

# Limitor<sup>®</sup> - aSJB/D Back-up Fuses

3,6kV to 12kV - with Trip Indicator

## HIGH VOLTAGE IEC FUSES

## DIN HV BACK-UP FUSES FOR MOTORS



Mersen HV fuse-links have been used for reliable protection in high-voltage switchgear and controlgear and high-voltage systems for decades.

Mersen HV fuse link for motor protection is specially designed to protect HV motors against the effect of short circuit current and support repeated peak currents due motor starting.

Mersen uses the best materials : fuse elements are in pure silver, caps are in silver-plated brass and body is in melamine fiber glass.

As defined in the IEC 60644 the coefficient K is 0.51.

## TECHNICAL DATA

	<b>3,6kV 192mm</b>	<b>3,6kV 292mm</b>	<b>7,2kV 292mm</b>	<b>7,2kV 442mm</b>	<b>12kV 442mm</b>
Rated current	32 ... 315 A	100 ... 430 A	32 ... 250 A	100 ... 400 A	32 ... 250 A
Rated voltage AC	3.6 kV	3.6 kV	7.2 kV	7.2 kV	12 kV
Breaking capacity I <sub>1</sub>	60 kA	60 kA	50 kA	50 kA	50 kA
Peak arc voltage	6.8 kV	6.8 kV	13 kV	15 kV	20 kV
Package	1	1	1	1	1

## FEATURES & BENEFITS

- High speed switching
- Voltage drive
- Low inductance module structure
- Energy efficiency
- Back-up fuse-links
- High breaking capacity
- High current limitation
- Low power losses
- Striker 50N / 30mm

## APPLICATIONS

- HV motor protection
- HV motor pump protection
- For indoor use
- Operating temperature -25°C to +40°C

## STANDARDS

- IEC 60282-1
- IEC 60644
- DIN 43625



# Limitor® - aSJB/D Back-up Fuses

3,6kV to 12kV - with Trip Indicator

## PRODUCT RANGE



45ASB36V32P-1



45ASB36V250P-1

### Rated voltage 3,6kV, length 192mm

Catalog number	Item number	Rated current $I_n$	Minimum breaking current $I_s = I_{min}$	Power dissipation at $0.7 \times I_n$	Operating $I^2t$ at Rated Voltage	Weight	Package
<b>Ø d=50,8mm</b>							
45ASB36V32P-1	S076468	32 A	180 A	6 W	4 kA²s	1.9 kg	3
45ASB36V50P-1	T076469	50 A	260 A	9 W	9 kA²s	1.9 kg	3
45ASB36V63P-1	V076470	63 A	310 A	11 W	15 kA²s	1.9 kg	3
45ASB36V80P-1	W076471	80 A	400 A	13 W	35 kA²s	1.9 kg	3
45ASB36V100P-1	X076472	100 A	490 A	15 W	60 kA²s	1.9 kg	3
45ASB36V125P-1	Y076473	125 A	600 A	20 W	95 kA²s	1.9 kg	3
<b>Ø d=67mm</b>							
45ASB36V160P-1	Z076474	160 A	800 A	27 W	160 kA²s	1.9 kg	3
45ASB36V200P-1	A076475	200 A	1000 A	32 W	340 kA²s	1.9 kg	3
<b>Ø d=76mm</b>							
45ASB36V250P-1	B076476	250 A	1200 A	35 W	540 kA²s	2.5 kg	3
<b>Ø d=88mm</b>							
45ASB36V315P-1	C076477	315 A	1600 A	41 W	1000 kA²s	3.4 kg	3

### Rated voltage 3,6kV, length 292mm

Catalog number	Item number	Rated current $I_n$	Minimum breaking current $I_s = I_{min}$	Power dissipation at $0.7 \times I_n$	Operating $I^2t$ at Rated Voltage	Weight	Package
<b>Ø d=50,8mm</b>							
45ASB36V100P-2	N075521	100 A	700 A	16 W	88 kA²s	1.6 kg	3
45ASB36V125P-2	P075522	125 A	830 A	20 W	160 kA²s	1.6 kg	3
45ASB36V160P-2	Q075523	160 A	1000 A	27 W	280 kA²s	1.6 kg	3
<b>Ø d=67mm</b>							
45ASB36V200P-2	R075524	200 A	1250 A	33 W	370 kA²s	2.7 kg	3
45ASB36V250P-2	S075525	250 A	1750 A	37 W	720 kA²s	2.7 kg	3
<b>Ø d=76mm</b>							
45ASB36V315P-2	E075582	315 A	2100 A	45 W	1200 kA²s	3.3 kg	3
45ASB36V350P-2	F075583	350 A	2400 A	47 W	1700 kA²s	3.3 kg	3
<b>Ø d=88mm</b>							
45ASB36V430P-2	G075584	430 A	3300 A	51 W	3200 kA²s	4.3 kg	3



45ASB36V200P-2



45ASB36V430P-2

# Limitor® - aSJB/D Back-up Fuses

3,6kV to 12kV - with Trip Indicator

## PRODUCT RANGE



45ASB72V125P-2

### Rated voltage 7,2kV, length 292mm

Catalog number	Item number	Rated current $I_n$	Minimum breaking current $I_3 = I_{min}$	Power dissipation at $0.7 \times I_n$	Operating $I^2t$ at Rated Voltage	Weight	Package
<b>Ø d=50,8mm</b>							
45ASB72V32P-2	J078162	32 A	180 A	10 W	7 kA <sup>2</sup> s	1.6 kg	3
45ASB72V50P-2	K078163	50 A	220 A	14 W	16 kA <sup>2</sup> s	1.6 kg	3
45ASB72V63P-2	L078164	63 A	300 A	18 W	26 kA <sup>2</sup> s	1.6 kg	3
45ASB72V80P-2	M078165	80 A	380 A	20 W	60 kA <sup>2</sup> s	1.6 kg	3
45ASB72V100P-2	N078166	100 A	510 A	25 W	105 kA <sup>2</sup> s	1.6 kg	3
<b>Ø d=67mm</b>							
45ASB72V125P-2	P078167	125 A	700 A	29 W	195 kA <sup>2</sup> s	2.7 kg	3
45ASB72V160P-2	Q078168	160 A	840 A	37 W	340 kA <sup>2</sup> s	2.7 kg	3
<b>Ø d=88mm</b>							
45ASB72V200P-2	H093709	200 A	1200 A	41 W	650 kA <sup>2</sup> s	4.4 kg	3
45ASB72V250P-2	R078169	250 A	1600 A	49 W	1100 kA <sup>2</sup> s	4.4 kg	3



45ASD72V200P-3

### Rated voltage 7,2kV, length 442mm

Catalog number	Item number	Rated current $I_n$	Minimum breaking current $I_3 = I_{min}$	Power dissipation at $0.7 \times I_n$	Operating $I^2t$ at Rated Voltage	Weight	Package
<b>Ø d=50,8mm</b>							
45ASD72V100P-3	Y085581	100 A	500 A	30 W	78 kA <sup>2</sup> s	2.2 kg	3
45ASD72V125P-3	Z085582	125 A	630 A	37 W	150 kA <sup>2</sup> s	2.2 kg	3
45ASD72V160P-3	A085583	160 A	880 A	41 W	290 kA <sup>2</sup> s	2.2 kg	3
<b>Ø d=76mm</b>							
45ASD72V200P-3	Q085620	200 A	1100 A	47 W	560 kA <sup>2</sup> s	4.2 kg	3
45ASD72V250P-3	R085621	250 A	1400 A	52 W	1000 kA <sup>2</sup> s	4.2 kg	3
<b>Ø d=88mm</b>							
45ASD72V315P-3	S085622	315 A	1900 A	60 W	2000 kA <sup>2</sup> s	6.1 kg	3
45ASD72V400P-3	V085624	400 A	2700 A	69 W	4100 kA <sup>2</sup> s	6.1 kg	3



