

# Limitor<sup>®</sup>-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<sup>®</sup>-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

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



# Limator<sup>®</sup>-G General Purpose Fuses

## PRODUCT RANGE

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

Catalog number	Item number	Rated current I <sub>n</sub>	Clearing I <sup>2</sup> t at Rated Voltage	Breaking capacity I <sub>b</sub>	Cold resistance R <sub>20</sub> (+/-10%)	Power dissipation at I <sub>n</sub>
<b>Ø78mm</b>						
45DG240V10P	E1000159	10 A	3.6 kA <sup>2</sup> s	40 kA	135 mΩ	15 W
45DG240V16P	F1000160	16 A	14 kA <sup>2</sup> s	40 kA	70.3 mΩ	21 W
<b>Ø88mm</b>						
45DG240V25P	G1000161	25 A	39 kA <sup>2</sup> s	40 kA	41.2 mΩ	31 W
<b>Ø78mm</b>						
45DG240V4P	C1000157	4 A	1.8 kA <sup>2</sup> s	40 kA	280 mΩ	5 W
45DG240V6,3P	D1000158	6.3 A	2 kA <sup>2</sup> s	40 kA	256 mΩ	11 W

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

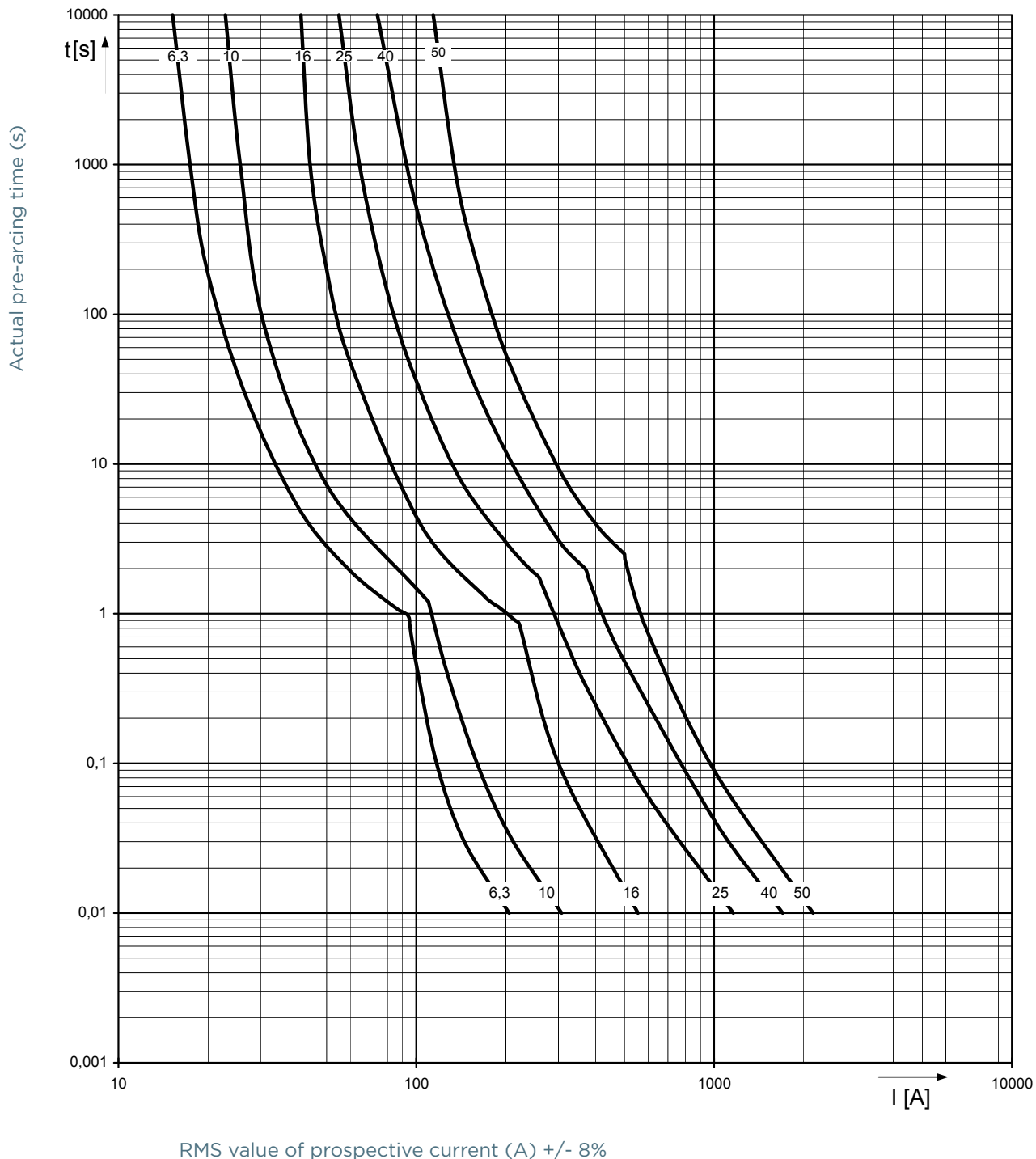
Catalog number	Item number	Rated current I <sub>n</sub>	Clearing I <sup>2</sup> t at Rated Voltage	Breaking capacity I <sub>b</sub>	Cold resistance R <sub>20</sub> (+/-10%)	Power dissipation at I <sub>n</sub>
<b>Ø65mm</b>						
45DG120V10P	X1000152	10 A	3.8 kA <sup>2</sup> s	40 kA	70 mΩ	8 W
45DG120V16P	Y1000153	16 A	14 kA <sup>2</sup> s	40 kA	35 mΩ	10 W
45DG120V25P	Z1000154	25 A	36 kA <sup>2</sup> s	40 kA	20.5 mΩ	15 W
<b>Ø78mm</b>						
45DG120V40P	A1000155	40 A	110 kA <sup>2</sup> s	40 kA	12.2 mΩ	24 W
<b>Ø88mm</b>						
45DG120V50P	B1000156	50 A	150 kA <sup>2</sup> s	40 kA	9.9 mΩ	31 W
<b>Ø65mm</b>						
45DG120V6,3P	W1000151	6.3 A	2 kA <sup>2</sup> s	40 kA	128 mΩ	6 W

