

# Low Voltage Fuses AFaC and BaC types

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## AFaC and BaC type current-limiting fuses

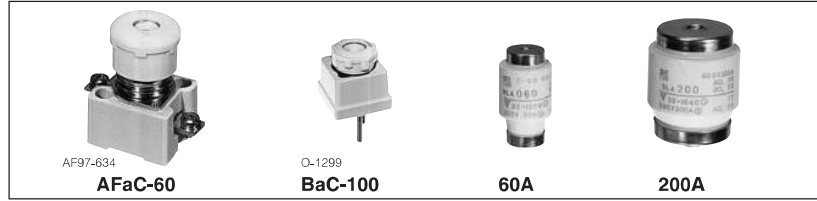
600V AC/DC, 3–400 Amps

### ■ Description

The AFaC and BaC type have an excellent current-limiting performance with an interrupting capacity as high as 100kA at 600V AC/DC. They are suitable for power circuits and control circuit applications including general power cubicles, distribution equipment, motor starters, load centers and control centers. The fuse assembly comprises base, screw cap, fuse link and adapter ring. The universal surface mounting terminals are provided with screws while the rear connection type are supplied with stud bolts. The fuse link can easily and safely be replaced by simply removing a screw cap.

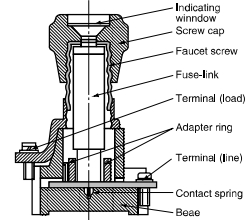
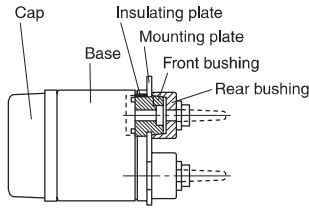
The diameter of the solid ferrule fuse link varies according to the rated current. The higher the rating, the greater the diameter.

As a safety feature the screw cap can only be tightened when the fuse link matches with the adapter ring located inside the base. This prevents the cap from being tightened even when fuse



Rear connection type

Surface connection type



Thickness of mounting plate: 3.2mm or less

link with larger ratings is inserted. The operating blown indication tip can be observed through the screw cap window. The tip color indicates the current rating – for instance, pink indicates 3A and red 10A. The tip is ejected to show that the fuse has blown. Both the base and the screw cap are made from a high class

porcelain insulating material to ensure trouble-free operation. The fuse can be replaced without isolating the circuit. Since the fuse link is housed in a highly reliable porcelain barrel it is strong mechanically and thermally with no danger of explosion or production of noxious gases when blown.

### ■ Components of AFaC and BaC type

Parts	FA776		SD-39	SD-39	SDO 0091M	SD-63	
	Fuse-link	Screw cap	Base	Surface connection	Rear connection	Adapter ring	Color of adapter ring
Rated current (A)	Type	Type	Type	Type	Type	Type	Type
3	BLA003	Pa30	AFa30	Ba30	R3	Pink	
5	BLA005	Pa30	AFa30	Ba30	R5	Brown	
10	BLA010	Pa30	AFa30	Ba30	R10	Red	
15	BLA015	Pa30	AFa30	Ba30	R15	Gray	
20	BLA020	Pa30	AFa30	Ba30	R20	Blue	
30	BLA030	Pa30	AFa30	Ba30	—	—	
40	BLA040	Pa60	AFa60	Ba60	R40	Black	
60	BLA060	Pa60	AFa60	Ba60	—	—	
75	BLA075	Pa100	AFa100	Ba100	R75	Silver	
100	BLA100	Pa100	AFa100	Ba100	—	—	
125	BLA125	Pa200	AFa200	Ba200	R125	Yellow	
150	BLA150	Pa200	AFa200	Ba200	R150	Light red	
200	BLA200	Pa200	AFa200	Ba200	—	—	
250	BLA250	Pa400	AFa400	Ba400	R250	Green	
300	BLA300	Pa400	AFa400	Ba400	R300	White	
400	BLA400	Pa400	AFa400	Ba400	—	—	

