAZ Supplementary Protectors with auxiliary contacts. May be fed from line or load side. 	1	2	80	EVG-16/1PHAS/2MODUL/HI
		6		EVG-16/1PHAS/6MODUL/HI
		9		EVG-16/1PHAS/9MODUL/HI
	2	4		EVG-16/2PHAS/4MODUL/HI
		6		EVG-16/2PHAS/6MODUL/HI
		10		EVG-16/2PHAS/10MODUL/HI
	3	6		EVG-16/3PHAS/6MODUL/HI
		12		EVG-16/3PHAS/12MODUL/HI

[1] IEC rated only.

Incoming Supply Terminals [1]

Accessories	Description	Installation	Catalog Number
Fork Connector			
	Fork connector • Accommodates conductors up to 25 mm² (~ AWG 4) • Finger-safe connection		**FAZ-XK25**

Protective Accessories

Accessories	Description	Catalog Number
Bus Bar Terminal Cover		
	For covering unused terminals	**ZV-BS-G**
Padlock Hasp		
	• Prevents reactivation of the device during maintenance • Holds one padlock	**IS/SPE-1TE**

[1] IEC rated only.

		B curve	C curve	D curve	K curve	S curve	Z curve
Electrical							
Approvals				UR (UL 1077), CSA (CSA 22.2 No. 235), CE, VDE			
Standards				IEC/EN 60947-2			
Short Circuit Trip Response		3 x 5 I_n	5 x 10 I_n	10 x 20 I_n	8 x 12 I_n	13 x 17 I_n	2 x 3 I_n
Supplementary Protectors - UL / CSA							
Current Range	[A]	6…63	0.5…63	6…40	0.5…63	0.5…63	1…40
Maximum voltage ratings – UL / CSA							
1 pole & 1 pole + neutral	[V AC]	277	277	277	277	277	277
	[V DC]	48	48	48	48	48	48
2, 3, 4 pole & 3 pole + neutral	[V AC]	480Y/277	480Y/277	480Y/277	480Y/277	480Y/277	480Y/277
2 pole	[V DC]	125	125	125	125	125	125
Thermal Tripping Characteristics							
Single Pole				1.35 x I_n @ 40°C			
Multi-pole				1.45 x I_n @ 40°C			
Short circuit ratings (at max. voltage)							
1 pole	[kA]		10 (5 for 40A device)			5 (10 @ 48V DC)	
1 pole + neutral	[kA]		10 (5 for 40A device)			5 (10 @ 48V DC)	
2, 3 & 4 pole	[kA]		10 (5 for 40A device)			5 (10 @ 48V DC)	
3 pole + neutral	[kA]		10 (5 for 40A device)			5 (10 @ 48V DC)	
2 poles in series	[kA]		10 @ 125V DC			10 @ 125V DC	
Miniature Circuit Breaker - IEC							
Current Range	[A]	6…40	0.5…40	6…25	0.5…40	0.5…40	1…16
Maximum voltage ratings – IEC							
1 pole & 1 pole + neutral	[V AC]	240	240	240	240	240	240
	[V DC]	48	48	48	48	48	48
2, 3, 4 pole & 3 pole + neutral	[V AC]	240/415	240/415	240/415	240/415	240/415	240/415
Thermal Tripping Characteristics							
Single Pole				>1 hour @ 1.05 x I_n			
Multi-pole				< 1 hour @ 1.3 x I_n			
Interrupt ratings (at max. voltage)	[kA]	15	15	15	15	10	10
Operational switching capacity	[kA]			7.5			
Max. back-up fuse	[A gL/gG]			125			
Rated impulse withstand - U_{imp}	[V AC]			4000			
Rated insulation voltage - U_i	[V AC]			440			
Environmental / General							
Selectivity Class				3			
Lifespan	[ops.]			> 10000 (1 operation = ON/OFF)			
Shock (IEC 68-2-22)	[g]			10g - 120ms			
Operating Temperature Range	[°F]			+23…+104 (-5…+40°C)			
Shipment & short term storage	[°F]			-40…+185 (-40…+85°C)			
Housing material				Nylon			
Mechanical							
Standard front dimension							
Device height	[mm]			80			
Terminal protection	[mm]			Finger and back-of-hand proof to IEC 536			
Mounting width per pole	[mm]			17.7			
Mounting				IEC/EN 60715 top-hat rail			
Degree of protection				IP20			
Terminals top and bottom				Twin-purpose terminals			
Supply connection				Line or load side			
Terminal capacity	[mm²]			1 x 25 (AWG 4…18)			
	[mm²]			2 x 10 (AWG 8…18)			
Torque	[nm]			2.4			
Thickness of busbar material	[mm]			0.8 – 2			
Mounting position				As required			

			FAZ-XHI11 FAZ-XAM002	FAZ-XAA-C...	FAZ-XUA...
Electrical					
Contact function					
XHI11			1M + 1B	–	–
XAM002			2 C/O	–	–
Rated operational voltage	U_n	[V AC]	250	–	115 230 400
Voltage range		[V AC]	–	12 – 110 110 – 415	–
		[V DC]	–	110 – 230 12 – 60	–
Closing threshold		[x U_n]	–	–	0.8
Tripping threshold		[x U_n]	–	–	0.5
Rated frequency	f	[Hz]	50/60	50/60	50/60
General use (UL / CSA)					
AC	230/240V AC	[A]	2 / 2	–	–
DC	110/120V DC	[A]	0.5 / 0.5	–	–
Pilot Duty			A600 / Q600	–	–
Conventional free air thermal current	I_{th}	[A]	4	–	–
Rated operational current					
AC-13	I_e	[A]	3 (250 V AC)	–	–
AC-15	I_e	[A]	2 (250 V AC)	–	–
DC-13	I_e	[A]	0.5 (110 V DC)	–	–
Rated insulation voltage	U_i	[V AC]	250	–	–
Minimum operating voltage per contract	U_{min}	[V DC]	5	–	–
Rated impulse withstand voltage (1.2/50µ)	U_{imp}	[kV]	2.5	–	–
Rated conditional short-circuit current with 6A back-up fuse	I_{sc}	[kA]	1	–	–
Max. admissible back-up fuse		[A gL]	4	–	–
Mechanical					
Standard front dimension		[mm]	45	45	45
Device height		[mm]	80	80	80
Mounting width		[mm]	8.8	17.6	17.8
Mounting			On MCB	IEC/EN 60715 top-hat rail	IEC/EN 60715 top-hat rail
Degree of protection					
Enclosed			IP40	IP40	IP40
Terminal protection			Protection against electric shock to IEC 536	Protection against electric shock to IEC 536	Protection against electric shock to IEC 536
Terminals			Lift terminals	Twin-purpose terminals	Twin-purpose terminals
Terminal capacity					
Solid		[mm²]	0.5 – 2.5	1 – 2.5	2 x (1 – 2.5)
Flexible		[mm²]	0.5 – 2.5	1 – 2.5	2 x (1 – 2.5)
Tightening torque of terminal screws		[Nm]	0.8 – 1.0	2.4	0.8