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

# Limiter<sup>®</sup>-G General Purpose Fuses

## TIME CURRENT CHARACTERISTIC CURVES

### Limiter<sup>®</sup> G 6-12kV

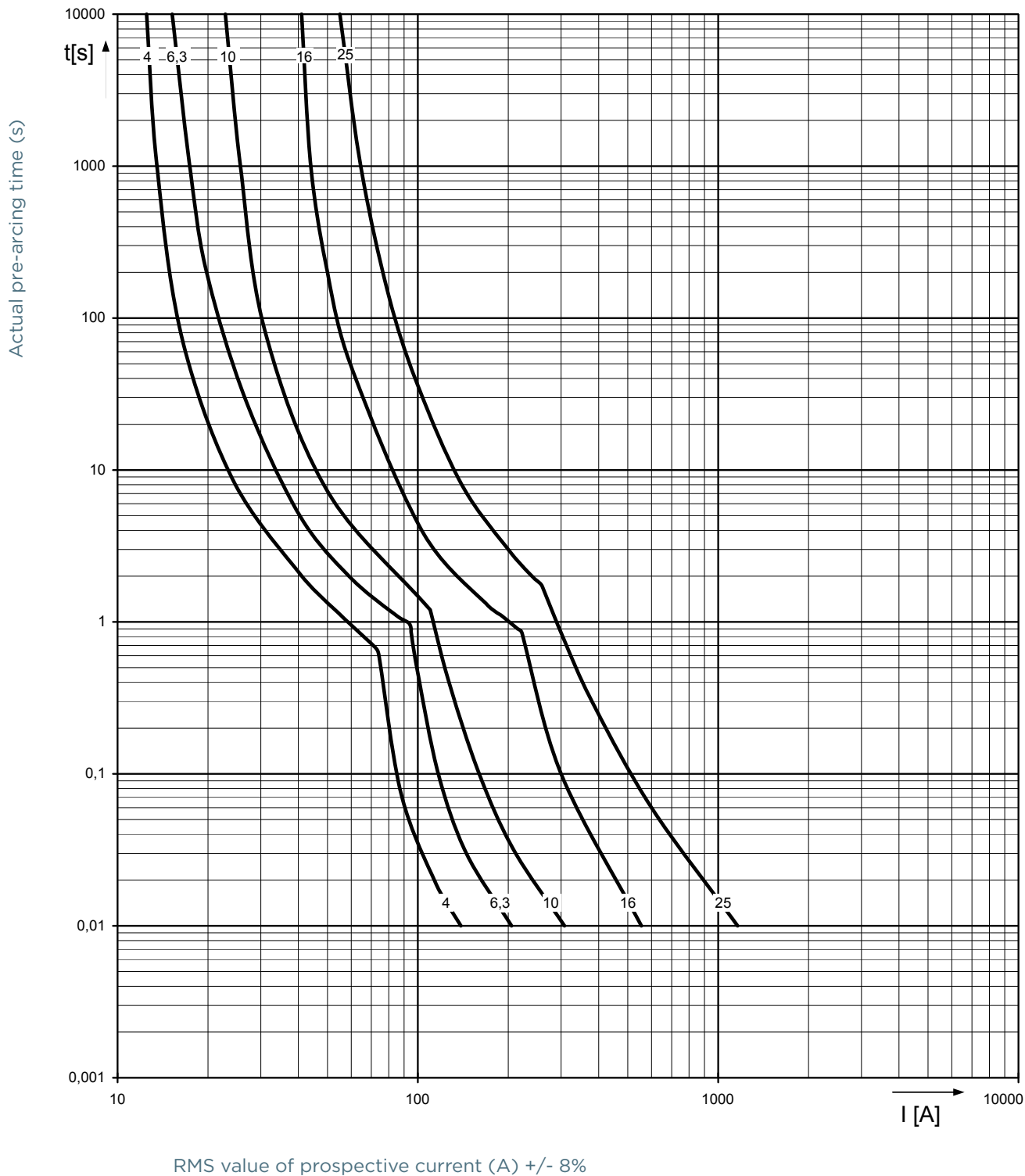


MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

# Limiter<sup>®</sup>-G General Purpose Fuses

## TIME CURRENT CHARACTERISTIC CURVES

### Limiter<sup>®</sup> G 