### Minimum ordering quantity

• Fuse-link	BLA003 to 030	100 pcs.	• Base	AFa30 Ba30	100 pcs.
	BLA 040, 060	20		AFa60 Ba60	50
	BLA 075 to 200	10		AFa100 Ba100	10
	BLA 250 to 400	5		AFa200 Ba200	5
				AFa400 Ba400	1
• Screw cap	Pa30	100 pcs.	• Adapter ring	R3 to 20, R75	100 pcs.
	Pa60	50		R40, R125 to 300	50
	Pa100	10			
	Pa200	5			
	Pa400	1			

## ■ Specifications

Fuse-link Type	Rated current (A)	Rated voltage	Interrupting capacity (kA)	Max. interrupting $I^2 t$ (Amp <sup>2</sup> x sec.)
BLA003	3	600V AC	100	28
BLA005	5	DC		110
BLA010	10			500
BLA015	15		100	750
BLA020	20			$1.3 \times 10^3$
BLA030	30			$5 \times 10^3$
BLA040	40		100	$9.2 \times 10^3$
BLA060	60			$27 \times 10^3$
BLA075	75		100	$70 \times 10^3$
BLA100	100			$100 \times 10^3$
BLA125	125		50	$290 \times 10^3$
BLA150	150			$390 \times 10^3$
BLA200	200			$500 \times 10^3$
BLA250	250		20	$1800 \times 10^3$
BLA300	300			$2200 \times 10^3$
BLA400	400			$3000 \times 10^3$

## ■ Ordering information

Specify the following:  
1. Type number

### Fuse-link BLA 003

**Rated current**  
Ex. 003 : 3 Amps  
075 : 75 Amps  
200 : 200 Amps

**Fuse-link**

### Base AFa 30

**Frame size**  
30: For 3 to 30A  
60: For 40, 60A  
100: For 75, 100A  
200: For 125, 150, 200A  
400: For 250, 300, 400A

**Connection**  
AFa: Surface  
Ba : Rear

### Screw cap Pa 30

**Frame size**  
30: For 3 to 30A  
60: For 40, 60A  
100: For 75, 100A  
200: For 125, 150, 200A  
400: For 250, 300, 400A

**Screw cap**

## ■ Mounting on steel panel

To mount a rear connection base Ba on a steel panel, an insulating plate and some bushings are used. Kits for 30, 60, 100, 200 and 400A base are available. Please specify your base type when ordering.

Two front bushings are used with 100, 200 and 400A base only.

Example: Insulating plate and bushings for Ba30



## ■ Tightening tool

It is recommended that fuses with ratings of over 100A be tightened with a special tool since there is the possibility of overheating if the screw cap is not adequately tightened. This exclusive use tool is sold separately.

Type	Screw cap type
Pa100H	Pa100
Pa200H	Pa200
Pa400H	Pa400

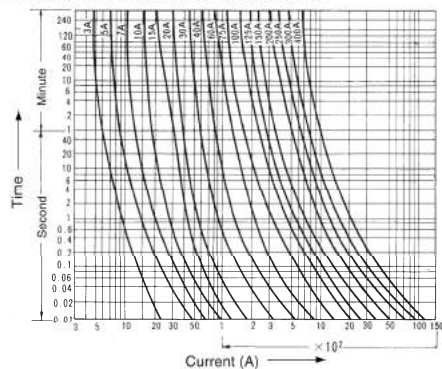


AF90-316

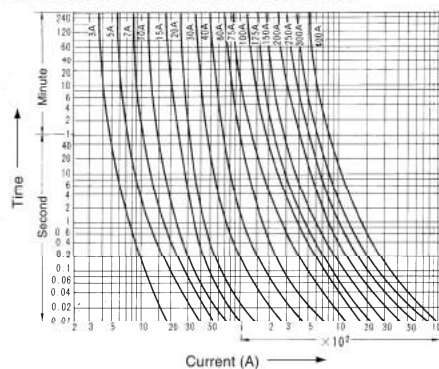
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## ■ Characteristic curves

