

Limitor[®]-G General Purpose Fuses

HIGH VOLTAGE IEC FUSES

DIN HV GENERAL PURPOSE FUSES FOR TRANSFORMERS



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

Limitor[®]-G HV fuses are general purpose fuses as defined in the IEC 60282-1 standard and dedicated to protect transformers against effects of short-circuit currents and low overcurrents.

To guarantee high quality, Mersen uses the best materials: fuse-elements are in pure silver, caps are in copper coated with silver and bodies are in ceramic.

TECHNICAL DATA

	6/12kV 292mm	10/24kV 442mm
Rated current	6.3 ... 50 A	4 ... 25 A
Rated voltage range U_n	6/12kV	10/24 kV
Rated voltage of transformer	10 kV	20 kV
Package	1	1

FEATURES & BENEFITS

- High breaking capacity
- High current limitation
- Low switching voltage
- Quick breaking
- Non-ageing
- Energy efficiency
- New cap design for a better compatibility with all types of clips and easier assembly
- Coordination with IEC 60787, IEC 62271-105 and VDE 0670 T303

APPLICATIONS

- HV Transformer protection

STANDARDS

- IEC 60282-1
- VDE 0670 part 4
- DIN 43625



Limiter[®]-G General Purpose Fuses

PRODUCT RANGE

Rated voltage 6 /12 kV, length 292mm with striker

Catalog number	Item number	Rated current I _n	Clearing I ² t at Rated Voltage	Breaking capacity I _b	Cold resistance R ₂₀ (+/-10%)	Power dissipation at I _n	Weight
Ø65mm							
45DG120V6,3P	W1000151	6.3 A	2 kA ² s	40 kA	132 mΩ	6 W	2.3 kg
45DG120V10P	X1000152	10 A	3.8 kA ² s	40 kA	70 mΩ	8 W	2.3 kg
45DG120V16P	Y1000153	16 A	14 kA ² s	40 kA	35 mΩ	10 W	2.3 kg
45DG120V25P	Z1000154	25 A	36 kA ² s	40 kA	20.5 mΩ	15 W	2.3 kg
Ø78mm							
45DG120V40P	A1000155	40 A	110 kA ² s	40 kA	12.2 mΩ	24 W	3.1 kg
Ø88mm							
45DG120V50P	B1000156	50 A	150 kA ² s	40 kA	9.9 mΩ	31 W	3.7 kg

