

# Special Purpose

## HelioProtection® Photovoltaic fuse-links

### DC120-123 1000 to 1200VDC 50 to 400A

The HelioProtection® fuse DC120-123 series are designed for the protection of cables in a PV groups of chains when a short circuit occurs in a panel.

These HelioProtection® fuse comply with the IEC 60269-1 standard and the IEC 60269-6 standard with specific mechanical dimensions. They are of the gPV type.



#### Benefits

Low fault current interrupting capability

Temperature cycle withstand capability

Durable construction for enhanced system longevity

High efficiency with low power losses

#### Applications

All photovoltaic applications  
Re-combiner (sub-combiner, array combiner, master combiner) applications

Inverter DC input protection  
Battery charge controllers

Size	Rated Voltage (V)	Nominal Current (A)	Class	Catalog Number EF	Reference Number EF	Catalog Number PA	Reference Number PA
120	1200	50	gPV	DC120GPV12C050E	X1003993	DC120GPV12C050P	A1025386
120	1200	63	gPV	DC120GPV12C063E	Y1003994	DC120GPV12C063P	D1025389
120	1200	80	gPV	DC120GPV12C080E	Z1003995	DC120GPV12C080P	E1025390
121	1200	100	gPV	DC121GPV12C100E	A1003996	DC121GPV12C100P	F1025391
121	1200	125	gPV	DC121GPV12C125E	B1003997	DC121GPV12C125P	G1025392
121	1200	160	gPV	DC121GPV12C160E	C1003998	DC121GPV12C160P	H1025393
121	1200	200	gPV	DC121GPV12C200E	D1003999	DC121GPV12C200P	K1025395
121	1200	250	gPV	DC121GPV12C250E	E1004000	DC121GPV12C250P	L1025396
122	1100	315	gPV	DC122GPV11C315E	F1004001	DC122GPV11C315P	M1025397
123	1000	400	gPV	DC123GPV10C400E	G1004002	DC123GPV10C400P	N1025398

#### Ratings

1000VDC: 50-400A, L/R = 1ms  
IR: 100kA I.R. DC  
Minimum Breaking Capacity:  
1.45 x I<sub>n</sub>

#### Approvals

IEC 60269-6  
UL Recognition pending  
RoHS Component



#### Related products

SE & SP Bases

Packaging: 1 piece

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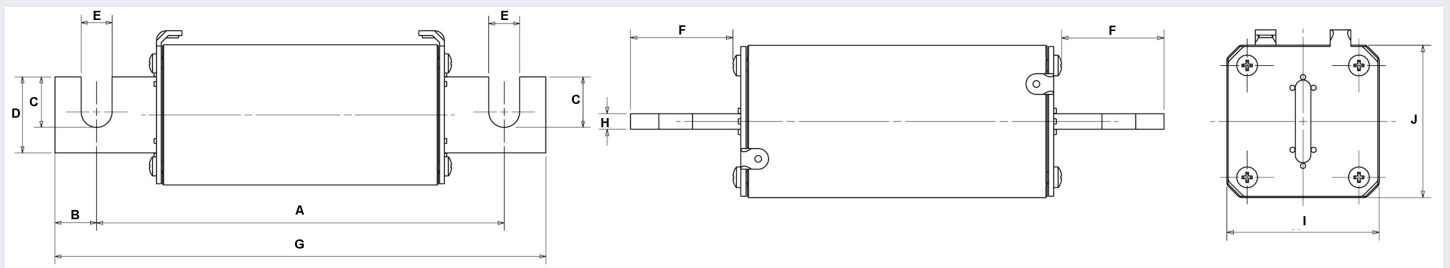
### DC120-123 1000 to 1200VDC 50 to 400A



Size	Rated Voltage (V)	Nominal Current (A)	Pre-arcing I <sup>2</sup> t (A <sup>2</sup> s)	Clearing I <sup>2</sup> t @ Rated Voltage (A <sup>2</sup> s)	Watts Loss @ 100% In (W)	Watts Loss @ 70% In (W)
120	1200	50	204.8	1150	20	8.3
120	1200	63	364.5	2050	23	9.5
120	1200	80	755.8	4250	25	10.4
121	1200	100	933.1	5250	38	15.2
121	1200	125	1700	9570	41	16.4
121	1200	160	3414	19200	47	18.8
121	1200	200	7579	42650	52	20.8
121	1200	250	13650	76800	60	24
122	1100	315	27200	153000	67	26.8
123	1000	400	47370	266500	84	32.3