45ASB120V250P-3

### Rated voltage 12kV, length 442mm

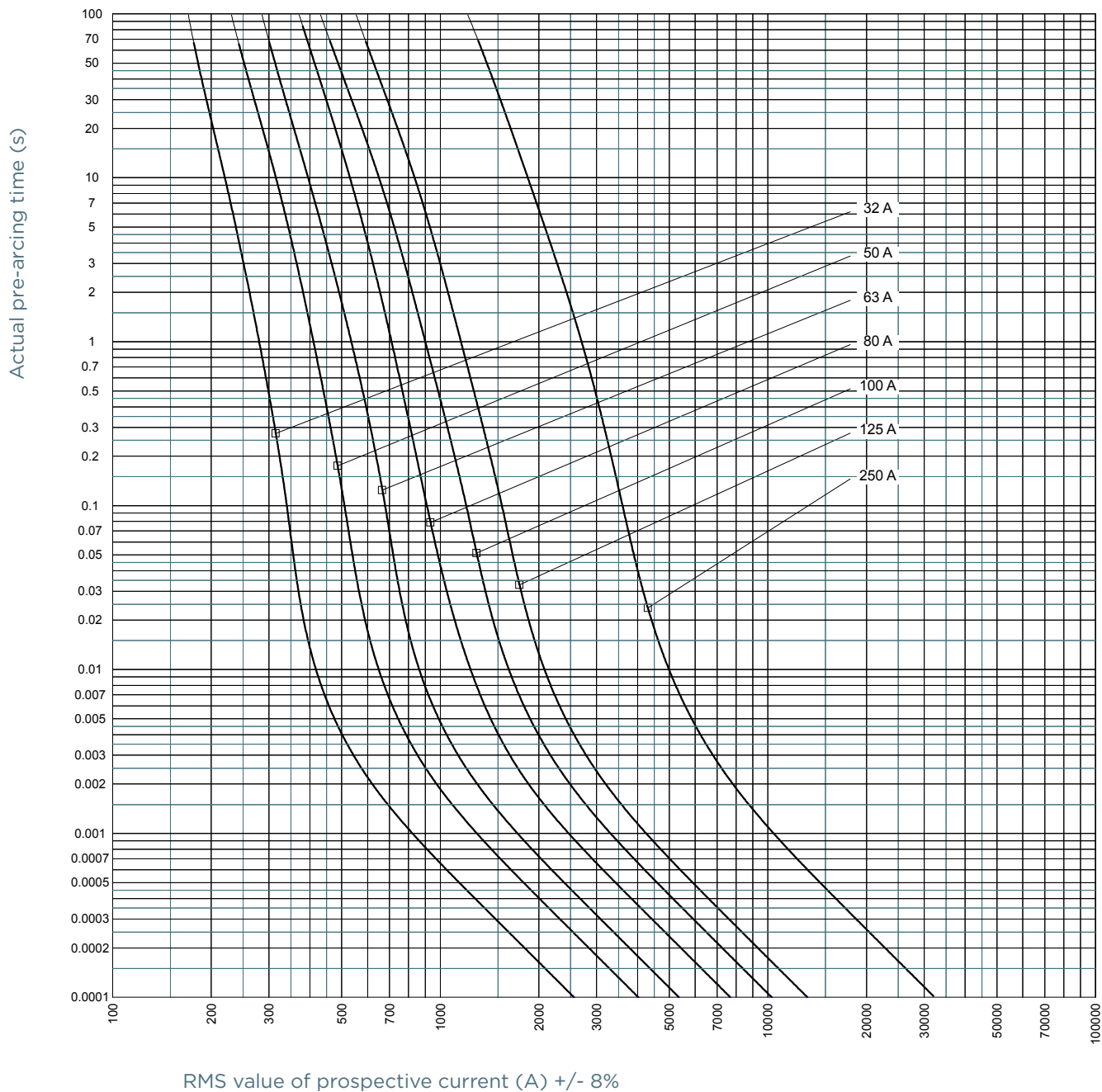
Catalog number	Item number	Rated current $I_n$	Minimum breaking current $I_3 = I_{min}$	Power dissipation at $0.7 \times I_n$	Operating $I^2t$ at Rated Voltage	Weight	Package
<b>Ø d=50,8mm</b>							
45ASB120V32P-3	D076478	32 A	168 A	21 W	5 kA <sup>2</sup> s	2.2 kg	3
45ASB120V50P-3	E076479	50 A	244 A	31 W	12 kA <sup>2</sup> s	2.2 kg	3
45ASB120V63P-3	F076480	63 A	325 A	35 W	24 kA <sup>2</sup> s	2.2 kg	3
45ASB120V80P-3	G076481	80 A	416 A	41 W	48 kA <sup>2</sup> s	2.2 kg	3
45ASB120V100P-3	H076482	100 A	560 A	45 W	85 kA <sup>2</sup> s	2.2 kg	3
<b>Ø d=67mm</b>							
45ASB120V125P-3	J076483	125 A	650 A	53 W	150 kA <sup>2</sup> s	3.4 kg	3
45ASB120V160P-3	K076484	160 A	930 A	55 W	320 kA <sup>2</sup> s	3.4 kg	3
<b>Ø d=76mm</b>							
45ASB120V200P-3	L076485	200 A	1300 A	62 W	720 kA <sup>2</sup> s	4.2 kg	3
<b>Ø d=88mm</b>							
45ASB120V250P-3	M076486	250 A	1800 A	74 W	1280 kA <sup>2</sup> s	6.1 kg	3

# Limitor<sup>®</sup> - aSJB/D Back-up Fuses

3,6kV to 12kV - with Trip Indicator

## TIME CURRENT CHARACTERISTIC CURVES

Limitor<sup>®</sup>-aSJB 3,6kV 192mm



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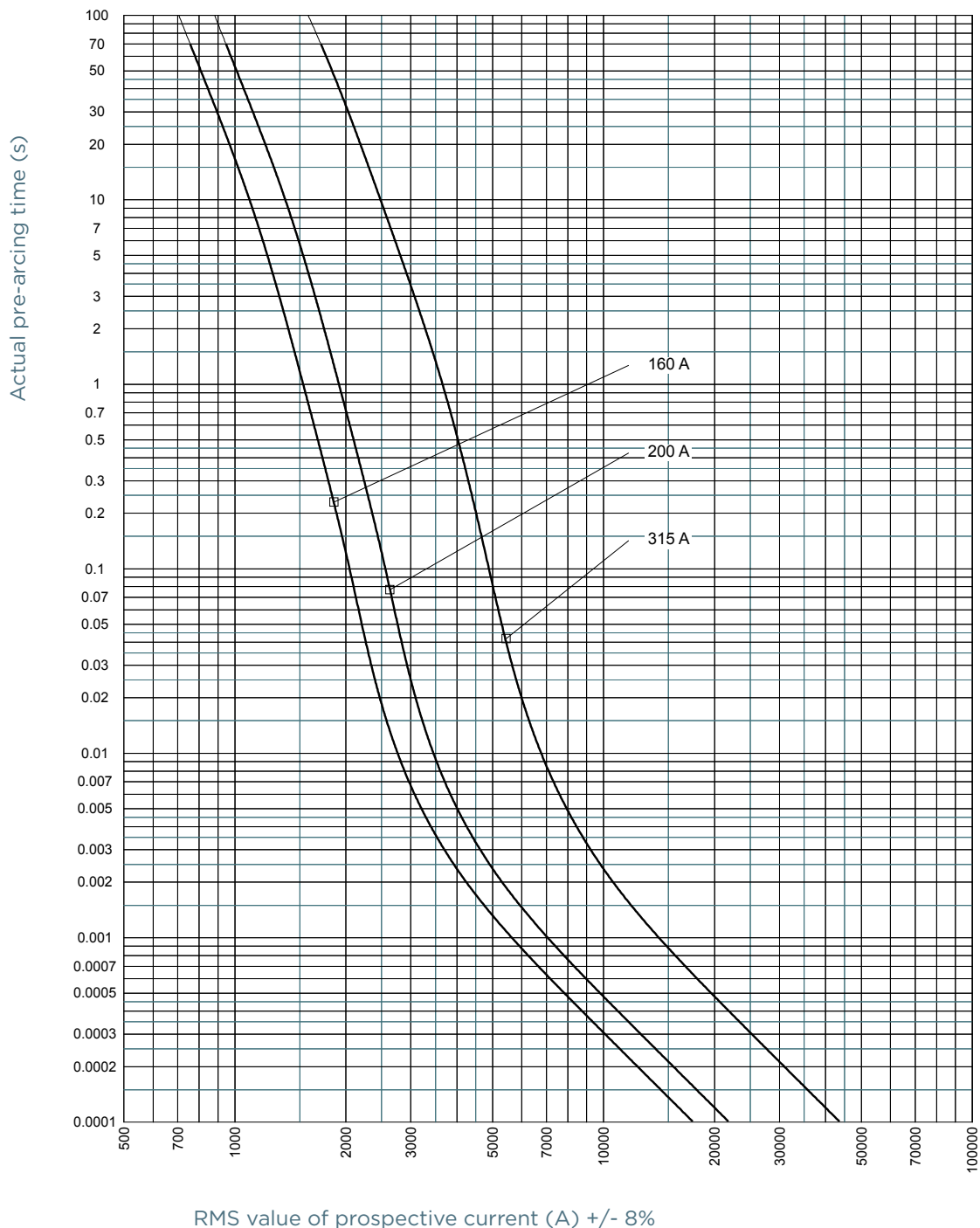


