Automotive and hardware/home center product catalog

## **BUSSMANN** SERIES

## **Circuit protection technology** for automotive, home, marine and RVs.





# New Bussmann automotive planogram now available

Bold new look. New product packaging. New reorder backer tags.



## Now includes 14<sup>%</sup> more product

You can now meet the demands of the market by offering more circuit protection products on the same 4-foot inline planogram with our new Automotive Aftermarket kit (4FTAUTO-KIT).

Each 4FTAUTO-KIT ships with one retail pack and one reorder backer tag card for each facing. The pegs may then be replenished with open stock.

Offer your customers more. Order your new 4FTAUTO-KIT today!



Order Catalog Number: 4FTAUTO-KIT UPC Number: 051712-42208-6

Suggested planogram product layout available on page 33.

#### **Package options**

In addition to boxed product, Bussmann<sup>™</sup> series products are also available in packaging that is designed for various retail environments and needs. These package options do not apply to every product. Check the Bussmann series price sheet for availability. Below are explanations of the various packaging you'll see listed in the product tables of this catalog. For more information, visit Eaton.com/BussmannConsumer.

#### **Traditional packs** — automotive

#### Tins

Examples: ATC-20, SFE-14

Blade fuses and glass tube fuses may be ordered in tins. A tin holds FIVE fuses with the exception of MAXI<sup>™</sup> fuses which are packed ONE fuse per tin.

# Hard Constraints

#### **Polybags and boxes**

Examples: CB123-20HB, FMX-20, HHM

Larger fuses like female MAXI, cartridge fuses and circuit breakers are packed ONE fuse per bag. High amp circuit breakers and fuse holders are packed in boxes.

#### **Retail packs — automotive**

Retail packs may be placed on a pegboard and come in blister packs and clamshells. They are generally ordered by adding the prefix "BP/" and suffix "-RP" or "-RPP" to the catalog number.

#### Single amp packs

Examples: BP/ATM-30-RP, BP/ATC-20ID

These packs contain ONE to FIVE fuses of the same amp rating. Smaller parts are placed in blister packs while larger parts are placed in clamshells.

ced IIs. FMX 30A ATM

Multiple amp assortment packs Examples: AGC-EK, ATC-ID-SK, BP/ATM-A5-RP, NO. 44

These packs house multiple fuses of varying amp ratings. Some packs come with a fuse puller. See pages 27 and 28 for details.

#### Additional packaging - automotive

#### Value packs

Examples: VP/ATC-30ID, VP/ATM-25-RP, VP/FMX-A5-RP

Ideal for small shops, mobile technicians, and avid car enthusiasts, these re-sealable clamshells and blister packs house 10 *easy*ID<sup>™</sup> fuses or 25 standard blade fuses.



Examples: BK/AGC-30, BK/ATM-10LP, BK/MAX-20ID

Available on select products, bulk pack fuses are available in plastic bags or boxes. Ask your Bussmann series product sales rep or distributor for product availability.



Examples: ATM-2RLD, ATC-40RLD

Available on select products, reloads are bulk fuses packed in a clear polybag with product label and barcode. They are designed for re-loading product into installer assortments and tilt-bins like the NO.225.

#### Installer assortments

Examples: NO. 290, FUSE-CADDY2, CDY10TRY-ATC

Contain a variety of circuit protection products for service technicians and repair shops.

#### **Retail packs — electrical**

#### Single amp assortment packs

Examples: BP/GMA-2A, BP/FRN-R-30ID, BP/FRS-R-60

These packs contain ONE to FIVE fuses of the same amp rating. Glass fuses are placed in 1.77" W x 3.71" H cards.





#### Assortment packs

Examples: BP/ABC-A, NON-EK, TL-EK

These packs contain multiple fuses of varying amp ratings. Some packs come with a fuse puller. See page 52 for details.













Automotive products and access		6
ATR, ATL, ATM, ATM-LP, ATC <sup>™</sup> ar		_
	ATR 2-leg micro blade fuses	7
	ATL 3-leg micro blade fuses	7
	ATM and low-profile ATM fuses	7
	ATC fuses MAXI fuses	7 7
AND ATM ATC MAYLAND EN		8
easyID™ ATM, ATC, MAXI and FM	NA indicating fuses	0
High amp fuses, cartridge fuses		
Multi-pole fuses	MPF, MPF2	9
Female MAXI™	FMX, low-profile FMX	9
	FMM micro fuses	9
Cartridge fuses	FL family: FLB, FLD, FLF, FLG, FLJ, FLM, FLN, FLS	10
Battery terminal fuses	BTF-1P, BTF-2P, BTF-3P, BTF-5P	11
Multi slow-blow fuses	MUSB	11
High-amp stud-mount fuses/blocks	AMG/HMEG, AMI/HMID	12
Fuse holders and taps		
ATR fuse holder	HH2	13
ATM-LP fuse holders	HHV	13
ATM fuse holders	HHL, HHM, HHU, ATM-FHID	13
ATC fuse holders	HHC, HHD, HHF, HHG, HHR, HHS, ATC-FHID	13
MAXI fuse holders	HHX, MAX-FHID	13
ATR, ATM and ATC fuse taps	BP/ATM-TAP-RP, BP/ATC-TAP-RP, BP/HHTR-RP, BP/HHLP_RP,	14
and add-a-circuit	BP/HHH-RP, BP/HHA-RP	1.4
Glass tube fuse holders	HFA, HFB, HHB, HHK, HHN, HLR, HMJ, HMK, HRH, HRI, HRJ, HRK	14
Glass tube panel-mount	HKP HKP-HH, HTB	14
Fuse panels, blocks, fusible link		45
easyID ATC and ATM fuse panels	FP-ATC, FP-ATM	15
ATR, ATM and ATC blocks	BP/FB(poles)-ATR, BP/FB(poles)-ATM, BP/FB(poles)-ATC	15
ATM panels	RTMF	15
ATC panels FMX blocks	15600	16
Glass tube blocks	Fuse only: CBPFM, Fuse and relay: CBPRM	16 17
Fusible link wire	S-8202-(poles), S8301-(poles) BP/FL-14, BP/FL-16, BP/FLW-14	17
Current limiters/blocks	ANN, ANL, SFR	17
Automotive circuit breakers	ANN, ANL, SIN	17
Low-profile ATM footprint	CB234	10
ATM footprint		18
ATM nootprint ATM mini devices	CB211, CB212, CB222OS, CB233, CB223OS, MMB CB22901-1.5, CB22902-68, CB22903-6	18 18
ATC footprint	ACB, CB221, CB222, CB223, CB227, CBB, CCB, FCB, UCB	19
MAXI footprint	CB1911, CB1921	20
Glass tube footprint	CBF	20
Heavy-duty	Stud-terminal: CB123, CBC, CBP	20-21
Splash proof covers	CB-CVR, BK/CB-CVR, BP/CB HB-CVR	20, 36
Panel-mount	CB174	20, 30
Quick-connect	CBT, CBU	21
High amp	CB181F, CB184F, CB185, CB185P, CB285F, CB251, CB187F, CB187P,	22-23
	CB255, CB285P	22 20
Junction blocks, terminal blocks		
Junction blocks	JB3816-2, JB3816-3	24
Terminal blocks and strips	TB200-(poles)B, TB300-(poles)B, C5237-(poles)BC	24

Not all products are listed in this catalog. If additional amperages are needed, contact your Bussmann series product representative. Some catalog numbers shown in this catalog are non-stock items and require longer lead times. Always check the latest price sheet for product status and availability.

Bussmann series solutions comply with major industrial standards and agency requirements such as: BS, IEC, DIN, UL, NEMA, SAE, CSA, CE, C-UL, etc. and are manufactured at facilities that are ISO 9000 certified. This catalog is intended to present product data and provide technical information that will help the end user with design application. Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this catalog. Once a product has been selected, it should be tested by the user in all possible applications. Further, Eaton takes no responsibility for errors or omissions contained in this catalog, or for misapplication of any Bussmann series product. Extensive product information is available in the Bussmann series product data sheets available online at Eaton.com/ BussmannConsumer.

Printed in USA

© 2018 Eaton

Toggle, rocker and battery disconne		
Switches	Toggle, indicating toggle, "Duckbill" toggle,	25
Battery switches	metal housing toggle and rocker BMS-1, BMS-2, 15968-1	25
Automotive flashers, lighting control	I modules and LED flashers	26
Retail packaging, assortments and o	displays	
Automotive retail	Bonus assortment packs	27
	Preparedness assortment packs	28
	Emergency assortment packs	28
Automotive installer	Cartridge and blade fuse bulk assortments	29-30
	Fuse caddy installer assortments	30
	Five- and ten-cavity tray installer assortments	31
	Installer tilt-bin assortments	32
Automotive planogram	4FTAUTO-KIT, 4FTAUTO-TAGS	32
Marine and RV products	Suggested planogram layout	33 <b>34</b>
High-amp circuit breakers	CB285F, CB187F, CB251, CB255, CB187P, CB285P	35
Assortments	NO.108BK, BP/AGC-AH10-RP, BP/MDL-1, MA-5, BP/AGC-SFE-A5-RP	35
Marine rated battery fuses/mounting bar	CBBF, CBBF-MBC mounting bar	36
Class T fuses	JJN 110 - 400 A	36
Splash proof covers	CB-CVR, BK/CB-CVR, BP/CB_HB-CVR	36
Battery separators	RB-BS-1314, RB-BS-1315	36
Battery isolators	RB-BI-70A, RB-BI-95A, RB-BI-120A, RB-BI-130A, RB-BI-240A	37
Battery isolator install kits	RB-BIK-1882, RB-GM-Kit	37
Hardware and home products		38
Glass and ceramic tube fuses		
Fuse overview and sizes		39
Fast-acting 1/4"	AGA, AGW, AGX, ABC, AGC, GBB, GBC, SFE	40-41
Fast-acting midget	AGU, AGU-GP	41
Time-delay 1/4"	MDA, MDL, MDQ	41
Fast-acting 5x20 mm	GDA, GDB, GMA	42
Time-delay 5x20 mm Non-rejection inline fuse for HLR holder	GDC, GMC, GMD GMF	42 42
Cartridge fuses	Gim	72
Class K5 and H	NON, NOS	43
Class RK5	FRN-R, FRN-RID, FRS-R, FRS-RID	44-45
Canadian CSA Type D and P	CDN, PON	45
Fast-acting midget, Class CC	BAF, KTK, KTK-R	46
Time-delay midget, Class CC	FNM, FNQ, FNQ-R	47
Class G specialty fuses	SC	47
Plug fuses, adapters and circuit brea		
UL <sup>®</sup> Edison base	Type T, TL	48
III minution have	BP/MB Edison base circuit breakers	40
UL rejection base	Type S, SL	49
CSA <sup>®</sup> Edison base fuses	Type SA rejection base adapters Type TC, P	49
	CP/MB Edison base circuit breakers	-0
Box cover units	SOU, SRU, SSN, SSU, SSY, SSY-RL, STY	50
Surge protective device	RB-SPP-240PN Type 1 SPD	50
Accessories		
Fuse pullers	FP-A3, FP-2, FP-3, FP-4, FP-6	51
Fuse testers/pullers	FT-2, FT-3	51
NON and FRN-R fuse reducers	NO.263, NO.263-R, NO.216-R, NO.2621-R	51
Hardware packaging and assortmen	ts	
Hardware packaging	Fuse assortments and emergency kits	52
	and holiday light fuse assortments	
Hardware planogram	2FTHDWR-KIT, 2FTHDWR-TAGS	53
Circuit protection specifications		54-57
Catalog number index		58
Automotive fuse selection made eas	sy chart	Inside back cover

# Automotive products and accessories

## ATC, ATM, ATM-LP, ATL, ATR, and MAXI blade fuses

#### ATR blade fuses

#### 2-Leg micro fuses

These space-saving fuses are used on newer vehicles.

	Trad'l	Retail	Bulk
Amps	pack*	pack**	pack***
5	ATR-5	BP/ATR-5-RP	BK/ATR-5
7-1/2	ATR-7-1/2	BP/ATR-7-1/2-RP	BK/ATR-7-1/2
0	ATR-10	BP/ATR-10-RP	BK/ATR-10
5	ATR-15	BP/ATR-15-RP	BK/ATR-15
20	ATR-20	BP/ATR-20-RP	BK/ATR-20
25	ATR-25	BP/ATR-25-RP	BK/ATR-25
30	ATR-30	BP/ATR-30-RP	BK/ATR-30
	5 7-1/2 0 5 20 25	Amps         pack*           5         ATR-5           7-1/2         ATR-7-1/2           0         ATR-10           5         ATR-15           20         ATR-20           25         ATR-25	Amps         pack*         pack**           5         ATR-5         BP/ATR-5-RP           7-1/2         ATR-7-1/2         BP/ATR-7-1/2-RP           0         ATR-10         BP/ATR-10-RP           /5         ATR-15         BP/ATR-15-RP           /20         ATR-12         BP/ATR-10-RP           /20         ATR-12         BP/ATR-20-RP           /25         ATR-20         BP/ATR-20-RP           /25         ATR-25         BP/ATR-25-RP

\* 5 Fuses per pack, 20 packs per shelf carton.
 \*\* 5 Fuses per pack, 5 packs per shelf carton.
 \*\*\* 50 Fuses per pack.

#### ATM blade fuses

#### See page 8 for *easy*ID<sup>™</sup> indicating versions

ATM fuses feature an enclosed element for electrical isolation, corrosion resistance and longer service life.

Color		Trad'l		Retail	Value	Bulk
code	Amps	pack*	Reload**	pack***	pack <sup>†</sup>	pack <sup>‡</sup>
Black	1	ATM-1	_	_	_	BK/ATM-1
Gray	2	ATM-2	ATM-2RLD	BP/ATM-2-RP	VP/ATM-2-RP	BK/ATM-2
Violet	3	ATM-3	ATM-3RLD	BP/ATM-3-RP	VP/ATM-3-RP	BK/ATM-3
Pink	4	ATM-4	_	BP/ATM-4-RP	VP/ATM-4-RP	BK/ATM-4
Tan	5	ATM-5	ATM-5RLD	BP/ATM-5-RP	VP/ATM-5-RP	BK/ATM-5
Brown	7-1/2	ATM-7-1/2	ATM-7-1/2RLD	BP/ATM-7-1/2-RP	VP/ATM-71/2-RP	BK/ATM-7-1/2
Red	10	ATM-10	ATM-10RLD	BP/ATM-10-RP	VP/ATM-10-RP	BK/ATM-10
Blue	15	ATM-15	ATM-15RLD	BP/ATM-15-RP	VP/ATM-15-RP	BK/ATM-15
Yellow	20	ATM-20	ATM-20RLD	BP/ATM-20-RP	VP/ATM-20-RP	BK/ATM-20
Clear	25	ATM-25	ATM-25RLD	BP/ATM-25-RP	VP/ATM-25-RP	BK/ATM-25
Green	30	ATM-30	ATM-30RLD	BP/ATM-30-RP	VP/ATM-30-RP	BK/ATM-30

\* 5 Fuses per pack, 20 packs per shelf carton.

\*\* 5 Fuses per pack.

\*\*\* 5 Fuses per pack, 5 packs per shelf carton.

† 25 Fuses per pack, 5 packs per shelf carton.

‡ 500 Fuses per pack.

#### Low-profile ATM blade fuses



Low-profile ATM fuses have the same ratings and universal color-coding as ATM and ATC fuses.

Color code	Amps	Trad'l pack*	Retail pack**	Value pack***	Bulk pack⁺
Gray	2	ATM-2LP	—	_	_
Violet	3	ATM-3LP	—	_	_
Pink	4	ATM-4LP	_	—	_
Tan	5	ATM-5LP	BP/ATM-5LP-RP	—	BK/ATM-5LP
Brown	7-1/2	ATM-7-1/2LP	BP/ATM-7-1/2LP-RP	—	BK/ATM-7-1/2LP
Red	10	ATM-10LP	BP/ATM-10LP-RP	VP/ATM-10LP-RP	BK/ATM-10LP
Blue	15	ATM-15LP	BP/ATM-15LP-RP	VP/ATM-15LP-RP	BK/ATM-15LP
Yellow	20	ATM-20LP	BP/ATM-20LP-RP	VP/ATM-20LP-RP	BK/ATM-20LP
Clear	25	ATM-25LP	BP/ATM-25LP-RP	_	BK/ATM-25LP
Green	30	ATM-30LP	BP/ATM-30LP-RP	_	BK/ATM-30LP
* 5 Fi	icoc nor	nack 20 nacks	per shelf carton		

\* 5 Fuses per pack, 20 packs per shelf carton. \*\* 5 Fuses per pack, 5 packs per shelf carton. \*\*\* 25 Fuses per pack, 5 packs per shelf carton.

† 500 Fuses per pack.

#### ATL blade fuses

#### 3-Leg micro fuses

These space-saving fuses are used on newer vehicles. The ATL fuses combine protection for two circuits in one package.

Color code	Amps	Trad'l pack*	Bulk pack**
Tan	5	ATL-5	BK/ATL-5
Brown	7-1/2	ATL-7-1/2	BK/ATL-7-1/2
Red	10	ATL-10	BK/ATL-10
Blue	15	ATL-15	BK/ATL-15

\* 5 Fuses per pack, 20 packs per shelf carton.

\*\* 50 Fuses per pack.

#### ATC<sup>™</sup> blade fuses

#### See page 8 for easyID indicating versions

ATC blade fuses use the industry standard colorcoding to indicate amp rating. Bussmann series ATC fuses are UL Recognized and feature an enclosed element for electrical isolation, corrosion resistance and longer service life. BK/ATC-5 through 30 A also available with open body. Refer to data sheet No. 2009 for available options.



Amps	pack*	Reload**			
4		neluau	pack***	pack <sup>†</sup>	pack <sup>‡</sup>
1	ATC-1	_	BP/ATC-1-RP	_	BK/ATC-1
2	ATC-2	_	BP/ATC-2-RP	_	BK/ATC-2
3	ATC-3	ATC-3RLD	BP/ATC-3-RP	VP/ATC-3-RP	BK/ATC-3
4	ATC-4	ATC-4RLD	BP/ATC-4-RP	VP/ATC-4-RP	BK/ATC-4
5	ATC-5	ATC-5RLD	BP/ATC-5-RP	VP/ATC-5-RP	BK/ATC-5
7-1/2	ATC-7-1/2	ATC-7-1/2RLD	BP/ATC-7-1/2-RP	VP/ATC-7-1/2-RP	BK/ATC-7-1/2
10	ATC-10	ATC-10RLD	BP/ATC-10-RP	VP/ATC-10-RP	BK/ATC-10
15	ATC-15	ATC-15RLD	BP/ATC-15-RP	VP/ATC-15-RP	BK/ATC-15
20	ATC-20	ATC-20RLD	BP/ATC-20-RP	VP/ATC-20-RP	BK/ATC-20
25	ATC-25	ATC-25RLD	BP/ATC-25-RP	VP/ATC-25-RP	BK/ATC-25
30	ATC-30	ATC-30RLD	BP/ATC-30-RP	VP/ATC-30-RP	BK/ATC-30
35	ATC-35	_	_	_	BK/ATC-35
40	ATC-40	_	BP/ATC-40-RP	VP/ATC-40-RP	BK/ATC-40
-	3 4 5 7-1/2 10 15 20 25 30 35 40	2         ATC-2           3         ATC-3           4         ATC-4           5         ATC-5           7-1/2         ATC-7-1/2           10         ATC-10           15         ATC-15           20         ATC-20           25         ATC-25           30         ATC-30           35         ATC-35           40         ATC-40	2         ATC-2            3         ATC-3         ATC-3RLD           4         ATC-4         ATC-4RLD           5         ATC-5         ATC-5RLD           7-1/2         ATC-71/2         ATC-7.1/2RLD           10         ATC-10         ATC-10RLD           15         ATC-15         ATC-15RLD           20         ATC-20         ATC-20RLD           25         ATC-25         ATC-25RLD           30         ATC-30         ATC-30RLD           35         ATC-35            40         ATC-40	2         ATC-2         —         BP/ATC-2-RP           3         ATC-3         ATC-3RLD         BP/ATC-3-RP           4         ATC-4         ATC-4RLD         BP/ATC-3-RP           5         ATC-5         ATC-4RLD         BP/ATC-4-RP           5         ATC-5         ATC-5RLD         BP/ATC-5-RP           7-1/2         ATC-7-1/2         ATC-7-1/2RLD         BP/ATC-7-1/2-RP           10         ATC-10         ATC-10RLD         BP/ATC-10-RP           15         ATC-15         ATC-15RLD         BP/ATC-10-RP           20         ATC-20         ATC-20RLD         BP/ATC-20-RP           25         ATC-25         ATC-20RLD         BP/ATC-20-RP           25         ATC-25         ATC-25RLD         BP/ATC-20-RP           30         ATC-30         ATC-30RLD         BP/ATC-30-RP           35         ATC-35         —         —	2         ATC-2         —         BP/ATC-2-RP         —           3         ATC-3         ATC-3RLD         BP/ATC-3-RP         VP/ATC-3-RP           4         ATC-4         ATC-4RLD         BP/ATC-3-RP         VP/ATC-3-RP           5         ATC-5         ATC-5RLD         BP/ATC-4-RP         VP/ATC-4-RP           5         ATC-5         ATC-5RLD         BP/ATC-5-RP         VP/ATC-4-RP           10         ATC-10         ATC-10RLD         BP/ATC-7-1/2-RP         VP/ATC-10-RP           15         ATC-10         ATC-10RLD         BP/ATC-10-RP         VP/ATC-10-RP           15         ATC-10         ATC-10RLD         BP/ATC-10-RP         VP/ATC-10-RP           15         ATC-10         ATC-10RLD         BP/ATC-10-RP         VP/ATC-10-RP           20         ATC-20         ATC-20RLD         BP/ATC-20-RP         VP/ATC-20-RP           25         ATC-20         ATC-20RLD         BP/ATC-20-RP         VP/ATC-20-RP           25         ATC-30         ATC-30RLD         BP/ATC-30-RP         VP/ATC-30-RP           30         ATC-30         ATC-30RLD         BP/ATC-40-RP         VP/ATC-40-RP           35         ATC-35         —         —         —         —

5 Fuses per pack, 20 packs per shelf carton.

\*\* 25 Fuses per pack.

\*\*\* 5 Fuses per pack, 5 packs per shelf carton.

† 25 Fuses per pack, 5 packs per shelf carton.

‡ 500 Fuses per pack.

#### MAXI<sup>™</sup> (MAX) blade fuses

#### See page 8 for easyID indicating versions

MAXI fuses protect circuits in the wiring harness - usually found under the hood, in a fuse panel or supplementary panel near the battery. Ideal for aftermarket accessories (such as high-end stereos) that require protection up to 80 amps.



Color code	Amps	Trad'l. pack*	Retail pack**	Bulk pack***
Yellow	20	MAX-20	BP/MAX-20-RP	BK/MAX-20
Gray	25	MAX-25	—	BK/MAX-25
Green	30	MAX-30	BP/MAX-30-RP	BK/MAX-30
Brown	35	MAX-35	—	BK/MAX-35
Orange	40	MAX-40	BP/MAX-40-RP	BK/MAX-40
Red	50	MAX-50	BP/MAX-50-RP	BK/MAX-50
Blue	60	MAX-60	BP/MAX-60-RP	BK/MAX-60
Tan	70	MAX-70	BP/MAX-70-RP	BK/MAX-70
Clear	80	MAX-80	BP/MAX-80-RP	BK/MAX-80

\* 1 Fuse per pack, 20 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.

\*\*\* 250 Fuses per pack.



#### Finding the open fuse is easy with Bussmann series *easy*ID blade fuses and holders

These drop-in replacements are available for applications that can benefit from open fuse indication. The easyID indicating blade fuses and holders use LED technology that makes blown fuses easy to spot in fuse panels tucked up under dark dashboards.

In-line easyID fuse holders allow adding fused circuits with blown fuse indication using regular ATM, ATC and MAXI fuses.

Trilingual packaging in English, Spanish and French.

#### easyID ATM fuses

Following on the popularity and wide application of ATM fuses, the easyID indicating ATM fuse is available in popular amp ratings with trilingual packaging that's designed for easy selling.

See page 13 for easyID fuse holder and page 15 for easyID fuse panels.

Color code	Amps	Retail pack*	Value pack**	Bulk pack***
Violet	3	BP/ATM-3ID	<u> </u>	BK/ATM-3ID
Tan	5	BP/ATM-5ID	_	BK/ATM-5ID
Brown	7-1/2	BP/ATM-7-1/2ID	_	BK/ATM-7-1/2ID
Red	10	BP/ATM-10ID	VP/ATM-10ID	BK/ATM-10ID
Blue	15	BP/ATM-15ID	VP/ATM-15ID	BK/ATM-15ID
Yellow	20	BP/ATM-20ID	VP/ATM-20ID	BK/ATM-20ID
Clear	25	BP/ATM-25ID	VP/ATM-25ID	BK/ATM-25ID
Green	30	BP/ATM-30ID	VP/ATM-30ID	BK/ATM-30ID

\* 2 Fuses per pack, 5 packs per shelf carton.

\*\* 10 Fuses per pack, 5 packs per shelf carton.

\*\*\* 50 Fuses per pack.

#### BP/ATM-AID fuse assortment (see page 28)

Contains one each of 10, 15, 20, 25 and 30 amp fuses.

#### ATM-FP-AID fuse emergency kit (see page 28)

Contains one each of 10, 15, 20, 25 and 30 amp fuses plus a fuse puller.

#### ATM-ID-SK fuse service kit (see page 27)

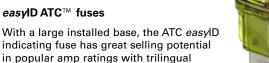
Contains six each of 5, 10, 15, 20, 25 and 30 amp fuses, making this service kit ideal for fleet maintenance departments.

#### easyID FMX female MAXI fuses

Following on the popularity and wider application of FMX fuses for late-model vehicles, the easyID FMX fuse, with LED blown fuse indication, is available in popular amp ratings with trilingual packaging that's designed for easy selling.

Color	Amps	Retail pack*
Blue	20	BP/FMX-20ID
Pink	30	BP/FMX-30ID
Green	40	BP/FMX-40ID
Red	50	BP/FMX-50ID
Yellow	60	BP/FMX-60ID

\* 1 Fuse per pack, 5 packs per shelf carton.



See page 13 for easyID fuse holder and page 15 for easyID fuse panels.

packaging that's designed for easy selling.

easyID ATC<sup>™</sup> fuses

Color		Retail	Value	Bulk
code	Amps	pack*	pack**	pack***
Violet	3	BP/ATC-3ID	—	BK/ATC-3ID
Tan	5	BP/ATC-5ID	—	BK/ATC-5ID
Brown	7-1/2	BP/ATC-7-1/2ID	—	BK/ATC-7-1/2ID
Red	10	BP/ATC-10ID	VP/ATC-10ID	BK/ATC-10ID
Blue	15	BP/ATC-15ID	VP/ATC-15ID	BK/ATC-15ID
Yellow	20	BP/ATC-20ID	VP/ATC-20ID	BK/ATC-20ID
Clear	25	BP/ATC-25ID	VP/ATC-25ID	BK/ATC-25ID
Green	30	BP/ATC-30ID	VP/ATC-30ID	BK/ATC-30ID
Blue-Green	35	BP/ATC-35ID	—	—
Orange	40	BP/ATC-40ID	—	BK/ATC-40ID

\* 2 Fuses per pack, 5 packs per shelf carton.

\*\* 10 Fuses per pack, 5 packs per shelf carton.

\*\*\* 50 Fuses per pack.

#### **BP/ATC-AID** fuse assortment (see page 28)

Contains one each of 10, 15, 20, 25 and 30 amp fuses.

#### ATC-FP-AID fuse emergency kit (see page 28)

Contains one each of 10, 15, 20, 25 and 30 amp fuses plus a fuse puller.

#### ATC-ID-SK fuse service kit (see page 27)

Contains seven each of 5, 10, 15, 20, 25 and 30 amp fuses, making this kit ideal for fleet maintenance departments.

#### easyID MAXI fuses

With ratings up to 100 amps, the Bussmann series easyID MAXI indicating fuse line is a sure seller with trilingual retail packaging that's designed for easy selling.