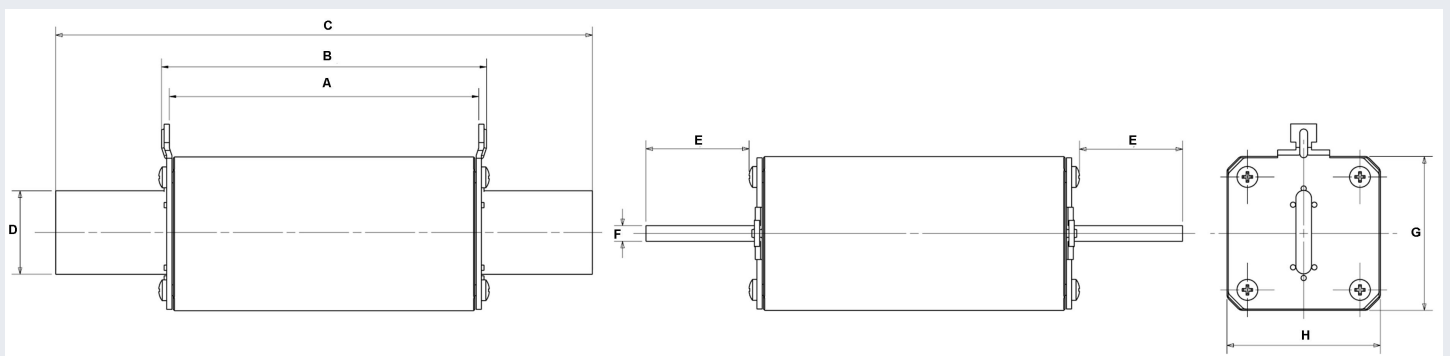
### Dimensions (mm)

#### EF Blades



Size	Mounting type	A	B	C	D	E	F	G	H	I	J
120	EF	156	11.7	11	18	9	28	179.4	6	39	41
121	EF	167.5	11.75	13.2	25	11.1	32	191	6	51	51
122	EF	171.4	17.5	21.25	32	13	39.6	206.4	6	59	59
123	EF	171.4	17.5	19.5	40	13	39.1	206.4	6	73	73

#### PA Plain Blades



Size	Mounting type	A	B	C	D	E	F	G	H
120	PA	115	120	176.4	18	27	6	41	39
121	PA	119	125	190.4	25	31.7	6	51	51
122	PA	119	125	206.4	32	39.6	6	59	59
123	PA	119	125	206.4	40	39.1	6	73	73