Rated voltage 10 / 24 kV, length 442mm with striker

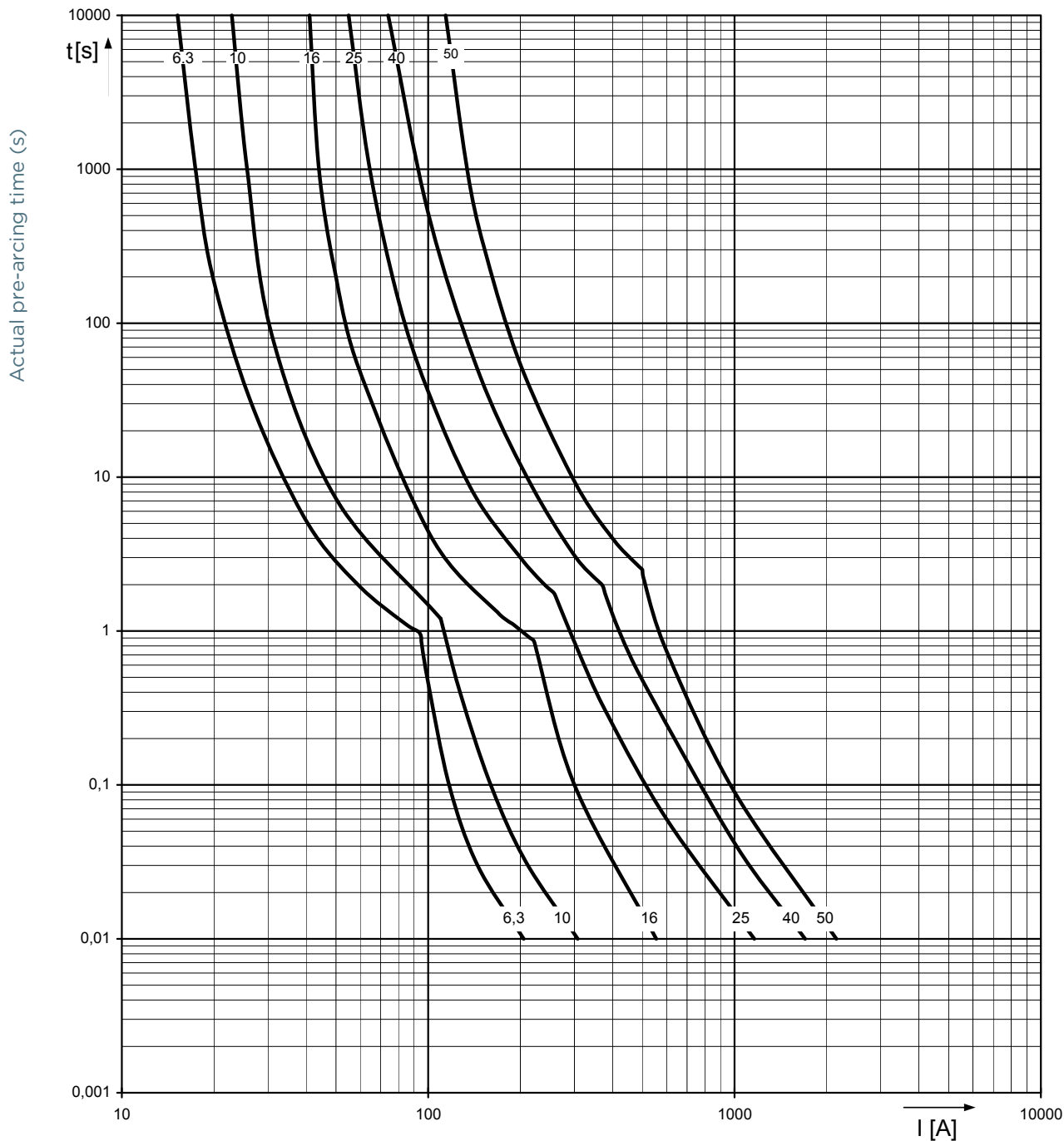
Catalog number	Item number	Rated current I _n	Clearing I ² t at Rated Voltage	Breaking capacity I _b	Cold resistance R ₂₀ (+/-10%)	Power dissipation at I _n	Weight
Ø78mm							
45DG240V4P	C1000157	4 A	1.8 kA ² s	40 kA	280 mΩ	5 W	4.1 kg
45DG240V6,3P	D1000158	6.3 A	2 kA ² s	40 kA	260 mΩ	11 W	4.1 kg
45DG240V10P	E1000159	10 A	3.6 kA ² s	40 kA	138 mΩ	15 W	4.1 kg
45DG240V16P	F1000160	16 A	14 kA ² s	40 kA	70.3 mΩ	21 W	4.1 kg
Ø88mm							
45DG240V25P	G1000161	25 A	39 kA ² s	40 kA	41.2 mΩ	31 W	4.5 kg

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Limiter[®]-G General Purpose Fuses