See page 13 for easyID fuse holder.

Color code	Amps	Retail pack*	Bulk pack**
Yellow	20	BP/MAX-20ID	_
Green	30	BP/MAX-30ID	BK/MAX-30ID
Orange	40	BP/MAX-40ID	BK/MAX-40ID
Red	50	BP/MAX-50ID	BK/MAX-50ID
Blue	60	BP/MAX-60ID	BK/MAX-60ID
Tan	70	BP/MAX-70ID	_
Clear	80	BP/MAX-80ID	BK/MAX-80ID
Violet	100	BP/MAX-100ID	_

<sup>1</sup> 1 Fuse per pack, 5 packs per shelf carton.

\*\* 250 Fuses per pack.





8



## High amp fuses

#### **Multi-pole fuses**

Bussmann series multi-pole fuses (MPFs) provide sales-making opportunities formerly only dealerships and online parts websites enjoyed.

Multi-pole fuses are OEM fuses that combine multiple circuits in to a single design to reduce the weight, space and cost of traditional fusing solutions. These fuses have been used since 2002 in popular models of Nissan<sup>®</sup>, Infiniti<sup>®</sup>, Toyota<sup>®</sup>, and Lexus models.

These fuses are easy to replace by service technicians and DIYers alike using the same female maxi-type fuse puller.



32 Vdc multi-pole fuses



Color code	Amps	Trad'l pack*	Bulk pack**	OEM no.	Vehicle make
Pink	40, 30, 30	MPF-433X	BK/MPF-433X	24370-C9902	Nissan, Infiniti
Green	40, 40, 40	MPF-444X	BK/MPF-444X	24370-C9900	Nissan, Infiniti
Red	50, 30, 30	MPF-533X	BK/MPF-533X	24370-C9906	Nissan, Infiniti
Blue	50, 30, 40	MPF-534X	BK/MPF-633X	24370-C9907	Nissan, Infiniti
Yellow	60, 30, 30	MPF-633X	BK/MPF-534X	24370-C9904	Nissan

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 50 Fuses per pack.

#### MPF2

58 Vdc multi-pole fuses



Color code	Amps	Trad'l pack*	Bulk pack**	OEM no.	Vehicle make
Yellow	30, 20, 40	MPF2-324X	BK/MPF2-324X	24370-C991C	Nissan
				24370-C991A	Nissan
Pink	40, 30, 30	MPF2-433X	BK/MPF2-433X	90982-08308	Toyota, Lexus
Graan			24370-C991B	Nissan, Infiniti	
Green	40, 40, 40	MPF2-444X	BK/MPF2-444X	90982-08299	Toyota, Lexus
Red	50, 30, 30	MPF2-533X	BK/MPF2-533X	24370-C992A	Nissan, Infiniti
neu				90982-08300	Toyota, Lexus
Blue	EQ 20 40		BK/MPF2-534X	24370-C992B	Nissan, Infiniti
Diue	50, 30, 40	MPF2-534X	DN/IVIPP2-934A	90982-08301	Toyota, Lexus
Plack	50, 30, 50 N	MPF2-535X	BK/MPF2-535X	24370-C992C	Nissan, Infiniti
Black				90982-08302	Toyota, Lexus
Maroon	50, 50, 50	MPF2-555X	BK/MPF2-555X	90982-08303	Lexus

#### Female MAXI fuses

Developed to meet the demand for smaller components, the FMX and low-profile FMX female MAXI fuses offer high amp protection in compact packages. Both FMX and low-profile FMX fuses are available in amp ratings from 20 to 60 A.

See page 8 for easyID FMX female MAXI fuses.

FMX Female MAXI fuses



Color code	Amps	Trad'l pack*	Retail pack**
Blue	20	FMX-20	BP/FMX-20-RP
White	25	FMX-25	BP/FMX-25-RP
Pink	30	FMX-30	BP/FMX-30-RP
Green	40	FMX-40	BP/FMX-40-RP
Red	50	FMX-50	BP/FMX-50-RP
Yellow	60	FMX-60	BP/FMX-60-RP

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.

#### FMX-LP

fuses

Low-profile female MAXI



Amps	Trad'l pack*	Retail pack**
20	FMX-20LP	BP/FMX-20LP-RP
25	FMX-25LP	BP/FMX-25LP-RP
30	FMX-30LP	BP/FMX-30LP-RP
40	FMX-40LP	BP/FMX-40LP-RP
50	FMX-50LP	BP/FMX-50LP-RP
60	FMX-60LP	BP/FMX-60LP-RP
	20 25 30 40 50	20         FMX-20LP           25         FMX-25LP           30         FMX-30LP           40         FMX-40LP           50         FMX-50LP

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.

FMM Micro fuses



The new FMM micro slow-blow fuse meets the latest demand for smaller, high current circuit protection products being found on new model vehicles.

Color code	Amps	Trad'l pack*	Retail pack**
Grey	15	FMM-15	BP/FMM-15-RP
Blue	20	FMM-20	BP/FMM-20-RP
White	25	FMM-25	BP/FMM-25-RP
Pink	30	FMM-30	BP/FMM-30-RP
Green	40	FMM-40	BP/FMM-40-RP

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 50 Fuses per pack.

## **Cartridge fuses**

### FL family of cartridge fuses

Used primarily in Japanese-designed vehicles for wiring harness protection.

#### FLB

FLD

**Bolt-mount fuses** 

#### **Bolt-mount fuses**

Fits 13/16" bolt terminal fuse block.



Color code	Amps	Trad'l pack*	Retail pack**
Pink	30	FLB-30	BP/FLB-30-RP
Green	40	FLB-40	BP/FLB-40-RP
Red	50	FLB-50	BP/FLB-50-RP
Yellow	60	FLB-60	BP/FLB-60-RP
Brown	70	FLB-70	BP/FLB-70-RP
Black	80	FLB-80	BP/FLB-80-RP
Blue	100	FLB-100	BP/FLB-100-RP
Gray	120	FLB-120	BP/FLB-120-RP
Maroon	140	FLB-140	BP/FLB-140-RP

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.



Fits 9/16" bolt terminal fuse block.

Color code	Amps	Trad'l pack*	Retail pack**
Pink	30	FLD-30	BP/FLD-30-RP
Green	40	FLD-40	BP/FLD-40-RP
Red	50	FLD-50	BP/FLD-50-RP
Yellow	60	FLD-60	BP/FLD-60-RP
Brown	70	FLD-70	BP/FLD-70-RP
Black	80	FLD-80	BP/FLD-80-RP
Blue	100	FLD-100	BP/FLD-100-RP
Gray	120	FLD-120	BP/FLD-120-RP
Maroon	140	FLD-140	BP/FLD-140-RP

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.



## FLF

#### Female fuses

Color code	Amps	Trad'l pack*	Retail pack**
Lt-Blue	20	FLF-20	BP/FLF-20-RP
Pink	30	FLF-30	BP/FLF-30-RP
Green	40	FLF-40	BP/FLF-40-RP
Red	50	FLF-50	BP/FLF-50-RP
Yellow	60	FLF-60	BP/FLF-60-RP

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.



FLG **Female fuses** 

FLJ

**Female fuses** for Nissan vehicles

Color code	Amps	Trad'l pack*	Retail pack**
Red	50	FLG-50	BP/FLG-50-RP
Yellow	60	FLG-60	BP/FLG-60-RP
Black	80	EL G-80	BP/ELG-80-BP

\* 1 Fuse per pack, 10 packs per shelf carton. \*\* 1 Fuse per pack, 5 packs per shelf carton.



Amps	Trad'l pack*	OEM part no.	Vehicle make			
45	FLJ-45	24370-89960	Nissan, Infiniti			
65	FLJ-65	24370-89910	Nissan, Infiniti			
75	FLJ-75	24370-89920	Nissan, Infiniti			
* 1 Fuse per pack, 10 packs per shelf carton.						
	45 65 75	45         FLJ-45           65         FLJ-65           75         FLJ-75	45         FLJ-45         24370-89960           65         FLJ-65         24370-89910           75         FLJ-75         24370-89920			

FLM Male fuses



Color code	Amps	Trad'l pack*	Retail pack**
Pink	30	FLM-30	BP/FLM-30-RP
Green	40	FLM-40	BP/FLM-40-RP
Red	50	FLM-50	
Yellow	60	FLM-60	BP/FLM-60-RP
Brown	70	FLM-70	
Black	80	FLM-80	BP/FLM-80-RP
Blue	100	FLM-100	BP/FLM-100-RP
Gray	120	FLM-120	BP/FLM-120-RP
Violet	140	FLM-140	BP/FLM-140-RP

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.



#### Female fuses with tab

Color code	Amps	Trad'l pack*	Retail pack**
Brown	25	FLN-25	BP/FLN-25-RP
Green	30	FLN-30	BP/FLN-30-RP

\* 1 Fuse per pack, 10 packs per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.



#### FLS

FLN

#### Miniature female fuses

Color code	Amps	Trad'l pack*	Retail pack**
Pink	30	FLS-30	BP/FLS-30-RP
Green	40	FLS-40	BP/FLS-40-RP

\* 1 Fuse per pack, 10 packs per shelf carton. \*\* 1 Fuse per pack, 5 packs per shelf carton.

#### BTF **Battery terminal fuses**



Bussmann series battery terminal fuses (BTFs) provide sales-making opportunities formerly only dealerships and online parts websites enjoyed.

These fuses have been used since 2001 in popular models of Chrysler®, Ford®, Lexus, Lincoln, Mercury, Mitsubishi, Nissan®, Scion, Subaru, Suzuki, and Toyota® models.

Bussmann series BTFs are OEM fuses that contain one or more circuits in a single design to reduce the weight, space and cost of traditional fusing solutions to protect the cables coming off the battery and other electrical components.

These fuses are easy to replace by service technicians and DIYers alike using common hand tools.

#### See page 25 for battery switches, and pages 36 and 37 for isolators and separators

Amps	Trad'l pack	OEM part no.	Vehicle make			
80	BTF-1P-80*	82211AG150	Subaru			
80	DIF-IF-OU	3673-950J00	Suzuki			
100	BTF-1P-100*	MN164187	Mitsubishi			
100	BTF-TP-100"	3673-952J00	Suzuki			
100	DTE 1D 100*	MN164188	Mitsubishi			
120	BTF-1P-120*	3673-966J00	Suzuki			
		00600 00040	Lexus, Scion,			
140	BTF-1P-140*	82620-33040	Toyota			
		24380-JA70A	Nissan			
180, 120	BTF-2P-180120*	68164797-AA	Chrysler			
· · · · ·		BR3Z-14526-AA	Ford			
200, 100	BTF-2P-200100*	AE5Z-14526-BA	Ford, Lincoln, Mercury			
250, 125	BTF-2P-250125*	AL3Z-14526-AA	Ford			
120, 60, 80	BTF-3P-1206080**	82620-52080A	Scion, Toyota			
120, 80, 80	BTF-3P-1208080**	82620-52060A	Scion, Toyota			
100, 100, 80, 60, 80	BTF-5P-1010868**	24380-79910	Nissan			
120, 100, 80, 60, 80	BTF-5P-1210868**	24380-79912	Nissan			
140, 100, 100, 100, 80	BTF-5P-141010108**	24380-7994A	Nissan			
250, 100, 80, 80, 80	BTF-5P-25010888**	24380-79918	Nissan			
225, 100, 60, 100, 80	BTF-5P-225106108**	24380-79919	Nissan			
* 1 Euro por pack. E packs por shalf earton						

\* 1 Fuse per pack, 5 packs per shelf carton. \*\* 1 Fuse per pack, 3 packs per shelf carton.

#### MUSB

Multi slow-blow fuses



The new line of Bussmann series multi slow-blow fuses address the automotive manufacturers' move to design custom circuit protection technology for their vehicles.

Amps	Trad'l pack	OEM part no.	Vehicle make
100, 70	MUSB-A1	38231-SDA-A01	Honda, Acura
120, 70	MUSB-A2	38231-SFY-003	Honda, Acura
100, 40	MUSB-A3	38231-SEP-A01	Honda, Acura
120, 40	MUSB-A4	38231-SFE-J01	Honda, Acura
70, 30, 40, 20, 30, 100	MUSB-L1-2	38231-T0A-A01	Honda, Acura
70, 40, 20, 40, 30, 120	MUSB-L1-4	38231-TX4-A01	Honda, Acura
20, 20, 20, 20	MUSB-L3-1	38233-TR0-A01	Acura
30, 30, 30, 30	MUSB-L3-3	38233-T6A-J01	Honda, Acura
30, 40, 30, 40	MUSB-L3-5	38233-TX4-A01	Acura
50, 60, 60, 30, 30, 30, 30, 40, 30, 20, 20	MUSB-M2-1	38232-TRO-A01	Honda, Acura
50, 60, 60, 50, 30, 30, 40, 30, 30, 40	MUSB-M4-1	38234-TX4-A01	Acura
125, 100, 325, shunt	MUSB-T1	FUST-14A068-CC	Ford
125, 80, 300, shunt	MUSB-T4	GUST-14068-BA	Ford
Shunt, 285, 200, 125	MUSB-T5	HUST-14A068-BB	Ford

## Stud-mount fuses and fuse blocks

## BUSSMANN

#### AMG

#### Stud-mount fuses

AMG fuses are for high current applications on select late model vehicles and available in ratings from 80 to 500 A. Use with the HMEG fuse block see below.



	Trad'l	Retail
Amps	pack*	pack**
80	AMG-80	—
100	AMG-100	BP/AMG-100-RP
125	AMG-125	BP/AMG-125-RP
150	AMG-150	BP/AMG-150-RP
175	AMG-175	BP/AMG-175-RP
200	AMG-200	BP/AMG-200-RP
225	AMG-225	_
250	AMG-250	BP/AMG-250-RP
300	AMG-300	—
400	AMG-400	_
450	AMG-450	_
500	AMG-500	_

\* 1 Fuse per pack, 10 packs per shelf carton. \*\* 1 Fuse per pack, 5 packs per shelf carton.

HMEG

#### Fuse block

For use with up to 500 amp AMG fuses, the HMEG bolt-in fuse holder features an impact resistant base and elastomer cover for full access and ease of wiring using 8 AWG to 1/0 wire.

## Order catalog number **HMEG\*** or bulk catalog number **FMG-211.\*\***

\* 1 fuse block per pack, 24 packs per master carton. \*\* 100 fuse blocks per pack.



### AMI

#### Stud-mount fuses

Used in some late model vehicle systems for high power distribution. Use with HMID fuse holder — see below.



Amps	Trad'l pack*
30	AMI-30
40	AMI-40
50	AMI-50
60	AMI-60
70	AMI-70
80	AMI-80
100	AMI-100
125	AMI-125
150	AMI-150B
200	AMI-200

\* 1 Fuse per pack, 10 packs per shelf carton.

## HMID

#### Fuse block

Use with up to 80 amp AMI fuses. Multiple blocks can be dovetailed together to form an assembly.

Removable, splash resistant cover for full access and ease of wiring using 8 AWG to 1/0 wire.

#### Order catalog number HMID.\*

\* 1 Fuse block per pack, 10 packs per shelf carton.





#### **Fuse holders**

We offer a complete line of Bussmann series fuse holders to install blade or glass tube fuses. Choose water resistant and/or splashproof versions for extra protection in special applications. Five available connector types meet the needs of technicians and do-it-yourselfers:

- · Wire loop: To install, simply cut the wire, strip ends and attach each end to the circuit. Requires using additional connectors. See catalog numbers HHK, HMJ, HMK, HRI, HRJ and HRK.
- · Open wire: To install, simply strip lead ends and attach each end to the circuit. Requires using additional connectors. See catalog numbers ATC-FHID, ATM-FHID, MAX-FHID, HH2, HHC, HHD, HHF, HHG, HHL, HHM, HHN, HHR, HHU, HHV and HHX.
- · Crimp-on: Strip the wire, insert into fuse holder and crimp tightly, and you're done. No additional hardware needed. See catalog numbers HFA, HFB and HHB.
- · Self-stripping: To install, simply locate fuse holder at a convenient spot along the wire. Snap fuse holder closed around wire to automatically pierce insulation. See catalog number HHS.
- Solder: To install, simply solder the wire onto the holder's terminals. See catalog number HKP.
- Quick-connect: Attach fully insulated female terminal onto the 1/4" quick-connect terminals. See catalog numbers HKP-HH, HTB-26I, HTB-38I, HTB-68I and HTB-88I.

Select fuse holders by matching it to the wire size being fused. An undersized fuse holder will increase electrical resistance and reduce performance in the circuit.

NOTE: Never install a fuse with a larger amp rating than specified for the application, holder or wire size.

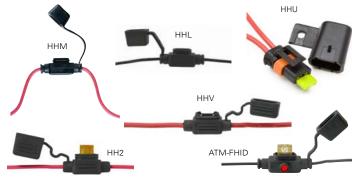
#### In-line ATR, ATM-LP and ATM fuse holders

Trad'l pack*	Retail pack**	Max volts/ amps	Leadwire	Description
ATR				
HH2	_	32 V/15 A	2x4"/#16	Holder with cover
Low-profile	ATM			
HHV	BP/HHV-RP	32 V/20 A	2x4"/#12	Holder with cover, red leadwires
ATM				
HHL	BP/HHL-RP	32 V/20 A	2x4"/#16	Holder with cover
ННМ	BP/HHM-RP	32 V/30 A	2x4"/#12	Holder with cover
HHU	BP/HHU	32 V/30 A	2x4"/#12	Water- resistant holder
		22.1//20.4	0	easyID holder with protective

ATM-FHID	BP/ATM-FHID	32 V/20 A	2

\* 1 Fuse holder per pack, 10 packs per shelf carton.

\*\* 1 Fuse holder per pack, 5 packs per shelf carton.



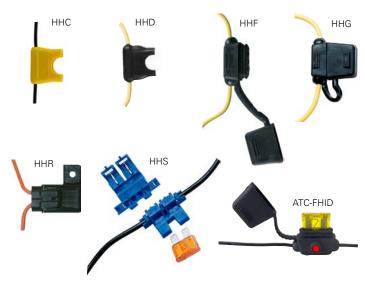
2x4"/#16

cover and open fuse indicating LED

#### In-line ATC fuse holders

Trad'l pack*	Retail pack**	Max volts/amps	Leadwire	Description
ННС	BP/HHC-RP	32 V/20 A	2x4"/#16	Yellow fuse holder
HHD	BP/HHD-RP	32 V/30 A	2x4"/#12	Black fuse holder
_	BP/HHD-30-RP	32 V/30 A	2x4"/#12	Holder with ATC- 30 A fuse
HHF	BP/HHF-RP	32 V/20 A	2x4"/#16	Holder with protective cover
HHG	BP/HHG-RP	32 V/30 A	2x4"/#12	Heavy-duty holder with cover
HHR	BP/HHR	32 V/30 A	2x5"/#12	Heavy-duty water-resistant holder
_	BP/HHS-RP	32 V/20 A	#18 to #14	Self-stripping fuse holder
ATC-FHID	BP/ATC-FHID	32 V/20 A	2x6"/#16	easyID holder with protective cover and open fuse indicating LED

#### \* 1 Fuse holder per pack, 10 packs per shelf carton. \*\* 1 Fuse holder per pack, 5 packs per shelf carton.

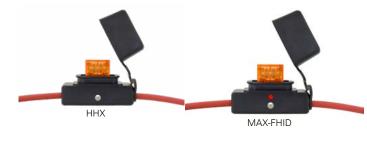


Fuses sold separately.

#### In-line MAXI fuse holders

Catalog no.*	Max volts /amps	Leadwire	Description
ННХ	32 V/60 A	2x5"/#6	Fuse holder with cover
MAX-FHID	32 V/60 A	2×5″/#6	<i>easy</i> ID fuse holder with protective cap and open fuse indicating LED

\* 1 Fuse holder per pack, 20 packs per shelf carton.



Fuses sold separately.

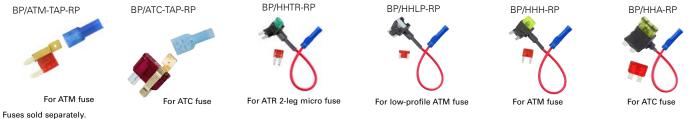
For product information and data sheets, visit Eaton.com/BussmannConsumer

## **Fuse taps and holders**

#### ATR, low-profile ATM, ATM and ATC add-a-circuits and fuse taps

Retail pack*	Description
<b>BP/ATM-TAP-RP</b>	Taps into existing ATM fuse for additional non-fused circuit, includes crimp-on connector - fuses not included
BP/ATC-TAP-RP	Taps into existing ATC fuse by fitting over the leg for additional non-fused circuit, includes crimp-on connector - fuses not included
BP/HHTR-RP	Adds a 10 A max ATR 2-leg micro fuse circuit by inserting into an existing ATR fuse block with 5 inch #16 leadwire and crimp connector - fuses not included
BP/HHLP-RP	Adds a 10 A max low-profile ATM fuse circuit by inserting into an existing ATM fuse block with 5 inch #16 leadwire and crimp connector - fuses not included
BP/HHH-RP	Adds a 10 A max ATM fuse circuit by inserting into an existing ATM fuse block with 5 inch #16 leadwire and crimp connector - fuses not included
BP/HHA-RP	Adds a 10 A max ATC fuse circuit by inserting into an existing ATC fuse block with 5 inch #16 leadwire and crimp connector - fuses not included

#### \* 1 Part per pack, 5 packs per shelf carton.



#### In-line holders for 1/4" diameter glass tube fuses

Trad'l	Retail		Max		
pack*	pack**	Fuse/size	volts/amps	Leads/terminals	Description/feature
HFA-R	_	1/4" × 1-1/4"	250 V/20 A	Crimp #12 to 16 wire	Water-resistant - black body
HFB-R	BP/HFB-RP	1/4" × 1-1/4"	32 V/30 A	Crimp #12 to 18 wire	Water-resistant - yellow body
HHB-R	<b>BP/HHB-RP</b>	1/4" x 7/8" to 1-1/4"	32 V/30 A	Crimp #12 to 16 wire	Universal - yellow body
ННК	BP/HHK-RP	1/4" x 5/8" to 1-1/4" and SFE-20	32 V/20 A	#14 leadwire/yellow	Universal nylon, twist lock, no fuse - black body
$HHN^{\dagger}$	<b>BP/HHN-RP</b>	1/4" × 1-1/4"	32 V/30 A	#12 leadwire/yellow	Nylon heavy-duty with AGC-30-R fuse - white body
HLR	_	For GMF fuse, see page 42	300 V/15 A	6" of #18 leadwire/red	Holder with installed lineside terminal wire for GMF fuses
HMJ	BP/HMJ-RP	For SFE-20 (included)	32 V/20 A	8" of #14 leadwire/ black	With fuse and wire loop leads - black body
HMK	<b>BP/HMK-RP</b>	1/4" x 1-1/4" and SFE-20	32 V/30 A	#12 leadwire/black	No fuse, wire loop leads - black body
HRH	—	For SFE-9 (included)	32 V/9 A	19" of #14 leadwire	With fuse and wire loop leads - black body
HRI	_	For SFE-14 (included)	32 V/14 A	19" of #14 leadwire/ black	With fuse and wire loop leads - gray body
HRJ	_	For SFE-20 (included)	32 V/20 A	19" of #14 leadwire/ black	With fuse and wire loop leads - black body
HRK-R	BP/HRK-RP	1/4" dia. x 7/8" to 1-1/4"	32 V/20 A	#14 leadwire/black	Universal with wire loop leads and springs for different fuse lengths - black body

\* 1 Fuse holder per pack, 10 packs per shelf carton.

\*\* 1 Fuse holder per pack, 5 packs per shelf carton.

† Traditional pack not sold with AGC-30 fuse.

HRH HFA HFB ннв ННК HHN HLR HMJ НМК HRI HRJ

#### Panel-mount holders for 1/4" x 1-1/4" fuses

Trad'l pack*	Retail pack**	Description/mounting	Max. panel thickness	Knob type	Terminals	Max volts/amps
HKP-R	—	High-profile cover knob, rear hexnut	0.3″	Knob	Solder terminals	250 V/30 A
HKP-HH-R	BP/HKP-HH-RP	High-profile cover knob, rear hexnut	0.3"	Knob	1/4" quick-connect terminals	250 V/15 A
HTB-26I-R	—	Low-profile cover knob, rear hexnut	0.3"	Knob	In-line 1/4" quick-connect terminals	250 V/20 A
HTB-38I-R	—	Low-profile cover knob, rear hexnut	0.3"	Screwdriver/ Slotted	Right angle 1/4" quick-connect terminals	250 V/20 A
HTB-68I-R	—	Low-profile cover knob, front hexnut	0.3"	Knob	Right angle 1/4" quick-connect terminals	250 V/20 A
HTB-88I	_	Low-profile cover knob, through-hole snap	0.125"	Knob	Right angle 1/4" quick-connect terminals	250 V/20 A

\* 1 Fuse holder per pack, 10 packs per shelf carton.

\*\* 1 Fuse holder per pack, 5 packs per shelf carton.

ΗKΡ HKP-HH



HTB-26I



HRK

HTB-38I

HTB-68I

#### easyID fuse panels with weatherproof cover

Finding the open fuse on a fuse panel just got a lot easier with the new Bussmann series easyID fuse panels. The LED indicators light up when a fuse opens. A clear, weather resistant hard shell cover helps protects the fuse panel from moisture, dirt and other contaminants. All fuse panels are rated 32 V, up to 25 amps (100 amps max per panel).



Fuse type	Fuse positions	Trad'l pack*	Retail pack**
	4	FP-ATC-04ID	_
ATC	6	FP-ATC-06ID	BP-FP-ATC-06ID
	10	FP-ATC-10ID	_
	4	FP-ATM-04ID	_
ATM	6	FP-ATM-06ID	BP-FP-ATM-06ID
	10	FP-ATM-10ID	_

\* 1 per box

\*\* 1 per pack, 4 packs per shelf carton

#### Splash-proof ATR, ATM and ATC fuse blocks

The Bussmann series FB fuse blocks are available in 4-, 6-, 8and 10-pole versions for ATR micro, ATM and ATC fuses. The clear plastic cover allows viewing for installed fuse amp ratings and blown fuses when used with *easy*ID<sup>™</sup> ATM and ATC fuses. The cover's O-ring provides a splash-proof IPX4 rating and ensures a positive fit to reduce infiltration of dirt and other contaminants. The plastic back plate provides additional isolation from ground sources



when mounted on any chassis surface. All blocks are rated 32 V and 20 amps per pole, with maximum total amps per block not to exceed the value shown in the catalog number table.

Mounting requires two customer-supplied #10 screws. Electrical connection is easily made with readily available, customer supplied 1/4" quick-connect terminals and 12 to 16 AWG\* wire.

\* Wire size dependent on circuit current and length of run.

			0
_		N N	
-		11	



Fuse type	Poles	Retail pack*	Max. total amps per block
	4	BP/FB4-ATR	30
ATR micro	6	BP/FB6-ATR	45
ATH MICLO	8	BP/FB8-ATR	60
	10	BP/FB10-ATR	90
	4	BP/FB4-ATM	30
ATM	6	BP/FB6-ATM	45
ATIVI	8	BP/FB8-ATM	60
	10	BP/FB10-ATM	90
	4	BP/FB4-ATC	30
ATC	6	BP/FB6-ATC	45
AIC	8	BP/FB8-ATC	60
	10	BP/FB10-ATC	90

\* 1 Per pack, 5 packs per shelf carton.

#### RTMF

#### ATM fuse panel

The Rear Terminal 20 Position (RTMF) fuse panel for ATM fuses provides efficient power distribution in a rugged compact package.The RTMF offers a weather-tight enclosure (IP66/67) for ATM fuses and circuit breakers when cover, cable seals, and cavity plugs are installed.\*

\* Electrical terminals, cable seals and cavity plugs are either Delphi Packard Metri-Pack® 280 Series terminals (sealed/tangless) or AMP® terminals. They accept #12-22 AWG wire sizes. Delphi Packard 280 Series cavity plugs are installed where wires are not used. Seals and cavity plugs not sold by Eaton. Shown with deep cover. Fuses and circuit breakers sold separately.