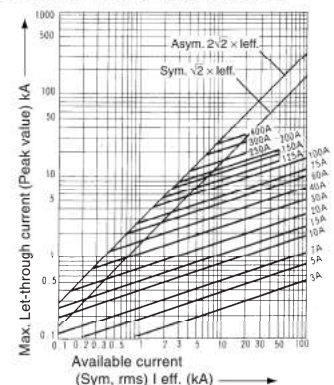
### Melting time-current characteristic



### Permissible time-current characteristic



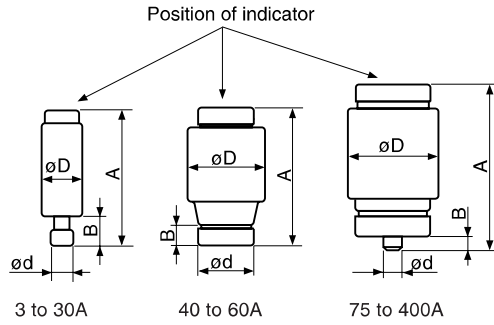
### Current-limiting characteristic



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## ■ Dimensions, mm

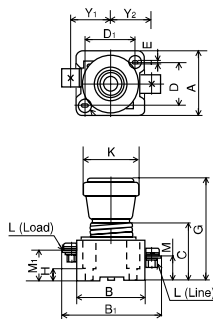
### ● Fuse-link



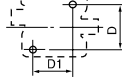
Type	Rated current (A)	A	B	øD	ød	Mass (g)
BLA003	3	50	10	13	8	12
BLA005	5	50	10	13	8	12
BLA010	10	50	10	13	8	12
BLA015	15	50	10	13	10	12
BLA020	20	50	10	13	10	12
BLA030	30	50	10	13	14	12
BLA040	40	50	10	27	16	47
BLA060	60	50	10	27	20	62
BLA075	75	63	5.4	34	5	120
BLA100	100	63	5.4	34	8	120
BLA125	125	63	5.4	47	5	215
BLA150	150	63	5.4	47	8	215
BLA200	200	63	5.4	47	10	215
BLA250	250	63	5.4	61	5	380
BLA300	300	63	5.4	61	8	380
BLA400	400	63	5.4	61	10	380

### ● Base and cap

#### Surface connection AFaC-3 to 200

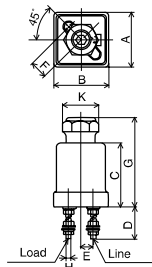


#### Panel drilling

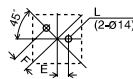


Type	A	B	B1	C	D	D1	øE	G	H	K	L	M	M1	Y1	Y2	Mass (g)
AFaC-3 to 30	34	42	55	46.5	24	22	5	78.5	10	32	M5	18	24	22	22	100
AFaC-40 to 60	52	59	82	51	34	38	5.5	88	10	47	M6	21	26	33	33.5	290
AFaC-75 to 100	67	87	125	71	40	64	7	118	28	72	M8	27.5	29.5	50	50	950
AFaC-125 to 200	77	107	150	73	51	82	7	120	28	87	M10	34	35	60	59.5	1465

#### Rear connection BaC-3 to 200



#### Panel drilling



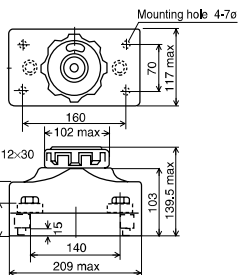
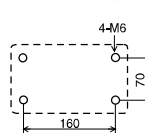
Type	A (max.)	B (max.)	C	D	E	F	G (max.)	H	K (max.)	øL	Mass (g)
BaC-3 to 30	47	47	52	62	10	14	78.5	M5	32	6(14)	220
BaC-40 to 60	66	66	54	65	18	22.5	87.5	M6	47	7(14)	470 ( )
BaC-75 to 100	85.5	85.5	71	70	22	30	112.5	M8	72	9(25)	1200
BaC-125 to 200	112	112	78	75	28	39	120	M10	87	11(25)	2115

( ) : In the case the steel plate is used.

#### Surface connection AFaC-250 to 400

Mass: 4.37kg

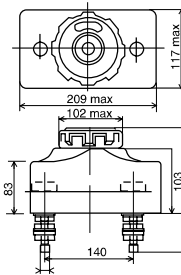
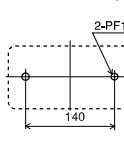
#### Panel drilling



#### Rear connection BaC-250 to 400

Mass: 4.76kg

#### Panel drilling



( ) : In the case the steel plate is used PF1/4(ø13)