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3,6kV to 12kV - with Trip Indicator

## TIME CURRENT CHARACTERISTIC CURVES

### Limitor<sup>®</sup>-aSJB 3,6kV 192mm

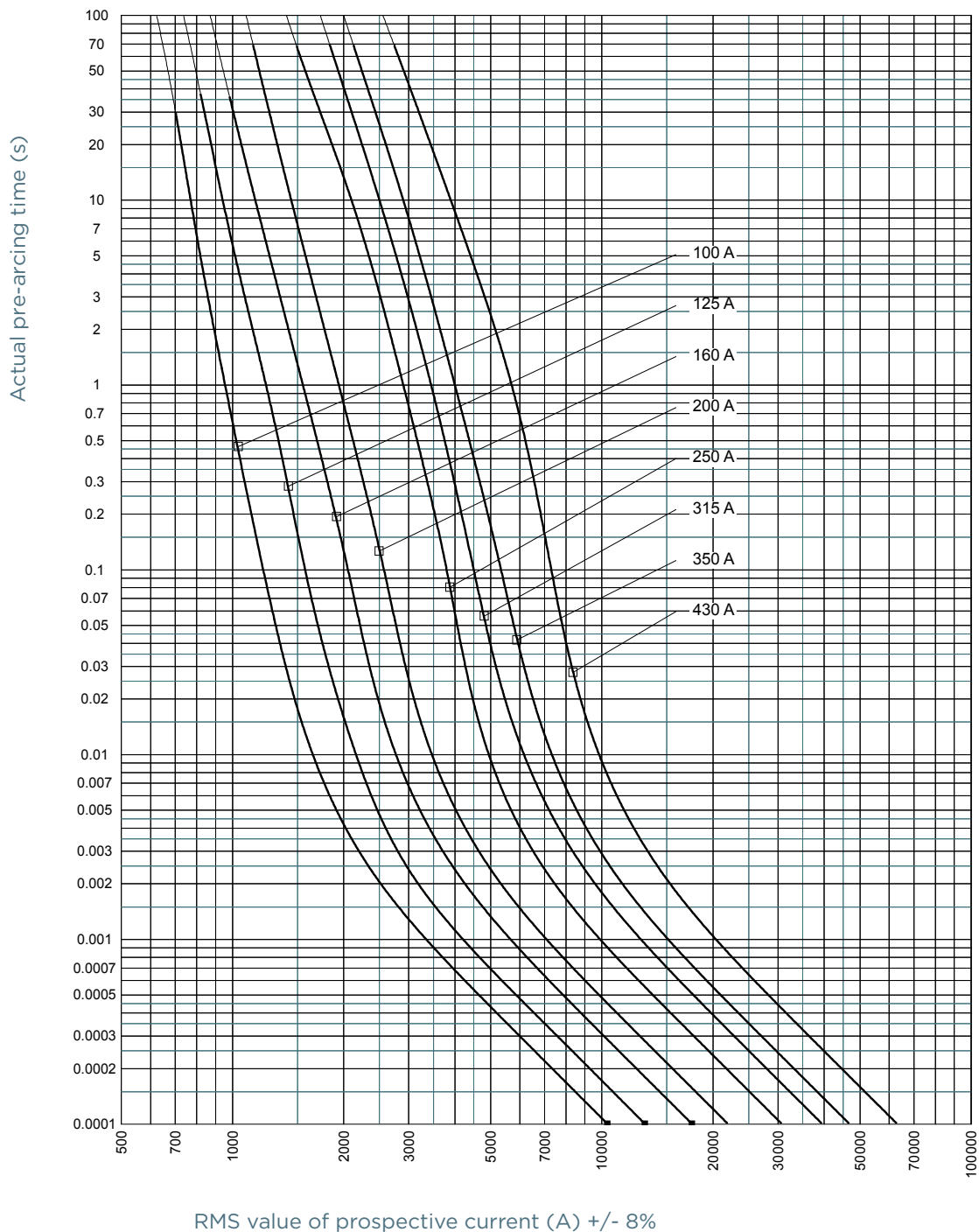


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3,6kV to 12kV - with Trip Indicator

## TIME CURRENT CHARACTERISTIC CURVES

Limitor<sup>®</sup>-aSJB 3,6kV 292mm

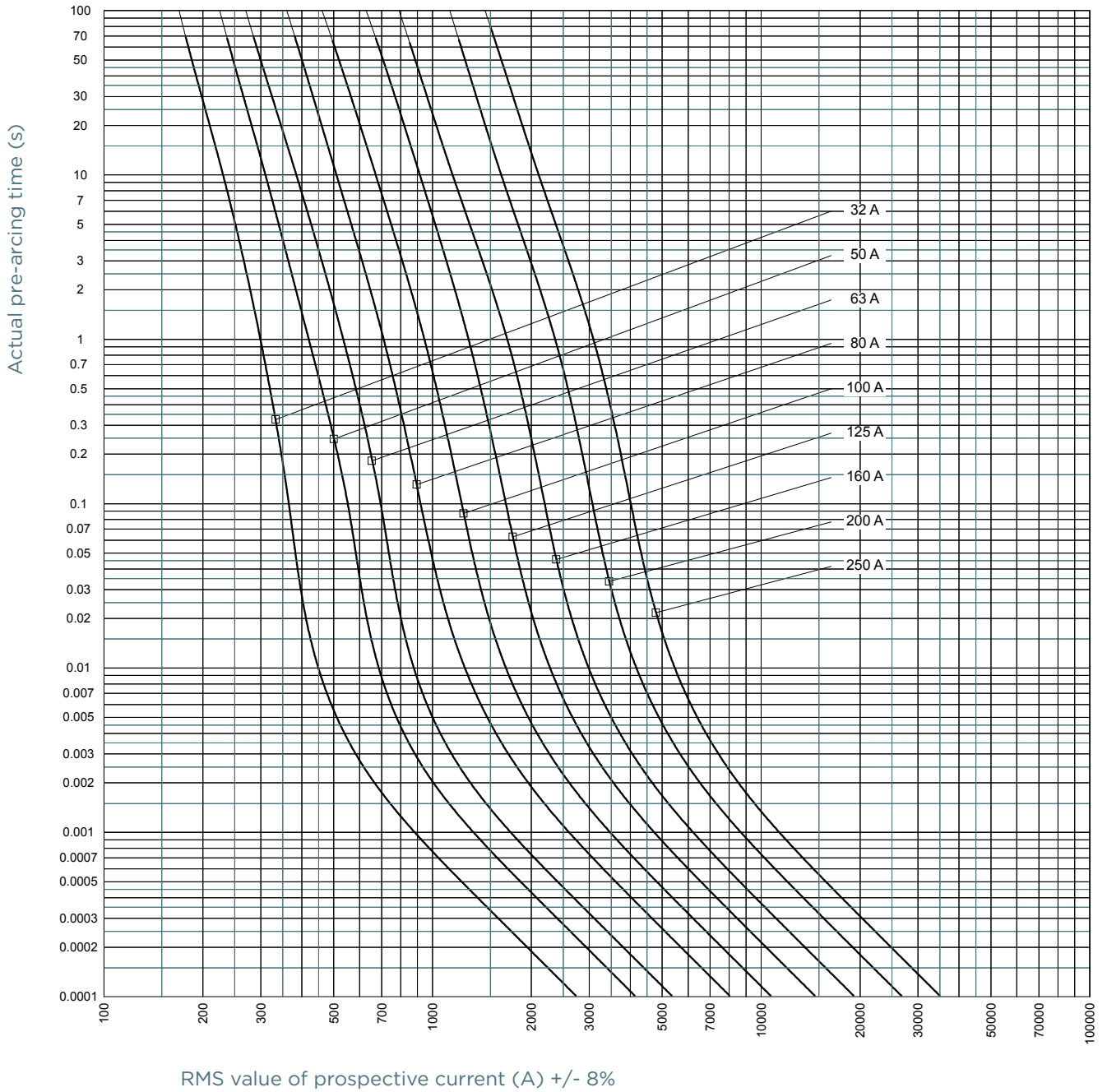


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3,6kV to 12kV - with Trip Indicator

