Limitor®- PD Back-up Fuses

without Controlled Power Dissipation

HIGH VOLTAGE IEC FUSES

DIN HV BACK-UP 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®-PD HV fuses are back-up fuses as defined in the standards: IEC 60282-1 and VDE 0670 T402 and dedicated to protect transformers against effects of short-circuit currents.

The VDE 0670 T402 defines fuses between 6.3A and 160A, for other ratings, thanks to consult Limitor®-P HV fuses range.

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

	3/7,2kV 192mm	6/12kV 292mm	10/24kV 442mm	20/36kV 537mm
Rated current	6.3 ... 160 A	6.3 ... 160 A	6.3 ... 100 A	6.3 ... 63 A
Rated voltage range U_n	3/7.2 kV	6/12kV	10/24 kV	20/36 kV
Rated voltage of transformer	6 kV	10 kV	20 kV	30 kV

FEATURES & BENEFITS

- High breaking capacity
- High current limitation
- Low switching voltage
- Quick breaking
- medium striker 80N/30mm
- Energy efficency
- New cap design for a better compatibility with all types of clips and easier assembly
- Coordination with IEC 60787, IEC 62271-105, IEC/TR 62655
- Indoor and outdoor applications

APPLICATIONS

- HV Transformer protection

STANDARDS

- IEC 60282-1
- VDE 0670 part 4
- VDE 0670 part 402
- DIN 43625

lead-free

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PRODUCT RANGE

45DB72V125PD

Rated voltage 3 / 7,2 kV, length 192mm

Catalog number	Reference number	Rated current I_n	Clearing I^2t at Rated Voltage	Breaking capacity I_1	Minimum breaking current $I_3 = I_{min}$	Cold resistance	Power dissipation at In	Weight	Package
Ø56mm									
45DB72V6,3PD	S209293	6.3 A	0.8 kA²s	63 kA	21 A	256 mΩ	11 W	1.2 kg	1
45DB72V10PD	T209294	10 A	3 kA²s	63 kA	38 A	144 mΩ	19 W	1.2 kg	1
45DB72V16PD	V209295	16 A	2.34 kA²s	63 kA	65 A	41 mΩ	13 W	1.1 kg	1
45DB72V20PD	W209296	20 A	3.9 kA²s	63 kA	92 A	32 mΩ	14.5 W	1.2 kg	1
45DB72V25PD	X209297	25 A	4.9 kA²s	63 kA	110 A	25 mΩ	20 W	1.2 kg	1
45DB72V32PD	Y209298	31.5 A	7 kA²s	63 kA	123 A	19 mΩ	23 W	1.2 kg	1
45DB72V40PD	Z209299	40 A	14 kA²s	63 kA	140 A	12.3 mΩ	30 W	1.2 kg	1
45DB72V50PD	A209300	50 A	25.3 kA²s	63 kA	194 A	9.3 mΩ	35 W	1.2 kg	1
Ø65mm									
45DB72V63PD	M1000235	63 A	61.7 kA²s	63 kA	220 A	7 mΩ	60 W	1.5 kg	1
45DB72V80PD	N1000236	80 A	87.4 kA²s	63 kA	300 A	5.2 mΩ	85 W	1.5 kg	1
Ø78mm									
45DB72V100PD	P1000237	100 A	180 kA²s	63 kA	440 A	4 mΩ	96 W	2.1 kg	1
Ø88mm									
45DB72V125PD	Q1000100	125 A	440 kA²s	63 kA	440 A	2.9 mΩ	75 W	2.6 kg	1
45DB72V160PD	Q1000238	160 A	654 kA²s	63 kA	610 A	2.3 mΩ	120 W	2.6 kg	1

Rated voltage 6 / 12 kV, length 292mm

Catalog number	Reference number	Rated current I_n	Clearing I^2t at Rated Voltage	Breaking capacity I_1	Minimum breaking current $I_3 = I_{min}$	Cold resistance	Power dissipation at In	Weight	Package
Ø56mm									
45DB120V6,3PD	R1000239	6.3 A	0.8 kA²s	63 kA	23 A	409 mΩ	19 W	1.6 kg	1
45DB120V10PD	S1000240	10 A	3 kA²s	63 kA	35 A	231 mΩ	29 W	1.6 kg	1
45DB120V16PD	T1000241	16 A	3.7 kA²s	63 kA	64 A	69 mΩ	21 W	1.6 kg	1
45DB120V20PD	V1000242	20 A	4.7 kA²s	63 kA	90 A	53 mΩ	25 W	1.6 kg	1
45DB120V25PD	W1000243	25 A	4.92 kA²s	63 kA	95 A	41 mΩ	31 W	1.6 kg	1
45DB120V32PD	X1000244	31.5 A	7 kA²s	63 kA	110 A	31 mΩ	39 W	1.6 kg	1
45DB120V40PD	Y1000245	40 A	14 kA²s	63 kA	134 A	20 mΩ	46 W	1.6 kg	1
45DB120V50PD	Z1000246	50 A	25.3 kA²s	63 kA	190 A	16.7 mΩ	62 W	1.6 kg	1
Ø65mm									
45DB120V63PD	A1000247	63 A	63 kA²s	63 kA	220 A	11.7 mΩ	60 W	2.2 kg	1
45DB120V80PD	B1000248	80 A	87 kA²s	63 kA	345 A	8.7 mΩ	82 W	2.2 kg	1
Ø78mm									
45DB120V100PD	C1000249	100 A	180 kA²s	63 kA	400 A	6.7 mΩ	96 W	3.1 kg	1
Ø88mm									
45DB120V125PD	D1000250	125 A	440 kA²s	63 kA	480 A	4.9 mΩ	117 W	3.8 kg	1
45DB120V160PD	E1000251	160 A	654 kA²s	63 kA	610 A	3.8 mΩ	175 W	3.8 kg	1