Catalog no.\*DescriptionRTMF20 position fuse blockRTMF-SC20 position fuse block with shallow coverRTMF-DC20 position fuse block with deep cover

\* 1 Per box, 10 boxes per shelf carton.

## **Fuse panels and blocks**

#### 15600 fuse panels

A single, common power input makes it simple to wire multiple fused circuits - each rated to 20 amps (95 amps max per panel), up to 32 volts. Molded of high grade thermoplastic, for superior performance, the 15600 fuse panel features 1/4" quick-connect terminals for easy installation. Recessed fuse contacts provide finger-safe protection.



Short base shown. Fuses and circuit breakers sold separately.

Available in short base (without ground pad terminal strip) and long base (includes ground pad terminal strip that provides 1/4" quick connect terminals for separate ground lead connection).

**Note:** The 15600 ATC fuse panels are not intended for installation under the hood or in an environment that would expose them to water or extreme temperatures.

Fuse positions	Short base catalog no.*	Short base retail pack**	Long base catalog no.
4	15600-04-20	—	15600-04-21
6	15600-06-20	BP/15600-06-20	15600-06-21
8	15600-08-20	—	15600-08-21
10	15600-10-20	—	15600-10-21
12	15600-12-20	—	15600-12-21
14	15600-14-20	_	15600-14-21
16	15600-16-20	_	15600-16-21
18	15600-18-20	—	15600-18-21
20	15600-20-20	—	15600-20-21

\* 1 Per pack.

\*\* 1 Per pack, 5 boxes per shelf carton.

#### FMX

#### Power distribution relay and fuse module

The sealed power FMX fuse module (CBPFM) and power relay module (CBPRM) are compact power distribution modules for high current applications having extreme moisture and high vibration.

The CBPFM power fuse module has two FMX fuse positions for separate circuits.

The 24 volt CBPRM power relay module contains a 35 amp relay and two FMX fuse positions (one protects the relay and the other a single-circuit in-line fuse).

Both the CBPRM and CBPFM feature rugged M8 power input studs, and an IP66 removable, weather-tight cover to protect the fuse positions.

Electrical terminations not supplied by Eaton, FMX fuses sold separately.

 Catalog no.\*
 Description

 CBPFM
 Power fuse module

 CBPRM
 Power relay module

\* 1 Per box.



Power fuse module



Power relay module

## See our stock of OEM fuses for Nissan, Infiniti, Toyota and Lexus vehicles

Bussmann<sup>™</sup> series multi-pole fuses (MPF) and more now available for the aftermarket. See page 9.



#### S-8202

## Glass tube fuse blocks 300 volt, 30 amp

S-8202 blocks with 1/4" quick-connect 40° bend terminals are available in 1 up to 12 poles. Break-away design permits snapping off or combining poles to get the exact number required for the application. UL Recognized, 30 amps maximum.

Fuse block poles	Trad'l pack*	Retail pack**
1	S-8202-1-R	—
2	S-8202-2-R	BP/S-8202-2-RP
3	S-8202-3-R	_
4	S-8202-4-R	BP/S-8202-4-RP
5	S-8202-5-R	_
10	S-8202-10-R	_
12	S-8202-12-R	—

\* 1 Per pack, 10 packs per shelf carton.

\*\* 1 Per pack, 5 packs per shelf carton.

#### S-8301

## Glass tube fuse blocks 300 volt, 30 amp

S-8301 blocks with screw connect terminals are available in 1 up to 12 poles. Break-away design permits snapping off or combining poles to get the exact number required for the application. UL Recognized, 30 amps maximum.

Fuse block poles	Trad'l pack*
1	S-8301-1-R
2	S-8301-2-R
3	S-8301-3-R
4	S-8301-4-R
5	S-8301-5-R
6	S-8301-6-R
8	S-8301-8-R
12	S-8301-12-R

\* 1 Per pack, 10 packs per shelf carton.

#### **Fusible link wire**

The BP/FL-14 and BP/FL-16 fusible link wire kits include 14 Vdc wire with printed wire gauge label. BP/FLW-14 is a six-foot coil of bulk fusible link wire.



Retail	
pack*	Description
BP/FL-14	9 inches of 14 gauge fusible link wire with 3/8" and 5/16" terminals and crimp connector
BP/FL-16	9 inches of 16 gauge fusible link wire with 1/4" and 5/16" terminals and crimp connector
BP/FLW-14	6 foot coil of 14 gauge fusible link wire

\* 1 Fusible link per pack, 5 packs per shelf carton.

#### **ANN and ANL current limiters**

Used to protect charging systems in battery-operated vehicles like forklifts and golf carts, the ANN and ANL limiters offer high amp ratings in a compact  $7/8" \times 3-3/16"$  size.

Durable glass-laminated melamine body and riveted construction provides a rugged package and clear window provides visual indication.

Both the ANN and ANL limiters use the SFR fuse block.

## ANN

Very fast-acting limiters



Trad'l/pack	catalog no.	
ANN-10	ANN-125	ANN-325
ANN-35	ANN-150	ANN-350
ANN-40	ANN-175	ANN-400
ANN-50	ANN-200	ANN-500
ANN-60	ANN-225	ANN-600
ANN-80	ANN-250	ANN-700
ANN-90	ANN-275	ANN-800
ANN-100	ANN-300	—

\* 1 Limiter per pack, 5 packs per shelf carton.

ANL

**Fast-acting limiters** 



Trad'l/pack catalog no.				
ANL-35	ANL-150	ANL-350		
ANL-40	ANL-175	ANL-400		
ANL-50	ANL-200	ANL-500		
ANL-60	ANL-225	ANL-600		
ANL-80	ANL-250	ANL-675		
ANL-100	ANL-275	ANL-750		
ANL-125	ANL-300	—		
ANL-130	ANL-325	—		
* 1 Limiter per pack, 5 packs per shelf carton.				

## SFR

#### **Block for ANL and ANN limiters**

Open stud fuse block handles up to 800 amps. Available only without cover.

#### Order catalog number SFR.\*

\* 1 Block per pack, 100 packs per master carton.



## **Automotive circuit breakers**

We offer a large selection of Bussmann series automotive circuit breakers including both OEM-style and fuse-replacement devices.

#### High amp circuit breakers

High amp circuit breakers are available for automotive and marine applications in Type I and Type III reset modes. Typically used in auxiliary and accessory circuits for trucks, busses, RVs and boats, they are available in weatherproof/waterproof panel and flush mount versions. They can also be used in battery charging systems that use battery isolators to manage and protect batteries in multi-battery installations.

#### Type I - automatic reset

Type I circuit breakers automatically reset after opening. If the fault or overcurrent condition still exists, the breaker will continue to cycle between ON and OFF positions until the overcurrent problem is corrected. These devices are sometimes called "cycling breakers." Type I/Automatic Reset circuit breakers do not address, or correct, overcurrent or fault conditions. They only react by cycling OFF and ON. Any overcurrent or fault condition that causes a Type I circuit breaker to operate should be corrected as soon as possible. Continued vehicle operation with an overcurrent or fault condition (causing the Type I circuit breaker to cycle) is NOT recommended.

#### Type II - modified reset

Type II circuit breakers will remain "tripped" by an internal resistor (in the OFF position) as long as the circuit is powered. Type II breakers can be reset by turning the circuit OFF, or by turning the ignition switch to the OFF position. These devices are sometimes called "non-cycling breakers."

#### Type III - manual reset

Type III circuit breakers will remain tripped (in the OFF position) until an indicator button or lever is manually reset. Some Type III breakers are available with a switch feature that allows the use of an external button to de-energize the circuit.

#### Low-profile ATM circuit breaker

#### **CB234**

Type III



Amps	Trad'l pack*
5	CB234-05
7-1/2	CB234-7-1/2
10	CB234-10
15	CB234-15
20	CB234-20
25	CB234-25
30	CB234-30
	5 7-1/2 10 15 20 25

1 Breaker per pack, 10 packs per shelf carton.

#### ATM footprint Transorb, Resistor and Diodes CB229

Transorb, resistor and diode electrical protection devices easily install in common ATM fuse holders and blocks. These circuit protection devices provide voltage and current limiting functionality and are designed for the onand off-highway requirements of trucks, RVs, construction, agriculture, ATV and material handling equipment.

· Transorb - Protects against voltage spikes.

- Clamp rating: 27 Vdc
- Power rating: 1500 W
- Resistor Drops circuit voltage.
  - Power rating: 5 W
  - Resistance: 68 Ω
- · Diode Prevents reverse current flow.
  - Amp rating: 6 A

Trad'l pack*	Description
CB22901-1.5	Transorb voltage spike protector
CB22902-68	Resistor voltage drop device
CB22903-6	Diode reverse current protector
CB22903-6V	Diode reverse current protector with wing key

1 Circuit breaker per pack, 10 packs per shelf carton.



#### ATM footprint circuit breakers

Type I, Type II and Type III circuit breakers match the ATM fuse footprint. Ultra-thin, to fit in tight spaces, they're the smallest automotive circuit breakers on the market and comply with SAE standard J553.

**CB211** Type I

**CB212** 

Type II



Amps	Trad'l pack*	Retail pack**
7-1/2	CB211-7-1/2	—
10	CB211-10	BP/CB211-10-RP
15	CB211-15	BP/CB211-15-RP
20	CB211-20	BP/CB211-20-RP
25	CB211-25	BP/CB211-25-RP
30	CB211-30	BP/CB211-30-RP
* 1 Broc	kor por pock 10	packs por shalf carton

Breaker per pack 10 packs per shelf carton. 1 Breaker per pack, 5 packs per shelf carton.

Color code

Tan

Red

Blue

Yellow

White

Green

Amps

05

10

15

20

25

20

25

30

Brown

Amps		Trad'l pack*
	10	CB212-10
	15	CB212-15
	20	CB212-20
	25	CB212-25
	30	CB212-30

\* 1 Breaker per pack, 10 packs per shelf carton.

Trad'l pack\*

CB233-05

CB233-10

CB233-15

CB233-20

CB233-25

CB233-30

carton.

CB233-71/2

Amps

7-1/2

10

15

20

25

30

\* 1 Breaker per pack, 10 packs per shelf carton.

Trad'l pack\* CB222OS-05

CB222OS-10

CB222OS-15

CB222OS-20 CB222OS-25

5

**CB233** Type III ATM circuit breaker



**CB222OS** Type II with offset terminals



**CB223OS** Type III with offset terminals



Type I, GM vehicles



30	CB222OS-30		
* 1 Breake	* 1 Breaker per pack, 10 packs per shelf		
Amps	Trad'l pack*		
05	CB223OS-05		
7-1/2	CB223OS-7-1/2		
10	CB223OS-10		
15	CB223OS-15		

CB223OS-30 \* 1 Breaker per pack, 10 packs per shelf carton.

CB223OS-20

CB223OS-25

Amps	Trad'l pack*	OEM part no.
15	MMB-15	12135171
20	MMB-20	12135072

\* 1 Breaker per pack, 10 packs per shelf carton.

MMB





## **Automotive circuit breakers**

#### ATC footprint circuit breakers

Type I, Type II and Type III circuit breakers match the ATC fuse footprint. They are the thinnest available in the aftermarket and comply with SAE standard J553.

CB227 complies with SAE J553 and SAE J1171 for ignition protection. We also offer the Bussmann series ACB-20, CCB-25, and FCB-20 breakers as replacements for specific OEM applications.

Amps

Amps 7-1/2

10

15

20

25

30

Amps

10

15 20

25

30

Amps

7-1/2 10

15

20 25

30

\* 1 Breaker per pack, 10 packs per shelf carton.

\* 1 Breaker per pack 10 packs per shelf carton.

\* 1 Breaker per pack 10 packs per shelf carton.

20

#### ACB-20

#### Type I for GM vehicles



10 packs per shelf carton.

Trad'l pack\*

CB221-7-1/2

CB221-10

CB221-15

CB221-20

CB221-25

CB221-30

Trad'l pack

CB222-10 CB222-15

CB222-20

CB222-25

CB222-30

Trad'l pack\*

Trad'l pack\*

ACB-20

\* 1 Breaker per pack

OEM no.

12040816





CB222

Type II



#### **CB223** Type III



**CB227** Type III



Color code	Amps	Trad'l pack*
Tan	5	CB227-05
Moss Green	6	CB227-06
Brown	7-1/2	CB227-7-1/2
Red	10	CB227-10
Blue	15	CB227-15
Yellow	20	CB227-20
White	25	CB227-25
Green	30	CB227-30

\* 1 Breaker per pack

10 packs per shelf carton.

### **CBB-30**

Type I



Amps	Trad'l pack*	Retail pack**
30	CBB-30	BP/CBB-30-RP
* 1 Break	ker per pack, 10 pa	icks per shelf carton.

BUSSMANN

OEM no.

4527053



## CCB-25 Type I for Chrysler

vehicles



#### FCB-20

Type II for Ford vehicles



Amps	pack*	Retail pack	OEM no.
20	FCB-20	BP/FCB-20RP	D9AB-14526-BA
* 1 Fuse per pack, 10 packs per shelf carton. ** 1 Fuse per pack, 5 packs per shelf carton.			

Trad'l pack\*

\* 1 Breaker per pack, 10 packs per shelf carton.

CCB-25

Amps

25

## UCB

#### Type I ATC circuit breakers

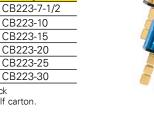
UCB breakers feature "snap-off" universal blades to fit tight fuse block spacing or recessed fuse terminals.

Color code	Amps	Trad'l pack*	Retail pack**	Bulk pack***
Plain	6	UCB-6	_	_
Brown	8	UCB-8	_	_
Red	10	UCB-10	BP/UCB-10-RP	BK/UCB-10
Blue	15	UCB-15	BP/UCB-15-RP	BK/UCB-15
Yellow	20	UCB-20	BP/UCB-20-RP	BK/UCB-20
Plain	25	UCB-25	BP/UCB-25-RP	_
Green	30	UCB-30	BP/UCB-30-RP	BK/UCB-30

\* 1 Circuit breaker per pack, 10 packs per shelf carton.

\*\* 1 Circuit breaker per pack, 5 packs per shelf carton.

\*\*\* 100 Circuit breakers per pack.



## Automotive circuit breakers and splash proof covers

#### MAXI footprint circuit breakers

Bussmann series MAXI circuit breakers are the first breakers on the market to match the MAXI fuse footprint and body dimensions.

CB1911

CB1921

breakers

Type I MAXI circuit breakers



Type II MAXI circuit

Amps	ilau i pack	
10	CB1911-10	
15	CB1911-15	
20	CB1911-20	
25	CB1911-25	
30	CB1911-30	
35	CB1911-35	
40	CB1911-40	
50	CB1911-50	

Trad'l pack\*

\* 1 Breaker per pack, 10 packs per shelf carton.

Trad'l pack\* Amps CB1921-10 10 15 CB1921-15 20 CB1921-20 25 CB1921-25 CB1921-30 30

\* 1 Breaker per pack, 10 packs per shelf carton.

#### **Glass tube footprint breakers**

#### CBF

#### Type II circuit breakers for glass tube fuse blocks

CBF circuit breakers can be used to replace glass fuses in blocks for 1/4" x 1-1/4" fuses.



#### Trad'l pack\* Retail pack\*\* Amps 10 CBF-10 15 CBF-15 CBF-20 20 BP/CBF-20-RP 25 CBF-25 30 CBF-30 BP/CBF-30-RP CBF-35 35 40 CBF-40

\* 1 Breaker per pack, 10 packs per shelf carton. \*\* 1 Breaker per pack, 5 packs per shelf carton.



Catalog no.	Description	Pack qty.	Shelf qty.	Master qty.
CB-CVR	Cover for stud terminal circuit breaker	1	10	300
BK/CB-CVR	Cover for stud terminal circuit breaker-BULK	_	100	2000
BP/CB20HB-CVR*	CB123-20HB with cover- retail pack	1	5	120
BP/CB40HB-CVR*	CB123-40HB with cover- retail pack	1	5	120

\* Packed with CB123-20HB and CB123-40HB.



#### Heavy-duty circuit breakers

Ideal for many heavy-duty and truck applications, Bussmann series stud-terminal and quick-connect circuit breakers are available with and without a mounting bracket and comply with SAE standard J553.

#### CB123-B

Type III 10-32 stud-terminal circuit breakers with crosswise bracket. NEMA **IP66** rated for protection from dust, oil, and other non-corrosive materials.

Amps	Trad'l pack*
10	CB123-10B
15	CB123-15B
20	CB123-20B
30	CB123-30B
40	CB123-40B
50	CB123-50B

\* 1 Breaker per pack, 10 packs per shelf carton.

#### **CB123-HB**

Type III 10-32 stud-terminal circuit breakers with lengthwise bracket. NEMA **IP66** rated for protection from dust, oil, and other non-corrosive materials.

Amps	Trad'l pack*
10	CB123-10HB
15	CB123-15HB
20	CB123-20HB
30	CB123-30HB
40	CB123-40HB
50	CB123-50HB

\* 1 Breaker per pack, 10 packs per shelf carton.

Trad'l nack\*

CBC Type I 10-32 stud-terminal circuit breakers



Type I 10-32 stud-terminal circuit breakers with crosswise bracket



Amps	Trad'l pack*	
8	CBC-8	
10	CBC-10	
15	CBC-15	
20	CBC-20	
25	CBC-25	
30	CBC-30	
35	CBC-35	
40	CBC-40	
50 CBC-50		
* 1 Breaker per pack 10 packs per shelf		

Breaker per pack, 10 packs per shelf carton.

Amps	Trad'l pack*	Retail pack**
8	CBC-8B	—
10	CBC-10B	—
15	CBC-15B	_
20	CBC-20B	BP/CBC-20B-RP
25	CBC-25B	_
30	CBC-30B	BP/CBC-30B-RP
35	CBC-35B	_
40	CBC-40B	BP/CBC-40B-RP
50	CBC-50B	BP/CBC-50B-RP

1 Breaker per pack, 10 packs per shelf carton. 1 Breaker per pack, 5 packs per shelf carton.



## Automotive circuit breakers

#### **CBC-BWP**

Type I 10-32 stud-terminal weatherproof circuit breakers with crosswise bracket

Type I 10-32 stud-terminal

circuit breakers with

lengthwise bracket

Amps	Trad' pack*	
20	CBC-20BWP	
30	CBC-30BWP	
		۰.

Trad'l pack\*

CBC-10HB

CBC-15HB

CBC-20HB

CBC-25HB

CBC-30HB

CBC-40HB

CBC-50HB

**Retail pack\*\*** 

BP/CBC-20HB-RP

BP/CBC-30HB-RP

BP/CBC-40HB-RP

BP/CBC-50HB-RP

Amps

10

15

20

25

30

40

50

\* 1 Breaker per pack, 10 packs per shelf carton.

#### **Quick-connect circuit breakers**

For use in trucks, RVs, boats, buses, etc. featuring 1/4" quick-connect terminals for easy installation.

#### CB174

Type III panel-mount circuit breakers with 1/4" quickconnect terminals

Amps	Trad'l pack*
10	CB174-10
15	CB174-15
20	CB174-20
30	CB174-30

\* 1 Breaker per pack, 10 packs per shelf carton.



#### CBT-M

Type II circuit breakers for Mack® trucks with 1/4" blades on 1" centers

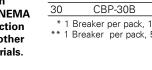
Amps	Trad'l pack*
10	CBT-10M
15	CBT-15M
20	CBT-20M
25	CBT-25M
30	CBT-30M

\* 1 Breaker per pack, 10 packs per shelf carton.

#### CBP-B

CBC-HB

Type I 10-32 stud-terminal circuit breakers with crosswise bracket. NEMA IP66 rated for protection from dust, oil, and other non-corrosive materials.





\* 1 Breaker per pack, 10 packs per shelf carton. \*\* 1 Breaker per pack, 5 packs per shelf carton.

\* 1 Breaker per pack, 10 packs per shelf carton.

\*\* 1 Breaker per pack, 5 packs per shelf carton.

## CBT-N

Type II circuit breakers for Navistar® trucks with 1/4" blades on 1.08" centers



\* 1 Breaker per pack, 10 packs per shelf carton.



#### CBP-BA

Type I 10-32 stud-terminal circuit breakers with crosswise bracket. NEMA IP66 rated for protection from dust, oil, and other non-corrosive materials.



Amps	Trad'l pack*	Retail pack**
20	CBP-20BA	
25	CBP-25BA	_
30	CBP-30BA	BP/CBP-30BA-RP
40	CBP-40BA	_
50	CBP-50BA	BP/CBP-50BA-BP

1 Breaker per pack, 10 packs per shelf carton.

\*\* 1 Breaker per pack, 5 packs per shelf carton.

#### CBU-B

Type I circuit breaker with on 0.99" centers with crosswise bracket



Amps	Trad'l pack*
30	CBU-30B

1/4" quick-connect terminals \* 1 Breaker per pack, 10 packs per shelf carton.

#### High amp circuit breakers

High amp circuit breakers are typically used in auxiliary and accessory circuits for trucks, buses, RVs and marine applications.

All high amp circuit breakers comply with the SAE J1171 standard for ignition protection and have applications in battery charging systems that use battery isolators to manage and protect batteries in multi-battery installations. Offered in flush-mount or panel-mount.

#### Type I — automatic reset

#### **CB181F**

Flush mount, 30 Vdc Waterproof, sealed housing 1/4-28 threaded studs SEMS nuts installed



and I all	

CB251

Type I Panel mount, 32 Vdc Weatherproof, marine rated #10-32 threaded studs Stainless steel hardware installed



#### Type III - manual reset **CB184F**

Flush Mount, 42 Vdc Waterproof, sealed housing 1/4-28 threaded studs **SEMS** nuts installed



Amps	Catalog no.*
60	CB181F-60
70	CB181F-70
80	CB181F-80
90	CB181F-90
100	CB181F-100
110	CB181F-110
120	CB181F-120
135	CB181F-135
150	CB181F-150
* 1 Breaker n	er box 20 boxes per

per box, 20 boxes p master carton.

Amps	Catalog no.
10	CB251-10
15	CB251-15
20	CB251-20
25	CB251-25
30	CB251-30
35	CB251-35
40	CB251-40
50	CB251-50
* 1 Brooker per bey	10 hoves per

Breaker per box, 10 boxes per shelf carton.

Catalog no.\*

CB184F-25

CB184F-30

CB184F-35

CB184F-40

CB184F-50

CB184F-60

CB184F-70

CB184F-80

CB184F-90 CB184F-100

CB184F-110

CB184F-120

CB184F-135

CB184F-150

\* 1 Breaker per box, 20 boxes per

Amps

25

30

35

40

50

60

70

80

90

100 110

120

135

150

master carton.



CB185

button, 42 Vdc

Type III — manual reset (cont.)

Flush mount with push-to-trip

Panel mount with push-to-trip

Waterproof, sealed housing 1/4-28 threaded studs SEMS nuts installed

Waterproof, sealed housing

1/4-28 threaded studs

SEMS nuts installed

#### Catalog Retail pack\*\* Amps no.\* 25 CB185-25 30 CB185-30 35 CB185-35 40 CB185-40 50 CB185-50 BP/CB185-50 60 CB185-60 70 CB185-70 BP/CB185-70 80 CB185-80 BP/CB185-80 90 CB185-90 100 CB185-100 BP/CB185-100 110 CB185-110 -120 CB185-120 BP/CB185-120 135 CB185-135 BP/CB185-135

150 CB185-150 BP/CB185-150 \* 1 Breaker per box, 20 boxes per

master carton.

\*\* 1 Circuit breaker per pack, 4 packs per shelf carton.

Amps	Catalog no.*
25	CB185P-25
30	CB185P-30
35	CB185P-35
40	CB185P-40
50	CB185P-50
60	CB185P-60
70	CB185P-70
80	CB185P-80
90	CB185P-90
100	CB185P-100
110	CB185P-110
120	CB185P-120
135	CB185P-135
150	CB185P-150
* 1 Procker per	have 20 haves har

1 Breaker per box, 20 boxes per master carton.

#### **CB187F**

Flush mount with pull-to-trip lever, 48 Vdc Weatherproof, marine rated 5/16-18 threaded studs Stainless steel hardware installed



Amps	Catalog no.
25	CB187F-25
30	CB187F-30
35	CB187F-35
40	CB187F-40
50	CB187F-50
60	CB187F-60
70	CB187F-70
80	CB187F-80
90	CB187F-100
100	CB187F-110
110	CB187F-120
135	CB187F-135
150	CB187F-150
200	CB187F-200
* 1 Breaker per b	oox, 5 boxes per

shelf carton

See page 35 for marine-rated circuit breakers.



CB185P

button, 42 Vdc

## Automotive and high-amp marine circuit breakers

Amps

25

30

40

50

60

70

80

90

100

120

150

master carton.

## BUSSMANN

#### CB187P

installed

Panel mount pull-to-trip lever, 48 Vdc Weatherproof, marine rated 5/16-18 threaded studs Stainless steel hardware



Amps	Catalog no.
25	CB187P-25
30	CB187P-30
35	CB187P-35
40	CB187P-40
50	CB187P-50
60	CB187P-60
70	CB187P-70
80	CB187P-80
90	CB187P-90
100	CB187P-100
110	CB187P-110
120	CB187P-120
135	CB187P-135
150	CB187P-150

\* 1 Breaker per box, 120 boxes per master carton.

\* 1 Breaker per box, 20 boxes per

Catalog no.\*

CB285F-25

CB285F-30

CB285F-40

CB285F-50

CB285F-60

CB285F-70

CB285F-80

CB285F-90

CB285F-100

CB285F-120 CB285F-150

#### CB285F

Flush mount with push-to-trip button, 48 Vdc Weatherproof, marine rated M6 threaded studs Stainless steel hardware installed



#### CB285P

Panel mount with push-to-trip button, 48 Vdc Weatherproof, marine rated M6 threaded studs Stainless steel hardware installed



Amps	Catalog no.*
25	CB285P-25
30	CB285P-30
40	CB285P-40
50	CB285P-50
60	CB285P-60
70	CB285P-70
80	CB285P-80
90	CB285P-90
100	CB285P-100
120	CB285P-120
150	CB285P-150

\* 1 Breaker per box, 20 boxes per master carton.

#### CB255

Panel mount push-to-trip lever, 32 Vdc

#### Weatherproof, marine rated #10-32 threaded studs

Stainless steel hardware installed

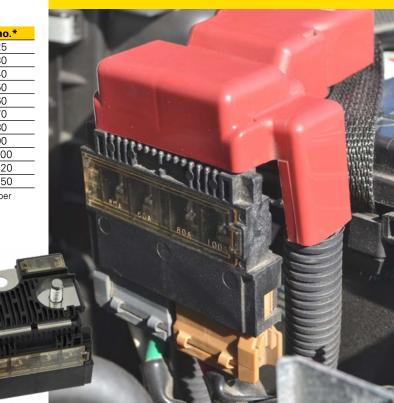


Amps	Catalog no.
10	CB255-10
15	CB255-15
20	CB255-20
25	CB255-25
30	CB255-30
35	CB255-35
40	CB255-40
50	CB255-50

\* 1 Breaker per box, 10 boxes per shelf carton.

## New Bussmann series 5-pole battery terminal fuse now available to the aftermarket.

See page 11.



## Junction blocks, terminal blocks and terminal strips

#### Junction blocks

JB3816-2 Non-feed through stud-type junction block 3/8-16 thread/stud size, 250 amps max.



BP/JB3816-2

NOTE: Voltage rating dependent upon installation.

Poles	Trad'l pack*	Retail pack**	Description/color	Stud thread
1	JB3816-2	BP/JB3816-2	Stud junction block - black	3/8-16
1	JB3816-3		Stud junction block - red	3/8-16

\* 1 Junction block per pack, 50 per master pack.

\*\* 1 Junction block per pack, 5 packs per shelf carton.

#### C1938 Feed through stud-type

250 amps max.

junction block 3/8-16 thread/stud size,



NOTE: Voltage rating dependent upon installation.

Poles	Trad'l pack*	Retail pack**	Description/color	Stud thread			
1	C1938	BP/C1938	Stud junction block - black	3/8-16			
* 1	* 1 Junction block par pack 50 par master pack						

\* 1 Junction block per pack, 50 per master pack.

\*\* 1 Junction block per pack, 5 packs per shelf carton.