## TIME CURRENT CHARACTERISTIC CURVES

Limitor<sup>®</sup>-aSJB 7,2kV 292mm



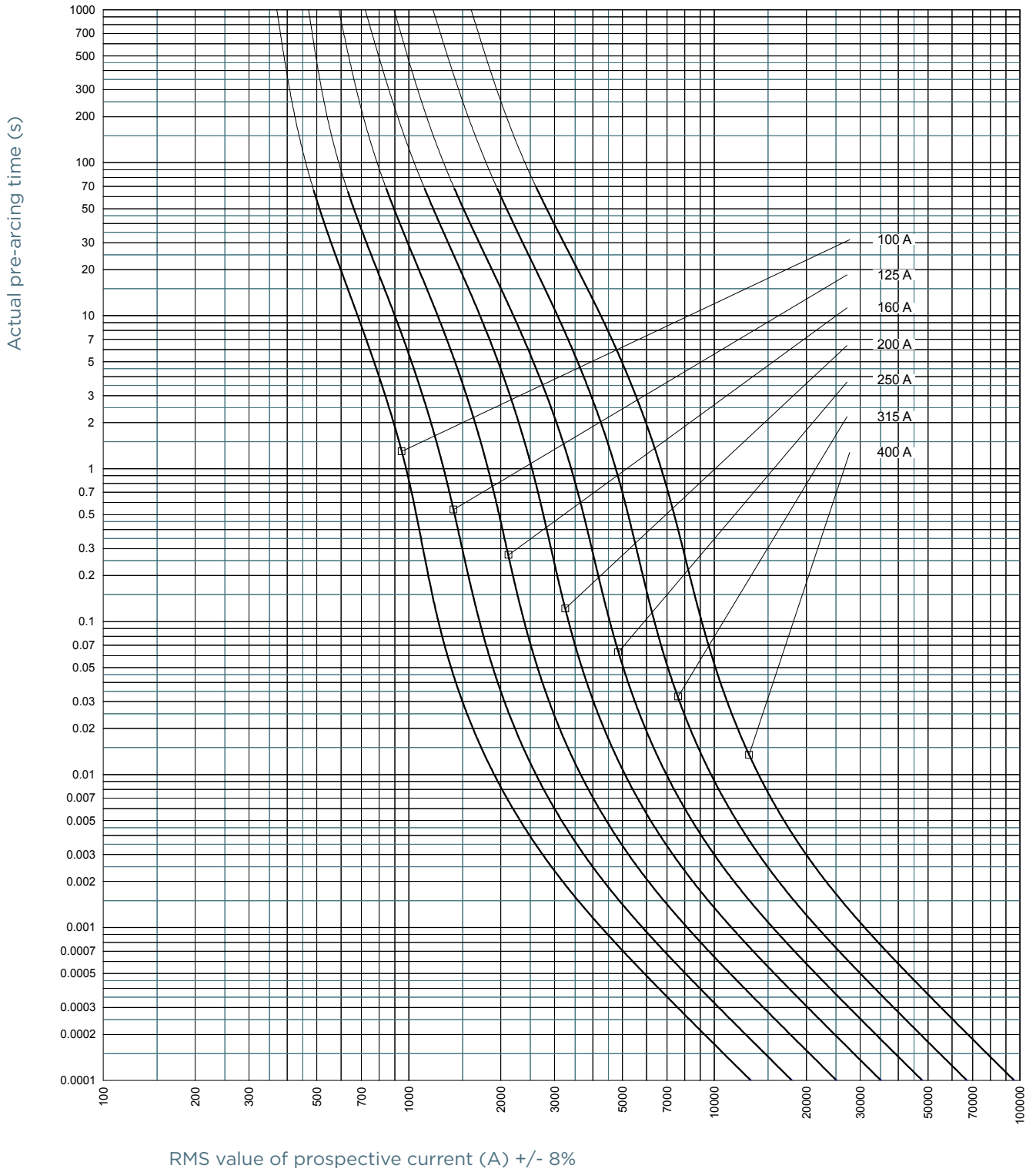
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3,6kV to 12kV - with Trip Indicator

## TIME CURRENT CHARACTERISTIC CURVES

Limitor<sup>®</sup>-aSJD 7,2kV 442mm



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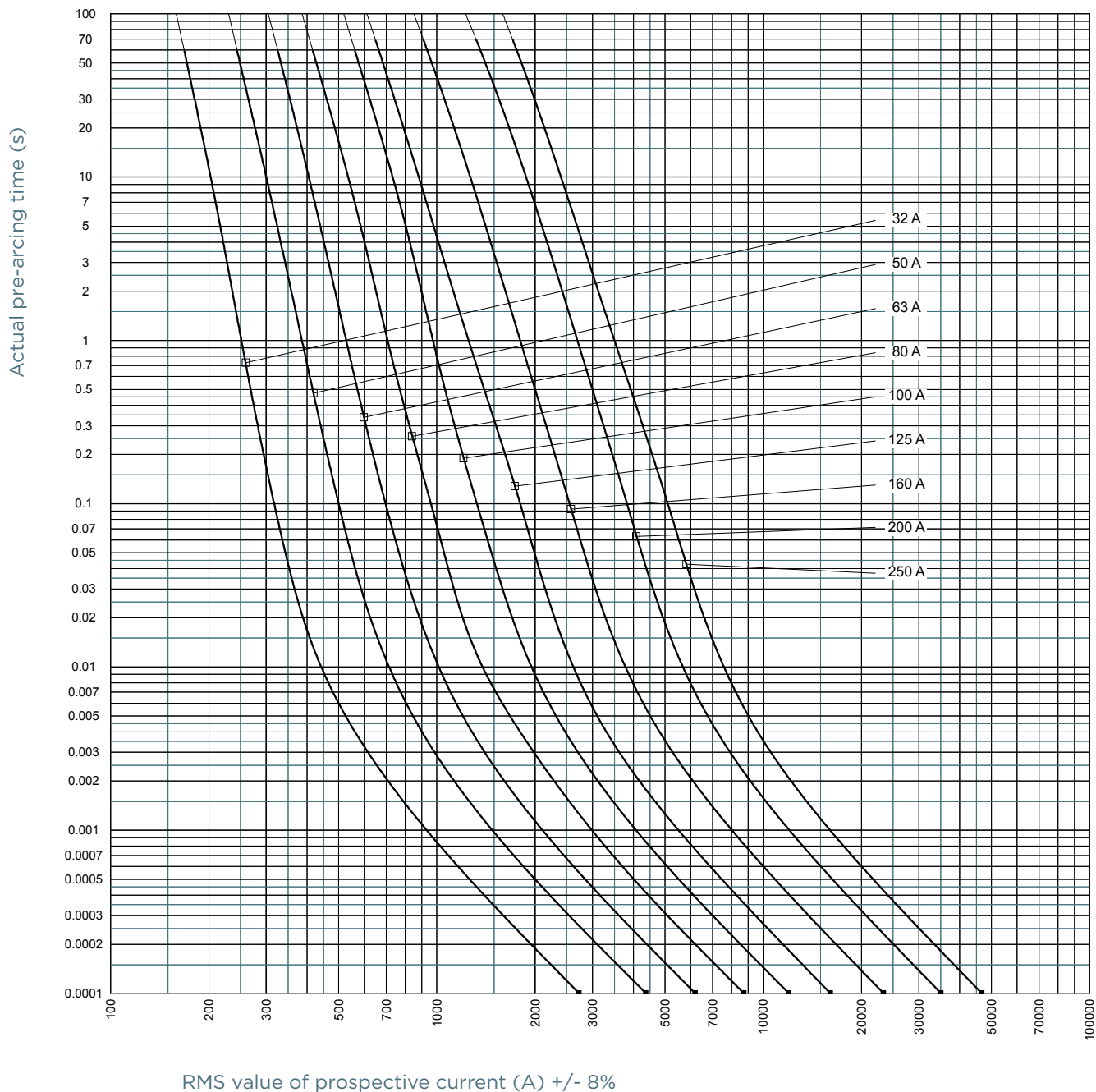