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PRODUCT RANGE

Rated voltage 10 / 24 kV, length 442mm

Catalog number	Reference number	Rated current I_n	Clearing I^2t at Rated Voltage	Breaking capacity I_1	Minimum breaking current $I_3 = I_{min}$	Cold resistance	Power dissipation at In	Weight	Package
Ø56mm									
45DB240V6,3PD	F1000252	6.3 A	0.8 kA²s	63 kA	23 A	640 mΩ	32 W	2.4 kg	1
45DB240V10PD	G1000253	10 A	2 kA²s	63 kA	36 A	386 mΩ	48 W	2.4 kg	1
45DB240V16PD	H1000254	16 A	2.34 kA²s	63 kA	73 A	127 mΩ	43 W	2.4 kg	1
45DB240V20PD	J1000255	20 A	3.9 kA²s	63 kA	91 A	97 mΩ	53 W	2.4 kg	1
45DB240V25PD	K1000256	25 A	6.5 kA²s	63 kA	116 A	74 mΩ	64 W	2.4 kg	1
45DB240V32PD	L1000257	31.5 A	7 kA²s	63 kA	125 A	61 mΩ	85 W	2.4 kg	1
45DB240V40PD	M1000258	40 A	14.2 kA²s	63 kA	161 A	43 mΩ	103 W	2.4 kg	1
Ø65mm									
45DB240V50PD	N1000259	50 A	24.2 kA²s	63 kA	230 A	35 mΩ	146 W	3.1 kg	1
45DB240V63PD	P1000260	63 A	46.4 kA²s	63 kA	350 A	25 mΩ	163 W	3.1 kg	1
45DB240V80PD	Q1000261	80 A	104 kA²s	63 kA	460 A	19 mΩ	196 W	3.1 kg	1
Ø88mm									
45DB240V100PD	R1000262	100 A	140 kA²s	63 kA	420 A	14 mΩ	279 W	4.3 kg	1

45DB360V63PD

Rated voltage 20 / 36 kV, length 537mm

Catalog number	Reference number	Rated current I_n	Clearing I^2t at Rated Voltage	Breaking capacity I_1	Minimum breaking current $I_3 = I_{min}$	Cold resistance	Power dissipation at In	Weight	Package
Ø56mm									
45DB360V6,3PD	S209362	6.3 A	0.6 kA²s	31.5 kA	23 A	827 mΩ	39 W	2.7 kg	1
45DB360V10PD	T209363	10 A	2 kA²s	31.5 kA	34 A	463 mΩ	65 W	2.7 kg	1
45DB360V16PD	V209364	16 A	2.34 kA²s	31.5 kA	70 A	210 mΩ	67 W	2.7 kg	1
45DB360V20PD	W209365	20 A	3.9 kA²s	31.5 kA	100 A	165 mΩ	84 W	2.7 kg	1
45DB360V25PD	X209366	25 A	6.5 kA²s	31.5 kA	110 A	125 mΩ	100 W	2.7 kg	1
Ø65mm									
45DB360V32PD	Y209367	31.5 A	7 kA²s	31.5 kA	135 A	85 mΩ	119 W	3.7 kg	1
45DB360V40PD	Z209368	40 A	14.2 kA²s	20 kA	205 A	65 mΩ	176 W	3.7 kg	1
Ø88mm									
45DB360V50PD	J1000117	50 A	40 kA²s	20 kA	220 A	42 mΩ	183 W	6.5 kg	1
45DB360V63PD	K1000118	63 A	61.7 kA²s	20 kA	360 A	35 mΩ	271 W	6.5 kg	1