#### Bussmann series double row barrier terminal blocks



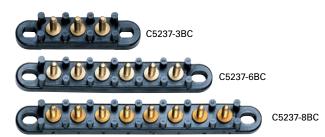
TB200 and TB300 double row barrier terminal blocks are nickelplated brass with black thermoplastic construction.

Poles	Trad'l pack*	Retail pack**	Terminal screw	Volts/amps
4	TB200-04B	BP/TB200-04-RP	6-32	300 V/20 A
6	TB200-06B	—	6-32	300 V/20 A
8	TB200-08B	—	6-32	300 V/20 A
10	TB200-10B	_	6-32	300 V/20 A
15	TB200-15B	—	6-32	300 V/20 A
4	TB300-04B	—	8-32	600 V/30 A
6	TB300-06B	—	8-32	600 V/30 A
8	TB300-08B	—	8-32	600 V/30 A
10	TB300-10B	—	8-32	600 V/30 A
12	TB300-12B	—	8-32	600 V/30 A
20	TB300-20B	_	8-32	600 V/30 A

\* 1 Junction block per pack, 50 per master pack.

\*\* 1 Junction block per pack, 5 packs per shelf carton.

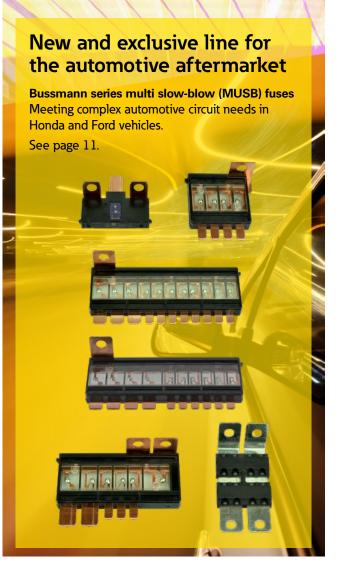
#### Stud junction terminal strips



**C5237** Stud junction blocks are designed for trucks, RVs and wiring accessories. Available in 3, 6 and 8 terminal configurations, they are rated for applications to 30 A, 300 V (UL)/ 600 V (CSA).

Retail pack*	Stud	Volts/amps
BP/C5237-3BC	10-32	300 V/30 A
BP/C5237-6BC	10-32	300 V/30 A
BP/C5237-8BC	10-32	300 V/30 A
	BP/C5237-3BC BP/C5237-6BC	BP/C5237-3BC         10-32           BP/C5237-6BC         10-32

\* 1 Terminal strip per pack, 5 packs per shelf carton.



#### Toggle and rocker switches

We offer a line of Bussmann series single pole toggle switches, rocker switches and duck-bill toggle switches, in a variety of styles, colors and finishes for replacement applications or custom installations.

#### Toggle switches with quick connect terminals



Color	Retail pack*	Function	Rating	Feature
Black	BP/SDN	ON/OFF	12 V/20 A	—
Black	BP/STF	ON/OFF/ON	12 V/20 A	—
Chrome	BP/STT	ON/OFF	12 V/20 A	Red LED

\*1 Switch per pack, 5 packs per shelf carton.

#### Illuminated toggle switches with quick connect terminals



Color	Retail pack*	Function	Rating
Amber	BP/STA	ON/OFF	12 V/20 A
Blue	BP/STB	ON/OFF	12 V/20 A
Green	BP/STG	ON/OFF	12 V/20 A
Red	BP/STR	ON/OFF	12 V/20 A

\*1 Switch per pack, 5 packs per shelf carton.

### Duckbill toggle switches with quick connect terminals



	Function	Rating	Feature
BP/SDA	ON/OFF	12 V/20 A	Illuminated
3P/STC	ON/OFF	12 V/20 A	_

\*1 Switch per pack, 5 packs per shelf carton.

#### Mounting panels for toggle and rocker switches



outding no.	Description
BP/MPR-1	Rectangular hole for mounting (1) switch
BP/MPT-1	1/2" round hole for mounting (1) switch
BP/MPT-2	1/2" round hole for mounting (2) switches
*4 D I I E	

\*1 Panel per pack, 5 packs per shelf carton.

## Metal housing toggle switches with screw terminals



Color	Retail pack*	Function	Rating		
Chrome	BP/STE	ON/OFF	12 V/15 A		
Chrome	BP/STJ	ON/OFF	12 V/25 A		
Chrome	BP/STK	ON/OFF/ON	12 V/15 A		
*1 Curitale new needs. E needs new shalf serten					

\*1 Switch per pack, 5 packs per shelf carton.

#### Rocker switches with quick connect terminals



Color	Retail pack*	Function	Rating	Feature
Amber	BP/SRA	ON/OFF	12 V/16 A	Illuminated
Blue	BP/SRB	ON/OFF	12 V/16 A	Illuminated
Green	BP/SRG	ON/OFF	12 V/16 A	Illuminated
Black	BP/SRN	ON/OFF	12 V/16 A	_
Red	BP/SRR	ON/OFF	12 V/16 A	Illuminated

\*1 Switch per pack, 5 packs per shelf carton.

#### **Battery disconnect switches**

#### BMS-1

Top post anti-theft battery switch. Complete with HHM fuse holder, ATM-20 fuse, ring terminals and stainless steel bolt and wing nut.



#### BMS-2

Side post anti-theft battery switch for GM vehicles. Complete with HHM fuse holder, ATM-20 fuse and ring terminals.

#### 15968-1

Heavy-duty switch is designed to open the circuit between the battery and load of a battery powered system - typically in large truck applications. Rated at 50 Vdc maximum, 400 A continuous, it can withstand cranking or surge currents up to 2000 A for 5 seconds maximum.



Catalog	
no.	Description
BP/BMS-1*	Top post anti-theft master switch with HHM fuse holder, ATM-20 fuse, ring terminals and stainless steel bolt and wing nut
BP/BMS-2*	Side post anti-theft master switch with HHM fuse holder, ATM-20 fuse and ring terminals
15968-1**	Heavy-duty disconnect; 50 Vdc, 400 A maximum
* 1 Battery sw	vitch per pack, 5 packs per shelf carton.

\*\* Non-stock part

## Automotive flashers and lighting control modules

We offer a complete line of Bussmann series flashers that meet SAE standards for a variety of vehicles. To select the proper replacement flasher, match these three specifications:

- · Specific versus variable load. Specific load flashers flash only a certain number of lamps. Variable load flashers handle a range of amps, such as when pulling a trailer.
- · Lamp capacity. Designates the total number of lamps in the circuit for the left or right directional signal.
- · Number of terminals. Select the number of blades to match the socket in the panel.

#### **Thermal flashers**



Heavy-duty electronic flashers



Super heavy-duty electronic flashers





NO.232 **LED flashers** 

NO.233





NO.234

NO-759-LED

NO-727-LED NO-758-LED





NO-762-LED

Thermal and electronic 12 and 24 Vdc flashers

<b>Trad'l</b>	Retail	Flasher	No. of			Number
pack*	pack**	type	terminals	Volts	Amps	of bulbs
NO.535	—	Thermal	3	6	5.2	2-6
NO.550	BP/550-RP	Thermal	3	12	12.8	2-6
NO.552	BP/552-RP	Thermal	2	12	12.8	2-6
NO.575	BP/575-RP	Thermal	2	12	12.8	1-8
NO.577	BP/577-RP	Therm./ex. loud	2	12	14	2-6
NO.243	_	H-D electronic	2	12	25	12
NO.244	_	H-D electronic	3	12	25	12
NO.246	_	H-D electronic	3	12	25	Alternating
NO.726	BP/726-RP	H-D electronic	4	12	12.6	2-4
NO.727	BP/727-RP	H-D electronic	5	12	12.6	2-4
NO.756	BP/756-RP	H-D electronic	3	12	12.6	2-6
NO.757	BP/757-RP	H-D electronic	3	12	12.6	2-6
NO.758	BP/758-RP	H-D electronic	3	12	12.6	2-6
NO.759	BP/759-RP	H-D electronic	3	12	12.6	3-6
NO.760	BP/760-RP	H-D electronic	3	12	12.6	2-6
NO.761	BP/761-RP	H-D electronic	3	12	12.6	2-6
NO.762	BP/762-RP	H-D electronic	4	12	12.6	3-6
NO.763	—	H-D electronic	2	12	12	16
NO.764	_	H-D electronic	2	12	12	20
NO.850	—	H-D electronic	3	12	25	10HZ/5TS
NO.852	_	H-D electronic	2	12	35	16HZ/8TS
NO.232	BP/232-RP	S-D electronic	2	12	20	1-10
NO.233	BP/233-RP	S-D electronic	3	12	20	1-10
NO.234	BP/234-RP	S-D electronic	3	24	20	1-10

\* 1 Flasher per pack, 10 packs per shelf carton.

\*\* 1 Flasher per pack, 5 packs per shelf carton.

#### LED flashers

Trad'l pack*	No. of terminals	Volts	Amps	Number of LED lamps
NO.727-LED	5	12.8	12.6	2-6
NO.758-LED	3	12.8	12.6	2-6
NO.759-LED	3	12.8	12.6	3-6
NO.760-LED	3	12.8	12.6	2-4
NO.762-LED	3	12.8	12.6	2-6

\* 1 Flasher per pack, 10 packs per shelf carton.

#### Lighting control modules (LCM)

Trad'l pack*	No. of terminals	Volts	Amps	Rated load range	Rated voltage
NO.455	10	12.8	2.1	1 to 6 SAE #1156 lamps	11 to 15 Vdc
NO.468	9	12.8	2.1	1 to 6 SAE #1156 lamps	11 to 15 Vdc
NO.470	5	12.8	2.1	Fixed 2 for lamps 4 for hazards	11 to 15 Vdc
NO.487	8	12.8	2.1	1 to 6 SAE #1156 lamps	11 to 15 Vdc

\* 1 LCM per pack, 10 packs per shelf carton.

#### Lighting control modules (LCM)



NO-455

NO-470







NO-468

NO-487

NO-760-LED

#### **Bonus assortment packs**

#### Bonus, preparedness, and emergency retail packs

Whether shoppers have an immediate need or want to be prepared for the unexpected, the Bussmann Series line of Bonus packs, Preparedness packs, and Emergency packs give you the opportunity to meet their need. Each of these solutions give you the opportunity to increase your basket ring by trading up shoppers from single amp packs to these assortment packs.

**Bonus packs** — offer adept shoppers who are frequently tinkering on their cars, trucks, bikes, RVs or ATVs the ability to keep a large assortment of fuses on hand.

**Preparedness packs** — satisfy on-the-go shoppers who want to store fuses in a convenient resealable case so they are prepared if a fuse opens.

**Emergency packs** — give shoppers the ability to satisfy an immediate need to replace multiple fuses.

AGC-EK



Trade up shoppers





ATM-ID-SK

#### **Bonus packs**

Product family	Catalog no.	Number of fuses	Contents
	ATM-FMX-EK	29	5 ea ATM-10, 15, 20, 25, 30; 1 ea FMX-20, 30, 40, 50 and FT-3 fuse tester/puller
	NO. 24	23	1 ea ATM-10, 15, 20, 25, 30, ATM-10LP, 15LP, 20LP, 25LP, 30LP, ATC-3, 5, 7-1/2, 10, 15, 20, 25, 30, 40, MAX-30, 40, FMX-30, 40 and FT-3 fuse tester/puller
Multi-fuse packs	NO. 53	45	10 ea ATC-10, 15, 20, 30; 2 ea MAX-30; 1 ea MAX-40, 50, FT-3 fuse tester/puller;
	NO. 64	64	1 ea MAX-40, 50, FT-3 fuse tester/puller; 2 ea ATM-2, 3, 4, MAX-30; 3 ea ATM-7-1/2; 5 each ATM-5, 25; 10 ea ATM-10, 15, 20, 30
ATC packs	NO. 44	43	7 ea ATC-5, 10, 15, 20, 25 & 30A; 1 ea FT-3 fuse tester/puller
ATC packs	NO. 80	80	10 ea ATC-3, 5, 7-1/2, 10, 15, 20, 25, 30
easyID ATC packs	ATC-ID-SK	42	7 ea ATC-ID-5, 10, 15, 20, 25, 30
ATM packs	NO. 43	43	7 ea ATM-5, 10, 15, 20, 25 & 30A and 1 ea FT-3 fuse tester/puller
easyID ATM packs	ATM-ID-SK	36	6 ea ATM-ID-5, 10, 15, 20, 25, 30
ATM low profile packs	ATM-LP-EK	42	(42 pieces) 7 ea ATM-LP-5, 10, 15, 20, 25 30; 1 ea FT-3 fuse diagnostic tester/puller
Glass tube packs	AGC-EK	60	10 ea AGC-5, 10, 15, 20, 25 & 30A and 1 ea FT-3 fuse tester/puller

NO. 43

## Preparedness and emergency assortment packs





BP/EFC-FORD



Each Preparedness pack comes with a re-sealable traveling case.



#### **Preparedness packs**

Due du et femilie	Cotologica	Number of	Contractor
Product family	Catalog no.	fuses	Contents
	BP/EFC-FORD	29	1 ea ATC-10, 15, 25, ATM-5, 7-1/2; 2 ea ATC-20, 30, ATM-10, 15, 20, 25, 30, ATM-LP-5, 7-1/2, 10, 15, 20
	BP/EFC-GM	24	1 ea ATM-2, 5, 7-1/2, 10, 15, 25, 30, ATM-LP-2, 5, 7-1/2, 10, 30, ATR-10, 15, 20, 30; 2 ea ATM-20, ATM-LP-15, 20, 30
Multi-fuse packs	BP/EFC-TOYOTA	23	1 ea ATM-7-1/2, ATM-LP-5, 7-1/2, 25, 30; 2 ea ATM-5, 10, 15, 20, 25, 30, ATM-LP-10, 15, 20
	BP/EFC-24	23	2 ea ATC-20, 30, ATM-15, 20, FMX-LP 15, 20; 1 ea ATC-15, ATM-10, ATM-LP-10, FMX-20, 30, 40, FMX-LP 20, 30, 40, MAX-30, 40 and FP-A3 fuse puller
ATC packs	BP/EFC-ATC	24	4 ea ATC-5, 10, 15, 20 , 25, 30
ATM packs	BP/EFC-ATM	24	4 ea ATM-5, 10, 15, 20 , 25, 30







#### Emergency packs

Product family	Catalog no.	Number of fuses	Contents
ATR (Micro II) packs	BP/ATR-A7-RPP	7	1 ea ATR-5, 7-1/2, 10, 15, 20, 25, 30 and fuse puller
ATL (Micro III) packs	BP/ATL-A4-RPP	4	1 ea ATL-5, 7-1/2, 10, 15 and fuse puller
	BP/ATC-A5-RP	5	1 ea ATC-10, 15, 20, 25, 30
	BP/ATC-AH8-RPP	8	2 ea ATC-15, 20; 1 ea ATC-10, 25, 30, 40 and FP-A3 fuse puller
ATC packs	BP/ATC-AL8-RP	8	1 ea ATC-2, 3, 4; 2 ea ATC-5, 7-1/2
	DIA-1	6	1 ea ATC-5, 10, 15, 20, 25, 30, and FT-3 fuse diagnostic tester/puller
	ATC-FP-AID	5	1 ea ATC-ID-10, 15,20, 25, 30 and FP-A3 fuse puller
easy ID ATC packs	BP/ATC-AID	5	1 ea ATC-10, 15, 20, 25, 30
	BP/ATM-A5-RP	5	1 ea ATM-10, 15, 20, 25, 30
	BP/ATM-A8-RP	8	1 ea ATM-5, 7-1/2, 10, 15, 20, 25, 30
ATM packs	BP/ATM-AH8-RPP	8	2 ea ATM-10, 15, 20; 1 ea ATM-25, 30 and FP-A3 fuse puller
	BP/ATM-AL8-RP	8	2 ea ATM-3, 5, 7-1/2; 1 ea ATM-2, 4
	DIA-2	8	1 ea ATM-2, 5, 7-1/2, 10, 15, 20, 25, 30 and FT-3 fuse diagnostic tester/puller
	ATM-FP-AID	5	1 ea ATM-ID-10, 15, 20, 25, 30 and FP-A3 fuse puller
easy ID ATM packs	BP/ATM-AID	5	1 ea ATM-ID-10, 15, 20, 25, 30
ATM low profile peaks	BP/ATM-A6LP-RP	8	1 ea ATM-LP-7-1/2, 10; 15, 20, 25, 30
ATM low profile packs	DIA-3	8	1 ea ATM-LP-2, 5, 7-1/2, 10, 15, 20, 25, 30 and FT-3 fuse diagnostic tester/puller
MAX pack	BP/MAX-A3-RP	3	1 ea MAX-30, 40 50
FMX pack	BP/FMX-A3-RP	3	1 ea FMX-20, 30, 40
	BP/AGA-AH8-RP	8	2 ea AGA-10, 15, 20, 30
	BP/AGA-AL8-RP	8	1 ea AGA- 1, 2; 2 ea 3, 5, 7-1/2
	BP/AGC-A5-RP	5	1 ea AGC-10, 15, 20, 25 and 30 A
	BP/AGC-AH10-RP	10	1 ea AGC-7-1/2, 25; 2 ea 10, 15, 20, 30
	BP/AGC-AL10-RP	10	1 ea AGC-4, 6; 2 ea 1, 2, 3, 5
Glass tube fuse packs	MA-5	5	1 ea AGC-1/2, 1, 1-1/2, 2, 3
AGA, AGC, AGW AGX, SFE, GBC	BP/AGW-A8-RP	8	1 ea AGW-5, 7-1/2; 2 ea 15, 20, 30
	BP/AGX-A8-RP	8	1 ea AGX-5, 8; 2 ea 20, 25, 30
	BP/SFE-AH6-RP	6	2 ea SFE-14, 20, 30
	BP/SFE-AL6-RP	6	1 ea SFE-4, 6; 2 ea 7-1/2, 9
	BP/AGC-SFE-A5-RP	5	1 ea AGC- 10, 15, 30 and SFE-14, 20
	BP/GBC-A8-RP	8	1 ea GBC-5, 15; 2 ea 8, 16, 25

28

For product information and data sheets, visit Eaton.com/BussmannConsumer



#### NO.136

#### ATR, ATL and FMM micro fuse assortment

Selection of 135 ATR 2-leg and ATL 3-leg micro blade fuses, and FMM micro cartridge fuses plus a fuse puller. Fuses are loosely packed in 12-cavity, shatter-resistant plastic box. Contains ten each of ATR-5, 7-1/2, 10, 15, 20, 25 and 30, ten each of ATL-5, 7-1/2, 10, and 15, and five each of FMM-15, 20, 25, 30 and 40.



#### NO.60LP

#### Low-profile ATM fuses

Assortment contains 60 fuses: ten each of ATM-7-1/2LP, 10LP, 15LP, 20LP, 25LP and 30LP.



#### NO.95BK

#### ATC and ATM bulk assortment

Selection of 95 ATC and ATM blade fuses. Fuses are loosely packed in 12-cavity, shatter-resistant plastic box. Contains five each of ATC-5, 15, 25, ATM-5, 10, 15, 25, 30, ten of ATM-20, fifteen of ATC-10, 20, 30.



#### Cartridge fuse bulk assortment

The top 16 assorted cartridge fuses for wiring harness protection. Comes with selection guide on inside lid. Contains one each of FLD-80, FLF-20, 30, 40, 50, FLM-80, 100, 120, FLS-30, 40, FMX-20, 30, 40, 50, 60 and FMX-30LP



#### NO.105

NO.45

#### Late model automotive fuse assortment

Selection of low-profile and regular fuses loosely packed in 18-cavity, shatter-resistant plastic box. Contains: 10 each ATM-7-1/2LP, 10LP, 25LP and 30LP; 15 each ATM-15LP and 20LP; 3 each FMX-20, 30 and 40; 2 each FMX-50 and 60; 3 each FMX-20LP, 30LP and 40LP; 2 each FMX-50LP and 60LP; 2 each MAX-30 and 40; 1 each MAX-20, 50, 60 and 80.



#### ATC bulk assortment

Selection of 160 ATC blade fuses loosely packed in 12-cavity, shatterresistant plastic box. Contains ten fuses each of 3, 4, 7-1/2, 40, fifteen of 5, 10, 15, 25, thirty of 20, 30.

## Traditional automotive installer assortments and fuse caddies



#### NO.290

#### PRO PAK professional technician's assortment

Contains the circuit protection products every service technician needs. The compact case organizes 290 of the most common circuit protection products to restore power fast.

Comes with a free, high-power white LED spotlight made of highgrade polished aluminum with metal clip and magnetic base. Features a locking ON/OFF switch with an LED mounted on an insulated flexible shaft. Batteries included: 3 AG13 button cell.

#### **PRO PACK contents**

- Fuse assortments: AGA-AL (1, 2, 3, 5 and 7-1/2 A), AGA-AH (10, 15, 20 and 30 A), AGW-A (5, 7-1/2, 15, 20 and 30 A) and AGX-A (5, 8, 20, 25 and 30 A).
- AGC glass fuses. One tin each containing five fuses: AGC-1-R, 2-R, 3-R, 4-R, 5-R, 7-1/2-R, 10-R, 15-R, 20-R, 25-R and 30-R A.
- SFE size-rejecting 1/4" glass fuses. One tin each containing five fuses: SFE-4, 7-1/2, 9, 14, 20 and 30 A.
- GBC German vehicle fuses. One tin each containing five fuses: GBC-8, 16 and 25 A.
- ATM blade fuses. One tin of each rating containing five fuses: ATM-5, 7-1/2, 10, 15, 20, 25 and 30 A.
- Low-profile ATM blade fuses. One tin each containing five fuses: ATM-7-1/2LP, 10LP, 15LP, 20LP, 25LP and 30LP.
- ATC blade fuses. One tin each containing five fuses: ATC-3, 4, 5, 7-1/2, 10, 15, 20, 25, 30, 35 and 40 A.
- MAXI blade fuses. MAX-20, (2)30, (2)40, 50, 60, 70 and 80 A.
- FLB bolt-mount cartridge fuses. One each: FLB-40, 50, 60, 70 and 80 A.
- · FLD bolt-mount cartridge fuses. One FLD-80 A.
- FLF female termination cartridge fuses. One each: FLF-20, 30, 40, 50 and 60 A.
- FLM male termination cartridge fuses. One each: FLM-60, 80 and 100 A.
- FLS female miniature termination cartridge fuses. One each: FLS-30 and 40 A.
- FMX female MAXI fuses. One each: FMX-20, 30, 40, 50 and 60 A.
- FMX\_LP low-profile female MAXI fuses. One each: FMX-20LP, 25LP, 30LP, 40LP, 50LP and 60LP.
- · HHD 30 A in-line ATC fuse holder
- HHM 30 A in-line ATM fuse holder
- HHN in-line glass tube fuse holder with AGC-30-R A fuse
- · HMK heavy-duty in-line glass tube fuse holder
- CBB-30 Type II 30 A ATC blade-type circuit breaker
- CBC-30HB Type I stud-mount 30 A circuit breaker with lengthwise bracket
- UCB-20 universal 20 A ATC blade-type circuit breaker
- UCB-30 universal 30 A ATC blade-type circuit breaker
- FT-3 fuse puller/tester, FP-A3 3-way fuse puller



Bussmann series fuse caddies offer a full array of fuses for automotive repair facilities to meet your fuse replacement needs. Each caddy is specially stocked to cover the majority of cars, vans, light trucks, SUVs and RVs on the road today. Select from the fivetray caddy or the more comprehensive ten-tray caddy to offer your customers a convenient and secure means to store and transport their replacement fuse inventory.

#### FUSE-CADDY1

**Fuse caddies** 

With convenient folding handle and security latch, this five-tray capacity caddy contains 275 fuses in popular ratings. Four, ten-cavity trays contain ATM, low-profile ATM, ATC and MAX fuses. One, five-cavity tray contains FMX fuses.

## Contains fuse tray catalog numbers:

CDY10TRY-ATM CDY10TRY-MAX

CDY10TRY-ATM-LP CDY5TRY-FMX

#### CDY10TRY-ATC

See fuse tray contents on page 31 for type, quantities and ratings for each tray catalog number.

#### FUSE-CADDY2



Caddy measures 14.8"W x 4.5"D x 7.8"H (handle not extended)

With convenient folding handle and security latches, this tentray capacity caddy contains 372 fuses in popular ratings. Seven, ten-cavity trays contain ATM, Low-profile ATM, ATC, MAX, FMM/ low-profile FMX, FLF/FLS, ATR/ATL micro fuses. Three, five-cavity trays contain FMX, FLB/FLD/FLM and AMG/AMI fuses. Together, all ten trays meet virtually any automotive blade and high amp fuse replacement need.

#### Contains fuse tray catalog numbers:

CDY10TRY-ATM	CDY10TRY-FLNK1	CDY5TRY-BMOUNT
CDY10TRY-ATM-LP	CDY10TRY-FLNK2	CDY5TRY-SMOUNT
CDY10TRY-ATC	CDY10TRY-MICRO	
CDY10TRY-MAX	CDY5TRY-FMX	

See fuse tray contents on page 31 for type, quantities and ratings for each tray catalog number.



Caddy measures 7.4"W x 4.5"D x 7.8"H (handle not extended)

#### Automotive fuse tray assortments

#### Fuse tray assortments

Bussmann series fuse travs make it convenient to sell popular fuse assortments that repair facilities need to keep on hand for today's cars, vans, light trucks and SUVs.

Clear, compact trays that measure 3.5"D x 7"W x 1"H are easy to store and allow quick, visual identification of fuses without the hassle of opening the tray.

Three, five-cavity tray assortments and eight, ten-cavity tray assortments cover the most popular fuse applications including the new, ATR and ATL 2- and 3-blade micro fuses and FMM micro cartridge fuses. Offer your customers the convenience of these fivetray and ten-tray fuse caddies.

Trays are easily restocked from traditional or value fuse packs.

Order individually or offer customers the convenience of the FUSECADDY-1 (five-tray) or FUSECADDY-2 (ten-tray) fuse caddies.

Ten- and five-tray fuse caddies conveniently store multiple fuse trays to efficiently organize an entire replacement fuse inventory.

#### Fuse tray contents and quantities



CDY10TRY-ATM 10 Cavity tray, 80 ATM blade fuses

Fuse (Qty) ATM-2 (5) ATM-10 (15) ATM-3 (5) ATM-15 (15) ATM-4 (5) ATM-20 (15) ATM-5 (5) ATM-25 (5) ATM-7-1/2 (5) ATM-30 (5)

CDY10TRY-MAX

blade fuses

Fuse (Qty)

MAX-20(1)

MAX-30(1)

MAX-40 (3)

MAX-50 (3)

10 Cavity tray, 16 MAXI

\*\* easyID indicating fuse.