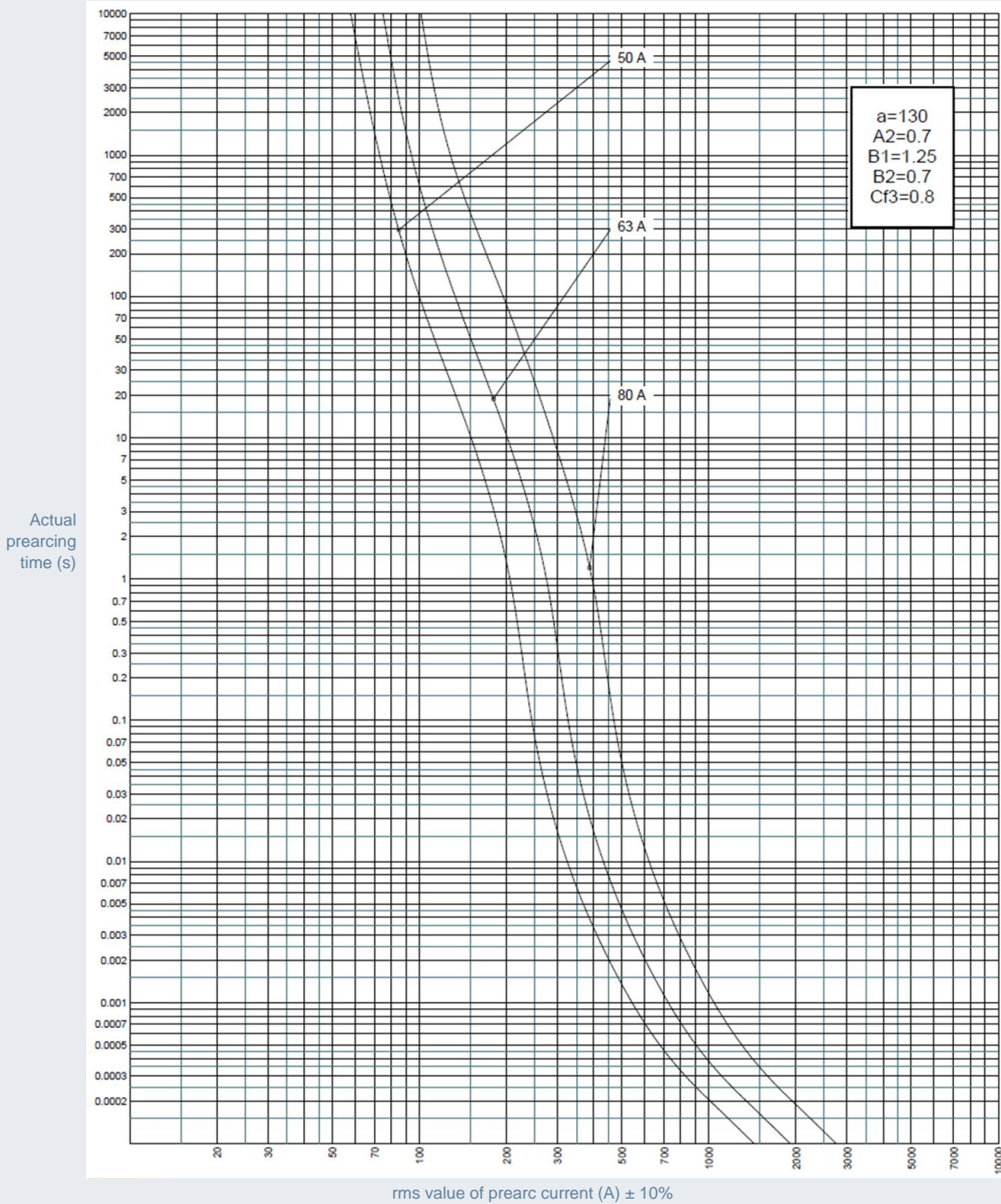


# Special Purpose

## HelioProtection® Photovoltaic fuse-links

DC120-123 1000 to 1200VDC 50 to 400A

Time current characteristics  
Size 120



