

Fusetron™ FRN-R Class RK5 250Vac/125Vdc 1/10-60A, dual element, time-delay fuses



Catalog symbols:

- FRN-R_ (non-indicating)
- FRN-R_ID (indicating)

Description:

Eaton Bussmann® series advanced protection, energy efficient FRN-R Class RK5 dual element, current-limiting, time-delay fuses with optional open fuse indication on select ratings. Time-delay – 10 seconds (minimum) at 500% of rated current (8 seconds for 1/10-30A sizes).

Specifications:

Ratings

- Volts
 - 250Vac
 - 125Vdc
- Amps 1/10-60A
- Interrupting rating
 - 200kA Vac RMS Sym.
 - 20kA Vdc

Agency information

- UL Listed, Std. 248-12, Class RK-5, Guide JDDZ, File E4273
- CSA Certified, C22.2 No. 248.12, Class 1422-02, File 53787
- CE

Catalog numbers (amps) — non-indicating fuses

FRN-R-1/10	FRN-R-1-8/10	FRN-R-8*
FRN-R-1/8	FRN-R-2	FRN-R-9*
FRN-R-15/100	FRN-R-2-1/4	FRN-R-10*
FRN-R-2/10	FRN-R-2-1/2	FRN-R-12*
FRN-R-1/4	FRN-R-2-8/10	FRN-R-15*
FRN-R-3/10	FRN-R-3	FRN-R-17-1/2*
FRN-R-4/10	FRN-R-3-2/10	FRN-R-20*
FRN-R-1/2	FRN-R-3-1/2	FRN-R-25*
FRN-R-6/10	FRN-R-4	FRN-R-30*
FRN-R-8/10	FRN-R-4-1/2	FRN-R-35*
FRN-R-1	FRN-R-5	FRN-R-40*
FRN-R-1-1/8	FRN-R-5-6/10	FRN-R-45*
FRN-R-1-1/4	FRN-R-6	FRN-R-50*
FRN-R-1-4/10	FRN-R-6-1/4	FRN-R-60*
FRN-R-1-1/2	FRN-R-7	
FRN-R-1-6/10	FRN-R-7-1/2	

* Open fuse indication available by inserting the suffix "ID." E.g., FRN-R-15ID.

Carton Quantity:

Amp rating	Carton qty.
1/10 – 60	10

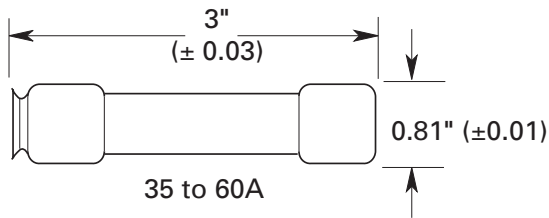
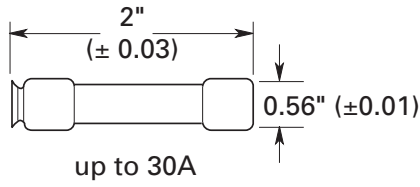
Features:

- Provides motor overload, ground fault and short-circuit protection
- Helps protect motors against burnout from overloads
- Helps protect motors against burnout from single-phasing on three-phase systems
- Simplifies and improves blackout prevention (selective coordination)
- Dual-element fuses can be applied in circuits subject to temporary motor overloads and surge currents to provide both high performance short-circuit and overload protection
- The overload element provides protection against low level overcurrent of overloads and will hold an overload which is five times greater than the ampere rating of the fuse for a minimum of ten seconds



Powering Business Worldwide

Dimensions - in:



Recommended fuse blocks:

Fuse amps	1-pole	2-pole	3-pole
up to 30	RM25030-1_	RM25030-2_	RM25030-3_
35 to 60	RM25060-1CR	RM25060-2CR	RM25060-3CR

For additional information see data sheet no. 10289.