TIME CURRENT CHARACTERISTIC CURVES

Limiter[®] G 6-12kV



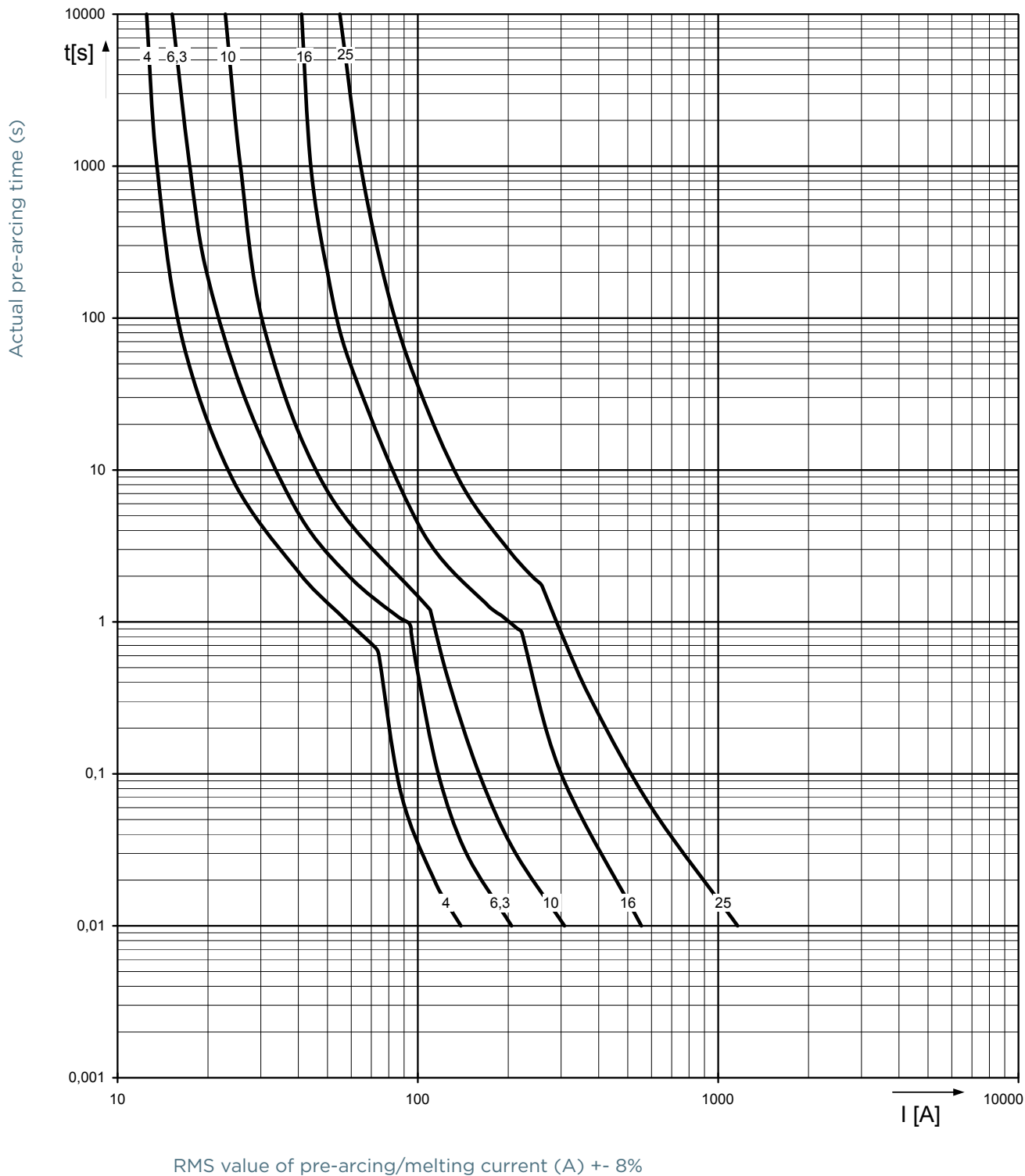
RMS value of pre-arcing/melting current (A) +/- 8%

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Limiter[®]-G General Purpose Fuses