# Limitor<sup>®</sup> - aSJB/D Back-up Fuses

3,6kV to 12kV - with Trip Indicator

## TIME CURRENT CHARACTERISTIC CURVES

### Limitor<sup>®</sup>-aSJB 12kV 442mm



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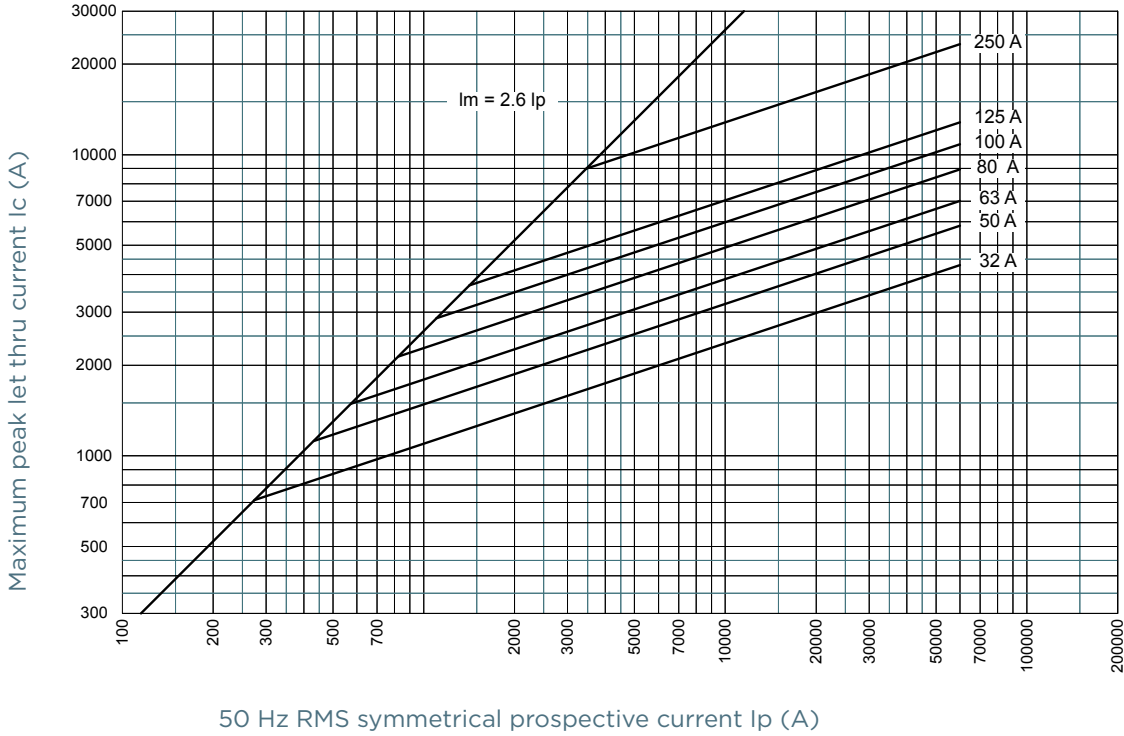


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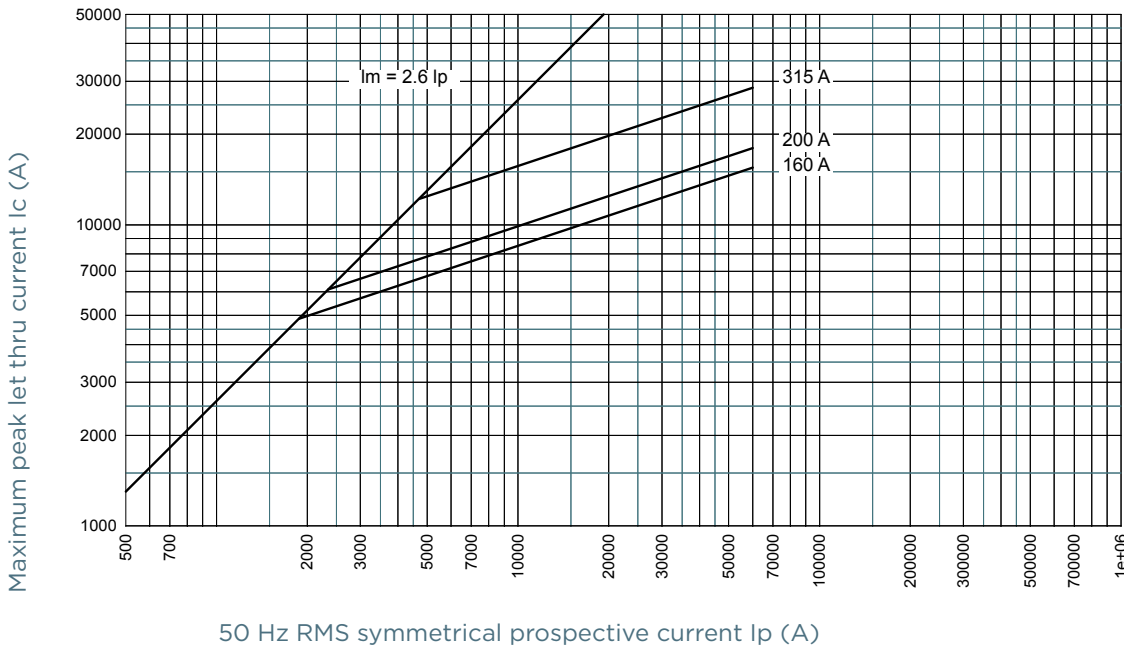
3,6kV to 12kV - with Trip Indicator

## CUT-OFF CURRENT CHARACTERISTIC

### Limitor<sup>®</sup>-aSJB 3,6kV 192mm



### Limitor<sup>®</sup>-aSJB 3,6kV 192mm



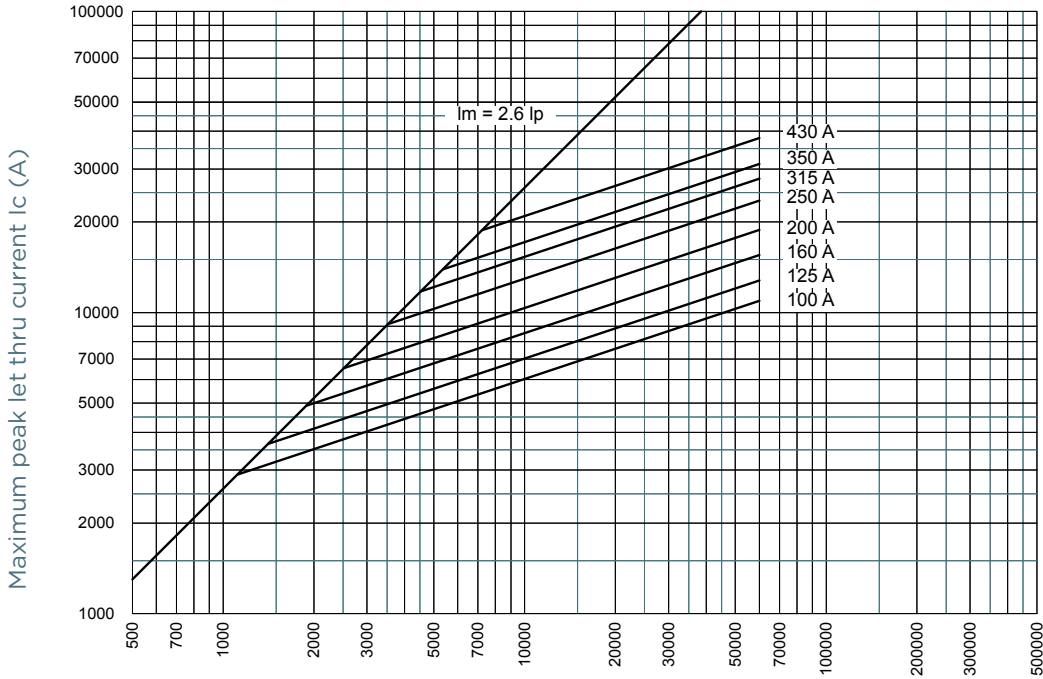
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3,6kV to 12kV - with Trip Indicator