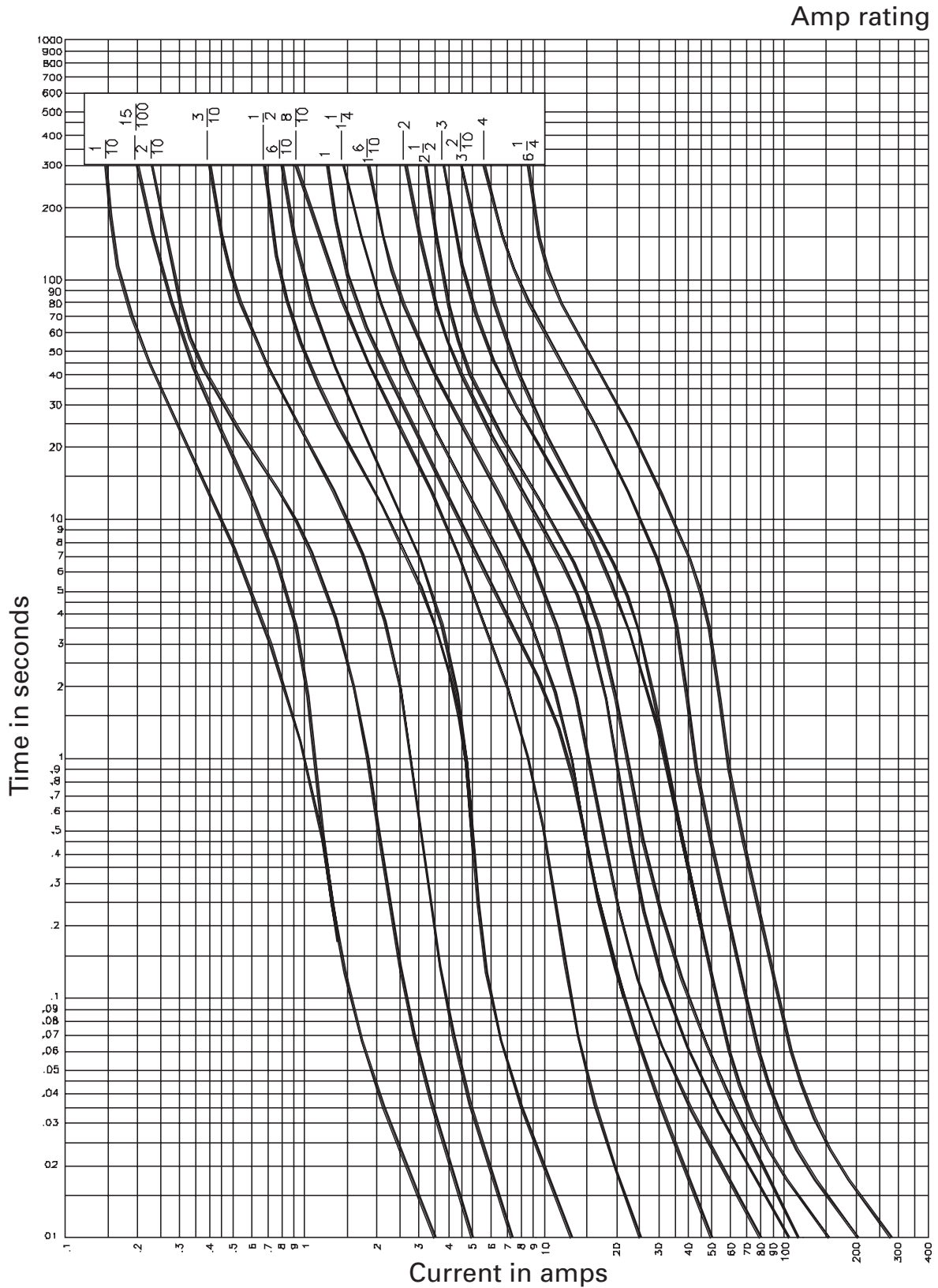
Fuse reducers for Class R fuses

Fuse size	Amp size of fuse block or disconnect switch	Catalog no. (pairs)
Up to 30A	60A	No.263-R
Up to 30A	100A	No.213-R
35 to 60A		No.216-R
35 to 60A	200A	No.226-R

For additional information on Class R fuse reducers, see data sheet no 1118.