ATM blade fuses Fuse (Qty) ATM-2LP (5) ATM-10LP (10) ATM-3LP (5) ATM-15LP (10) ATM-4LP (5) ATM-20LP (10) ATM-5LP (5) ATM-25I P (5) ATM-7-1/2LP (5) ATM-30LP (5)

CDY10TRY-MICRO

micro blade fuses

Fuse (Qty)

ATR-7-1/2 (5)

ATR-10 (5)

ATR-15 (5)

ATR-20 (5)

ATR-25 (5)

ATR-5 (5)

10 Cavity tray, 55 ATR/ATL

ATR-30 (5)

ATL-7-1/2 (5)

ATL-5 (5)

ATL-10 (5)

ATL-15 (5)



CDY10TRY-ATC\* 10 Cavity tray, 100 ATC blade fuses Fuse (Qty) ATC-20 (15) ATC-3 (5) ATC-4 (5) ATC-25 (10) ATC-5 (5) ATC-30 (15) ATC-7-1/2 (5) ATC-35 (10) ATC-10 (10) ATC-40 (10) ATC-15 (10)

\* Replaces NO.100BK



CDY10TRY-FLNK1 10 Cavity tray, 13 FMM/ low-profile FMX fuses Fuse (Qty) FMM-15 (1) FMX-25LP (1) FMM-20 (1) FMX-30LP (1) FMM-25 (1) FMX-40LP (1)

FMM-30(1)

FMM-40(1)

FMX-20LP (1)

FMX-50LP (2)

FMX-60LP (2)

5 Cavity tray, 12 AMG/AMI high AMG-225 (1) AMG-250 (1) AMG-300 (1) AMI-40 (1)

AMI-80 (1)



CDY10TRY-EZID 10 Cavity tray, 59 ATC/ATM/MAX blade fuses Fuse (Qty) MAX-30ID (2) ATM-3ID (4) ATC-3ID (4) A

AIG-31D (4)		MAX-301D (2)
ATC-5ID (2)	ATM-5ID (2)	MAX-40ID (2)
ATC-10ID (4)	ATM-10ID (4)	MAX-50ID (1)
ATC-15ID (4)	ATM-15ID (4)	MAX-60ID (1)
ATC-20ID (4)	ATM-20ID (4)	MAX-80ID (1)
ATC-25ID (4)	ATM-25ID (4)	
ATC-30ID (4)	ATM-30ID (4)	



CDY10TRY-FLNK2 10 Cavity tray, 7 FLF/FLS cartridge fuses Fuse (Qty) FLF-60 (1) FLF-20(1)

	LS-30 (1) LS-40 (1)
--	------------------------



MAX-60 (3)

MAX-70 (2)

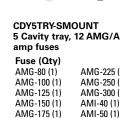
MAX-80 (2)

MAX-100ID (1)\*\*

#### CDY5TRY-FMX 5 Cavity tray, 14 FMX high amp fuses

Fuse (Oty) FMX-20 (2)	FMX-50 (3
FMX-20 (2) FMX-30 (3)	FMX-50 (3
FMX-40 (3)	





For product information and data sheets, visit Eaton.com/BussmannConsumer

AMG-200 (1)

#### Retail automotive planogram

Color-coded packaging for fast, easy product selection. Fits standard four-foot wide gondola. Product layout on page 33.

#### Visual categorization

- Color-coded Bussmann series retail packaging.
- Fast and easy product identification.
- Provides increased shopability and faster merchandising.

#### Merchandising ease

- Retail set is simple and straightforward.
- Color-coding encourages return of product to correct peg.
- Reduces need for assistance by store personnel.

#### **Consumer friendly**

- · Fuse center is easily located.
- Point-of-sale identifies fuse types.
- Package color codes identify product category.



#### **4FTAUTO-KIT** Peg hooks and gondola not included.



UPC Reorder tags.

Catalog no.	Description
4FTAUTO-KIT	175 SKU auto prepack. Includes one of each retail pack, a complete set of reorder tags and a header card as pictured.
4FTAUTO-TAGS	Replacement set of UPC reorder tags for the 4FTAUTO-KIT. Order tags through your Bussmann series product rep.

For details on automotive Planogram SKUs, visit Eaton.com/BussmannConsumerPOG

## Tilt-bin assortments

Turn any pegboard or shelf into a profit-building professional fuse center with interlocking tilt-bin sets. Bin rows are stocked with assortments of the fastest-selling fuses, holders and accessories. Transparent, tilt-out bins make selection a snap, and let you check inventory at a glance. Bins can be stacked in any combination so you can modify your display to fit your customer's needs.

Reload part numbers are available for AFC-225, NO.225 and NO.227. The reloads are packed in a polybag labeled with the catalog number and UPC code.



#### AFC-90

Two tilt-bin sets containing five each of MAX-20, 30, 40, 50 and 60 A and FMX-20, 30 and 40 A fuses, FLB-70, FLF-20, 30, 40 and 60 A and FLM-60, 80 and 100 A and FLS-30 and 40 A cartridge fuses.



#### AFC-225

Contains: 25 each of glass tube fuses. AGC-5-R, 10-R, 15-R, 20-R, 25-R and 30-R A and SFE-14, 20 and 30 A.



Contains: 25 each of ATC blade fuses. ATC-3, 4, 5, 7-1/2, 10, 15, 20, 25 and 30 A.



#### NO.227

Contains: Ten each of ATM blade fuses. ATM-2, 3, 5, 7-1/2, 10, 15, 20, 25 and 30 A.

#### Available reload packs

Reloads contain 10 and 25 fuses of the specified ampacity in a poly bag. See table below for available fuses and amp ratings.

Catalog no.	Description
ATC-(amp)RLD	25 fuses in a poly bag, available amps: 3, 4, 5, 7-1/2, 10, 15, 20, 25, 30 A
ATM-(amp)RLD	10 fuses in a poly bag, available amps: 2, 3, 5, 7-1/2, 10, 15, 20, 25, 30 A

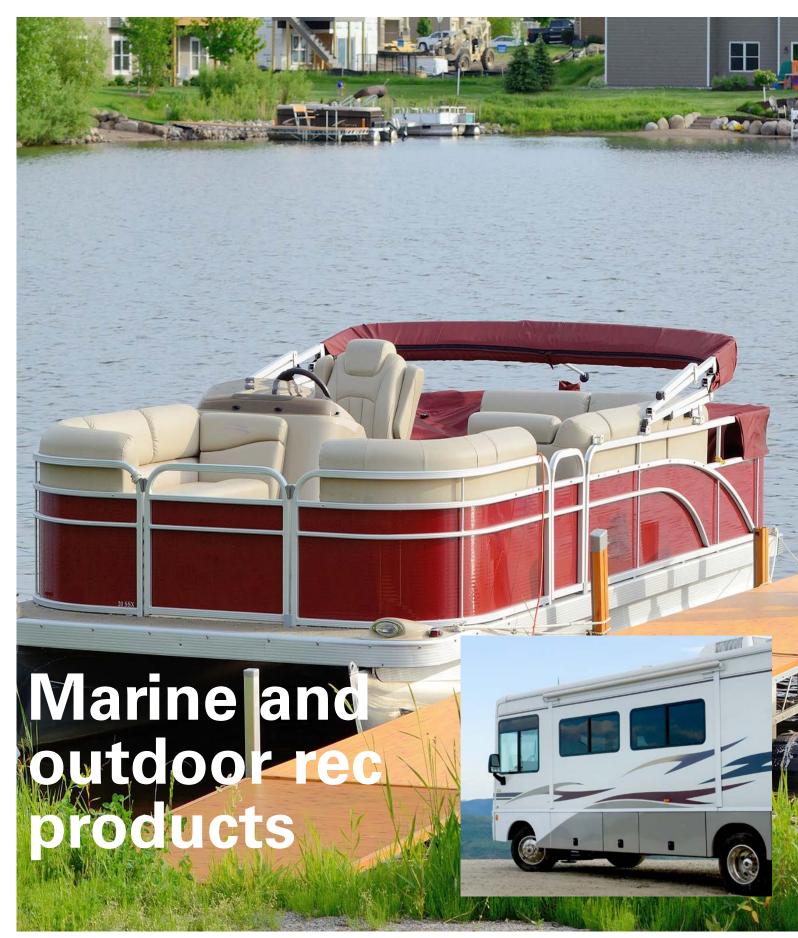


All five units stacked together provide a complete fuse selection for the automotive repair technician or store display. Bins interlock and can be wall-mounted.

## 4FTAUTO-KIT planogram layout

										Pack	age co	lor co	ding									
		easylD	I	/INI BLADE F	USES	BLAD	E FUSES	М	LOW PROFIL NI BLADE FU	.e Ises	MICRO	FUSES	MAX AND	I BLADE FUS FUSIBLE LIN	ES KS	GLASSTUB	FUSES	CIRCUIT E Stud-M	BREAKERS AN OUNT FUSE	ND S	ACCESSORI	ES
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	Column 14	Column 15	Column 16	Column 17	Column 18	Column 19	Column 20	Column 21	Column 22
ROW 1	RP/LEC_EORD	051712694049	BD/EEC-CM	051712694063	BP/FEC-TOYOTA	051712694070		NO.43	051712594356			NO.44 051712597203			NO.53 051712501385			NO.64 051712501392			ATM-FMX-EK 051712510400	
ROW 2	BP/ATM-AID 051712238212	BP/ATM-10ID 051712237949	VP/ATM-10ID 051712238151	BP/ATM-15ID 051712237956	VP/ATM-15ID 051712238168	BP/ATM-20ID 051712237963	VP/ATM-20ID 051712238175	BP/ATM-25ID 051712237970	BP/ATM-30ID 051712237987	BP/ATC-AID 051712238205	BP/ATC-3ID 051712237796	BP/ATC-5ID 051712237819	BP/ATC-10ID 051712237833	BP/ATC-15ID 051712237840	BP/ATC-20ID 051712237857	VP/ATC-20ID 051712238120	BP/ATC-25ID 051712237864	BP/ATC-30ID 051712237871	VP/ATC-30ID 051712238144	BP/ATC-40ID 051712237895	BP/MAX-30ID 051712238007	BP/MAX-40ID 051712238014
ROW 3	XSTULTAT	051712238236	AP. AP.	051712238229	DIA-2	051712593366	RP/ATM-AH8-RPP	051712173087	BP/ATM-A8-RP 051712398992	BP/ATM-AL8-RP 051712173070	BP/ATM-2-RP 051712388399	BP/ATM-5-RP 051712174213	BP/ATM-7-1/2-RP 051712174220	BP/ATM-10-RP 051712174251	VP/ATM-10-RP 051712184410	BP/ATM-15-RP 051712174527	VP/ATM-15-RP 051712184434	BP/ATM-20-RP 051712174565	VP/ATM-20-RP 051712184441	BP/ATM-25-RP 051712174589	BP/ATM-30-RP 051712174664	VP/ATM-30-RP 051712184465
ROW 4	ATM-I P.FK	051712353205	2010	051712593359	ВР/АТС-АН8-RPP	051712173063	BP/ATC-AI 8-BP	051712173056	BP/ATC-A5-RP 051712242073	BP/ATC-3-RP 051712173216	BP/ATC-5-RP 051712173223	BP/ATC-7-1/2-RP 051712173230	BP/ATC-10-RP 051712173247	VP/ATC-10-RP 051712184038	BP/ATC-15-RP 051712173254	VP/ATC-15-RP 051712184052	BP/ATC-20-RP 051712173643	VP/ATC-20-RP 051712184113	BP/ATC-25-RP 051712174183	BP/ATC-30-RP 051712174190	VP/ATC-30-RP 051712184182	BP/ATC-40-RP 051712174206
ROW 5	RP/ATM. A61 P. RP	051712173117	BP/ATM-10LP-RP 051712201957	BP/ATM-15LP-RP 051712201964	BP/ATM-20LP-RP 051712201971	BP/ATM-25LP-RP 051712201988	BP/ATM-30LP-RP 051712201995	BP/ATL-A4-RPP	051712510981	BP/ATR-A7-RPP 051712400985	BP/ATR-5-RP 051712510387	BP/ATR-7-1/2-RP 051712510417	BP/ATR-10-RP 051712499408	BP/ATR-15-RP 051712499415	BP/ATR-20-RP 051712499422	BP/ATR-25-RP 051712510479	BP/ATR-30-RP 051712499439	BP/MAX-20-RP 051712174688	BP/MAX-30-RP 051712174701	BP/MAX-40-RP 051712174855	BP/MAX-50-RP 051712174947	BP/MAX-60-RP 051712175142
ROW 6	RP/AGC_A110_RP	051712173124	RD/AGC_AH10_RD	051712173131	BP/AGC-1-RP 051712175166	BP/AGC-2-RP 051712175654	BP/AGC-3-RP 051712175708	BP/AGC-5-RP 051712175760	BP/AGC-7-1/2-RP 051712176439	BP/AGC-10-RP 051712176882	BP/AGC-15-RP 051712176828	BP/AGC-20-RP 051712177221	BP/AGC-25-RP 051712178389	BP/AGC-30-RP 051712178402	BP/AGA-AL8-RP	051712173179	BP/AGA-AH8-RP	051712173186	BP/AGW-A8-RP 051712173193	BP/AG X-A8-RP 051712173209	BP/GBC-A8-RP 051712173148	BP/MAX-80-RP 051712175159
ROW 7	RP/SEE_AI 6.RD	051712173155	BP/SFE-AH6-RP 051712173162	BP/SFE-14-RP 051712178440	BP/SFE-20-RP 051712178457	BP/SFE-30-RP 051712178464	BP/FMX-20LP-RP 051712182089	BP/FMX-25LP-RP 051712182348	BP/FMX-30LP-RP 051712182188	BP/FMX-40LP-RP 051712182201	BP/FMX-50LP-RP 051712182225	BP/FMX-60LP-RP 051712182232	BP/FMX-20-RP 051712181365	BP/FMX-30-RP 051712181693	BP/FMX-40-RP 051712182058	BP/FMX-50-RP 051712182065	BP/FMX-60-RP 051712182072	BP/FMM-15-RP 051712510950	BP/FMM-20-RP 051712499446	BP/FMM-25-RP 051712510974	BP/FMM-30-RP 051712499453	BP/FMM-40-RP 051712499460
ROW 8	BP/FLS-30-RP 051712181297	BP/FLS-40-RP 051712181358	BP/EL R-40-BD	051712178532	BP/FI B-50-RP	051712178549	BP/FLB-60-RP 051712178556	BP/FLB-70-RP 051712178563	BP/FI B-80-RP	051712178570	BP/FLD-80-RP 051712178587	BP/FLD-120-RP 051712388511	BP/FLD-140-RP 051712388528	BP/FLF-20-RP 051712178594	BP/FLF-30-RP 051712178600	BP/FLF-40-RP 051712178617	BP/FLF-50-RP 051712178631	BP/FLF-60-RP 051712178938	BP/FLM-60-RP 051712179195	BP/FLM-80-RP 051712179522	BP/FLM-100-RP 051712179706	BP/FLM-120-RP 051712179744
ROW 9	BP/AGU-50GP-RP 051712178501	BP/AGU-60GP-RP 051712178518	RP/AMC-100-BP	051712697248	RP/AMG-125-RP	051712697255	RP/AMG-150-RP	051712697262	BP/AMG-175-RP	051712182249	BP/AMG-200-RP	051712697279	BP/AMG-250-RP	051712697545	BP/CBC-20HB-RP 51712182287	BP/CBC-30HB-RP 051712182317	BP/CBC-40HB-RP 051712182324	BP/CBC-50HB-RP 051712388856	BP/FCB-20-RP 051712182416	BP/CBB-30-RP 051712182270	BP/UCB-20-RP 051712182430	BP/UCB-30-RP 051712182454
ROW 10	BP/TB200-04-RP 051712682923		BP/FP-ATM-06ID 051712697750		BP/FB6-ATM 051712531788		BP/15600-06-20 051712273442		RP/HHG-RP	051712182478	BP/HHM-RP	051712182485	BP/HHA-RP 051712182515	ВР/ННН-RР 051712182522	BP/HHLP-RP 051712496698	ВР/ННТ R-RP 051712496681	BP/HHN-RP 051712182508	BP/HMK-RP 051712182492	BP/FP-A3-RP 051712183789	BP/FT-3-RP 051712183796	BP/CB185-150	051712271325

## BUSSMANN



For product information and data sheets, visit Eaton.com/BussmannConsumer

#### Marine-rated circuit breakers

Specifically designed to meet the needs of marine applications, the CB187F and CB187P offer 5 kA @ 12 Vdc interrupting ratings and ignition protection per ABYC E-11. Usable as an ON/OFF switch, they have corrosion resistant plating on 15/16-18 copper terminals.

CB251 and CB255 offer an interrupting rating of 2.5 kA per ABYC E-11 and feature a "Push-to-Trip option and reset mechanism that provides visual indication of a tripped condition.

Amps	Catalog no.*
25	CB285F-25
30	CB285F-30
40	CB285F-40
50	CB285F-50
60	CB285F-60
70	CB285F-70
80	CB285F-80
90	CB285F-90
100	CB285F-100
120	CB285F-120
150	CB285F-150
* 1 Breaker per b	oox, 20 boxes per

Flush mount with pull-to-trip

marine rated, 5/16-18 threaded

studs, stainless steel hardware

lever, 48 Vdc, weatherproof,

master carton

CB187F

installed

#### **CB285F**

Type III flush mount with push-totrip button, 48 Vdc, weatherproof, marine rated, M6 threaded studs, stainless steel hardware installed



Amps	Catalog no.
25	CB187F-25
30	CB187F-30
35	CB187F-35
40	CB187F-40
50	CB187F-50
60	CB187F-60
70	CB187F-70
80	CB187F-80
100	CB187F-100
110	CB187F-110
120	CB187F-120
135	CB187F-135
150	CB187F-150
200	CB187F-200

1 Breaker per box, 5 boxes per shelf carton

#### CB187P

Type III panel mount pull-to-trip lever, 48 Vdc, weatherproof, marine rated, 5/16-18 threaded studs, stainless steel hardware installed



Amps	Catalog no.
25	CB187P-25
30	CB187P-30
35	CB187P-35
40	CB187P-40
50	CB187P-50
60	CB187P-60
70	CB187P-70
80	CB187P-80
90	CB187P-90
100	CB187P-100
110	CB187P-110
120	CB187P-120
135	CB187P-135
150	CB187P-150
* 1 Breaker p	er box, 120 boxes per

master carton.

#### CB251

Type I panel mount, 32 Vdc, weatherproof, marine rated, #10-32 threaded studs, stainless steel hardware installed



0			
25125	5A		
	LE TYPE	7	
	-		

Amps	Catalog no.
10	CB251-10
15	CB251-15
20	CB251-20
25	CB251-25
30	CB251-30
35	CB251-35
40	CB251-40
50	CB251-50

\* 1 Breaker per box, 10 boxes per shelf carton.

CB255

**CB285P** 

button, 48 Vdc

Type III ignition protected, 32 Vdc, weatherproof panel-mount, marine rated, manual reset circuit breakers with push-to-trip button, stainless steel hardware installed



Panel mount with push-to-trip

stainless steel hardware installed

weatherproof, marine rated, M6 threaded studs,

Catalog no. Amps CB255-10 10 15 CB255-15 20 CB255-20 25 CB255-25 CB255-30 30 35 CB255-35 40 CB255-40 50 CB255-50

\* 1 Breaker per box, 10 boxes per shelf carton.

Amps	Catalog no.*
25	CB285P-25
30	CB285P-30
40	CB285P-40
50	CB285P-50
60	CB285P-60
70	CB285P-70
80	CB285P-80
90	CB285P-90
100	CB285P-100
120	CB285P-120
150	CB285P-150
* 1 Breaker pe	er box, 20 boxes per

master carton

#### Marine assortments

#### NO.108BK

Marine circuit protection emergency kit in a sturdy, compact reclosable box for replacement of fuses and circuit breakers. A must for commercial or recreation marine applications.

Fuses: Five each of ABC-10, AGC-1-1/2, GMA-2 A, MDA-8, ten of AGC-3, 7-1/2, 15, 25, fifteen of AGC-20, 30.

Circuit breakers: Three CBF-30.

#### **BP/AGC-AH10-RP**

AGC fuse assortments for marine accessories and bilge pumps. Includes AGC-7-1/2, 10 (2), 20 (2), 25 and 30 (2) A.

#### BP/MDL-1

Marine motor protection fuses. Retail pack with two fuses per card. See page 52 for retail pack availability in ratings from 1/2 to 15 amps

#### MA-5

Marine accessory assortment, Contains (1) each: AGC-1/2, 1-1/2, 2 and 3 A

#### BP/AGC-SFE-A5-RP

AGC and SFE fuse assortment for marine applications. Contains (1) each: AGC-10, 15 and 30 A and SFE-14 and 20 A.

JJN - Class T very fast-acting, current-limiting 300 Vac, 160 Vdc fuses



Amps	Catalog no.*
110	JJN-110
125	JJN-125
150	JJN-150
175	JJN-175
200	JJN-200
225	JJN-225
250	JJN-250
300	JJN-300
350	JJN-350
400	JJN-400
* 1 Fuse per pa	ck, 5 packs per

master carton.

Splash proof covers



Catalog no.	Description	Pack qty.	Shelf qty.	Master qty.
CB-CVR	Cover for stud terminal circuit breaker	1	10	300
BK/CB-CVR	Cover for stud terminal circuit breaker-BULK	_	100	2000
BP/CB20HB-CVR*	CB123-20HB with cover- retail pack	1	5	120
BP/CB40HB-CVR*	CB123-40HB with cover- retail pack	1	5	120

\* Packed with CB123-20HB and CB123-40HB.

#### Battery separators manage batteries for reliable starts



Uni-directional and bi-directional versions available.





Attractive retail packaging easily displays on peg boards or stacks on shelves.

- For vehicles and boats with main and auxiliary battery systems and alternator outputs up to 100 amps — or on systems incompatible with battery isolators.
- Battery separators from Sure Power actively manage multi-battery electrical systems to ensure greater reliability for main battery engine starting.
- Battery separators provide a solenoid priority system for multibattery systems.
- When main battery is low, the separator will utilize auxiliary battery power to assist in vehicle starting.
- Separators disconnect main and auxiliary batteries from one another to protect them from excessive drain.
- Time-delay function prevents battery separator from reacting to temporary voltage fluctuations.

	Description
RB-BS-1314	Uni-directional 100 A battery separator — model no. 1314A*
RB-BS-1315	Bi-directional 100 A battery separator — model no. 1315A*

\* Use the catalog numbers to order these products.

#### CBBF Marine rated battery fuses



These marine rated fuses are suitable for main and auxiliary Circuit protection (alternator outputs, starter motor inputs and accessories) in demanding environments or tight space constraints. Marine-rated under SAE J1171 for ignition protection. Use with CBBF-MBC mounting bar.

#### 80 CBBF-80 90 CBBF-90 100 CBBF-100 CBBF-125 125 150 CBBF-150 175 CBBF-175 200 CBBF-200 CBBF-250 250 CBBF-300 300 \* 1 Fuse per pack, 10 packs per shelf carton

Trad'l pack\*

CBBF-30

CBBF-40

CBBF-50 CBBF-60

CBBF-75

Amps

30 40

50

60





CBBF-MBC Mounting bar

#### Dual mounting bar

Dual mounting bar with 1/4-20 studs, nuts and cover for two CBBF battery fuses.

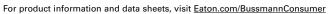
Mounting bar with 1/4-20 stud, nut and

cover for the CBBF battery fuse.

Order catalog number CBBF-MBC\*. \* 1 Bar per pack, 10 packs per shelf carton.

This dual mounting bar may be sourced from an authorized distributor. Contact your sales rep for a list of authorized distributors.





#### Battery isolators ensure reliable engine starts

- Battery isolators prevent auxiliary batteries from draining main battery power in vehicle electrical systems.
- Suited for light truck, RV, select commercial and marine applications.
- Solid-state technology isolates each battery circuit to extend battery life by allowing each to charge and discharge according to need.
- Easily connects alternator to one main and one auxiliary battery.
- Designed by Sure Power, the leader in battery isolators, for superior performance that exceeds original equipment manufacturer specifications.
- Includes wiring and hardware for basic installation; an optional installation kit available for advanced installation.

Catalog no.	Description
RB-BI-70A	70 amp battery isolator w/wiring kit — model no. 702*
RB-BI-95A	95 amp battery isolator w/wiring kit — model no. 9523A*
RB-BI-120A	120 amp battery isolator w/wiring kit — model no. 12023A*
RB-BI-130A	130 amp battery isolator w/wiring kit — model no. 13023A*
RB-BI-240A	240 amp battery isolator w/wiring kit — model no. 24023A*

\* Use the catalog numbers to order these products.

# Multi-battery systems

Many vehicles and boats have accessories and other electrical loads, such as lights, entertainment systems and communications equipment that draw power when the engine is off. When applied to a single battery electrical system, main batteries can become drained and present an engine "no-start" condition. Adding an auxiliary battery to operate these additional loads helps avoid this, but it needs more than simply being wired into the electrical system — the auxiliary battery needs to be isolated.

#### Why batteries need isolating

Multiple batteries connected in an electrical system can become problematic when a partially discharged, or dead, battery is connected to a fully charged battery. The current in the fully charged battery will flow to the less charged battery until both are equally discharged, or even worse, completely discharged and may prevent the engine from starting.

#### Battery isolators manage battery power

A battery isolator can eliminate the problem of battery drain by acting as a check valve between the batteries to prevent current flowing from a fully charged battery to a partially charged battery. A battery isolator enables each battery to act as an independent power source so that the main battery can conserve power even if the auxiliary battery is fully discharged. When charging, the isolator gives priority to the main battery so that there is always a full charge to start the engine.

# Battery isolator installation kit and $\mbox{Delco}^{\circledast}$ alternator connector kit

Enhance your battery isolator sales by offering the installation kit RB-BIK-1882 that contains the wire, connectors and hardware needed for an easier installation.

When customers are installing their isolator on a Delco/Delphi CS Series alternator system, also sell them the connector kit that's required for OEM connector modification.

Catalog no.	Description	
RB-BIK-1882	Battery isolator installation kit — model no. 1882*	
RB-GM-KIT	GM Delco CS Series connector kit — model no. 144-CD*	
* Use the catalog numbers to order these products		

\* Use the catalog numbers to order these products.



Battery isolator models are available in 70 A, 95 A, 120 A, 130 A and 240 A versions for alternators with outputs from 70 to 240 amps.



Attractive 70 to 130 amp retail packaging easily mounts on peg boards or stacks on shelves. 240 amp isolator package for shelf display only.



Installation kit and GM connector kit increases sales opportunities while easing installation for customers.

# Hardware and home products

#### Automotive

Used in older-model cars, glass tube fuses today are found primarily in automotive accessory applications. The expansive Bussmann series line of glass fuses includes many types and sizes in addition to those listed in this catalog. Call Eaton for more product details if you have requirements which are not covered here.

#### Appliances and consumer electronics

Glass and ceramic tube fuses are often used to protect appliances and consumer electronics. As electronic equipment becomes smaller, the circuits and components become more delicate and easily damaged. Fuses are the preferred method of protection due to their accuracy, small size and reliability. Fuses are available in a wide variety of amp ratings to provide precise protection. Generally, two sizes of user-replaceable fuses are found: the 1/4" x 1-1/4" and 5x20 mm. Each is available in a variety of volt and amp ratings.

# **Fuse types**

There are two basic types of fuses available for appliances and consumer electronics: fast-acting or time-delay. Any replacement fuse must match the one it's replacing. In general, fast-acting fuses are a single strand of wire or strip of metal. Time-delay fuses usually have a coiled wire, a thick element wrapped in wire, or a spring. Most electronic fuses will have the voltage and amp rating stamped on the end cap. The type of fuse can generally be visually identified. Also, owner's manuals will have the correct replacement fuse generically identified. For example: "Use a 2 amp, time-delay, 250 volt fuse."

# Glass and ceramic tube fuse sizes

# Glass and ceramic tube fuse sizes

Both glass and ceramic tube fuses vary by diameter and length. The chart below provides a visual reference for the various sizes of the Bussmann series fuse families. Images are shown to scale.

#### **Fuse selection criteria**

- For electronic/electrical applications, fuses must be rated at 125 V or better.
- Voltage must match or exceed the fuse being replaced (125 V for household current; 12 V for auto; 24 V for heavy duty).
- Fuses must match required fuse characteristic either fast-acting or time-delay.
- · Amp rating must match that of the original fuse.

#### A note on voltage rating

All fuses have a voltage rating. To maintain safety, this voltage rating should not be exceeded in application, although it is acceptable to use a higher voltage rated fuse in a lower voltage application. For example: A fuse rated for 125 volts is appropriate in household (110 V) or automotive (12 V), while a fuse rated for 32 volts is appropriate for automotive (12 V), but not for household (125 V). Always replace a fuse with one of the same or higher voltage rating.

#### See page 54 for specifications.



\* Mounts in HLR in-line holder, see page 14.

# **Glass and ceramic tube fuses**

Fast-acting 1/4" diameter automotive fuses

# AGA

1/4" x 5/8" fast-acting glass tube fuses

See page 28 for available assortments.



# AGW

1/4" x 7/8" fast-acting automotive glass tube fuses

See page 28 for available assortment.



# AGX

#### 1/4" x 1" fast-acting automotive glass tube fuses

See page 28 and 52 for available assortments.