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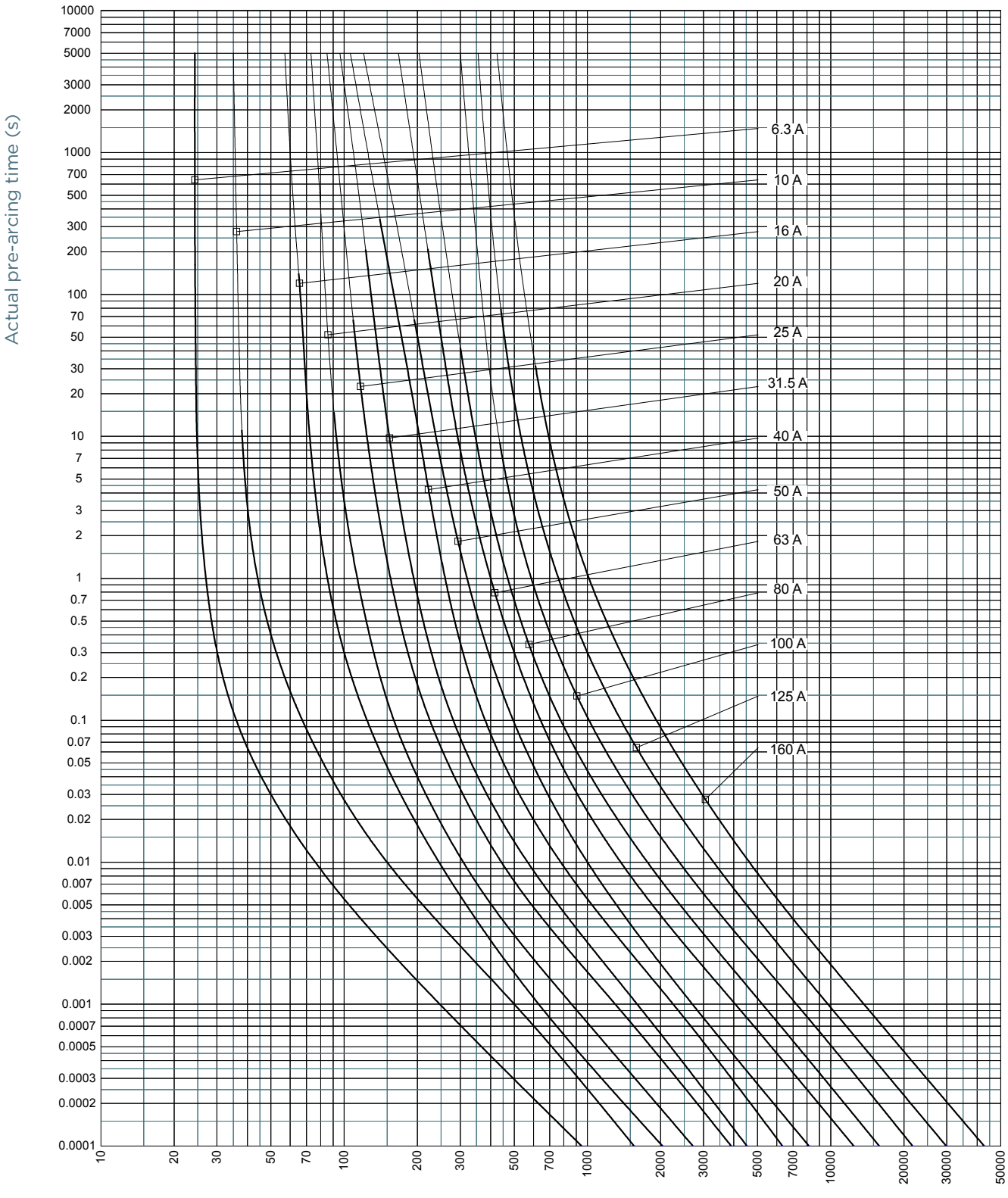
TIME CURRENT CHARACTERISTIC CURVES