TIME CURRENT CHARACTERISTIC CURVES

Limiter[®] G 10-24kV

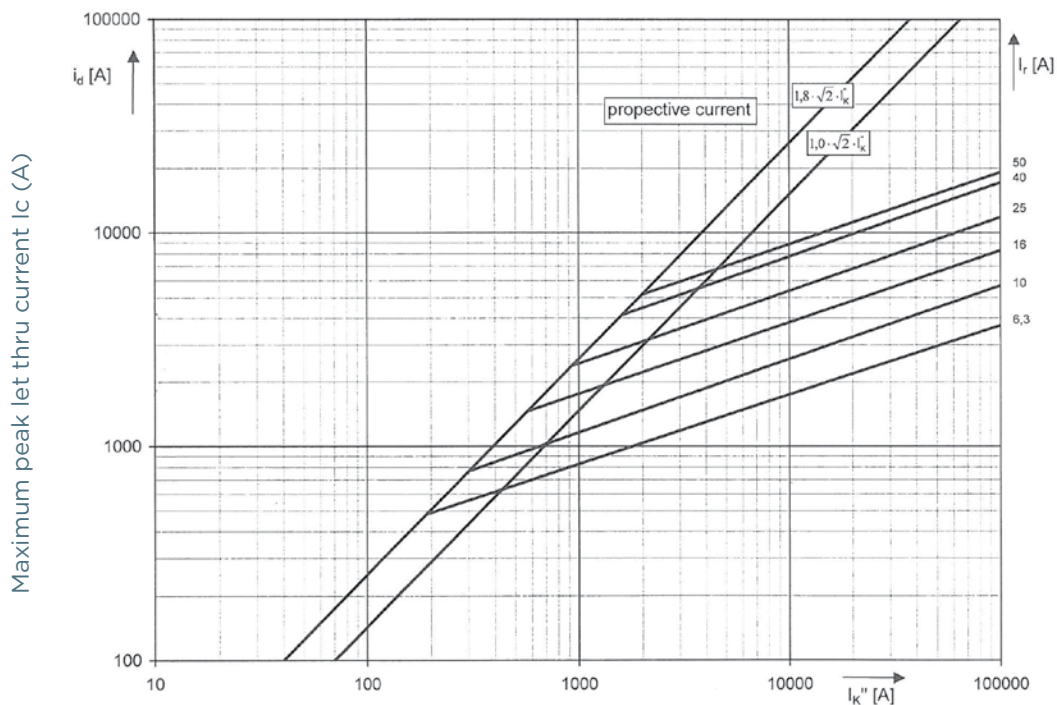


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Limitor[®]-G General Purpose Fuses

CUT-OFF CURRENT CHARACTERISTIC

Limitor[®] G 6-12kV



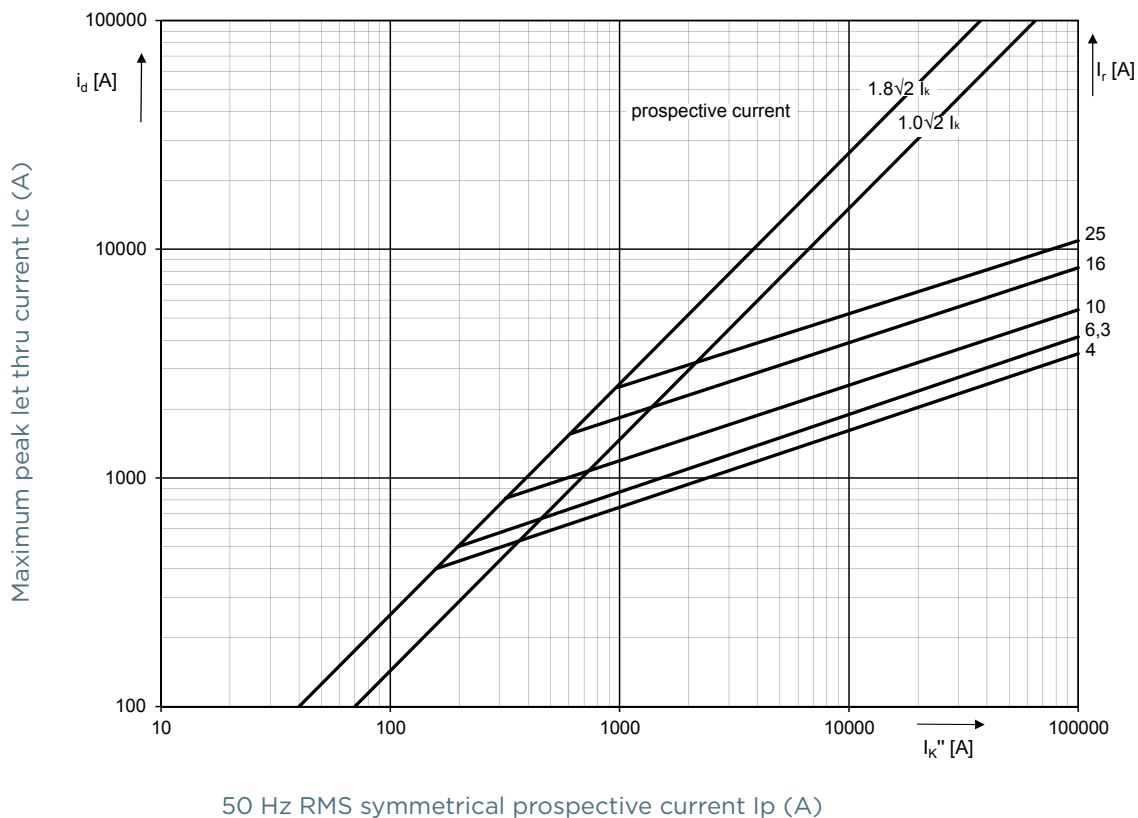
50 Hz RMS symmetrical prospective current I_p (A)

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Limitor[®]-G General Purpose Fuses