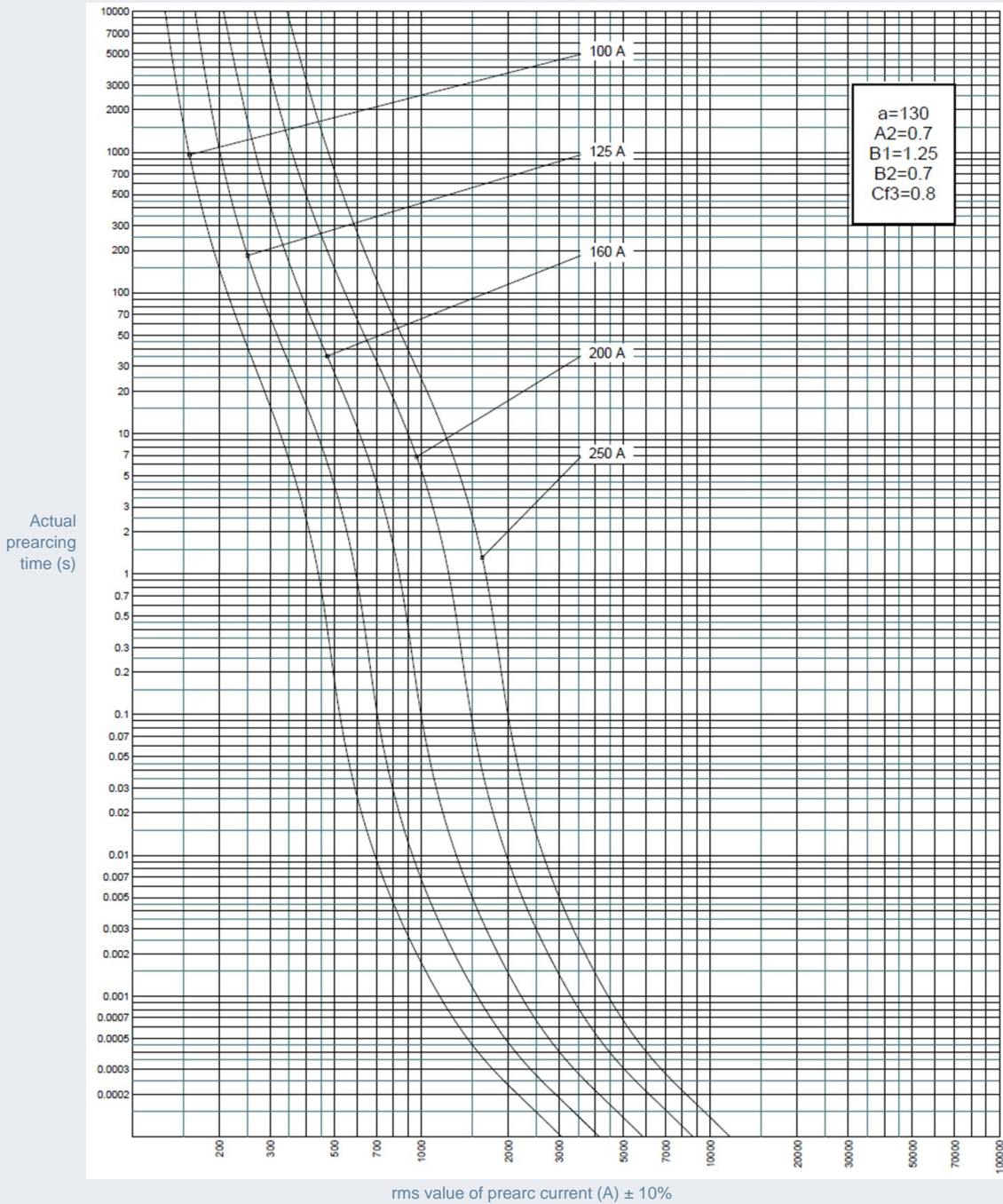


# Special Purpose

## HelioProtection® Photovoltaic fuse-links

DC120-123 1000 to 1200VDC 50 to 400A

Time current characteristics  
Size 121