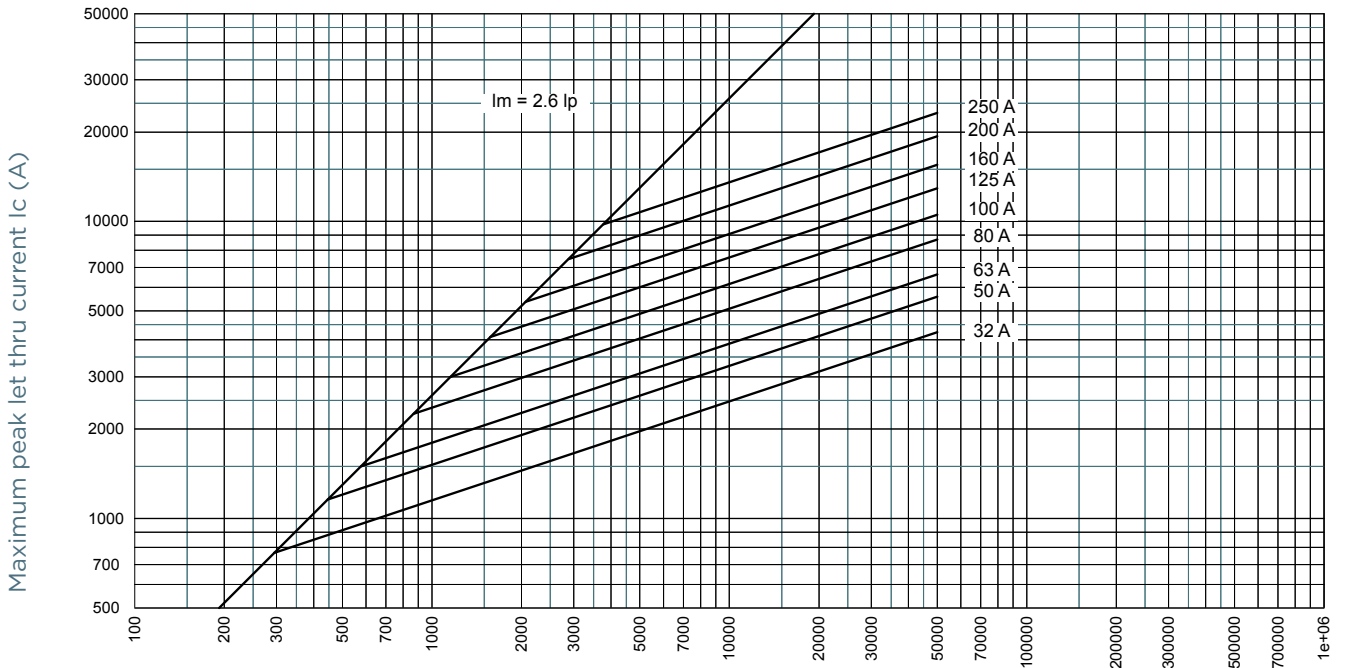
## CUT-OFF CURRENT CHARACTERISTIC

### Limitor<sup>®</sup>-aSJB 3,6kV 292mm



50 Hz RMS symmetrical prospective current  $I_p$  (A)

### Limitor<sup>®</sup>-aSJB 7,2kV 292mm



50 Hz RMS symmetrical prospective current  $I_p$  (A)

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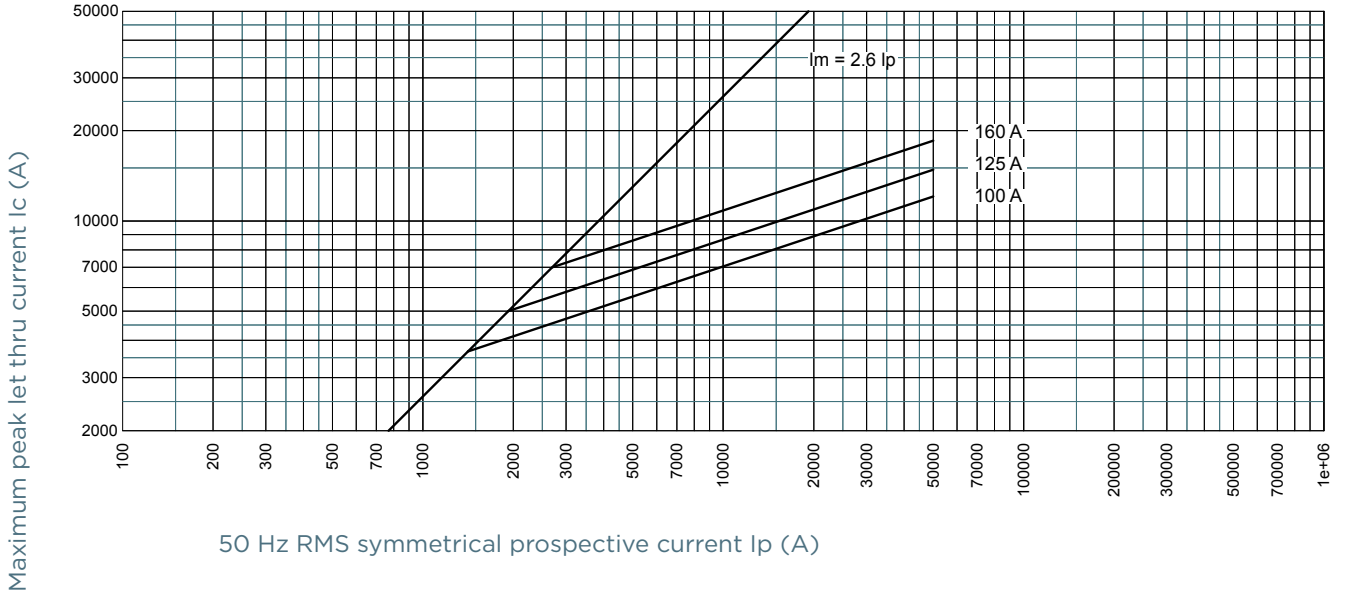


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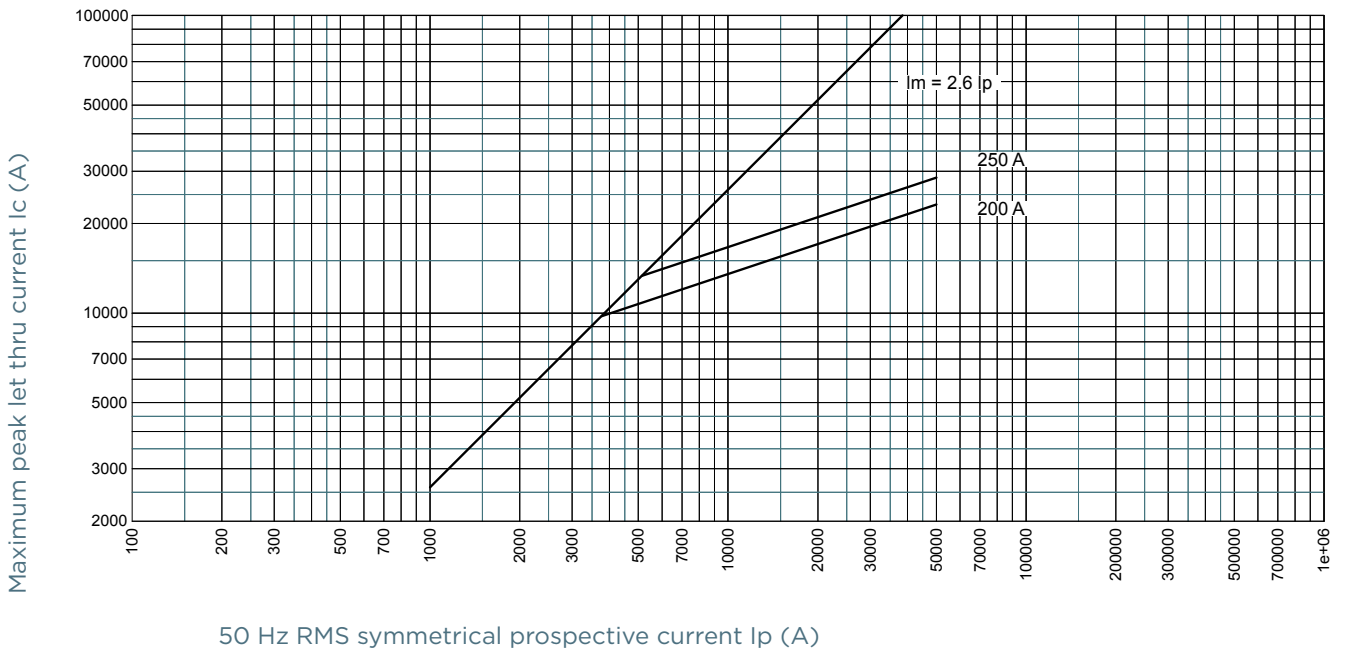
3,6kV to 12kV - with Trip Indicator