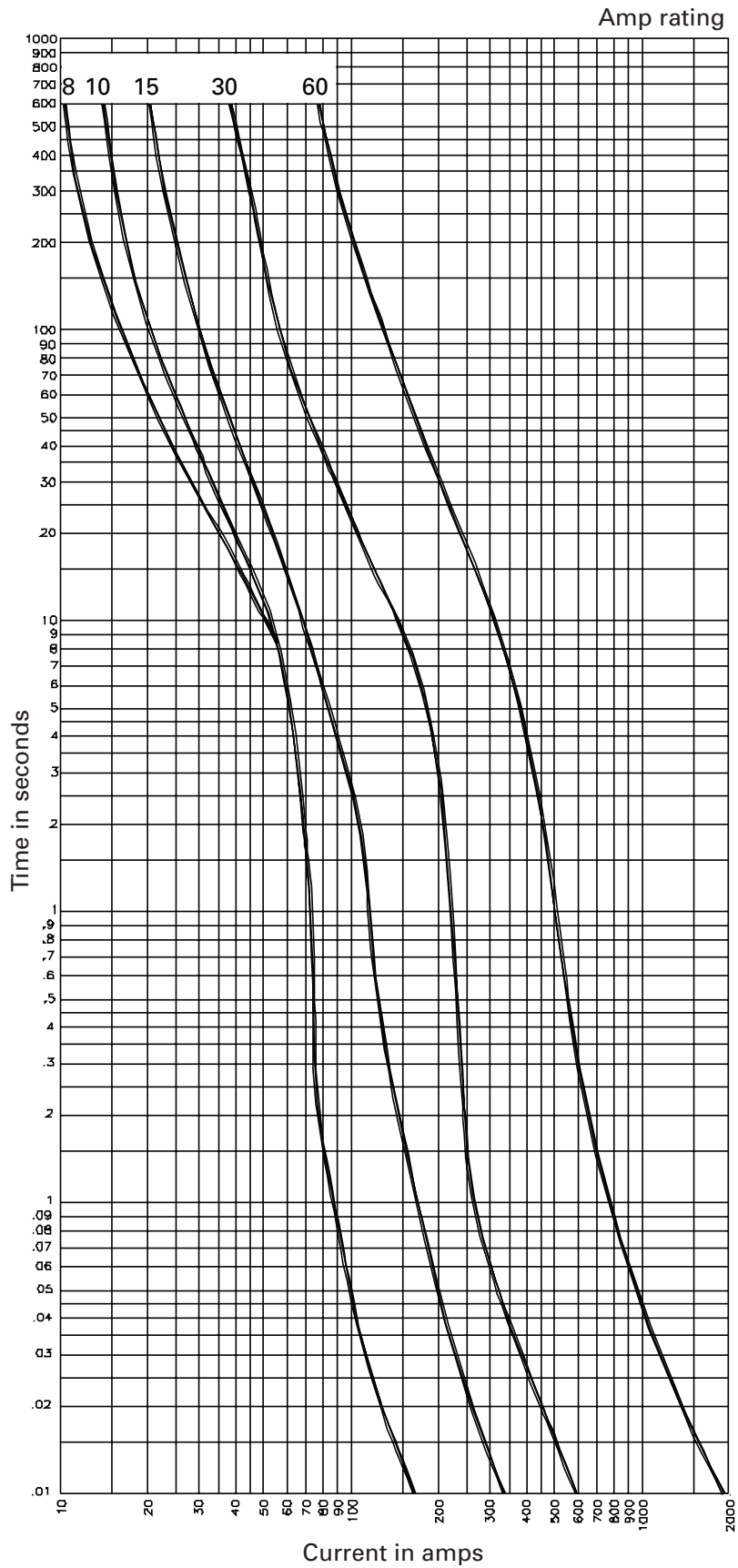
Time-current curves — average melt:

1/10 to 6-1/4 amps

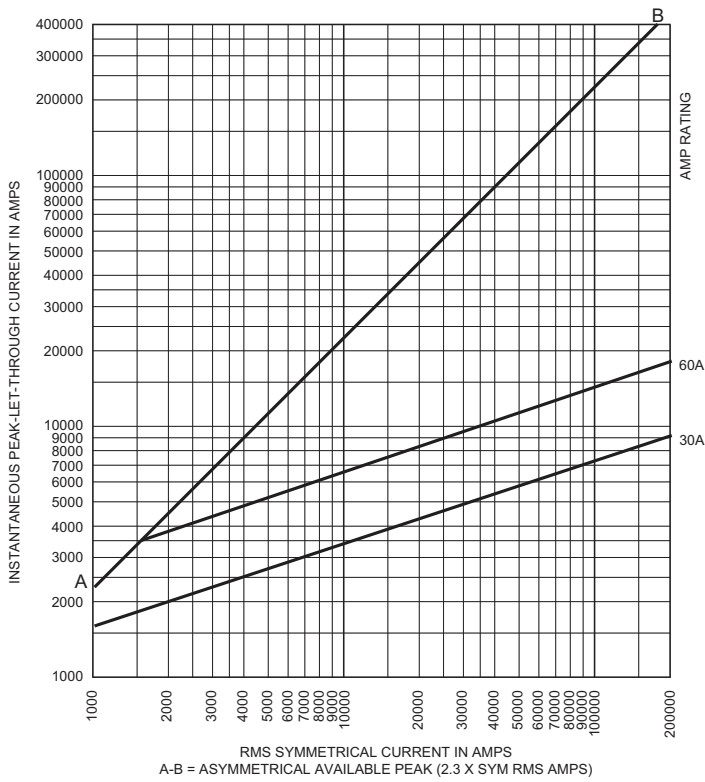


Time-current curves — average melt:

8 to 60 amps



Current-limitation curves:



Current-limiting effects:

Prosp. S.C.C.	Let-through current (apparent RMS Sym. vs. fuse rating)	
	30A	60A
—	30A	60A
5000	1000	2000
10,000	2000	3000
15,000	2000	3000
20,000	2000	4000
25,000	2000	4000
30,000	2000	4000
35,000	2000	4000
40,000	2000	5000
50,000	3000	5000
60,000	3000	5000
70,000	3000	6000
80,000	3000	6000
90,000	3000	6000
100,000	3000	6000
150,000	4000	7000
200,000	4000	8000

The only controlled copy of this data sheet is the electronic read-only version located on the Eaton network drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Eaton 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 bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
Eaton.com

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

© 2016 Eaton
All Rights Reserved
Printed in USA
Publication No. 1019 — BU-SB13730
February 2016

Eaton, Bussmann and Fusetron are valuable trademarks of Eaton in the U.S. and other countries. You are not permitted to use the Eaton trademarks without prior written consent of Eaton.

For Eaton's Bussmann series
product information,
call **1-855-287-7626** or visit:
Eaton.com/bussmannseries

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



Fusetron™ FRN-R Class RK5 250Vac/125Vdc 1/10-60A, dual element, time-delay fuses



Catalog symbols:

- FRN-R_ (non-indicating)
- FRN-R_ID (indicating)

Description:

Eaton Bussmann® series advanced protection, energy efficient FRN-R Class RK5 dual element, current-limiting, time-delay fuses with optional open fuse indication on select ratings. Time-delay – 10 seconds (minimum) at 500% of rated current (8 seconds for 1/10-30A sizes).

Specifications:

Ratings

- Volts
 - 250Vac
 - 125Vdc
- Amps 1/10-60A
- Interrupting rating
 - 200kA Vac RMS Sym.
 - 20kA Vdc

Agency information

- UL Listed, Std. 248-12, Class RK-5, Guide JDDZ, File E4273
- CSA Certified, C22.2 No. 248.12, Class 1422-02, File 53787
- CE

Catalog numbers (amps) — non-indicating fuses

FRN-R-1/10	FRN-R-1-8/10	FRN-R-8*
FRN-R-1/8	FRN-R-2	FRN-R-9*
FRN-R-15/100	FRN-R-2-1/4	FRN-R-10*
FRN-R-2/10	FRN-R-2-1/2	FRN-R-12*
FRN-R-1/4	FRN-R-2-8/10	FRN-R-15*
FRN-R-3/10	FRN-R-3	FRN-R-17-1/2*
FRN-R-4/10	FRN-R-3-2/10	FRN-R-20*
FRN-R-1/2	FRN-R-3-1/2	FRN-R-25*
FRN-R-6/10	FRN-R-4	FRN-R-30*
FRN-R-8/10	FRN-R-4-1/2	FRN-R-35*
FRN-R-1	FRN-R-5	FRN-R-40*
FRN-R-1-1/8	FRN-R-5-6/10	FRN-R-45*
FRN-R-1-1/4	FRN-R-6	FRN-R-50*
FRN-R-1-4/10	FRN-R-6-1/4	FRN-R-60*
FRN-R-1-1/2	FRN-R-7	
FRN-R-1-6/10	FRN-R-7-1/2	

* Open fuse indication available by inserting the suffix "ID."
E.g., FRN-R-15ID.