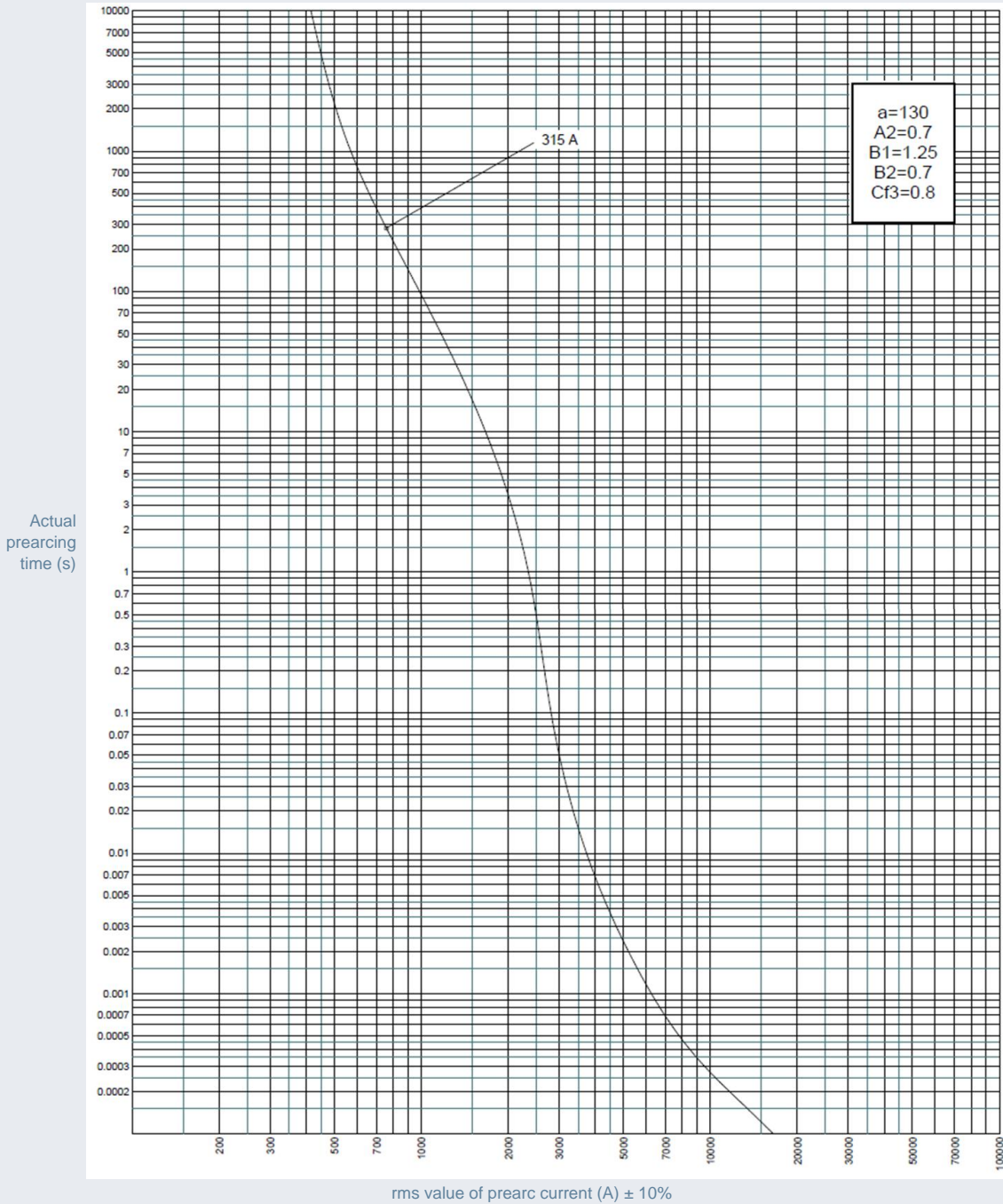


# Special Purpose

## HelioProtection® Photovoltaic fuse-links

DC120-123 1000 to 1200VDC 50 to 400A

Time current characteristics  
Size 122



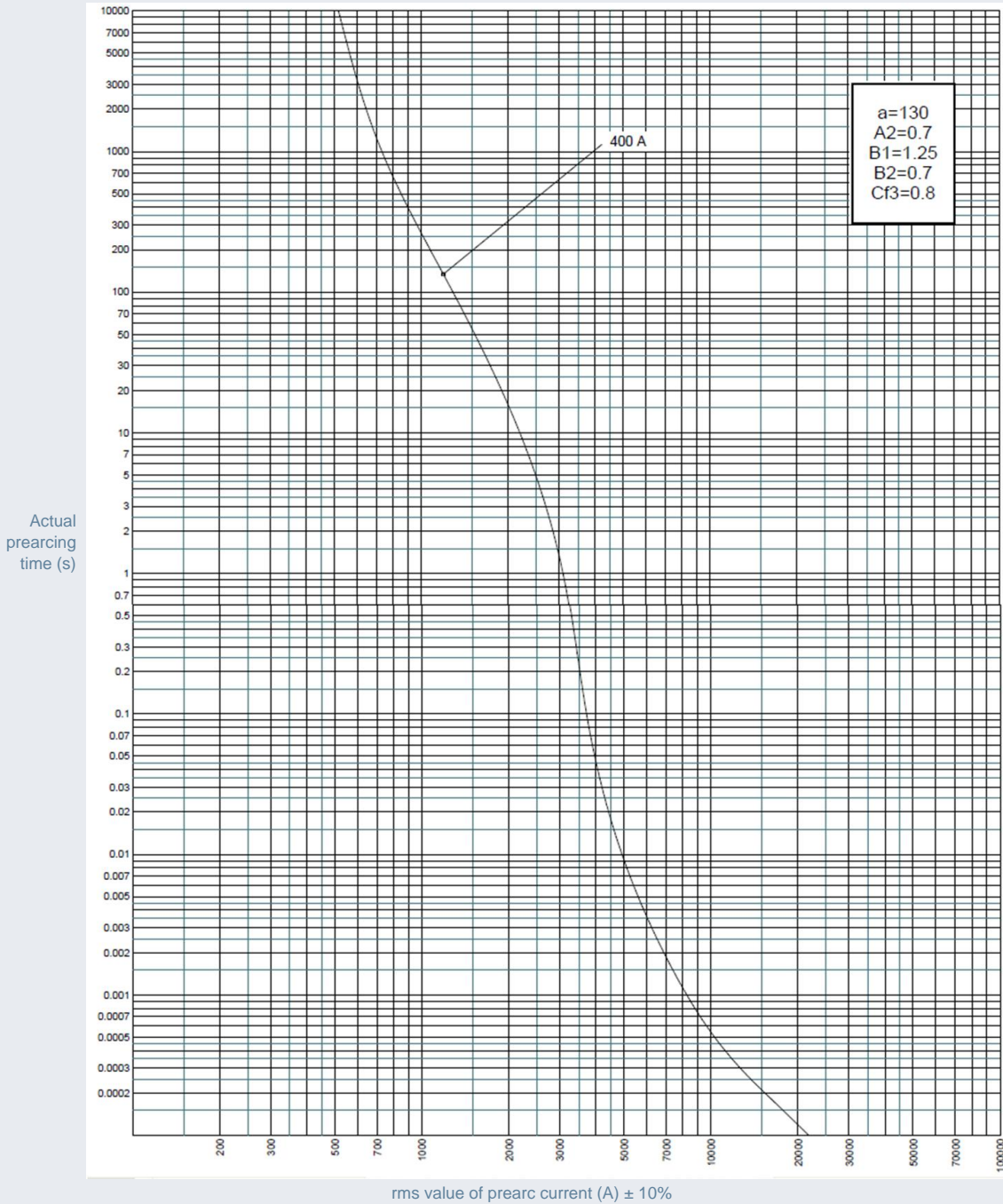