Limitor® PD 7,2kV 192mm



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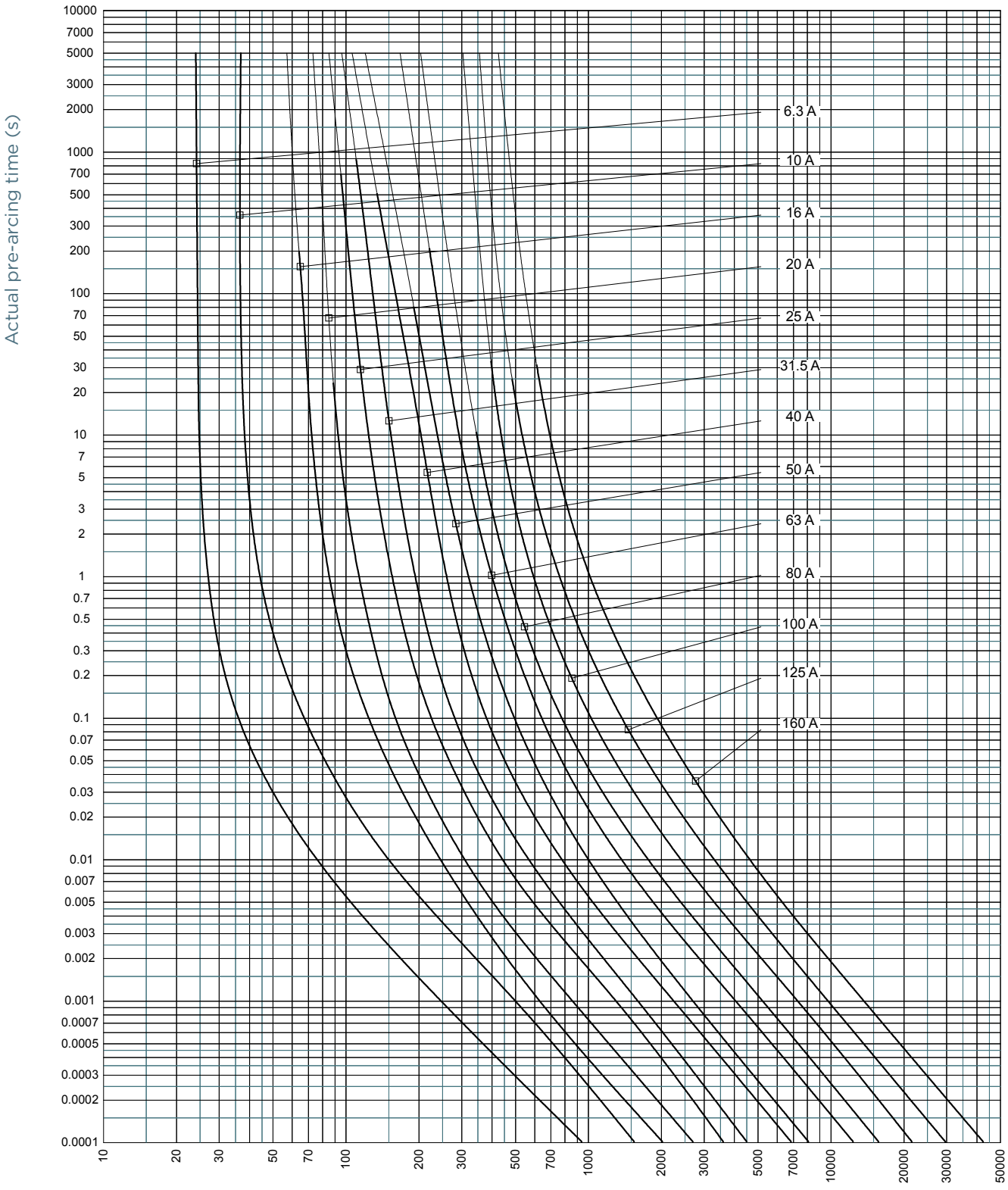
TIME CURRENT CHARACTERISTIC CURVES

Limitor® PD 12kV 292mm



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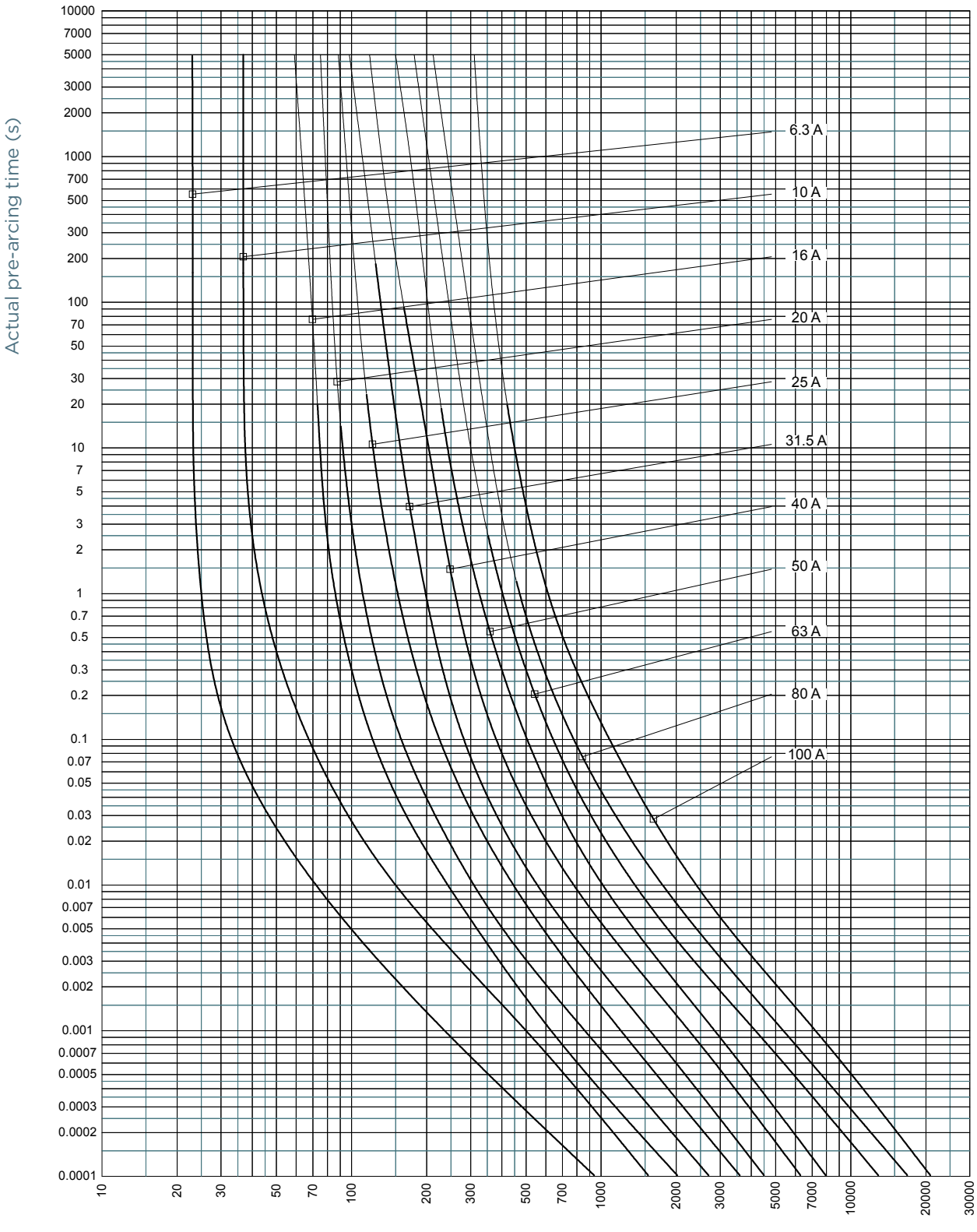
TIME CURRENT CHARACTERISTIC CURVES