## CUT-OFF CURRENT CHARACTERISTIC

### Limitor<sup>®</sup>-aSJD 7,2kV 442mm



### Limitor<sup>®</sup>-aSJD 7,2kV 442mm

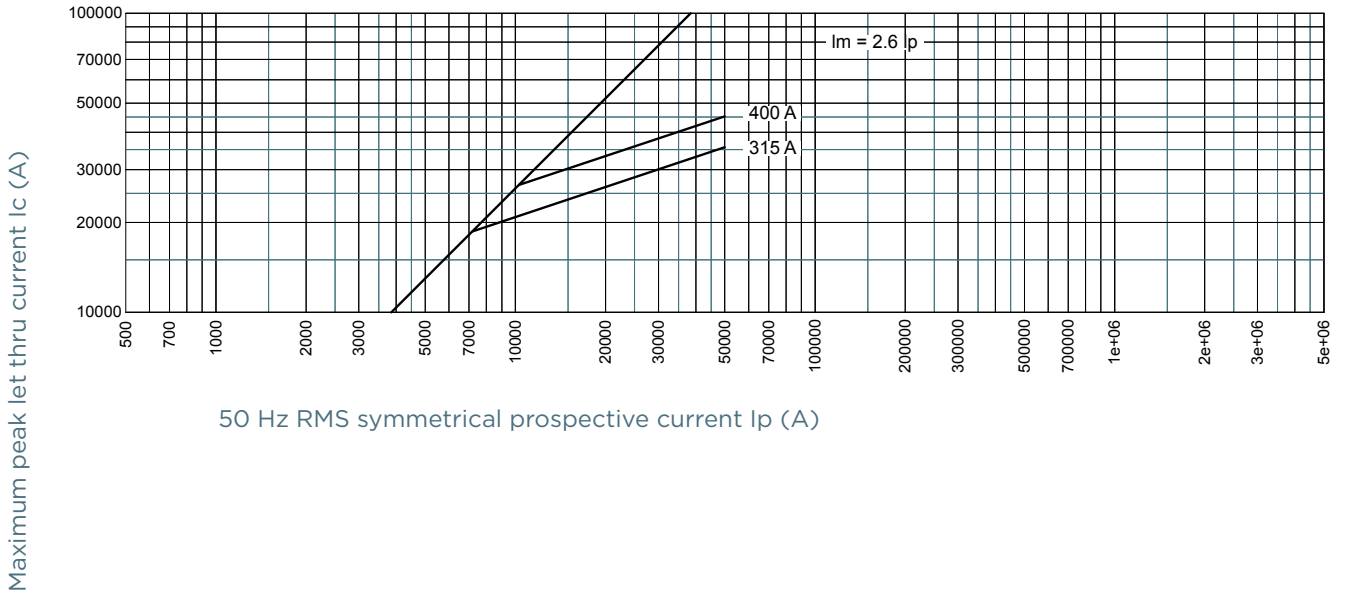


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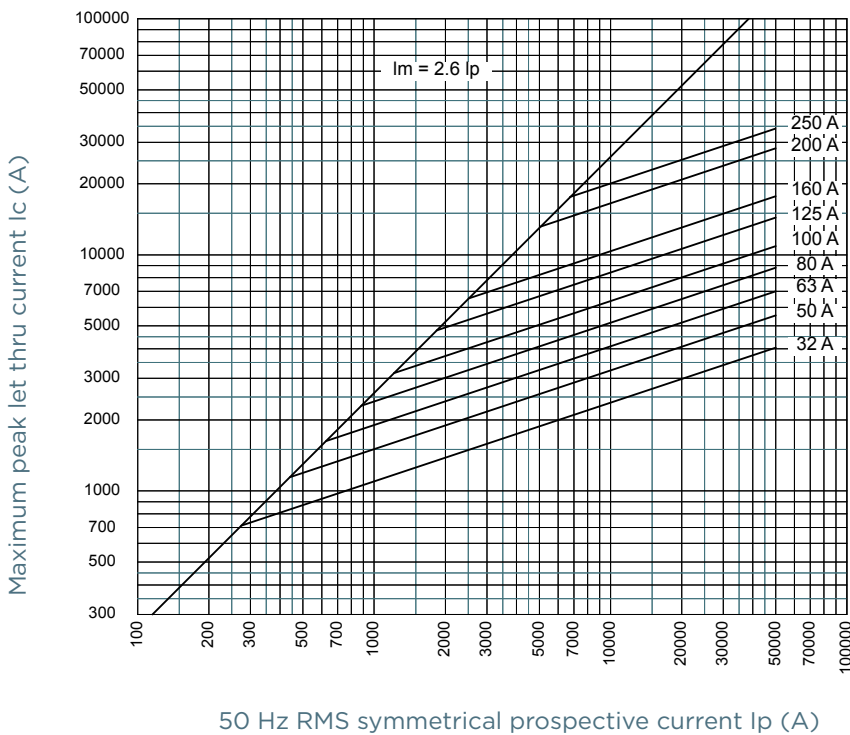
3,6kV to 12kV - with Trip Indicator