CUT-OFF CURRENT CHARACTERISTIC

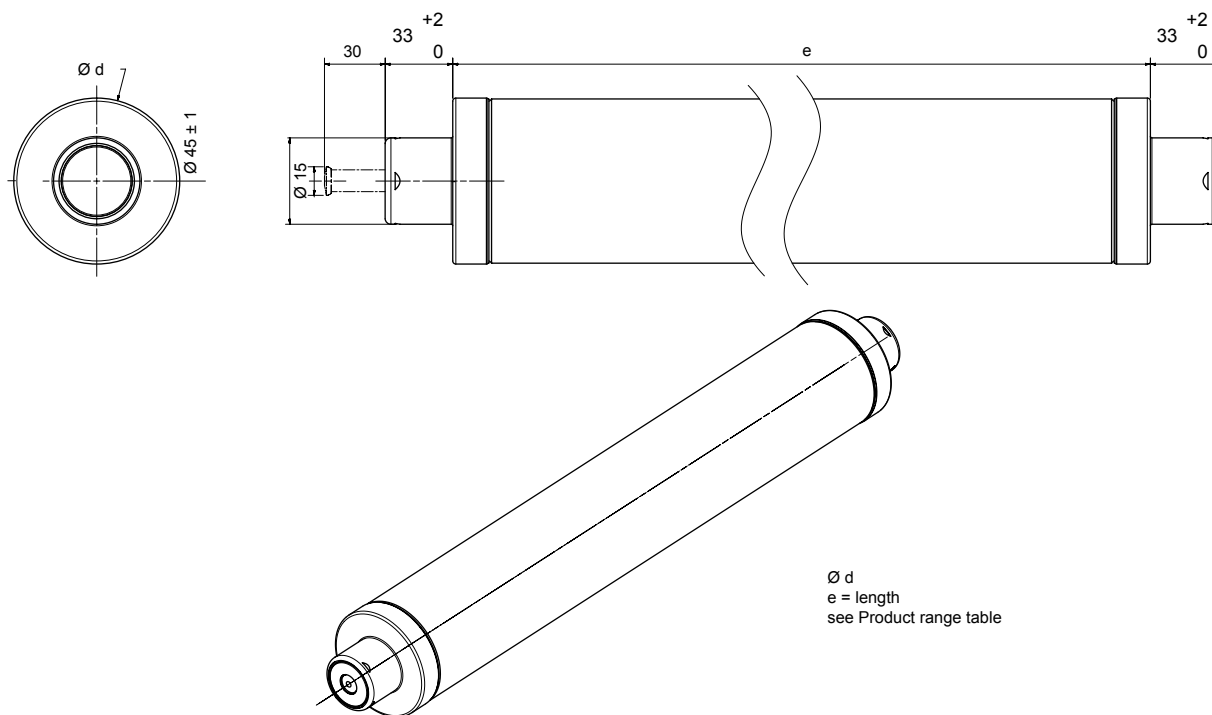
Limitor[®] G 10-24kV



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Limator[®]-G General Purpose Fuses

DIMENSIONS



Dimensions in mm

Article Number	Rated voltage	e	d
W1000151	6 / 12kV	292	65
X1000152	6 / 12kV	292	65
Y1000153	6 / 12kV	292	65
Z1000154	6 / 12kV	292	65
A1000155	6 / 12kV	292	78
B1000156	6 / 12kV	292	88
C1000157	10 / 24kV	442	78
D1000158	10 / 24kV	442	78
E1000159	10 / 24kV	442	78
F1000160	10 / 24kV	442	78
G1000161	10 / 24kV	442	88

Limiter[®]-G General Purpose Fuses

SELECTION TABLE

Rated voltage range of fuse-link [kV]		6 / 12		10 / 24	
Service voltage of transformer [kV]		10		20	
Relative short-circuit voltage	Transformer output [kVA]	Transformer rated current [A]	Rated current of fuse-link [A]	Transformer rated current [A]	Rated current of fuse-link [A]
Uk = 4%	50	2.9	6.3	1.5	-
	100	5.8	6.3 - 10	2.9	4
	125	7.2	10	3.6	4 - 6.3
	160	9.2	16	4.6	6.3
	200	11.5	16	5.8	6.3 - 10
	250	14.4	16 - 25	7.2	10
	315	18.2	25	9.1	16
	400	23.1	25 - 40	11.5	16
	500	28.9	40	14.4	16
Uk = 5%	630	36.4	40 - 50	18.2	25
	800	46.2	50	23.1	25
	1000	57.7	50	28.9	25