Limitor® PD 24kV 442mm



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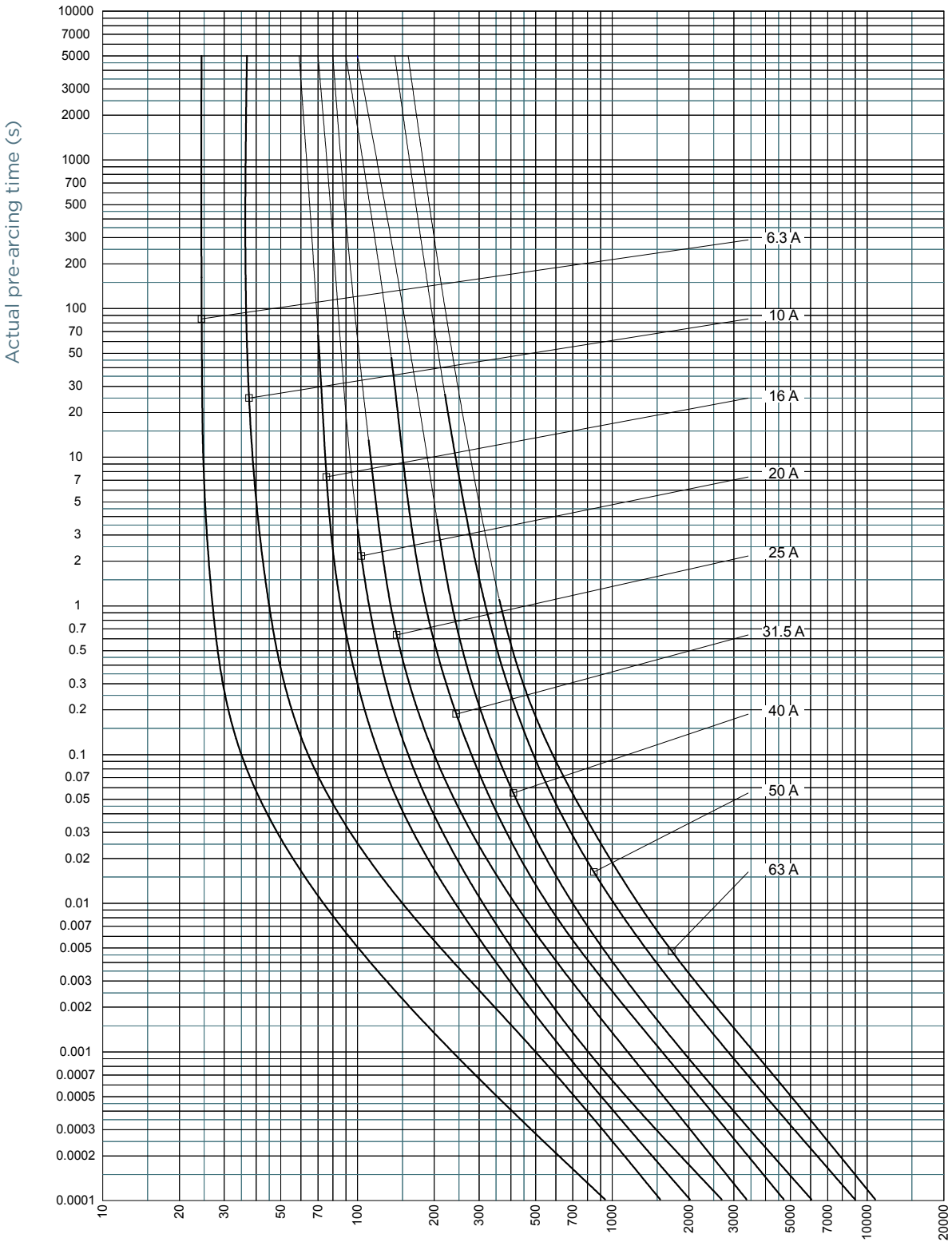
TIME CURRENT CHARACTERISTIC CURVES