# 1/4" x 1-1/4" very fast-

GBB

acting ceramic tube fuses

1/4	AGA-1/4	
	AUA-1/4	_
1	AGA-1	—
1-1/2	AGA-1-1/2	—
2	AGA-2	—
2-1/2	AGA-2-1/2	—
3	AGA-3	
5	AGA-5	
6	AGA-6	—
7-1/2	AGA-7-1/2	—
10	AGA-10	—
15	AGA-15	_
20	AGA-20	BP/AGA-20-RP
30	AGA-30	

\*\* 5 Fuses per pack, 5 packs per shelf carton.

Amps	Catalog no.*	Retail pack**
1	AGW-1	—
1-1/2	AGW-1-1/2	_
2-1/2	AGW-2-1/2	_
3	AGW-3	—
4	AGW-4	—
5	AGW-5	—
6	AGW-6	—
7-1/2	AGW-7-1/2	—
10	AGW-10	—
15	AGW-15	BP/AGW-15-RP
20	AGW-20	_
30	AGW-30	—
* E Euror	a max maale 10 ma	alia wax abalf aartaw

\* 5 Fuses per pack, 10 packs per shelf carton. \*\* 5 Fuses per pack, 5 packs per shelf carton.

Amps	Catalog no.*	
1	AGX-1	
2	AGX-2	
2-1/2	AGX-2-1/2	
3	AGX-3	
5	AGX-5	
7	AGX-7	
8	AGX-8	
10	AGX-10	
15	AGX-15	
20	AGX-20	
25	AGX-25	
30	AGX-30	
* 5 Fuses per pack, 10 packs per shelf carton.		

Amps	Catalog no.*
1-1/4	GBB-1-1/4-R
10	GBB-10-R
15	GBB-15-R
30	GBB-30-R
* 5 Fuses shelf ca	per pack, 10 packs per rton.

# ABC

# 1/4" x 1-1/4" fast-acting ceramic tube fuses

See page 52 for available assortment.



Amps	Catalog no.*	Retail pack**
1/4	ABC-1/4-R	_
1/2	ABC-1/2-R	_
1	ABC-1-R	_
2	ABC-2-R	_
2-1/2	ABC-2-1/2-R	_
3	ABC-3-R	_
4	ABC-4-R	_
5	ABC-5-R	_
6	ABC-6-R	_
7	ABC-7-R	_
8	ABC-8-R	_
10	ABC-10-R	BP/ABC-10
12	ABC-12-R	
15	ABC-15-R	BP/ABC-15
20	ABC-20-R	BP/ABC-20
25	ABC-25-R	
30	ABC-30-R	
~		

\* 5 Fuses per pack, 10 packs per shelf carton. \*\* 2 Fuses per pack, 5 packs per shelf carton.

# AGC

# 1/4" x 1-1/4" fast-acting automotive glass tube fuses

See pages 27, 28, 32, 35 and 52 for available assortments.

A	Cotolog no *	Detail meak**
Amps	Catalog no.*	Retail pack**
1/8	AGC-1/8-R	
1/4	AGC-1/4-R	
3/10	AGC-3/10-R	
3/8	AGC-3/8-R	
1/2	AGC-1/2-R	BP/AGC-1/2-RP
3/4	AGC-3/4-R	
1	AGC-1-R	BP/AGC-1-RP
1-1/4	AGC-1-1/4-R	_
1-1/2	AGC-1-1/2-R	BP/AGC-1-1/2-RP
2	AGC-2-R	BP/AGC-2-RP
2-1/2	AGC-2-1/2-R	BP/AGC-2-1/2-RP
3	AGC-3-R	BP/AGC-3-RP
3-2/10	AGC-3-2/10-R	—
3-1/2	AGC-3-1/2-R	_
4	AGC-4-R	BP/AGC-4-RP
5	AGC-5-R	BP/AGC-5-RP
6	AGC-6-R	BP/AGC-6-RP
6-1/4	AGC-6-1/4-R	_
7	AGC-7-R	_
7-1/2	AGC-7-1/2-R	BP/AGC-7-1/2-RP
8	AGC-8-R	_
10	AGC-10-R	BP/AGC-10-RP
12	AGC-12-R	_
15	AGC-15-R	BP/AGC-15-RP
20	AGC-20-R	BP/AGC-20-RP
25	AGC-25-R	BP/AGC-25-RP
30	AGC-30-R	BP/AGC-30-RP
35	AGC-35-R	BP/AGC-35-RP
40	AGC-40-R	_
50	AGC-50	_
	'	

\* 5 Fuses per pack, 10 packs per shelf carton.

\*\* 5 Fuses per pack, 5 packs per shelf carton.

# **Fast-acting fuses**

# GBC

# 1/4" x 31/32" fast-acting German automotive fuses

See page 28 for available assortment.

Color code	Amps	Catalog no.*	Retail pack**
Yellow	5	GBC-5	_
White	8	GBC-8	BP/GBC-8-RP
Red	16	GBC-16	BP/GBC-16-RP
Blue	25	GBC-25	BP/GBC-25-RP
* 5 Fuses per pack, 10 packs per shelf carton. ** 5 Fuses per pack, 5 packs per shelf carton.			

# SFE

# 1/4" size-rejecting fast-acting automotive glass tube fuses

Fuse

See pages 28, 32 and 35 for available assortments.



Amps	length	no.*	Retail pack**	
4	5/8"	SFE-4	_	
6	3/4″	SFE-6	—	
7-1/2	7/8″	SFE-7-1/2	_	
9	7/8″	SFE-9	_	
14	1-1/16"	SFE-14	BP/SFE-14-RP	
20	1-1/4"	SFE-20	BP/SFE-20-RP	
30	1-7/16″	SFE-30	BP/SFE-30-RP	
<ul> <li>* 5 Fuses per pack, 10 packs per shelf carton.</li> <li>** 5 Fuses per pack, 5 packs per shelf carton.</li> </ul>				

Catalog

# AGU

# 13/32" x 1-1/2" fast-acting automotive glass tube fuses

Available with gold-plated end caps for high-end stereo and AV markets.



Nickel-plated				
10	AGU-10	—		
15	AGU-15	—		
20	AGU-20	_		
25	AGU-25	_		
30	AGU-30	_		
35	AGU-35	_		
40	AGU-40	BP/AGU-40-RP		
50	AGU-50	BP/AGU-50-RP		
60	AGU-60	BP/AGU-60-RP		
Gold-	plated			
10	AGU-10GP	—		
15	AGU-15GP	—		
20	AGU-20GP	—		
25	AGU-25GP	—		
35	AGU-35GP	—		
40	AGU-40GP	BP/AGU-40GP-RP		
50	AGU-50GP	BP/AGU-50GP-RP		
60	AGU-60GP	BP/AGU-60GP-RP		
* 10 Fu	ises per pack, 10 pa	cks per shelf carton.		

Amps Catalog no.\* Retail pack\*\*

\*\* 2 Fuses per pack, 5 packs per shelf carton.

# Time-delay 1/4" diameter fuses

# MDA

1/4" x 1-1/4" time-delay ceramic tube fuses



Amps	Catalog no.*
1	MDA-1-R
1-1/2	MDA-1-1/2-R
2	MDA-2-R
2-1/2	MDA-2-1/2-R
3	MDA-3-R
4	MDA-4-R
5	MDA-5-R
6	MDA-6-R
7	MDA-7-R
8	MDA-8-R
10	MDA-10-R
12	MDA-12-R
15	MDA-15-R
20	MDA-20-R
25	MDA-25-R
30	MDA-30-R
* 5 Fuses	per pack, 10 packs

 \* 5 Fuses per pack, 10 packs per shelf carton.

Datail

I	VI	D	L	

1/4" x 1-1/4" time-delay glass tube fuses

See page 52 for available assortment.



		Retail	
Amps	Catalog no.*	pack**	
1/16	MDL-1/16-R	—	
1/8	MDL-1/8-R	_	
1/4	MDL-1/4-R	BP/MDL-1/4	
3/8	MDL-3/8-R	—	
1/2	MDL-1/2-R	BP/MDL-1/2	
3/4	MDL-3/4-R	—	
1	MDL-1-R	BP/MDL-1	
1-1/4	MDL-1-1/4-R	—	
1-1/2	MDL-1-1/2-R	BP/MDL-1-1/2	
2	MDL-2-R	BP/MDL-2	
2-1/2	MDL-2-1/2-R	BP/MDL-2-1/2	
3	MDL-3-R	BP/MDL-3	
3-2/10	MDL-3-2/10-R	—	
3-1/2	MDL-3-1/2-R	—	
4	MDL-4-R	BP/MDL-4	
5	MDL-5-R	BP/MDL-5	
6	MDL-6-R	BP/MDL-6	
6-1/4	MDL-6-1/4-R	—	
7	MDL-7-R	BP/MDL-7	
7-1/2	MDL-7-1/2-R	—	
8	MDL-8-R	BP/MDL-8	
10	MDL-10-R	BP/MDL-10	
12	MDL-12-R	_	
15	MDL-15-R	BP/MDL-15	
20	MDL-20-R	BP/MDL-20	
25	MDL-25	BP/MDL-25	
30	MDL-30	BP/MDL-30	
35	MDL-35	_	
40	MDL-40	_	
* 5 Fuses per pack, 10 packs per shelf carton.			

\* 5 Fuses per pack, 10 packs per shelf carton.
\*\* 2 Fuses per pack, 5 packs per shelf carton.

MDQ

# 1/4" x 1-1/4" dual-element, time-delay glass tube fuses



Amps	Catalog no.*
2	MDQ-2
4	MDQ-4
5	MDQ-5
6	MDQ-6

\* 5 Fuses per pack, 10 packs per shelf carton.

# 1-1/2" fast-ac

# Fast-acting 5x20 mm fuses

# GDA

IEC 5x20 mm high-breaking capacity fast-acting ceramic tube fuses



#### Amps Catalog no.\* 500 mA GDA-500MA 630 mA GDA-630MA 1 GDA-1A 1.25 GDA-1.25A 1.6 GDA-1.6A 2 GDA-2A 2.5 GDA-2.5A 3.15 GDA-3.15A 4 GDA-4A 5 GDA-5A 6.3 GDA-6.3A \* 5 Fuses per pack, 10 packs

per shelf carton.

# Time-delay 5x20 mm fuses

GDC
IEC 5x20 mm time-delay glass tube fuses

Amps	Catalog no.*	Retail pack**
500 mA	GDC-500MA	—
1	GDC-1A	_
1.6	GDC-1.6A	_
2	GDC-2A	—
2.5	GDC-2.5A	_
3.15	GDC-3.15A	_
4	GDC-4A	_
5	GDC-5A	BP/GDC-5A
6.3	GDC-6.3A	

\* 5 Fuses per pack, 10 packs per shelf carton.

Potail pack\*\*

\*\* 2 Fuses per pack, 5 packs per shelf carton.

# GDB

GMA

IEC 5x20 mm fast-acting glass tube fuses

UL 5x20 mm fast-acting glass tube fuses



Amps	Catalog no.*	
160 mA	GDB-160MA	
2	GDB-2A	
4	GDB-4A	
6.3	GDB-6.3A	
8	GDB-8A	
10	GDB-10A	
* 5 Fuses per pack, 10 packs per shelf carton.		

# UL 5x20 mm medium time-dela glass tube fuses

GMC

Amps	Catalog no.*	Retail pack**
500 mA	GMC-500-R	BP/GMC-500MA
630 mA	GMC-630-R	_
1	GMC-1-R	_
1.5	GMC-1.5-R	_
1.6	GMC-1.6-R	_
2	GMC-2-R	_
3	GMC-3-R	_
3.5	GMC-3.5-R	_
4	GMC-4-R	_
5	GMC-5-R	BP/GMC-5
6	GMC-6-R	_
7	GMC-7-R	BP/GMC-7

5 Fuses per pack, 10 packs per shelf carton.

\*\* 2 Fuses per pack, 5 packs per shelf carton.

GMD

UL 5x20 mm medium time-delay glass tube fuses

Catalog no.*	
GMD-500-R	
GMD-1-R	
GMD-2-R	
GMD-3-R	

\* 5 Fuses per pack, 10 packs per shelf carton.

GMF

Non-rejection time-delay in-line fuse with cap



Use with HLR in-line fuse holder page 14.

Amps	Catalog no.*
2-1/2	GMF-2-1/2
2-8/10	GMF-2-8/10
3	GMF-3
3-2/10	GMF-3-2/10
4	GMF-4

\* 5 Fuses per pack, 10 packs per shelf carton.

e page 52 for available assortments.				
	Amps	Catalog no.*	Retail pack**	
	63 mA	GMA-63-R	_	
	100 mA	GMA-100-R		
	125 mA	GMA-125-R	_	
	200 mA	GMA-200-R	BP/GMA-200MA	
	250 mA	GMA-250-R	BP/GMA-250MA	
	300 mA	GMA-300-R	—	
	315 mA	GMA-315-R	—	
	500 mA	GMA-500-R	BP/GMA-500MA	
	600 mA	GMA-600-R	_	
10	750 mA	GMA-750-R	BP/GMA-750MA	

300 mA	GMA-300-R	_
315 mA	GMA-315-R	_
500 mA	GMA-500-R	BP/GMA-500MA
600 mA	GMA-600-R	_
750 mA	GMA-750-R	BP/GMA-750MA
800 mA	GMA-800-R	—
1	GMA-1-R	BP/GMA-1A
1.25	GMA-1.25-R	_
1.5	GMA-1.5-R	_
1.6	GMA-1.6-R	_
2	GMA-2-R	BP/GMA-2A
2.5	GMA-2.5-R	_
3	GMA-3-R	BP/GMA-3A
3.15	GMA-3.15-R	_
3.5	GMA-3.5-R	—
4	GMA-4-R	—
5	GMA-5-R	BP/GMA-5A
6	GMA-6-R	BP/GMA-6A
7	GMA-7-R	BP/GMA-7A
8	GMA-8-R	_
10	GMA-10-R	BP/GMA-10A

\* 5 Fuses per pack, 10 packs per shelf carton.

\*\* 2 Fuses per pack, 5 packs per shelf carton.



# **Cartridge fuses**

Retail

pack\*\*

Cartridge fuses are used to protect motors and branch circuits where higher amps or volt ratings are required. They are available in a wide variety of sizes, amp and volt ratings up to 600 Vac and 600 amps. Cartridge fuses are used extensively in commercial, industrial and agricultural applications as well as residential fuse panels, air conditioning, pumps, appliances and other equipment.

Cartridge fuses are available in two types. General purpose fuses have no time-delay and protect fuse panels, appliances and branch circuits. Heavy-duty fuses have a time-delay feature, allowing momentary motor startups.

Both are available in 250 Vac and 600 Vac versions with catalog symbol and amp rating stamped on the knife blade or end cap.

# General purpose one-time NON and NOS

Used in lighting circuits, main panel protection and other circuits that don't contain large electric motors or inductive loads. Up to 60 amp fuses UL Listed Class K5 (IR: 50 kA). 70 to 600 A fuses UL Class H (IR: 10 kA).

# Cartridge fuse dimensions - in (mm)

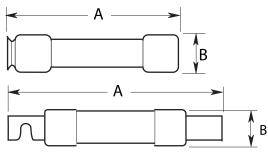
# Ferrule styles\*

	В
0 (127.0)	0.81 (20.6)
5 (139.7)	1.06 (27.0)
-	

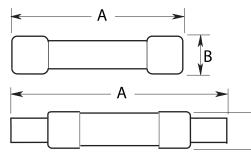
# Blade styles\*

Amp	250 Vac		600 Vac		
range	Α	В	Α	В	
70-100	5.88 (149.2)	1.06 (26.9)	7.88 (200.0)	1.34 (34.0)	
110-200	7.13 (181.0)	1.56 (39.6)	9.63 (244.5)	1.84 (46.7)	
225-400	8.63 (219.1)	2.06 (52.3)	11.63 (295.3)	2.59 (65.8)	
450-600	10.38 (263.5)	2.59 (65.8)	13.38 (339.7)	3.13 (79.5)	

\* NON and NOS one-time fuses do not have a rejection feature.



Class R fuses with rejection feature (FRN-R and FRS-R).



Class H fuses without rejection feature (NON/NOS and CDN/PON).

# NON

# 250 Vac general purpose non current-limiting Class K5 and H fuses

See page 52 for available assortment.



35 up to	60 A
----------	------



	Amps	110.	раск
	2	NON-2	_
•	3	NON-3	_
	5	NON-5	_
	6	NON-6	_
	10	NON-10	_
	15	NON-15	BP/NON-15
	20	NON-20	BP/NON-20
	25	NON-25	BP/NON-25
	30	NON-30	BP/NON-30
	35	NON-35	BP/NON-35
	40	NON-40	BP/NON-40
	45	NON-45	BP/NON-45
	50	NON-50	BP/NON-50
	60	NON-60	BP/NON-60
	70	NON-70	
	80	NON-80	
	90	NON-90	
	100	NON-100	BP/NON-100
	125	NON-125	
	150	NON-150	
	200	NON-200	_
	250	NON-250	_
	300	NON-300	_
	400	NON-400	

Catalog

no.\*

Amps

2 - 60 A Fuses, 10 per shelf carton

70 - 100 A Fuses, 5 per shelf carton

125 - 200 A Fuses, 56 per master case 250 - 400 A Fuses, 30 per master carton

\*\* 70 and 100 A Fuses 1 per pack,

15 - 60 A Fuses, 2 per pack, 5 packs per shelf carton.

# NOS

600 Vac general purpose non currentlimiting Class K5 and H fuse



Amps	Catalog no.
6	NOS-6
10	NOS-10
15	NOS-15
20	NOS-20
25	NOS-25
30	NOS-30
35	NOS-35
40	NOS-40
50	NOS-50
60	NOS-60
100	NOS-100
200	NOS-200
* 2 60 4	Europe 10 mar

 \* 2 - 60 A Fuses, 10 per shelf pack
 100 A Fuses, 80 per master pack
 200 A Fuses, 35 per master pack

70 A and over

# Fusetron<sup>™</sup> energy efficient FRN-R fuses

Bussmann series Fusetron cartridge fuses are 23% more energy efficient\* and offer the best time-delay performance. Their dualelement feature allows closer sizing to load for superior protection of motors and transformers. These Class RK5 fuses with a 200 kA interrupting rating can be used in a broad range of applications.

When sized correctly, they help protect motors from burnout caused by overloads or single-phasing. The time-delay feature allows the initial startup current surge for typical motors to pass, but opens prior to motor burnout when longer, dangerous overloads are present. In addition, the dual-element design opens in as little as 0.004 second if the fuse experiences short-circuit conditions. All fuses are UL Listed Class R (IR: 200 kA). Groove in end cap or notch in knife blade permit the fuse to be used in only Class H, Class K or Class R fuse blocks.

\* Test results are based on weighted sales volume of Fusetron and Ferraz Shawmut (Mersen) fuses by selected amp and volt rating combination. Next leading brand refers to Ferraz Shawmut based on third-party fuse market share data for a twenty-seven month period (July 2008 through September 2010).

FRN-R		Amps	Catalog no.*	Retail pack**
250 Vac non-indicating dual-element, time-delay Class RK5 fuses		1	FRN-R-1	_
		2	FRN-R-2	_
		3	FRN-R-3	_
See page 52 for available assortments.		4	FRN-R-4	_
		5	FRN-R-5	_
		6	FRN-R-6	_
		6-1/4	FRN-R-6-1/4	_
5 Dist.		7	FRN-R-7	_
A REAL PROPERTY.		8	FRN-R-8	_
THE OWNER AND A		10	FRN-R-10	BP/FRN-R-10
Bussmann		12	FRN-R-12	_
FUSETRON DEERGY SPRCENT Seale was floor FRN-R		15	FRN-R-15	BP/FRN-R-15
		17-1/2	FRN-R-17-1/2	_
		20	FRN-R-20	BP/FRN-R-20
125Vde DC III IIIIA		25	FRN-R-25	BP/FRN-R-25
and the second second		30	FRN-R-30	BP/FRN-R-30
		35	FRN-R-35	BP/FRN-R-35
E UN	FUSETReN	40	FRN-R-40	BP/FRN-R-40
Up to 60 A	SALARS FOR THE ULLAR	45	FRN-R-45	BP/FRN-R-45
	FRN-R	50	FRN-R-50	BP/FRN-R-50
	1781582	60	FRN-R-60	BP/FRN-R-60
	PH	70	FRN-R-70	
		75	FRN-R-75	_
		80	FRN-R-80	_
		90	FRN-R-90	
		100	FRN-R-100	BP/FRN-R-100
		150	FRN-R-150	

70 A and over

200

\* 1 - 60 A Fuses, 10 per shelf carton 70 - 100 A Fuses, 5 per shelf carton 150 - 200 A Fuses, 40 per master case 10 - 60 A Fuses, 2 per pack

\_\_\_\_

FRN-R-200

100 A Fuse, 1 per pack, 5 packs per shelf carton.

# FRN-R fuses with easyID blown fuse indication

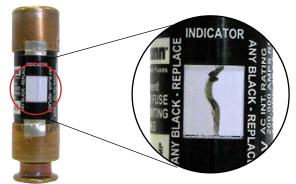
Featuring the same energy efficiency and electrical performance characteristics as their green label non-indicating versions, easyID FRN-R fuses offer consumers the additional advantage of blown fuse status that makes finding the open fuse easier and faster.

FRN-RID	Amps	Catalog no.*	<i>easy</i> ID retail pack**
250 Vac indicating	15	FRN-R-15ID	BP/FRN-R-15ID
dual-element,	20	FRN-R-20ID	BP/FRN-R-20ID
time-delay Class RK5 fuses	30	FRN-R-30ID	BP/FRN-R-30ID
14000	40	FRN-R-40ID	BP/FRN-R-40ID
	50	FRN-R-50ID	BP/FRN-R-50ID
	60	FRN-R-60ID	BP/FRN-R-60ID

\* 10 Fuses per shelf carton.

\*\* 2 Fuses per pack, 5 packs per shelf carton.

# *easy***D** blown fuse indication



Good

Indicator shows when fuse is blown

# **Cartridge fuses**

# Fusetron energy efficient FRS-R fuses

These cartridge fuses are 23% more energy efficient\* and offer the best time-delay performance. Their dual-element feature allows closer sizing to load for superior protection of motors and transformers. These Class RK5 fuses with a 200 kA interrupting rating can be used in a broad range of applications.

When sized correctly, they help protect motors from burnout caused by overloads or single-phasing. The time-delay feature allows the initial startup current surge for typical motors to pass, but opens prior to motor burnout when longer, dangerous overloads are present. In addition, the dual-element design opens in as little as 0.004 second if the fuse experiences short-circuit conditions. All fuses are UL Listed Class R (IR: 200 kA).

\* Test results are based on weighted sales volume of Fusetron and Ferraz Shawmut (Mersen) fuses by selected amp and volt rating combination. Next leading brand refers to Ferraz Shawmut based on third-party fuse market share data for a twenty seven month period (July 2008 through September 2010).

# FRS-R

# 600 Vac indicating and non-indicating dual-element, time-delay **Class RK5 fuses**

<b>(B)</b>			With <i>easy</i> ID	
1 Hell	Amps	Catalog no.*	indication	Retail pack**
	2	FRS-R-2	—	—
	3	FRS-R-3	_	_
-	3-1/2	FRS-R-3-1/2	_	_
Marca and and and and and and and and and an	4	FRS-R-4	—	_
rese 1	5	FRS-R-5	—	_
ETTE:	6	FRS-R-6	FRS-R-6ID	_
	6-1/4	FRS-R-6-1/4	FRS-R-6-1/4ID	_
-	7	FRS-R-7	FRS-R-7ID	—
	8	FRS-R-8	FRS-R-8ID	_
	10	FRS-R-10	FRS-R-10ID	_
Up to 60 A	12	FRS-R-12	FRS-R-12ID	_
	15	FRS-R-15	FRS-R-15ID	BP/FRS-R-15
	17-1/2	FRS-R-17-1/2	FRS-R-17-1/2ID	_
	20	FRS-R-20	FRS-R-20ID	BP/FRS-R-20
	25	FRS-R-25	FRS-R-25ID	_
	30	FRS-R-30	FRS-R-30ID	BP/FRS-R-30
	35	FRS-R-35	FRS-R-35ID	_
	40	FRS-R-40	FRS-R-40ID	—
1	45	FRS-R-45	FRS-R-45ID	—
PLOCATR AN	50	FRS-R-50	FRS-R-50ID	_
	60	FRS-R-60	FRS-R-60ID	BP/FRS-R-60
10	70	FRS-R-70	—	—
	80	FRS-R-80	—	_
	90	FRS-R-90	—	_
	100	FRS-R-100	—	_
	125	FRS-R-125	—	_
	150	FRS-R-150	_	_
	175	FRS-R-175		_
65 A and	200	FRS-R-200		_
over	* 2 - 60 A Fuses, 10 per shelf carton			

70 -100 A Fuses, 5 per shelf carton 125 - 200 A Fuses, 20 per master case

\*\* 1 Fuse per pack, 5 packs per shelf carton.

# **CDN Type D and PON Type P CSA** Certified standard code fuses



Economical fuses for a variety of applications where available short-circuit current is relatively low.

# CDN

PON

250 Vac CSA Type P one-time fuses

> CLASS K CLASSE

PON60

250 Vac CSA Type D time-delay fuses



	Catalog	netall
Amps	no.*	pack**
10	CDN10	—
12	CDN12	—
15	CDN15	BP/CDN10
20	CDN20	BP/CDN20
25	CDN25	BP/CDN25
30	CDN30	BP/CDN30
35	CDN35	BP/CDN35
40	CDN40	BP/CDN40
45	CDN45	BP/CDN45
50	CDN50	BP/CDN50
60	CDN60	BP/CDN60
100	CDN100	—
110	CDN110	_
175	CDN175	_
200	CDN200	_

\* 10 - 60 A Fuses, 10 per shelf carton. 100 - 200 A Fuses, 1 per shelf carton 40 per master case

\*\* 1 Fuse per pack, 5 packs per shelf carton.

Amps	Catalog no.*	Retail pack**
15	PON15	BP/PON15
20	PON20	BP/PON20
25	PON25	BP/PON25
30	PON30	BP/PON30
35	PON35	BP/PON35
40	PON40	BP/PON40
45	PON45	BP/PON45
50	PON50	BP/PON50
60	PON60	BP/PON60

10 Fuses per shelf carton.

\*\* 1 Fuse per pack, 5 packs per shelf carton.

# Midget fuses

Midget fuses are 13/32" x 1-1/2" cartridge fuses in a wide variety of volt and amp ratings to provide supplemental protection to industrial, commercial, agricultural, heating, ventilating and air conditioning equipment. Small size midget fuses often protect control circuit wiring, motor control transformers or small motors. The National Electrical Code® (NEC®) now requires more protection of these components creating an increased replacement demand for these fuses.

# BAF

# 250 Vac fast-acting 13/32" x 1-1/2" midget fuses



Amps	Catalog no.*
1	BAF-1
3	BAF-3
5	BAF-5
6	BAF-6
10	BAF-10
15	BAF-15
20	BAF-20
25	BAF-25
30	BAF-30
* 10 Fuse	s per shelf carton.

# ктк

600 Vac fast-acting 13/32" x 1-1/2" midget fuses

6	-
	Addin a
6	
n K	FUSE TK-10
7	

Amps	Catalog no.*	Retail pack**	
1	KTK-1	BP/KTK-1	
2	KTK-2	BP/KTK-2	
3	KTK-3	BP/KTK-3	
4	KTK-4	_	
5	KTK-5	BP/KTK-5	
6	KTK-6	—	
10	KTK-10	BP/KTK-10	
15	KTK-15	BP/KTK-15	
20	KTK-20	BP/KTK-20	
25	KTK-25	_	
30	KTK-30	BP/KTK-30	
* 10 Fuses per shelf carton.			

\*\* 1 Fuse per pack, 5 packs per shelf carton.

# **Class CC fuses**

The rejection midget fuses are Class CC and are suitable for both branch circuit and supplemental protection.

# KTK-R

600 Vac fast-acting 13/32" x 1-1/2" Class CC branch circuit fuses



Amps	Catalog no.*
1/2	KTK-R-1/2
1	KTK-R-1
2	KTK-R-2
3	KTK-R-3
4	KTK-R-4
5	KTK-R-5
6	KTK-R-6
8	KTK-R-8
10	KTK-R-10
12	KTK-R-12
15	KTK-R-15
20	KTK-R-20
25	KTK-R-25
30	KTK-R-30
* 10 Fuse	s per shelf carton.