## CUT-OFF CURRENT CHARACTERISTIC

### Limitor<sup>®</sup>-aSJD 7,2kV 442mm



### Limitor<sup>®</sup>-aSJB 12kV 442mm

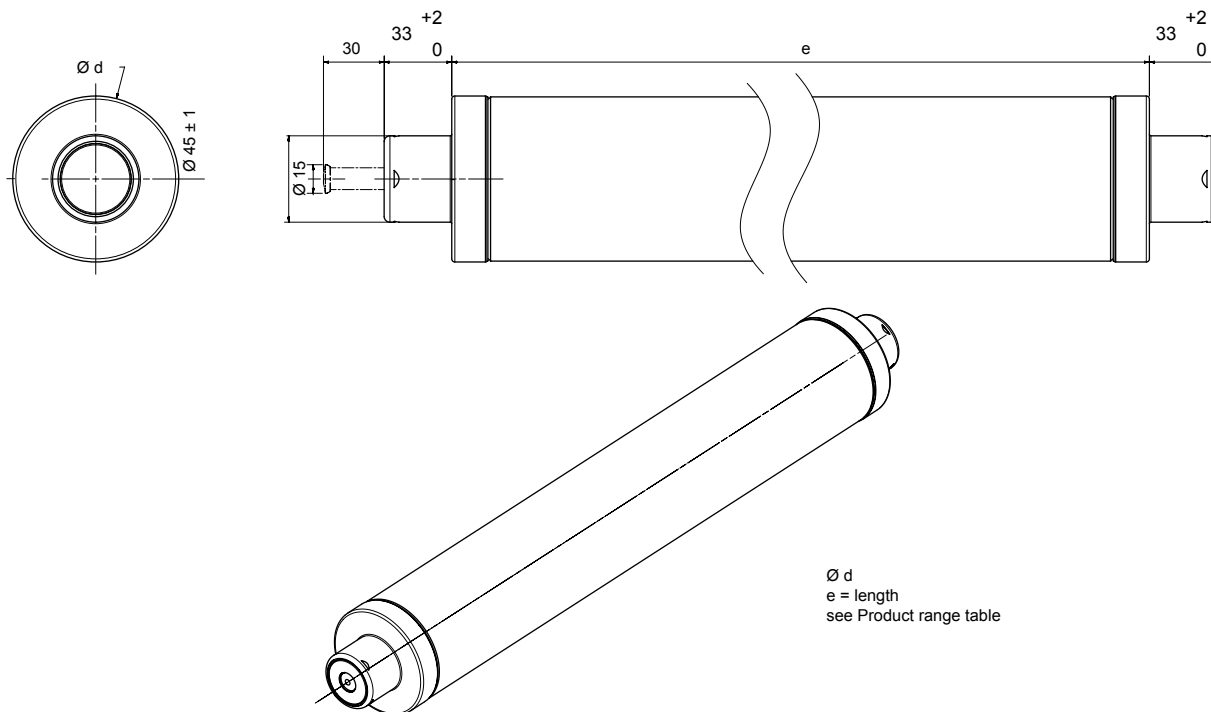


# Limitor<sup>®</sup> - aSJB/D Back-up Fuses

3,6kV to 12kV - with Trip Indicator

## DIMENSIONS

IEC HV fuse-link Limitor<sup>®</sup> aSJB/D



Dimensions in mm

# Limitor® - aSJB/D Back-up Fuses

3,6kV to 12kV - with Trip Indicator

## SELECTION TABLE

Motor capacity		Operating voltage of motor (kV)	Rated voltage of fuse-link (kV)	Dimension of fuse-link Ø x length	Rated current of fuse-link (A)	Dimension of fuse-link Ø x length	Rated current of fuse-link (A)	Dimension of fuse-link Ø x length	Rated current of fuse-link (A)	Dimension of fuse-link Ø x length	Rated current of fuse-link (A)				
kW	HP											Run up time of motor			
												6 sec	10 sec	15 sec	30 sec
70	95	3	3,6	45x192	32	45x192	32	45x192	32	45x192	50				
		3,3	3,6	45x192	32	45x192	32	45x192	32	45x192	32				
		3	3,6	45x192	50	45x192	50	45x192	50	45x192	63				
100	136	3,3	3,6	45x192	50	45x192	50	45x192	50	45x192	50				
		5,5	7,2	45x292	32	45x292	32	45x292	32	45x292	32				
		3	3,6	45x192	63	45x192	63	45x192	63	45x192	80				
130	177	3,3	3,6	45x192	63	45x192	63	45x192	63	45x192	80				
		5,5	7,2	45x292	32	45x292	32	45x292	32	45x292	50				
		6	7,2	45x292	32	45x292	32	45x292	32	45x292	32				
		3	3,6	45x192	80	45x192	80	45x192	100	45x192	100				
180	245	3,3	3,6	45x192	80	45x192	80	45x192	80	45x192	100				
		5,5	7,2	45x292	50	45x292	50	45x292	50	45x292	63				
		6	7,2	45x292	50	45x292	50	45x292	50	45x292	63				
		6,6	7,2	45x292	32	45x292	32	45x292	50	45x292	50				
		3	3,6	45x192	100	45x192	100	45x192	125	45x192	125				
220	300	3,3	3,6	45x192	100	45x192	100	45x192	100	45x192	125				
		5,5	7,2	45x292	63	45x292	63	45x292	63	45x292	80				
		6	7,2	45x292	50	45x292	63	45x292	63	45x292	80				
		6,6	7,2	45x292	50	45x292	50	45x292	63	45x292	63				
		3	3,6	45x192	100	45x192	125	45x192	125	45x192	160				
250	340	3,3	3,6	45x192	100	45x192	100	45x192	125	45x192	125				
		5,5	7,2	45x292	63	45x292	80	45x292	80	45x292	80				
		6	7,2	45x292	63	45x292	63	45x292	80	45x292	80				
		6,6	7,2	45x292	63	45x292	63	45x292	63	45x292	80				
		10	12	45x442	32	45x442	50	45x442	50	45x442	50				
		11	12	45x442	32	45x442	32	45x442	50	45x442	50				
		3	3,6	45x192	160	45x192	160	45x192	160	45x192	200				
315	430	3,3	3,6	45x192	125	45x192	125	45x192	160	45x192	160				
		5,5	7,2	45x292	80	45x292	80	45x292	80	45x292	100				
		6	7,2	45x292	80	45x292	80	45x292	80	45x292	80				
		6,6	7,2	45x292	80	45x292	80	45x292	80	45x292	80				
		10	12	45x442	50	45x442	50	45x442	50	45x442	63				
		11	12	45x442	50	45x442	50	45x442	50	45x442	50				
		3	3,6	45x192	160	45x192	200	45x192	200	45x192	250				
420	570	3,3	3,6	45x192	160	45x192	200	45x192	200	45x192	250				
		5,5	7,2	45x292	100	45x292	100	45x292	125	45x292	125				
		6	7,2	45x292	80	45x292	100	45x292	100	45x292	125				
		6,6	7,2	45x292	80	45x292	80	45x292	100	45x292	125				
		10	12	45x442	63	45x442	63	45x442	63	45x442	80				
		11	12	45x442	63	45x442	63	45x442	63	45x442	63				
		3	3,6	45x192	250	45x192	250	45x192	250	45x192	315				
560	760	3,3	3,6	45x192	200	45x192	250	45x192	250	45x192	315				
		5,5	7,2	45x292	125	45x292	160	45x292	160	45x292	160				
		6	7,2	45x292	125	45x292	125	45x292	125	45x292	160				
		6,6	7,2	45x292	100	45x292	125	45x292	125	45x292	160				
		10	12	45x442	80	45x442	80	45x442	80	45x442	100				
		11	12	45x442	80	45x442	80	45x442	80	45x442	80				
		3	3,6	45x192	250	45x192	315	45x192	315	45x292	315				
700	950	3,3	3,6	45x192	250	45x192	250	45x192	315	45x292	315				
		5,5	7,2	45x292	160	45x292	160	45x292	160	45x292	200				
		6	7,2	45x292	125	45x292	160	45x292	160	45x292	200				
		6,6	7,2	45x292	125	45x292	125	45x292	160	45x292	160				
		10	12	45x442	100	45x442	100	45x442	100	45x442	125				
		11	12	45x442	80	45x442	100	45x442	100	45x442	100				
		3	3,6	45x192	350	45x292	350	45x292	430	45x292	430				
1000	1360	3,3	3,6	45x192	315	45x292	350	45x292	350	45x292	430				
		5,5	7,2	45x292	200	45x292	200	45x292	250	45x292	250				
		6	7,2	45x292	200	45x292	200	45x292	250	45x292	250				
		6,6	7,2	45x292	200	45x292	200	45x292	200	45x292	250				
		10	12	45x442	125	45x442	125	45x442	160	45x442	160				
		11	12	45x442	125	45x442	125	45x442	125	45x442	160				
		3	3,6	45x292	430	45x292	430	*2x45x292	500	*2x45x292	630				
1300	1770	3,3	3,6	45x292	430	45x292	430	45x292	430	*2x45x292	630				
		5,5	7,2	45x292	250	45x292	250	45x442	315	45x442	315				
		6	7,2	45x292	250	45x292	250	45x292	250	45x442	315				
		6,6	7,2	45x292	200	45x292	250	45x292	250	45x442	315				
		10	12	45x442	160	45x442	160	45x442	160	45x442	200				
		11	12	45x442	160	45x442	160	45x442	160	45x442	200				
		5,5	7,2	45x442	315	45x442	315	45x442	400	45x442	400				
1600	2175	6	7,2	45x292	250	45x442	315	45x442	315	45x442	400				
		6,6	7,2	45x292	250	45x292	250	45x442	315	45x442	400				
		10	12	45x442	160	45x442	200	45x442	315	45x442	200				
		11	12	45x442	160	45x442	160	45x442	200	45x442	200				
		6	7,2	45x442	315	45x442	400	45x442	400	45x442	400				
2000	2720	6,6	7,2	45x442	315	45x442	315	45x442	400	45x442	400				
		10	12	45x442	200	45x442	200	45x442	250	45x442	400				
		11	12	45x442	200	45x442	200	45x442	200	45x442	250				
		6	7,2	45x442	400	45x442	400	*2x45x442	500	*2x45x442	630				
2500	3400	6,6	7,2	45x442	315	45x442	400	45x442	400	*2x45x442	630				
		10	12	45x442	250	45x442	250	45x442	250	45x442	400				
		11	12	45x442	200	45x442	200	45x442	250	*2x45x442	320				

\*Two fuse-links in parallel. Rating fuse-link is 160A 250A or 315A

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.