Limitor® PD 36kV 537mm



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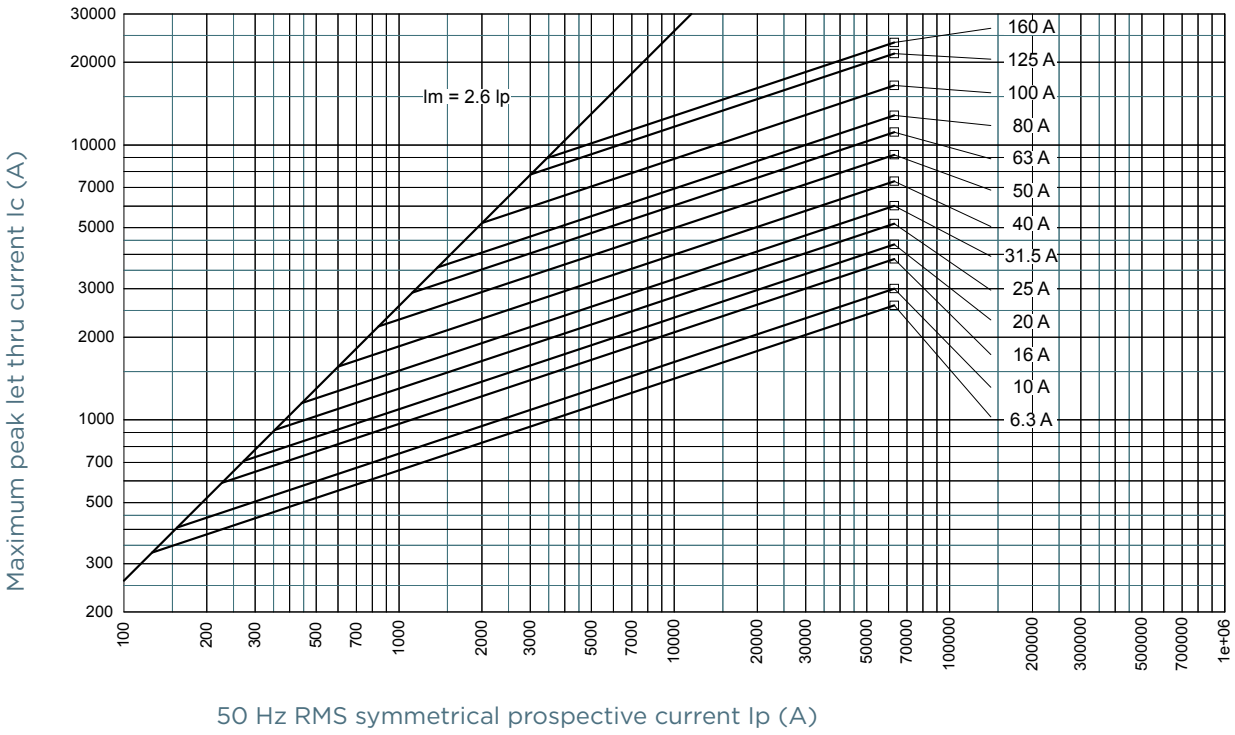
CUT-OFF CURRENT CHARACTERISTIC

Limitor® PD 7,2kV 192mm



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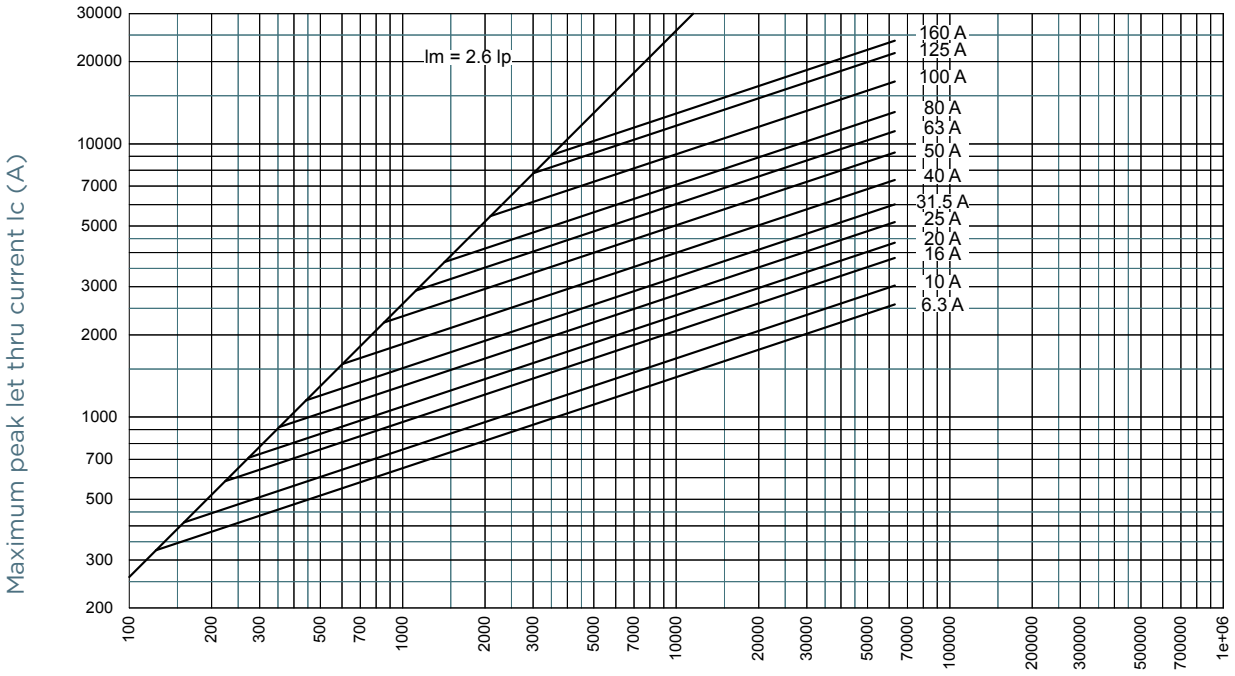