Carton Quantity:

Amp rating	Carton qty.
1/10 – 60	10

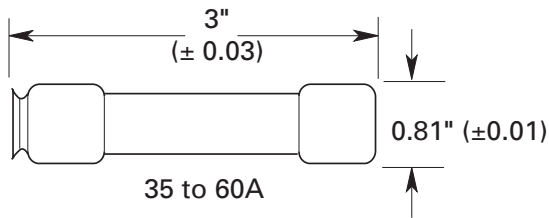
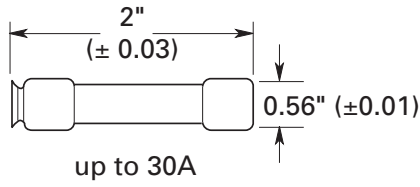
Features:

- Provides motor overload, ground fault and short-circuit protection
- Helps protect motors against burnout from overloads
- Helps protect motors against burnout from single-phasing on three-phase systems
- Simplifies and improves blackout prevention (selective coordination)
- Dual-element fuses can be applied in circuits subject to temporary motor overloads and surge currents to provide both high performance short-circuit and overload protection
- The overload element provides protection against low level overcurrent of overloads and will hold an overload which is five times greater than the ampere rating of the fuse for a minimum of ten seconds



Powering Business Worldwide

Dimensions - in:



Recommended fuse blocks:

Fuse amps	1-pole	2-pole	3-pole
up to 30	RM25030-1_	RM25030-2_	RM25030-3_
35 to 60	RM25060-1CR	RM25060-2CR	RM25060-3CR

For additional information see data sheet no. 10289.