10-24kV

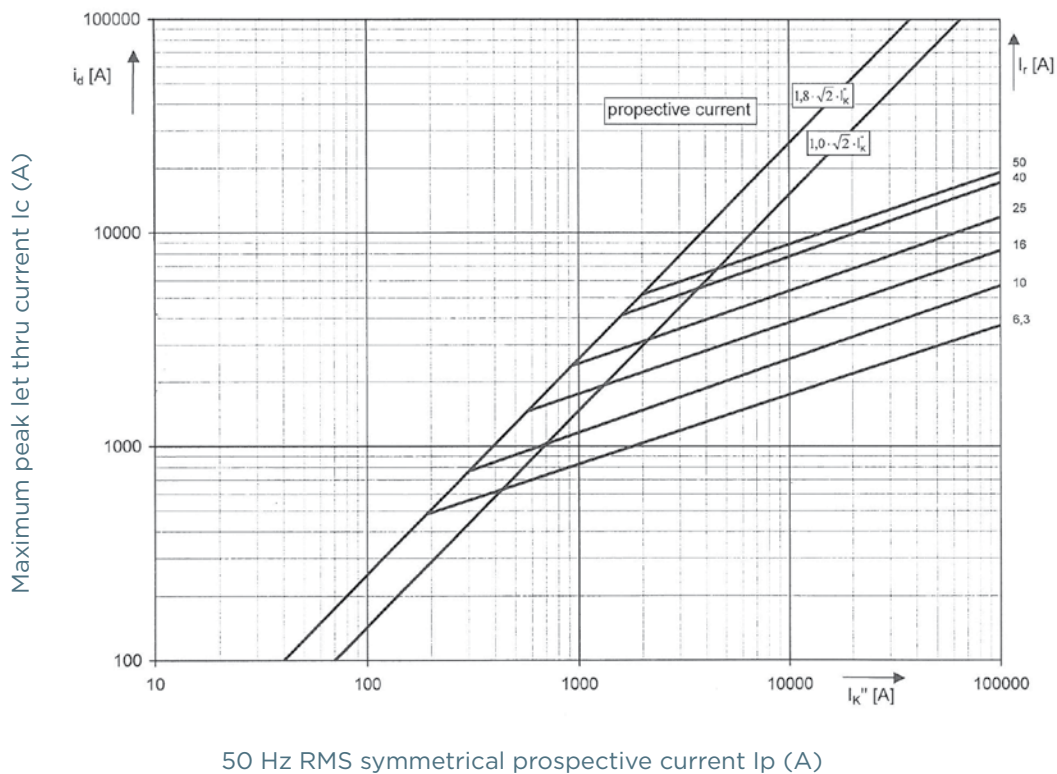


MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

# Limitor<sup>®</sup>-G General Purpose Fuses

## CUT-OFF CURRENT CHARACTERISTIC

### Limitor<sup>®</sup> G 6-12kV

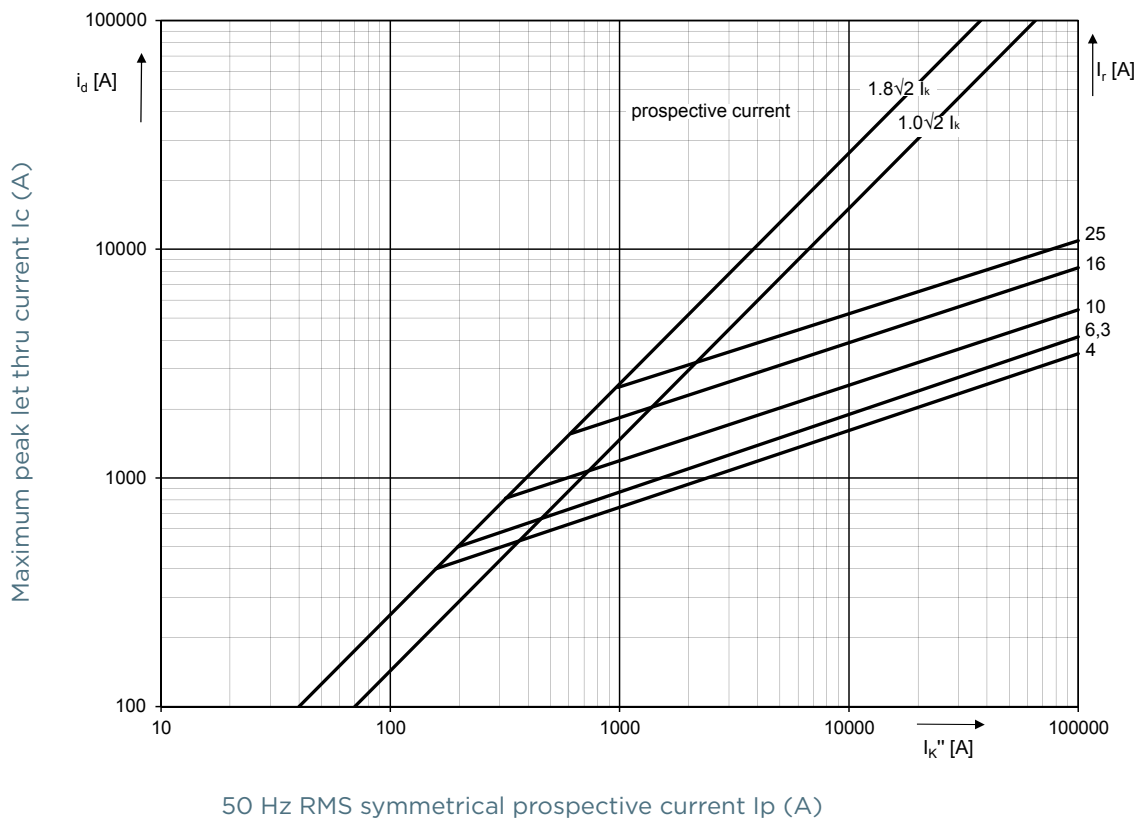


MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