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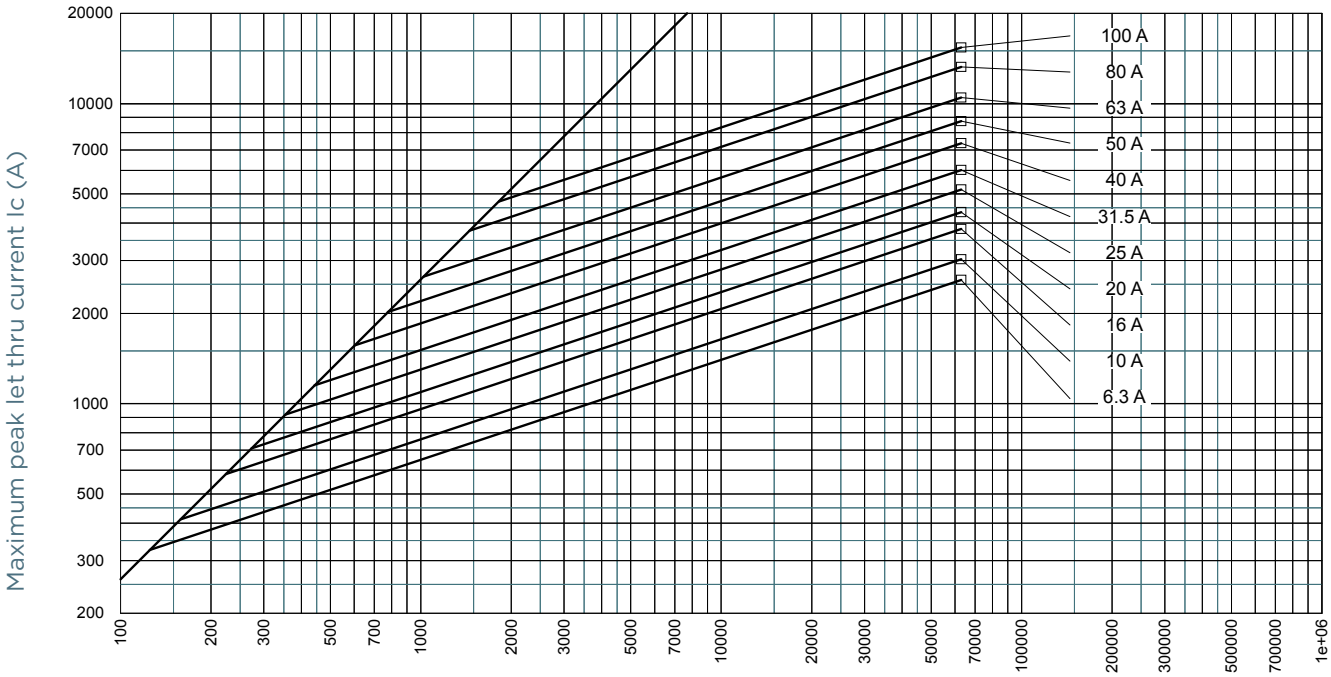
CUT-OFF CURRENT CHARACTERISTIC