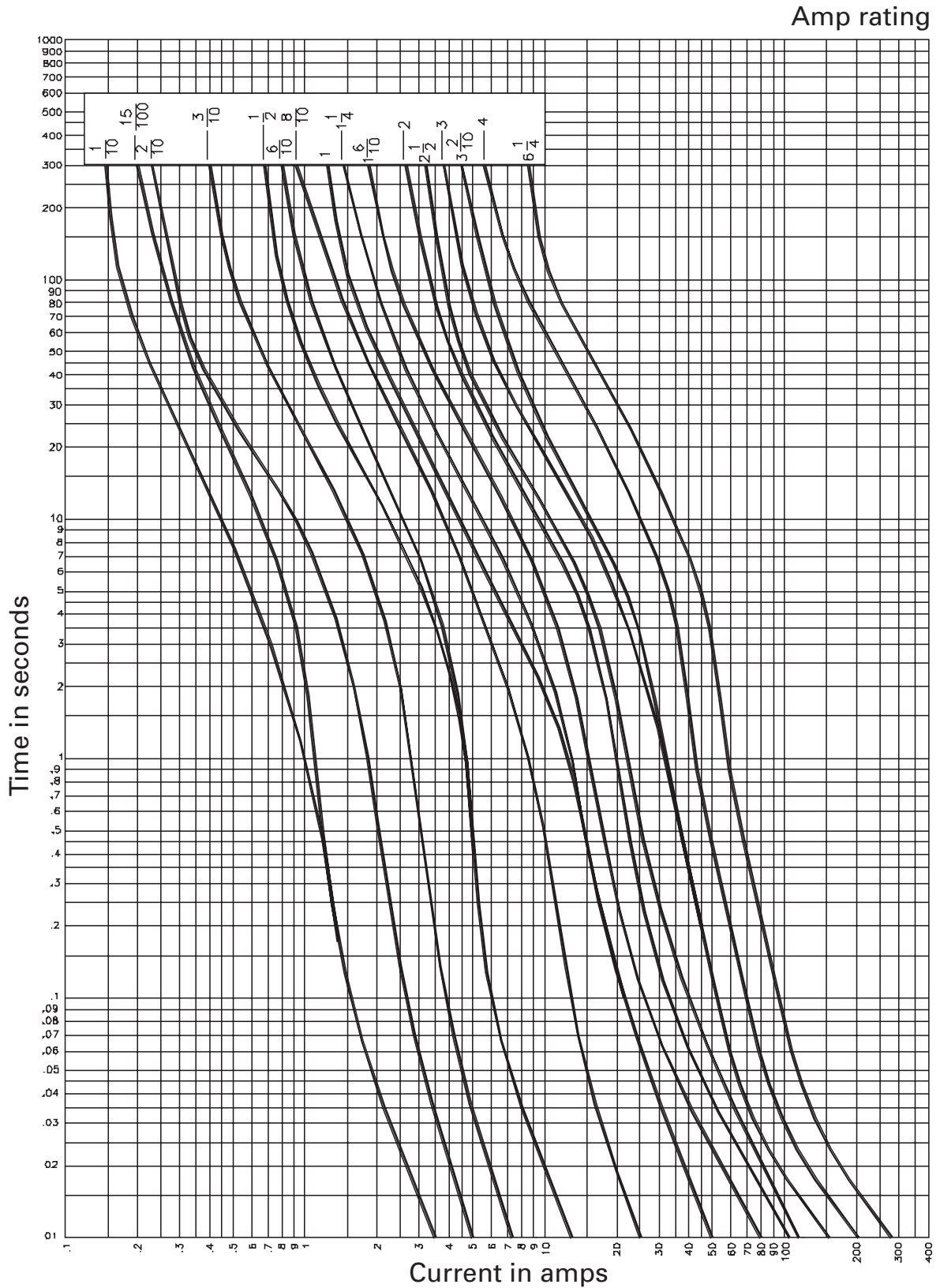
Fuse reducers for Class R fuses

Fuse size	Amp size of fuse block or disconnect switch	Catalog no. (pairs)
Up to 30A	60A	No.263-R
Up to 30A	100A	No.213-R
35 to 60A		No.216-R
35 to 60A	200A	No.226-R

For additional information on Class R fuse reducers, see data sheet no 1118.

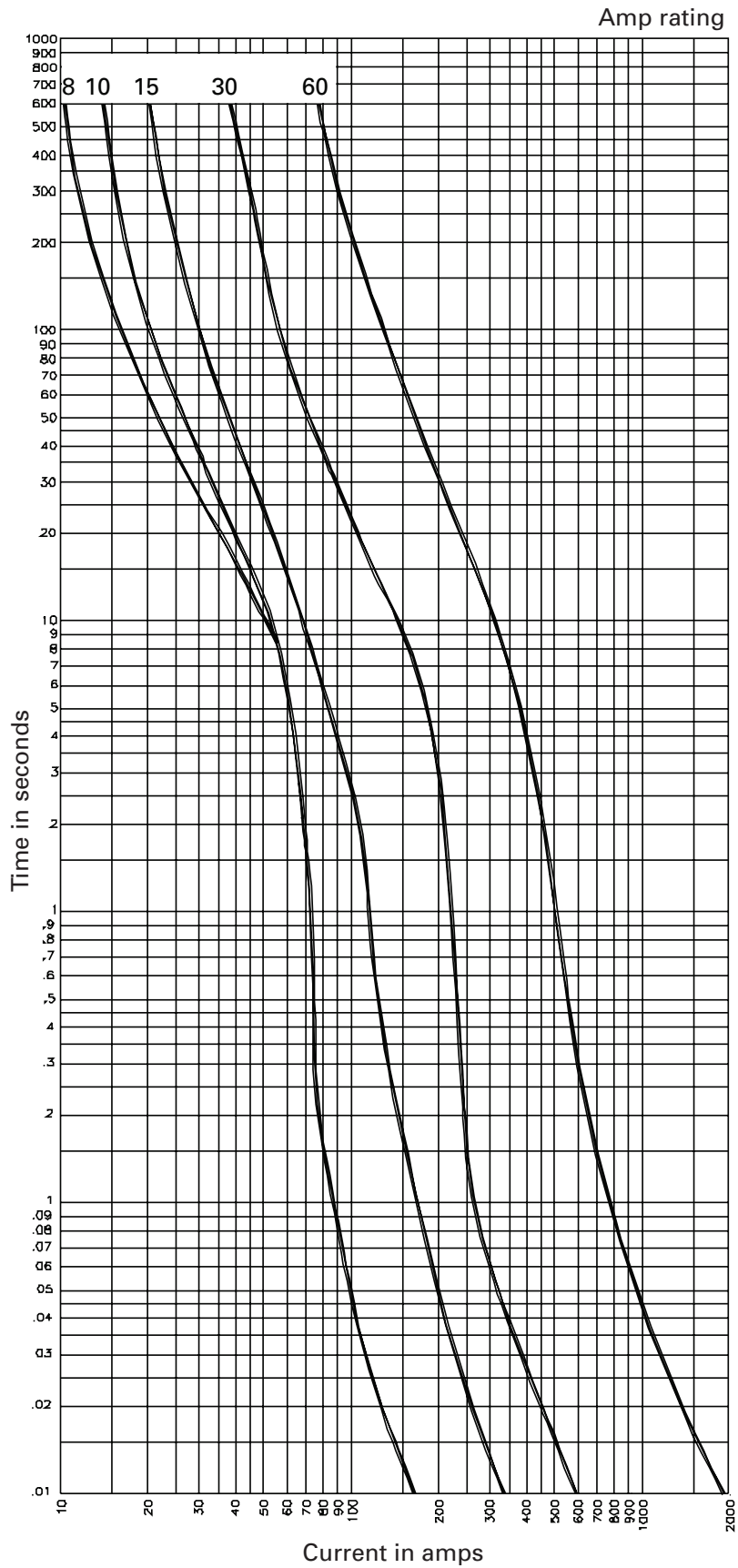
Time-current curves — average melt:

1/10 to 6-1/4 amps

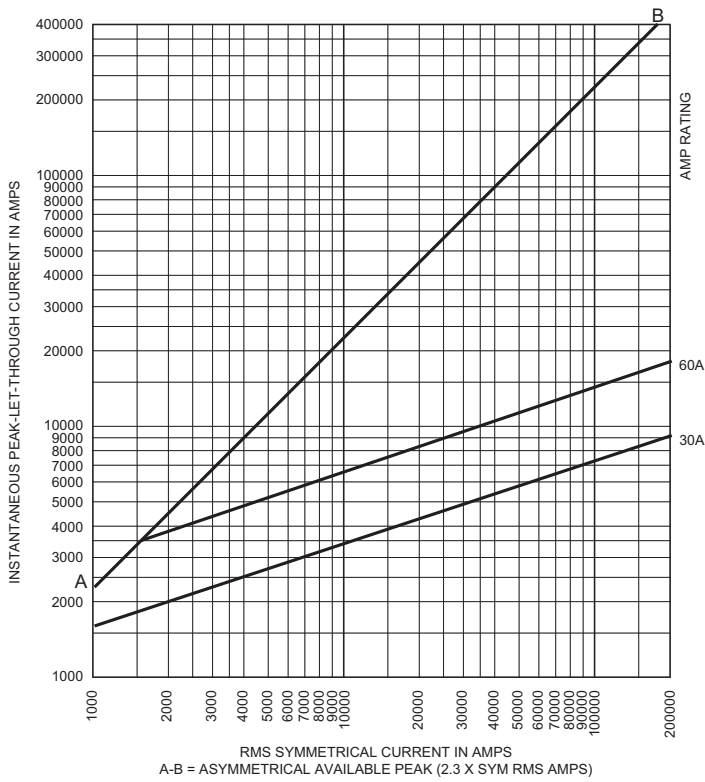


Time-current curves — average melt:

8 to 60 amps



Current-limitation curves:



Current-limiting effects:

Prosp. S.C.C.	Let-through current (apparent RMS Sym. vs. fuse rating)	
	30A	60A
—	30A	60A
5000	1000	2000
10,000	2000	3000
15,000	2000	3000
20,000	2000	4000
25,000	2000	4000
30,000	2000	4000
35,000	2000	4000
40,000	2000	5000
50,000	3000	5000
60,000	3000	5000
70,000	3000	6000
80,000	3000	6000
90,000	3000	6000
100,000	3000	6000
150,000	4000	7000
200,000	4000	8000

The only controlled copy of this data sheet is the electronic read-only version located on the Eaton network drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Eaton 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 bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
Eaton.com

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

© 2016 Eaton
All Rights Reserved
Printed in USA
Publication No. 1019 — BU-SB13730
February 2016

Eaton, Bussmann and Fusetron are valuable trademarks of Eaton in the U.S. and other countries. You are not permitted to use the Eaton trademarks without prior written consent of Eaton.

For Eaton's Bussmann series
product information,
call **1-855-287-7626** or visit:
Eaton.com/bussmannseries

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