# There's more to offer!

Talk to your Bussmann series product sales representative about other available amp ratings.



# **Time-delay and Class G cartridge fuses**

# BUSSMANN

# FNM

250 Vac time-delay 13/32" x 1-1/2" midget fuses

See page 52 for available assortments.



Amps	Catalog no.*	Retail pack**
1/2	FNM-1/2	_
6/10	FNM-6/10	_
1	FNM-1	_
2	FNM-2	BP/FNM-2
2-1/2	FNM-2-1/2	_
3	FNM-3	_
3-2/10	FNM-32/10	_
3-1/2	FNM-3-1/2	_
4	FNM-4	_
5	FNM-5	BP/FNM-5
6	FNM-6	—
6-1/4	FNM-6-1/4	_
7	FNM-7	_
8	FNM-8	_
9	FNM-9	_
10	FNM-10	BP/FNM-10
12	FNM-12	BP/FNM-12
15	FNM-15	BP/FNM-15
20	FNM-20	BP/FNM-20
25	FNM-25	
30	FNM-30	BP/FNM-30

\* 10 Fuses per shelf carton.

\*\* 2 Fuses per pack, 5 packs per shelf carton.

# FNQ-R

600 Vac time-delay 13/32" x 1-1/2" **Class CC branch circuit fuses** 



An	nps	Catalog no.*
	1/2	FNQ-R-1/2
1		FNQ-R-1
2		FNQ-R-2
3		FNQ-R-3
4		FNQ-R-4
5		FNQ-R-5
6		FNQ-R-6
6	-1/4	FNQ-R-6-1/4
7	-1/2	FNQ-R-7-1/2
8		FNQ-R-8
10		FNQ-R-10
12		FNQ-R-12
15		FNQ-R-15
20		FNQ-R-20
30		FNQ-R-30
¥ 10		an also if a set an

\* 10 Fuses per shelf carton.

# SC

# **Specialty Class G rejection fuses**

- 600 Vac fast-acting (1/2-6 A)
- 600 Vac time-delay (7-20 A)
- 480 Vac time-delay (25-60 A)

FNQ
500 Vac time-delay 13/32" x 1-1/2'
midget fuses



Amps	Catalog no.*
1/2	FNQ-1/2
1	FNQ-1
1-1/2	FNQ-11/2
2	FNQ-2
2-1/2	FNQ-2-1/2
3	FNQ-3
4	FNQ-4
5	FNQ-5
6	FNQ-6
7	FNQ-7
8	FNQ-8
10	FNQ-10
12	FNQ-12
15	FNQ-15
20	FNQ-20
25	FNQ-25
30	FNQ-30

\* 10 Fuses per shelf carton.

	BERAL PURPOS INSC POTECTOR TAR-CELAR CLASS & FUSE SC I
PURPOSE OTECTOR OFUSE 3C 1	480Vac AC IR 100A 300Vdc DC IR 10A

Amps	Fuse length	Catalog no.*	Retail pack**
2	1.31″	SC-2	_
3	1.31″	SC-3	—
5	1.31″	SC-5	—
6	1.31″	SC-6	_
8	1.31″	SC-8	_
10	1.31″	SC-10	_
15	1.31″	SC-15	BP/SC-15
20	1.41″	SC-20	BP/SC-20
25	1.62″	SC-25	BP/SC-25
30	1.62″	SC-30	BP/SC-30
40	2.25"	SC-40	_
60	2.25"	SC-60	_
* 10 Fus	es per shelf	carton.	

\*\* 2 Fuses per pack, 5 packs per shelf carton.

These highly compact branch circuit fuses are used in residential, mobile home and industrial applications. They have a minimum 300 volt rating and are available up to 60 A. All SC fuses are 13/32" in diameter with varying lengths to provide a rejection feature that helps prevent over fusing (installing a 30 amp fuse in a 20 A circuit). One half to 6 A SC fuses are fast-acting, while 7 to 60 A SC fuses are

time-delay to permit temporary overloads to pass without nuisance

See page 52 for available assortment.

openings.

# Plug fuses, adapters and circuit breakers

# **Plug fuses**

Plug fuses thread into receptacles. Two types of threaded fuses are available: Edison base (brass) and rejection base (porcelain). The two are not interchangeable. TL and SL medium-duty fuses are regular duty fuses. T and S are heavy duty fuses for more demanding applications with high inrush currents. They feature a dual-element design that provides superior short-circuit and overload protection.

Plug fuses are often used in residential applications to protect furnace blower motors, pumps, power tools, garage door openers, etc. Edison base plug fuses for motor protection are often used in conjunction with branch circuit protection and located in a box cover unit (see page 50).

Plug fuses provide a compact and economical method to prevent electric motor damage, reduce downtime and lower maintenance costs by opening when an overload is present.

When used for residential branch circuit protection, fuses are typically located in the main fuse panel.

# Edison base plug fuses and circuit breakers

The Edison base plug fuse uses the same thread as a light bulb base. All amp ratings will fit the same fuse receptacle. To help prevent overfusing a circuit — installing a fuse with a greater amp rating than the circuit can handle — it is recommended to install the correctly sized SA rejection base fuse adapter and use a correctly rated S or SL fuse.

#### **BP/MB**



125 Vac Edison base UL circuit breakers

For replacing Edison base plug fuses in residential fuse panels. Not for use in box cover units.

LISTED	20 AMP	PROTECTO	
ermo	WALL TH	E WAY D	
-	-	1	
	-	1	1
-		2	
-	- Maria	- Ser	

-BREAL

Amps	Retail pack*
15	BP/MB-15
20	BP/MB-20

\* 1 Circuit breaker per pack, 5 packs per shelf carton. Type T



#### 125 Vac dual-element, time-delay, Edison base plug fuses

Heavy duty T fuses are used for air conditioners, furnace blower motors, swimming pool pumps, deep freezers or any circuit where motors frequently turn ON and OFF. The T plug fuse is an industrial strength and provides superior protection that will resist nuisance openings under repeated motor startups. Available in a wide amp range to permit exact sizing to motor load.

Amps	Catalog no.*	Retail pack**
1-1/4	T-1-1/4	
1-6/10	T-1-6/10	
3-2/10	T-3-2/10	BP/T-3-2/10
4	T-4	
5	T-5	
6-1/4	T-6-1/4	BP/T-6-1/4
8	T-8	BP/T-8
10	T-10	BP/T-10
12	T-12	BP/T-12
15	T-15	BP/T-15
20	T-20	BP/T-20
25	T-25	BP/T-25
30	T-30	BP/T-30
* 4 fuses per box, 25 packs per shelf		

carton. \*\* Less than 15 A, 1 fuse per pack, 15 - 30 A, 2 fuses per pack, 5 packs per shelf carton.

Type TL

125 Vac time-delay Edison base plug fuses



Medium duty TL fuses are used for residential motor circuits in kitchens, workshops, garages and utility rooms.

utility rooms. 25 See page 52 for available 30 emergency kit. \* 4 f

Amps	Catalog no.*	Retail box*	Retail pack**
15	TL-15	TL-15PK4	BP/TL-15
20	TL-20	TL-20PK4	BP/TL-20
25	TL-25	TL-25PK4	BP/TL-25
30	TL-30	TL-30PK4	BP/TL-30

\* 4 Fuses per box.

\*\* 3 Fuses per pack, 5 packs per shelf carton.

# BUSSMANN

# **Rejection base plug fuses**

The rejection base threads prevent installing a larger amp fuse, e.g., a 30 amp fuse cannot be installed in a 20 amp socket.

# Type S



# 125 Vac dual-element, time-delay, rejection base plug fuses

UL and CSA heavy-duty S fuses are for use in air conditioners, furnace blower motors, swimming pool pumps, deep freezers or where motors frequently turn ON and OFF. The S rejection base plug fuse is an industrial strength product and provides superior protection

Amps	Catalog no.*	Retail pack**
1-1/4	S-1-1/4	BP/S-1-1/4
1-6/10	S-1-6/10	BP/S-1-6/10
2-1/2	S-2-1/2	—
3-2/10	S-3-2/10	BP/S-3-2/10
3-1/2	S-3-1/2	_
4	S-4	_
5	S-5	_
6-1/4	S-6-1/4	BP/S-6-1/4
7	S-7	_
8	S-8	BP/S-8
10	S-10	BP/S-10
12	S-12	BP/S-12
15	S-15	BP/S-15
20	S-20	BP/S-20
25	S-25	BP/S-25
30	S-30	BP/S-30
* 4 E	a a la acci	

\* 4 Fuses per box.

\*\* Less than 15 A, 1 per pack; 15 to 30 A, 2 per pack,

t 5 packs per shelf carton.

that will resist nuisance openings under repeated motor startups. Available in a wide amp range to permit exact sizing to motor load.

# Type SL



Amps	Catalog no.*	Retail box*	Retail pack**
15	SL-15	SL-15PK4	BP/SL-15
20	SL-20	SL-20PK4	BP/SL-20
25	SL-25	SL-25PK4	BP/SL-25
30	SL-30	SL-30PK4	BP/SL-30
* 4 Fuse	s per box.		

\*\* 3 Fuses per pack, 5 packs per shelf carton.

# 125 Vac time-delay, rejection base plug fuses

SL fuses for residential motor circuits in kitchens, workshops, garages and utility rooms.

See page 52 for available emergency kit.

# Type SA



Amp range	Catalog no.*	Retail pack**
1 or less	SA-1	_
1.25 or less	SA-1-1/4	—
1.6 or less	SA-1-6/10	—
3.5 to 6.25	SA-6-1/4	—
7 to 15	SA-15	BP/SA-15
20	SA-20	BP/SA-20
20 to 30	SA-30	BP/SA-30
* 4 SA Adapte	rs ner hox	

# Fustat adapters for using S and SL rejection plug fuses in Edison base sockets

\*\* 3 SA Adapters per pack, 5 packs per shelf carton.

SA adapters convert Edison base receptacles to accept a rejection base fuse. SA adapters limit the fuse amp rating that can be installed to protect circuits from being overfused and are available in a variety of sizes to deliver the desired fuse rejection.

See page 52 for available assortment.

# CSA Edison base plug fuses

The base is the same as a light bulb base. All amp ratings fit the same fuse receptacle.



# Type TC



	Retail	Retail
Amps	box*	pack**
15	TC-15PK4	BP/TC-15
20	TC-20PK4	BP/TC-20
25	TC-25PK4	BP/TC-25
30	TC-30PK4	BP/TC-30
* 4 Euco	s por boy	

\* 4 Fuses per box.

\*\* 2 Fuses per pack, 5 packs per shelf carton.

# 125 Vac CSA Type D dual-element time-delay Edison base plug fuses

Heavy dutyTC fuses are used for residential motor circuits in kitchens, workshops, garages and utility rooms.

See page 52 for available emergency kit.

# Туре Р



Amps	Retail box*	Retail pack**
15	P-15PK4	BP/P-15
20	P-20PK4	BP/P-20
25	P-25PK4	BP/P-25
30	P-30PK4	BP/P-30

\* 4 Fuses per box.

\*\* 2 Fuses per pack, 5 packs per shelf carton.

# 125 Vac CSA Type P dual-element one-time Edison base plug fuses

Medium-duty P fuses are used for non-inductive loads such as lighting and heating circuits.

See page 52 for available emergency kit.

# CP/MB



Amps	Retail pack*
15	CP/MB-15
20	CP/MB-20

 \* 1 Circuit breaker per pack, 5 packs per shelf carton.

# 125 Vac CSA Edison base circuit breakers

For replacing Edison base plug fuses in residential fuse panels. Not for use in box cover units.

Description

Fuse holder only

Fuse holder/three-

Weatherproof fuse

Fuse holder/switch

Fuse holder/switch

switch, three-prong

Twin fuse holders/

double pole switch

prong receptacle

holder/switch

Fuse holder/

receptacle and switch light

#### Box cover units

# For supplemental circuit and small motor protection

Box cover units are available in a variety of styles that fit standard electrical boxes, to provide an efficient andeconomical method to protect motors from overloads. Often, branch circuit protection cannot protect small motors, e.g., a 6-1/4 amp rated motor will likely burn up before a 30 amp breaker trips. A box cover unit permits using a fuse sized close to the motor's load so that it opens when the motor draws too much current.





SOU





SSU



STY\*

Retail

pack\*\*

**BP/SOU** 

**BP/SRU** 

**BP/SSU** 

BP/SSY<sup>†</sup>

Catalog

no\*

SOU

SRU

SSN

SSU

SSY

STY

SSY-RL



Box

type

2-1/4'

handy

2-1/4"

handy

Single

aana

2-1/4'

handy

square

square

square

4″

4″

Δ'

Max Hp/volts/amps

3/4 Hp/125 Vac/15 A

1/2 Hp/125 Vac/15 A

\* 1 Box cover unit per pack, 10 packs per shelf carton.
\* 1 Box cover unit per pack, 3 packs per shelf carton.
\* 1 Box cover unit per pack, 2 packs per shelf carton.

\* Double pole switch opens both sides of the circuit. Can be used for two separate motors with common switch or a single motor (3/4 Hp, 250 Vac max.)

# SurgePOD<sup>™</sup> PRO Type 1 power surge protective device, the value SPD for sensitive residential applications

- Type 1 UL and cULus Listed 1449 4<sup>th</sup> Edition SPD is easily installed on the loadside or lineside of the service entrance overcurrent protective device.
- For 240 Vac, split-phase electrical systems.
- 200 kA SCCR.
- Compact UV resistant NEMA 4X enclosure for indoor or outdoor applications.
- easyID LED status indicators provide surge protection status at a glance.
- Voltage specific model protects electrical systems, equipment, appliances and consumer electronics better than "One-Size-Fits-All" economy SPDs.
- Two-year warranty (see warranty statement 3A1502 for details).
- Thermal disconnect MOV technology eliminates the need for additional fusing.

See data sheet No. 10033 for technical specifications.

Retail pack*	System voltage	Description
RB-SPP-240PN	240 Vac	Split-phase, 3 wire, 3 connection points

\* 1 SurgePOD PRO per pack, 4 packs per master carton.



# **Accessories**

# Automotive blade and glass tube fuse pullers and testers



Remove automotive fuses quickly and easily with the FP-A3 fuse puller. The innovative tool design lets you remove or install both blade-type and glass fuses.

The FT-3 combination fuse tester/puller is designed for easy onehanded testing of glass and blade fuses. Light glows when fuse is good.

# **Cartridge fuse pullers**



Bussmann series cartridge fuse pullers are heavy-duty tools for safely removing fuses from their blocks. Can be used with all cartridge fuses matching fuse diameter range.

Catalog	Retail	
no.*	pack**	Description
Automot	ive fuse pullers	
FP-A3	BP/FP-A3-RP	Fuse puller only
_	BP/FT-2	Fuse tester only †
FT-3	BP/FT-3-RP	Fuse puller and tester †
Cartridge	fuse pullers	
FP-2	BP/FP-2	Puller - 1 to 60 A (13/32" to 1-3/16" Dia.)
FP-3	BP/FP-3	Puller - 70 to 200 A (1" to 1-1/4" Dia.)
FP-4	_	Puller - 225 to 600 A (1-3/4" to 2-1/2" Dia.)
FP-6	_	Puller - 0 to 60 A Class T fuses

\* FP-A3 and FT-3, 1 fuse puller per pack, 10 packs per shelf carton.

\* 1 Fuse puller per pack, 5 packs per shelf carton.

† Replacement batteries: 364 (Energizer/Rayovac), D364 (Duracell), SR621SW (Maxell/Sony)

# NON and FRN-R 250 volt fuse reducers



60/30 A NON fuse reducers

NO.263



NO.263-R 60/30 A FRN-R fuse reducers







NO.216-R 100/60 A FRN-R fuse reducers

NO.2621-R 200/100 A FRN-R fuse reducers

Fuse reducers allow a smaller size fuse to be installed in a fuse block intended for a larger fuse. For example: a 30 amp fuse is two inches long and will not fit into a 60 amp fuse block (which is three inches between clips). A NO.263 reducer installed on the fuse permits it to be installed in a 60 amp fuse block. Reducers are particularly useful when equipment is being converted. Proper protection can be maintained without the expense of replacing the fuse block. Catalog numbers with the "-R" suffix (NO.263-R) fit rejection Class R fuse blocks. Consult your Bussmann series sales rep or distributor for 600 volt and Class J reducers.

Catalog no.*	Fuse block size (amps)	Fuse size (amps)
NON 250 Vac Cla	ass H reducers	
NO.263	60	30
FRN-R 250 Vac C	lass R reducers	
NO.263-R	60	30
NO.216-R	100	60
NO.2621-R	200	100
*10 5	1 16 1	

\*10 Fuse reducers per shelf carton.

# Hardware packaging and assortments

Popular fuse assortments and kits to meet the needs of appliance and residential circuit protection.

# Retail hardware fuse assortments

BP/ABC-A	Microwave oven fuse assortment, ABC-10, (2)15 and (2)20 A
BP/FNM-AH	High amp FNM cartridge fuse assortment: FNM-15 and 20 A
BP/FNM-AL	Low amp FNM cartridge fuse assortment: FNM-5 and 10 A
BP/FRN-AH	High amp FRN-R Class RK5 fuse assortment: FRN-R-35 and 50 A
BP/FRN-AL	Low amp FRN-R Class RK5 fuse assortment: FRN-R-15 and 25 A
BP/GMA-AH	High amp GMA electronic glass tube fuse assortment: two each GMA-3-R, 5-R and 6-R A
BP/GMA-AL	Low amp GMA electronic glass tube fuse assortment: two each GMA-500MA-R, 1-R and 2-R A
BP/MDL-AL	Low amp MDL electronic glass tube fuse assortment: one each MDL-1/2-R, 1-R, 2-R, 3-R, 5-R
BP/NON-AL	Low amp NON cartridge fuse assortment: NON-15 and 25 A
BP/SA-A	Fustat rejection base plug fuse adapter assortment: SA-15 and 20 A
BP/SC-A	SC Class G fuse assortment: SC-15 and 20 A
HEF-1	Mobile phone, electronic equipment and stereos assortment: (2)AGC-1, (1)2 and (2)3 A
HEF-2	Computers and peripherals assortment: MDL-1/2, 1 and 2 A; GDC-1 and 2 A

# Retail hardware fuse emergency kits

SL-EK	SL rejection base plug Fuse kit: (3)15, (2)20 and 30 A and FT-3 fuse tester/puller
TL-EK	TL Edison base plug fuse kit: 15, (2)20 and (3)30 A and FT-3 fuse tester/puller
TC-EK	CSA Type D Edison base plug fuse kit: (3)15, (1)20, (2)30 A and FT-3 fuse tester/puller
P-EK	CSAType P Edison base plug fuse kit: (3)15, (1)20, (2)30 A and FT-3 fuse tester/puller

# Holiday light fuses

Useful year-round, these fuses come in handy for keeping the lights on and the festivities going strong.

# Year-round holiday and party light fuses

BP/MAS-3A*	MAS 3x10 mm fast-acting 3 amp fuses. Five fuses per pack.
BP/GMA-5A*	GMA 5x20 mm fast-acting 5 amp fuses. Two fuses per pack.
BP/MAS-3A-CS	One carton of 10 BP/MAS-3A with clip strip included.
*Five packs per shelf pack.	

# Christmas light counter displays with two clip strips\*

BP/GMA-5XM	GMA 5x20 mm fast-acting 5 amp fuses. Five fuses per pack.
BP/MAS-3X5	MAS 3x10 mm fast-acting 3 amp fuses. Five fuses per pack.
BP/AGX-7X5	AGX 1/4" x 1-1/4" fast-acting 7 amp fuses. Five fuses per pack.
BP/XMAS-6F Assortment	AGC-7-R, AGX-7, (2)GMA-5-R and (2)MAS-3 A fuses. Total six fuses per pack.

\*20 Packs per display.









BP/MAS-3A



BP/GMA-5A

# Hardware planogram

# Retail hardware planogram

Color-coded packaging for fast, easy product selection.

# Visual categorization

- · Color-coded Bussmann series retail packaging.
- Fast and easy product identification.
- Provides increased shoppability and faster merchandising.

# Merchandising ease

- Retail set is simple and straightforward.
- Color-coding encourages return of product to correct gondola peg.
- Reduces need for assistance by store personnel.

# **Consumer friendly**

- Fuse center is easily located.
- · Point-of-sale identifies fuse types.
- Package color codes identify product category.

Catalog no.	Description
2FTHDWR-KIT	95 SKU hardware prepak. Includes one of each retail pack, a complete set of reorder tags and a header card as pictured.
2FTHDWR-TAGS	Replacement set of UPC reorder tags for the 2FTHDWR-KIT. Allows for creating a custom planogram. Order tags through your Bussmann series product rep.

For details on hardware planogram product SKUs, visit Eaton.com/BussmannConsumerPOG



2FTHDWR-TAGS UPC reorder tags.



**2FTHDWR-KIT** Peg hooks and gondola not included.

	Column 1	Column 2	Column 3	Column 4	Column 5	Colu	mn 6	Column 7	7 Column 8	Column 9	Colu	mn 10	Column 11
ROW 1	BP/AGC-1-2-RP 051712388559	BP/AGC-1-RP 051712175166	BP/AGC-1-1/2-R 051712388542	P BP/AGC-2-RP 051712175654	BP/AGC-3-RP 051712175708	BP/AGC- 0517121		BP/AGC-5-RP 051712175760	BP/AGC-10-RP 051712176682	/AGC-15-RP 1712176828	BP/AGC-20-RP 051712177221		BP/AGC-30-RP 051712178402
ROW 2	BP/MDL-1-2 051712813358	BP/MDL-1 051712813365	BP/MDL-2 051712813389	BP/MDL-3 051712813396	BP/MDL-4 051712813204	BP/MDL- 0517128		BP/MDL-6 051712813211	BP/MDL-7 051712813228	/MDL-8 1712813235	BP/MDL 0517128		BP/MDL-15 051712814942
ROW 3	BP/GMA-250MA 051712614498	BP/GMA-500MA 051712614504	BP/GMA-750MA 051712539012	BP/GMA-1A 051712617635	BP/GMA-2A 051712617642	BP/GMA 0517126		BP/GMA-5A 051712617666	BP/GMA-6A 051712617673	/GMA-7A 1712623117	BP/GM0 0517127		BP/GDC-5A 051712618199
ROW 4	BP/ATC-3-RP 051712173216	BP/ATC-5-RP 051712173223	BP/ATC-3ID 051712237796	BP/ATC-5ID 051712237819	BP/ABC-10 051712813419	BP/ABC- 0517121		BP/ABC-20 051712249508	BP/MAS-3A 051712637084	F-1 1712161015		HEF-2 0517121	61022
ROW 5	BP/FNM-5 051712751674	BP/FNM-10 051712751681		3P/FNM-15 051712751704	BP/FNM-20 051712617598		BP/FNM 0517126		BP/SC-15 051712617611	 BP/SC-20 051712593120	D	BP/SC-3 0517125	
ROW 6	BP/FRN-R-10 051712617628	BP/FRN-R-15 051712112017		3P/FRN-R-15ID 051712237178	BP/FRN-R-20ID 051712237116		BP/FRN- 0517122		BP/FRN-R-40ID 051712237130	 BP/FRN-R-50I 051712237147		BP/FRN- 0517122	
ROW 7	BP/FRN-R-20 051712112024	BP/FRN-R-25 051712112031		3P/FRN-R-30 051712112048	BP/FRN-R-35 051712112055		BP/FRN- 0517121		BP/FRN-R-45 051712112079	BP/FRN-R-50 051712112086	6	BP/FRN- 0517121	
ROW 8	BP/NON-15 051712111010	BP/NON-20 051712111027		3P/NON-25 051712111034	BP/NON-30 051712111041		BP/NON 0517121		BP/NON-40 051712111065	 BP/NON-50 051712111089		BP/NON 0517121	
ROW 9	BP/TL-A 051712697552	BP/T-10 051712103084		3P/T-15 051712102216	BP/T-20 051712102223		BP/T-25 0517121	02230	BP/T-30 051712102247	BP/MB-15 051712274753	3	BP/MB-2 0517122	
ROW 10	BP/SL-A 051712697569	BP/S-6-1/4 051712103206		3P/S-10 051712103220	BP/S-15 051712102414		BP/S-20 0517121	02421	BP/S-30 051712102445	BP/SSU 051712171021	1		
SITS ON SHELF	TL-EK 051712501378			SL-EK 051712502078				BP/NON-10 005171276263	32	RN-R-100 12100137		BP/FP-2 05171234	0014

# **2FTHDWR-KIT** planogram layout

Fuse			Constuction/					Agency info	ormation			
type	Catalog symbol	Class	size	Volts	Amps	IR	Туре	UL List	UL Rec	SAE	RoHS	CSA
	ATL	_	3-leg micro	32 Vdc	5-15	1 kA	Fast-acting	_	_	—	Х	_
Blade	ATM/ATMID*	_	Mini fuse	32 Vdc	1-30	1 kA	Fast-acting	AU 169 2-30 A non- indicating ATM	_	_	Х	_
Didue	ATM_LP	_	Low profile	58 Vdc	2-30	1 kA	Fast-acting			_	Х	_
	ATC/ATCID*	_		32 Vdc	1-40	1 kA	Fast-acting		E56412	J1284		·
	ATR	_	2-leg micro	32 Vdc	5-30	1 kA	Fast-acting	_	_		X	_
	MAX/MAXID*	_		32 Vdc	20-100	1 kA	Fast-acting				X	_
	ABC	_	1/4" x 1-1/4" ceramic	250 Vac	1/4-1 1-1/2 to 3 4-10 12-15 20 25-30	35 A 100 A 200 A 750 A 400 A 200 A	Fast-acting	E19180, 1/4-15 A	E19180, 18-30 A	_	Х	53787, 1/4-30 A
	AGA	_	1/4" × 5/8"	125 Vac 125 Vac 32 Vac	1 to 1-1/2 2-5 6-30	10 kA 200 kA 1 kA	Fast-acting	E19180, 0-3 1/2 A	JDYX2, 12-30 A	_	_	_
	AGC		1/4" x 1-1/4"	250 Vac 250 Vac 250 Vac 32 Vac 32 Vac 32 Vac 32 Vac	1/20-1 1-1/4 to 3 4-10 12-30 35 40-50	35 A 100 A 200 A 1 kA 70 A 80 A	Fast-acting	E19180, 0-10 A	E19180, 12-30 A	_	х	53787, 1/20-30 A
	AGU AGU-(amp)GP	Midget	Glass tube ferrule 13/32" x 1-1/2"	250 Vac 32 Vac	1-3 4-60	_	Fast-acting	_	_	_	_	_
	AGW	_	1/4" x 7/8"	32 Vac	1-30	1 kA	Fast-acting	_		_	_	
	AGX	_	1/4" × 1-1/4"	250 Vac 250 Vac 125 Vac 125 Vac 32 Vac	1/500-1/2 3/4-2 2-1/2 to 5 6-7 8-30	35 A 100A 100 A 1 kA 1 kA	Fast-acting	E19180, 0-10 A	E19180, 15-30 A	_	х	53787, 15-30 A
	GBB		1/4" x 1-1/4" ceramic	250 Vac 125 Vac	1-30 1-15	200 kA 10 kA	Fast-acting	_	E56412, 1-30 A, 125 Vdc/ 250 Vac		х	53787, 1-30 A, 125 Vdc/ 250 Vac
	GBC	_	1/4" x 31/32"	32 V	5-25	_	Fast-acting		—	_	_	_
Glass tube	GDA	_	5 x 20 mm ceramic	250 Vac	50mA-6.3	1.5 kA	Fast-acting		E19180		Х	53787
tubo	GDB		5x20 mm	250 Vac	32mA-16	35 A	Fast-acting		E19180	_	_	_
	GDC	_	5x20 mm	250 Vac	32mA-6.3	35 A	Fast-acting		E19180	_	_	_
	GMA		5x20 mm	250 Vac 250 Vac 125 Vac 125 Vac 125 Vac 125 Vac	32mA-1 1.2-3 3.15-6 7-10 15	35 A 100 A 1 kA 200 A 150 A	Fast-acting	E19180, 0-6 A	E19180, 7-15 A	_	Х	53787, 0-6 A
	GMC		5x20 mm	250 Vac 250 Vac 125 Vac 125 Vac	63mA-1 1.25-3.15 3.5-6.3 7-10	35 A 100 A 10 kA 200 kA	Time-delay	E19180, 0-6.3 A	E19180, 7-8 A	_	Х	53787, 0-6.3 A
	GMD	_	5x20 mm	250 Vac 250 Vac	125mA-3 4	100 A 200 A	Time-delay	E19180, 125mA-3 A	E19180, 4 A	_	Х	53787, 0-4 A
	MDA	_	1/4" x 1-1/4" ceramic	250 Vac 250 Vac 250 Vac 250 Vac 125 Vac	1/4-1 1-1/2 to 2 2 1/2-10 12-15 20-30	35 A 100 A 200 A 750 A 1.5 kA	Time-delay	E19180, 0-20 A	E19180, 25-30 A	_	х	1422-30, 25-30 A
	MDL	_	1/4" x 1-1/4"	250 Vac 32 Vac	1/16-1 1-1/4 to 3 4-8 9-40	35 A 100 A 200 A 1 kA	– – Time-delay –	E19180, 1/16-8 A	E19180, 9-30 A		х	E19180, 1/16 to 8 A
	MDQ	_	1/4" × 1-1/4"	250 Vac 32 Vac	1/16-1 1-1/4 to 3 4-7 8-30 A	35 A 100 A 200 A 1 kA	- - Time-delay -	E19180, 1/16-7 A	E19180, 7.1-30 A	_	_	47233, 1/16-7 A
	SFE		1/4" x various	32 V	4-30 A	_	Fast-acting	AU169	_		Х	_