Limitor® PD 24kV 442mm



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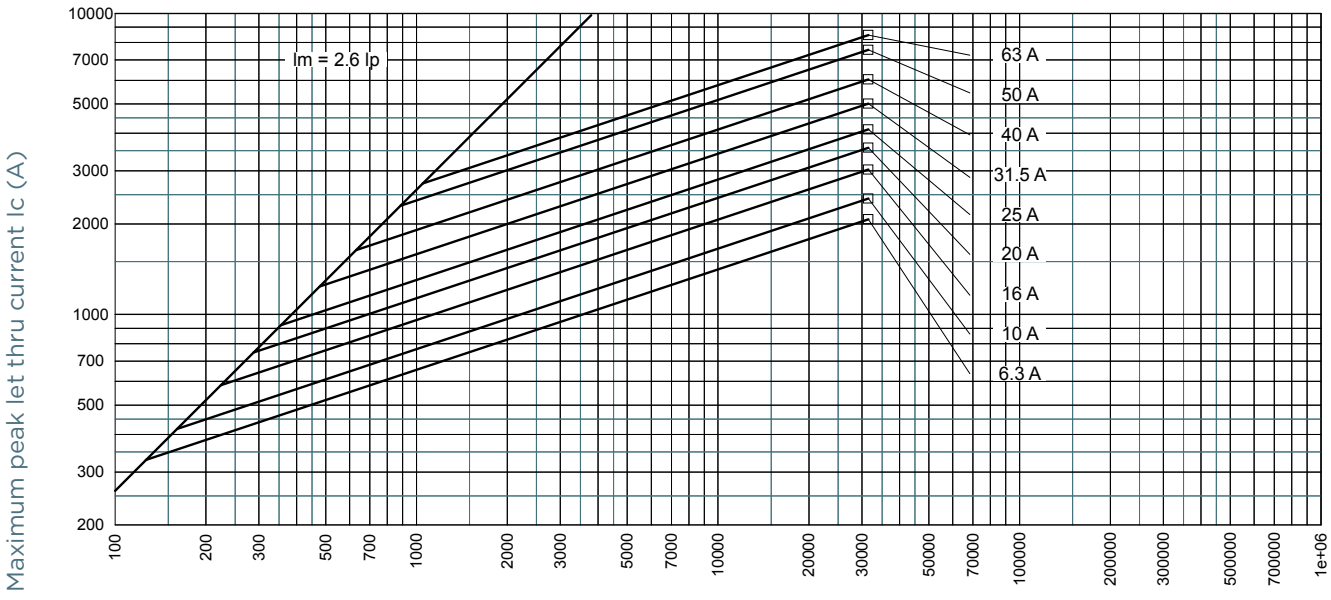

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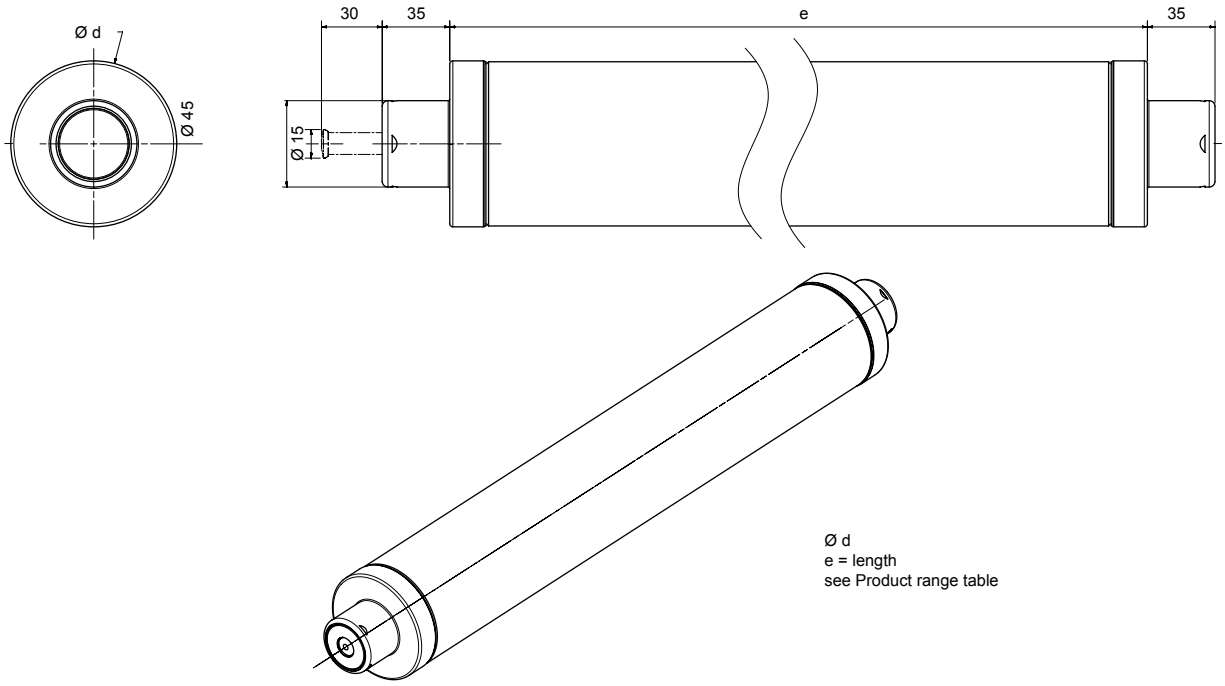
DIMENSIONS



Dimensions in mm

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