# Limitor<sup>®</sup>-G General Purpose Fuses

## CUT-OFF CURRENT CHARACTERISTIC

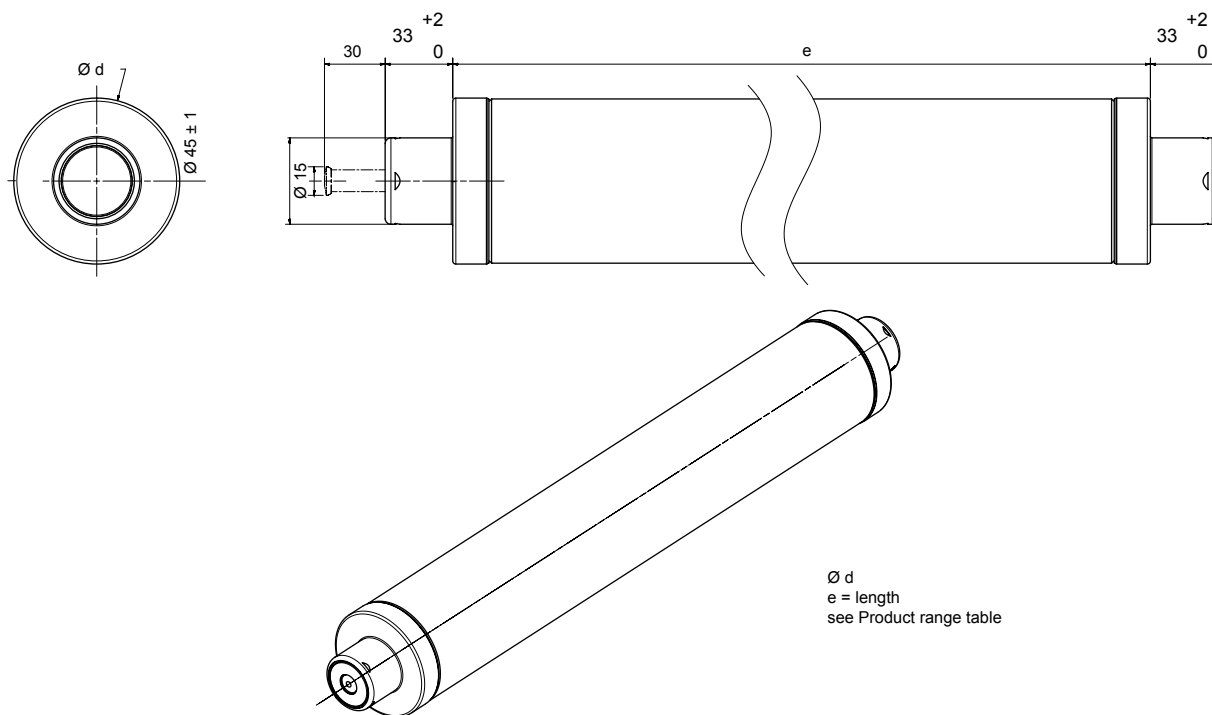
### Limitor<sup>®</sup> G 10-24kV



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

# Limator<sup>®</sup>-G General Purpose Fuses

## DIMENSIONS



Dimensions in mm

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

# Limiter<sup>®</sup>-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