\*easyID indicating version

							Agency in	<mark>nformatio</mark>	n		
Fuse type	Catalog symbol	Constuction/size	Volts	Amps	IR	Туре	UL List	UL Rec	SAE	RoHS	CSA
	AMG	_	32 Vdc	80-500 A	1 kA				_	Х	_
	AMI	Bolt-on	32 Vdc	30-200 A	2 kA	—	_	—	_	Х	_
	CBBF		58 Vdc	30-300 A	2 kA			_			_
	FMM	Micro FMX fuse	32 Vdc	15-40 A	1 kA	Time-delay		_	_	Х	_
High amp	FMX, FMX_ID* Female Maxi	6 mm blade on 5.5 mm centers	32 Vdc	20-60 A	1 kA	Time-delay	_	—	—	Х	_
	FMX_LP Low-profile FMX fuse	Low-profile 6 mm blade on 5.5 mm centers	58 Vdc	20-60 A	1 kA @32 Vdc	Time-delay	_	_	—	_	_
	MPF	Multi anan	32 Vdc	30-60 A	1 4 4					Х	
	MPF2	-Multi-amp	58 Vdc	20-50 A	-1 kA	—	_	_	_	~	_
Current	ANN	Bolt-on fuse 2.44	125 Vac 80 Vdc	_10 to 800 A	2.5 kA Vac 2.7 kA Vdc	/	_	E56412	_	Х	53787
limiters	ANL	mm blade centers	32 Vac/ 80 Vdc	35 to 750 A	6 kA Vac 2.7 kA Vdc	Non-time delay	_	E56412		Х	53787
	FLB	-Bolt-on		30-140 A		—	_	—	_	Х	—
	FLD	- Boll-on		30-140 A							
	FLF			20-60 A	_						
Auto cartridge	FLG	-Female	_32 Vdc	50-80 A	– _10 kA						
fuses	FLM	Male	UC	30-120 A	_ 10 KA						
	FLN	Female w/ lock tab		25-30							
	FLS	Female mini		30-40 A	_						
Battery terminal fuses	BTF	Multi-amp	32 Vdc	80-250 A	1 kA	_	_	_	_	Х	_

Circuit		SAE	Constuction/					Agency	informati	ion		
breakers	Catalog symbol		size	Volts	Amps	IR	Туре	UL List	UL Rec	SAE	RoHS	CSA
	CB211	I	Standard	14 Vdc	7-1/2 to 30 15 20 25-30	) 150 A 225 A 300 A 450 A	Automatic	_	_	J553	_	_
	CB212	II	Standard	14 Vdc	7-1/2 to 30 15 20 25-30	) 150 A 225 A 300 A 450 A	Modified		_	J553	_	_
	CB222OS	II	Offset	14 Vdc	5-10 15 20 25-30	150 A 225 A 300 A 450 A	Modified		_	J553, J1171		_
	CB223OS	111	Offset	28 Vdc	5-10 15 20 25-30	150 A 225 A 300 A 450 A	 Manual		_	J553, J1171		_
ATM footprint	CB233		Standard	28 Vdc	5-10 15 20 25-30	100 A 150 A 200 A 300 A	Manual	_	_	J553		_
	MMB		Standard	12 Vdc	15-20 A	300 A	Automatic	_	—	J553	_	_
	ACB			_	_	—	Automotio					
	CB221	-1	—Standard	14 Vdc	7-1/2-30		—Automatic					
	CB222	11	-Standard	12 Vdc	10-30	 150 A	Modified	_		J553, JH71		
	CB223			20.\/da	7-1/2-30		Manual					
	CB227	-111	Std./color code	-28 Vdc	5-30	2 kA	—Manual	—			—	—
	CBB-30	П		24 Vdc	30		Modified				_	
	CCB-25	I	Standard	12 Vdc	25		Automatic			J553		
	FCB-20	П	14.5	14.5 Vdc	20		Modified			1003		
	UCB	I	Std./color code	12 Vdc	6-30		Automatic					

\**easy*ID indicating version

Circuit		SAE						Agency	informat	tion		
breakers	Catalog symbol	type	Constuction/size	Volts	Amps	IR	Туре	UL List	UL Rec	SAE	RoHS	CSA
ΜΑΧΙ	CB1911	I	Standard	14 Vdc	10-50	150 A*	Automatic			J553		
footprint	CB1921	11		12 Vdc	10-30	150 A	Modified		_	0000	_	_
Glass tube	CBF	11	1/4" × 1-1/4"	12 Vdc	6-40	_	Modified	_	_		_	_
	CB123-(amp)B	-111		28 Vdc	10-50	1.5	Manual					
	CB123-(amp)HB	-111		28 VUC	10-50	kA@12Vdc	Ivianuai					
	CBC-	_			8-50			_				
Stud terminal	CBC-(amp)B		10-32, 0.69" ctrs		8-50				—	J553, J1171		_
	CBC-(amp)BWP	I		14 Vdc	20-30	1.5 kA	Automatic					
	CBC-(amp)HB	_			10-50							
	CBP-(amp)BA	_			20-50	_						
Panel	CB174	111	1/4" QC terminals	250 Vac	-10-30	200 A	Manual		1077		Х	
mount	00174			50 Vdc	10-30	200 A	Ivialiual				~	
	CBT-(amp)M	-11			10-30		Modified					
Quick	CBT-(amp)N		-1/4" QC terminals	_	10-30		Automatic		_			
connect	CBU-6	_1	1/4 QC terminais		6	_						
	CBU-30B	1			30		Automatic					
	CB181F			30 Vdc	60-150		Automatic	_			Х	
	CB184F	_	Flush-mt. 14-28		25-150	3 kA						_
	CB185	_		_	23-130		_				_	_
	CB185P		Panel-mt. 14-28	48 Vdc	25-200	—5 kA@12 Vdc	Manual				X	_
Waterproof high amp	CB187F	_	Flush-mt. 14-28	_	25-150	5 KA@12 VUC				J553,	_	_
stud	CB187P		—Panel-mt. 14-28		25-200			_	_	J1171	Х	_
	CB251	I		-32 Vdc	25-150		Automatic	_				
	CB255			52 VUC	20-100	2.5 kA						
	CB285		Flush-mt. M6	42 Vdc	30-150		Manual					
	CB285P		Panel-mt. M6	48 Vdc	25-150							

BUSSMANN

\* Interrupting rating varies with circuit breaker amp rating.

	Catalog		Constuction/					Agency in	<mark>formatio</mark>	on		
Fuse type	symbol	Class	size	Volts	Amps	IR	Туре	UL List	UL Rec	SAE	RoHS	CSA
	TL	_	_		15-30		Time-delay	E12112	—	—	—	_
	Т	_	Edison base	125 Vac	3/10-30	10 kA	Dual element time-delay	E56412, 0-6-1/4 A E12112 7-30 A	_	_	_	53787
Plug	тс	CSA Type D					Dual element time-delay		—		—	53787
Flug	Ρ	CSA Type P			15-30	—	General purpose	_	—		—	53787
	SL	—	_	-			Time-delay	E12112	_	_	_	_
-	S	_	- Rejection base		1/4-30	10 kA	Dual element time-delay	E56412, 0-6-1/4 A E12112 7-30 A	_		_	53787

For product information and data sheets, visit Eaton.com/BussmannConsumer

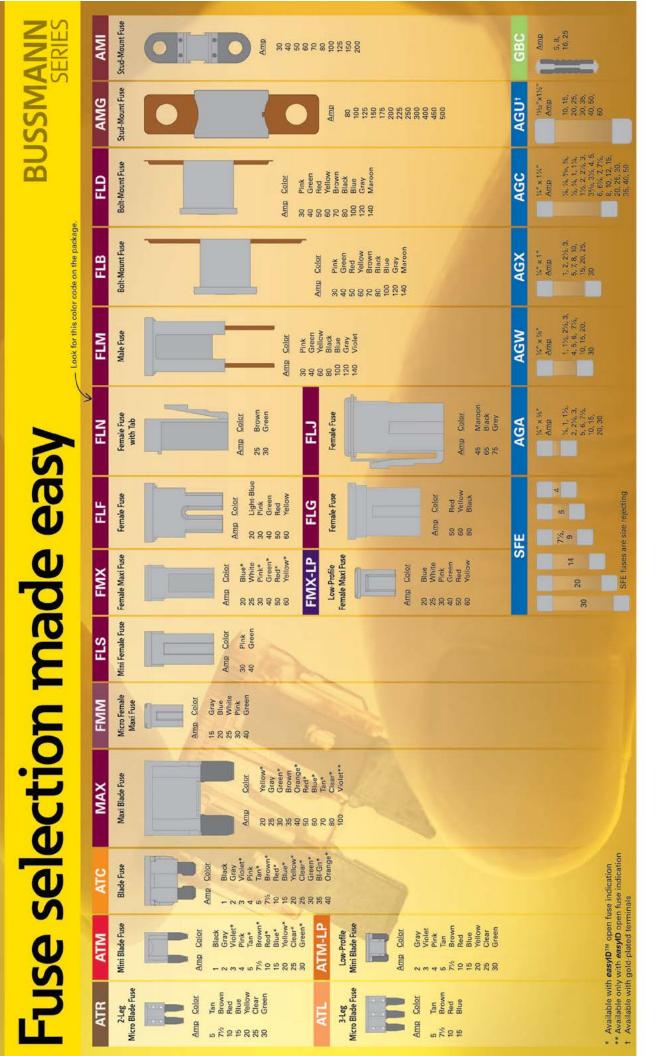
	Catalog		Constuction/					Agency i	nformati	on		
Fuse type	symbol	Class	size	Volts	Amps	IR	Туре	UL List	UL Red	SAE	RoHS	CSA
					1/4-1	35 A	_					
					1-1/2 to 3	100 A	_					
				250 Vac	4-10	200 A						
	BAF	Midget	Ferrule		12-15	750 A	Fast-acting	E19180	_	_	Х	53787
					20-30	200 A	_					
				125 Vac	1/4-30	10 kA						
	CDN	CSA	Ferrule	-250 Vac	1-60	– 10 kA	Gen. purpose					C22.2,
	CDN	Type D	Blade	-250 Vac	70-600	- 10 KA	Time-delay	_				No.59.1
					1/10-1	35 A	_					
				250 Vac	1-1/8 to 3-1/2	100 A	_					
	FNM	Midget	Ferrule		4-10	200 A	– Time-delay	E19180	_	_	Х	53787
		0			12-30	10 kA	- ,					
				125 Vac	1/10-30	10 kA						
	FNQ	Midget	Ferrule	500 Vac	1/10-30	10 kA	Time-delay	E19180		_	Х	53787
	FNQ-R	CC	Ferrule	600 Vac	1/4-30 A	200 kA	Time-delay	E4273	—	—	Х	53787
	FRN-R FRN-R_ ID**	DKE	Ferrule	0501/	1/10-60	000 1 4		E 1070				50707
Cartridge		RK5	Blade	-250 Vac	70-600	-200 kA	Time-delay	E4273	_			53787
	FRS-R		Ferrule		1/16-60				1273 — —			
	FRS-R FRS-R_ID**	RK5	Blade	—600 Vac	70-600	-200 kA	Time-delay	E4273	—	_		53787
	JJN	Т	Blade style	300 Vac	110-400	200 kA	Very fast- acting	E4273	_	_	Х	53787
	KTK	Midget	Ferrule	600 Vac	1/10-30	100 kA	Fast-acting	E19180	—	—	Х	53787
	KTK-R	СС	Ferrule	600 Vac	1/10-30	200 kA	Fast-acting	E4273	_	_	Х	53787
	NON	H(K)	Ferrule	-250 Vac	1/8-60	50 kA	_General	E4273	_	_	_	53787
			Blade Ferrule		65-600 1-60	10 kA 50 kA	purpose General				_	
	NOS	H(K)	Blade	-600 Vac	70-600	10 kA	_ purpose	E4273	_	—	_	53787
	DON	CSA	Ferrule		1-60	- 10   1	General					C22.2,
	PON	Type P	Blade	-250 Vac	70-600	- 10 kA	purpose		—	_		No.59.1
			13/32" x 15/16"		1-6	_	Fast-acting	_				
			ferrule	-600 Vac	7-15	_						
	66	<u> </u>	13/32" x 1-13/32 ferrule		20	100 1.4		F 4070			V	60707
	SC	G	13/32" x 1-5/8"	— 480 Vac	25-30	– 100 kA	Time-delay	E4273	—	—	Х	53787
			forrulo		35-60	_						

\**easy*ID indicating version

Circuit		Constuction/					Agency in	nformation	l	
breakers	Catalog symbol	size	Volts	Amps	IR	Reset type	UL List	UL Rec	RoHS	CSA
Plug fuse	BP/MB	– Edison plug thread	105 \/aa	15 and 20		Manual	E14942	—	—	
	CP/MB		l 125 Vac 15 and 20 ·	_	Manual	_	_	_	013089	

# Catalog number index

Catalog no.	Page	Catalog no.	Page	Catalog no.	Page	Catalog no.	Page	Catalog no.	Page
12023A	37	BP/ATC-FHID	13	BP/MDL-	35, 41	FLG	10	NO-468	26
12040816	19	BP/ATC-TAP-RP	14	BP/MDL-AL	52	FLJ	10	NO-470	26
12135072	18	BP/ATL-A4-RPP	28	BP/MPR-1	25	FLM	10	NO-487	26
12135171 13023A	18 37	BP/ATMID BP/ATMLP-RP	8 7	BP/MPT BP/NON-	25 43	FLN FLS-	10 10	NO.53 NO.535	27 26
1314A	36	BP/ATMRP	7	BP/NON-AL	43 52	FMM	9	NO.550	26
1315A	36	BP/ATM-A5-RP	28	BP/P	49	FMX	9	NO.552	26
1560020 1560021	16 16	BP/ATM-A6LP-RP BP/ATM-A8-RP	28 28	BP/PON_ BP/S	45 49	FMXLP FNM	9 47	NO.575 NO.577	26 26
15968-1	25	BP/ATM-AH8-RPP	28	BP/SRP	17	FNQ	47	NO.60LP	26
24023A	37	BP/ATM-AID	8, 28	BP/SA	49	FNQ-R FP-2	47 51	NO.64	27
2FTHDWR-KIT 2FTHDWR-TAGS	53 53	BP/ATM-AL8-RP BP/ATM-FHID	28 13	BP/SA-A BP/SC	52 47	FP-2 FP-3	51	NO.726 NO.727	26 26
4527053	19	BP/ATM-TAP-RP	14	BP/SC-A	52	FP-4	51	NO-727-LED	26
4FTAUTO-KIT	32	BP/ATRRP BP/ATR-A7-RPP	7	BP/SDA BP/SDN	25 25	FP-6 FP-A3	51 51	NO-750-LED	26
4FTAUTO-TAGS 702	32 37	BP/BMS-	28 25	BP/SFERP	41	FP-ATC- ID	15	NO.756 NO.757	26 26
9523A	37	BP/C5237BC	24	BP/SFE-AH6-RP	28	FP-ATMID	15	NO.758	26
ABC	40 19	BP/CB_HB-CVR BP/CB185-	20, 36 22	BP/SFE-AL6-RP BP/SL-	28 49	FRN-R FRN-R- ID	44 44	NO-758-LED NO.759	22 26
ACB-20 AFC-225	32	BP/CB1938	24	BP/SOU	50	FRS-R	45	NO.760	26
AFC-90	32	BP/CB211RP	18	BP/SRA	25	FRS-RID	45	NO-760-LED	26
AGA AGC-	40 40	BP/CB285F BP/CBB-30-RP	35 19	BP/SRB BP/SRG	25 25	FT-2 FT-3	51 51	NO.761 NO.762	26 26
AGC-EK	27	BP/CBC- B-RP	20	BP/SRN	25	FUSE-CADDY1	30, 31	NO-762-LED	26
AGU	41	BP/CBCHB-RP	21	BP/SRR	25	FUSE-CADDY2	30, 31	NO.763	26
AGUGP AGW	41 40	BP/CBFRP BP/CBP- BA-RP	20 21	BP/SRU BP/SSU	50 50	GBBR GBC	40 41	NO.764 NO.80	26 27
AGX	40	BP/CDN_	45	BP/SSY	50	GDAA	42	NO.850	26
AMG	12	BP/EFC	28	BP/STA	25	GDBA	42	NO.852	26
AMI ANL	12 17	BP/FB_ BP/FCB-20	15 19	BP/STB BP/STC	25 25	GDCA GMA- A	42 42	NO.95BK NON-	29 43
ANN	17	BP/FL-14	17	BP/STE	25	GMCA	42	NON-EK	52
ATC-	7	BP/FL-16	17	BP/STF BP/STG	25 25	GMDA	42 52	NOS PPK4	43
ATCRLD ATC-FHID	7, 32 13	BP/FLBRP BP/FLDRP	10 10	BP/STJ	25	HEF-1 HEF-2	52 52	PPK4 P-EK	49 52
ATC-FP-AID	8, 28	BP/FLFRP	10	BP/STK	25	HFA	14	PON_	45
ATC-ID-SK	8, 27	BP/FLGRP BP/FLMRP	10	BP/STR BP/STT	25 25	HFB-R HH2	14 13	RB-BI-120A	37
ATL ATM-	7 7	BP/FLNRP	10 10	BP/T-	48	HHB	13	RB-BI-130A RB-BI-240A	37 37
ATMLP	7	BP/FLNRP BP/FLSRP	10	BP/TBRP	24	HHC	13	RB-BI-70A	37
ATMRLD	7, 32	BP/FLW-14	17 9	BP/TC BP/TL-	49 48	HHD HHF	13 13	RB-BI-95A	37 37
ATM-FHID ATM-FMX-EK	13 27	BP/FMMRP BP/FMX- ID	9	BP/UCBRP	48 19	HHG	13	RB-BIK-1882 RB-BS-1314	37
ATM-FP-AID	8, 28	BP/FMXLP-RP	9	BP/XMAS-6F	52	ННК	14	RB-BS-1315	36
ATM-ID-SK ATM-LP-EK	8, 27 27	BP/FMXRP BP/FMX-A3-RP	9 28	BTFP CB-CVR	11 20, 36	HHL HHM	13 13	RB-GM-KIT RB-SPP-240PN	37 50
ATR	7	BP/FNM-	47	CB123- B	20, 30	HHN	13	RTMF	15
BAF	46	BP/FNM-AH	52	CB123HB	20	HHR	13	RTMF	15
BK/ATC BK/ATCID	7 8	BP/FNM-AL BP/FP-2	52 51	CB174 CB181F-	21 22	HHU HHX	13 13	S S-8202-	49 17
BK/ATL-	7	BP/FP-3	51	CB184F	22	НКР	14	S-8301-	17
BK/ATM	7	BP/FP-A3-RP	51	CB185	22	HKP-HH	14	SA	49
BK/ATMID BK/ATM- LP	8 7	BP/FP-ATC-06ID BP/FP-ATM-06ID	15 15	CB185P CB187F-	22 35	HLR HMEG	14 11	SC SFE-	47 41
BK/CB-CVR	20, 36	BP/FRN-AH	52	CB187P	35	HMID	11	SFR	17
BK/FMM	9 7	BP/FRN-AL	52 44	CB1911 CB1921-	20 20	HMJ HMK	14 14	SL SL- PK4	49 49
BK/MAX BK/MAX- ID	8	BP/FRN-R BP/FRN-R- ID	44	CB1921 CB1938	20	HRH	14	SL-EK	49 52
BK/MPF2X	9	BP/FRS-R-	45	CB211	18	HRI	14	SOU	50
BK/MPFX BK/UCB	9 19	BP/FT-2 BP/FT-3-RP	51 51	CB212 CB221	18 19	HRJ HRK	14 14	SRU SSN	50 50
BMS-	25	BP/GBCRP	41	CB222-	19	HTB-26I	14	SSU	50
BP/15600	16	BP/GBC-A8-RP	28	CB222OS	18	HTB-38I	14	SSY	50
BP/232-RP BP/233-RP	26 26	BP/GDC-5A BP/GMAA	42 42	CB223 CB223OS-	19 18	HTB-68I HTB-88I	14 14	SSY-RL STY	50 50
BP/233-RP	26	BP/GMA-5A	52	CB22303 CB227	19	JB3816	24	T-	48
BP/550-RP	26	BP/GMA-5XM	52	CB22901-1.5	18	JJN	36	TB200B	24
BP/552-RP BP/575-RP	26 26	BP/GMA-AH BP/GMA-AL	52 52	CB22902-68 CB22903-6	18 18	KTK KTK-R	46 46	TB300B TCPK4	24 49
BP/577-RP	26	BP/GMC	42	CB22903-6V	18	MA-5	28, 35	TC-EK	52
BP/726-RP	26	BP/HFB-RP	13	CB233	18	MAX	7	TL	48
BP/727-RP BP/756-RP	26 26	BP/HHA-RP BP/HHB-RP	14 14	CB234 CB251	19 35	MAX-FHID MDA	13 41	TLPK4 TL-EK	48 52
BP/757-RP	26	BP/HHC-RP	13	CB255	35	MDL	41	UCB	19
BP/758-RP	26 26	BP/HHD-30-RP BP/HHD-RP	13 13	CB285F CBB-30	23 19	MDQ	41	VP/ATCID VP/ATCRP	8 7
BP/759-RP BP/760-RP	26	BP/HHD-RP BP/HHF-RP	13	CBB-30 CBBF	36	MMB MPF2X	18 9	VP/ATCRP VP/ATMID	8
BP/761-RP	26	BP/HHG-RP	13	CBBF-MCB	36	MPFX	9	VP/ATMLP-RP	7
BP/762-RP BP/ABC-	26 40	BP/HHH-RP BP/HHK-RP	14 14	CBC CBCB	20 20	MUSB MUSB	11	VP/ATMRP	7
BP/ABC BP/ABC-A	40 52	BP/HHLP-RP	14	CBC- BWP	20	NO.105	11 29		
BP/AGARP	40	BP/HHL-RP	13	CBCHB	21	NO.108BK	35		
BP/AGA-AH8-RP BP/AGA-AL8-RP	28 28	BP/HHM-RP BP/HHN-RP	13 14	CBF CBP- BA	20 21	NO.136 NO.160BK	29 29		
BP/AGCRP	40	BP/HHR	13	CBPFM	16	NO.216-R	51		
BP/AGC-A5-RP	28	BP/HHS-RP	13	CBPRM	16	NO.225	32		
BP/AGC-AH10-RP BP/AGC-AL10-RP	28, 35 28	BP/HHTR-RP BP/HHU	14 13	CBTM CBT- N	21 21	NO.227 NO.232	32 26		
BP/AGC-SFE-A5-RP	28, 35	BP/HHV-RP	13	CBU-30B	21	NO.233	26		
BP/AGURP	41	BP/HKP-HH-RP	14	CCB-25	19	NO.234	26		
BP/AGUGP-RP BP/AGWRP	41 40	BP/HMJ-RP BP/HMK-RP	14 14	CDN_ CDY10TRY	45 30, 31	NO.24 NO.243	27 26		
BP/AGW-A8-RP	28	BP/HRK-RP	14	CDY5TRY	30, 31	NO.244	26		
BP/AGX-7X5	52 28	BP/JB3816-2 BP/KTK	24 46	CP/MB D9AB-14526-BA	49 19	NO.246	26 51		
BP/AGX-A8-RP BP/AMGRP	28 12	BP/MAS-3A	46 52	D9AB-14526-BA DIA-1	28	NO.2621-R NO.263	51		
BP/ATCID	8	BP/MAS-3A-CS	52	DIA-2	28	NO.263-R	51		
BP/ATCRP BP/ATC-A5-RP	7 28	BP/MAS-3X5 BP/MAXID	52 8	DIA-3 FCB-20	28 19	NO.290 NO.43	30 27		
BP/ATC-AH8-RPP	28	BP/MAXRP	7	FLB	10	NO.44	27		
BP/ATC-AID	8, 28	BP/MAX-A3-RP	28	FLD	10	NO.45	29		
BP/ATC-AL8-RP	28	BP/MB	48	FLF	10	NO-455	26		



Powering Business Worldwide

# Customer satisfaction team:

Available to answer questions regarding Bussmann series products and services Monday-Friday, 7:00 a.m. – 6:00 p.m. Central time.

- Toll-free phone: 855-287-7626 (855-BUSSMANN)
- Toll-free fax: 800-544-2570
- Email: BussCustSat@Eaton.com

# Emergency and after-hours orders:

Next flight out or will call shipment for time-critical needs. Customers pay only standard product price, rush freight charges, and modest emergency service fee. Place these orders through the customer satisfaction team during regular business hours.

• After hours: 314-995-1342

# My.Eaton.com:

Provides real time product availability, net pricing, order status and shipment tracking. Log onto My.Eaton.com or call:

• 1-800-468-1705 Option #3 for log-in assistance.

# Application engineering:

Technical assistance is available to all customers. Application support is available Monday-Friday, 7:00 a.m. – 5:00 p.m. Central time.

- Toll-free phone: 855-287-7626 (855-BUSSMANN)
- Email: FuseTech@Eaton.com

Eaton, Bussmann, ATC, *eas*yID, Fusetron and MAXI are valuable trademarks of Eaton in the US and other countries. You are not permitted to use the Eaton trademarks without prior written consent of Eaton.

Chrysler is a registered trademark of FCA US LLC. CSA is a registered trademark of the Canadian Standards Group. Delco is a registered trademark of General Motors. Ford and Mercury are registered trademarks of Ford Motor Company. Mitsubishi is a registered trademark of Mitsubishi Motors North American, Inc. Suzuki is a registered trademark of Suzuki Motor of America, Inc. Honda and Acura are registered trademarks of American Honda Motor Company, Inc. Mack is a registered trademark of Mack Trucks, Inc. Navistar is a registered trademark of the International Truck and Engine Corporation. Nissan and Infiniti are registered trademarks of Nissan North America. Inc.

of Nissan North America, Inc. Toyota, Lexus and Scion are registered trademarks of Toyota Motor Sales. USA, Inc. UL is a registered trademark of the Underwriters Laboratories, Inc. For Eaton's Bussmann series product information, call 1-855-287-7626 or visit: Eaton.com/BussmannConsumer

Follow us on social media to get the latest product and support information.





1000 Eaton Boulevard Cleveland, OH 44122 Eaton.com

Eaton

Bussmann Division 114 Old State Road Ellisville, MO 63021 United States Eaton.com/bussmannseries

© 2018 Eaton All Rights Reserved Printed in USA Publication No. 5084 February 2018