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DC120-123 1000 to 1200VDC 50 to 400A

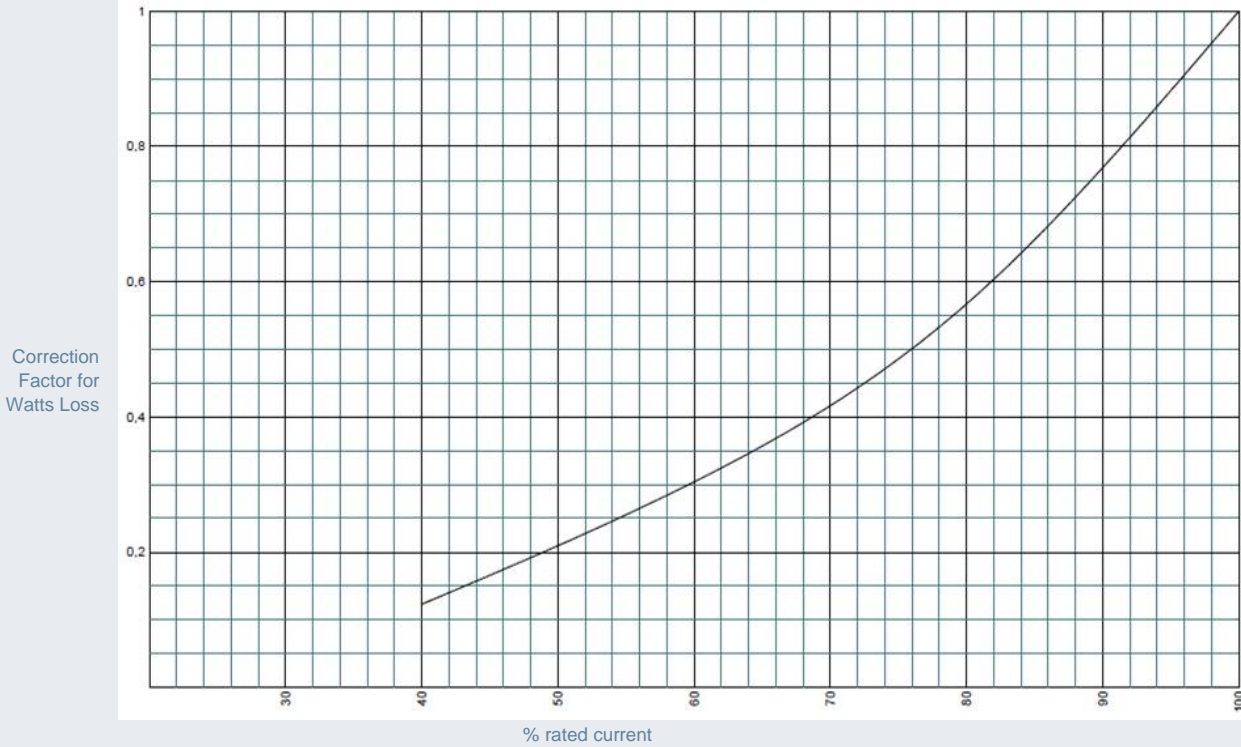
Time current characteristics  
Size 123



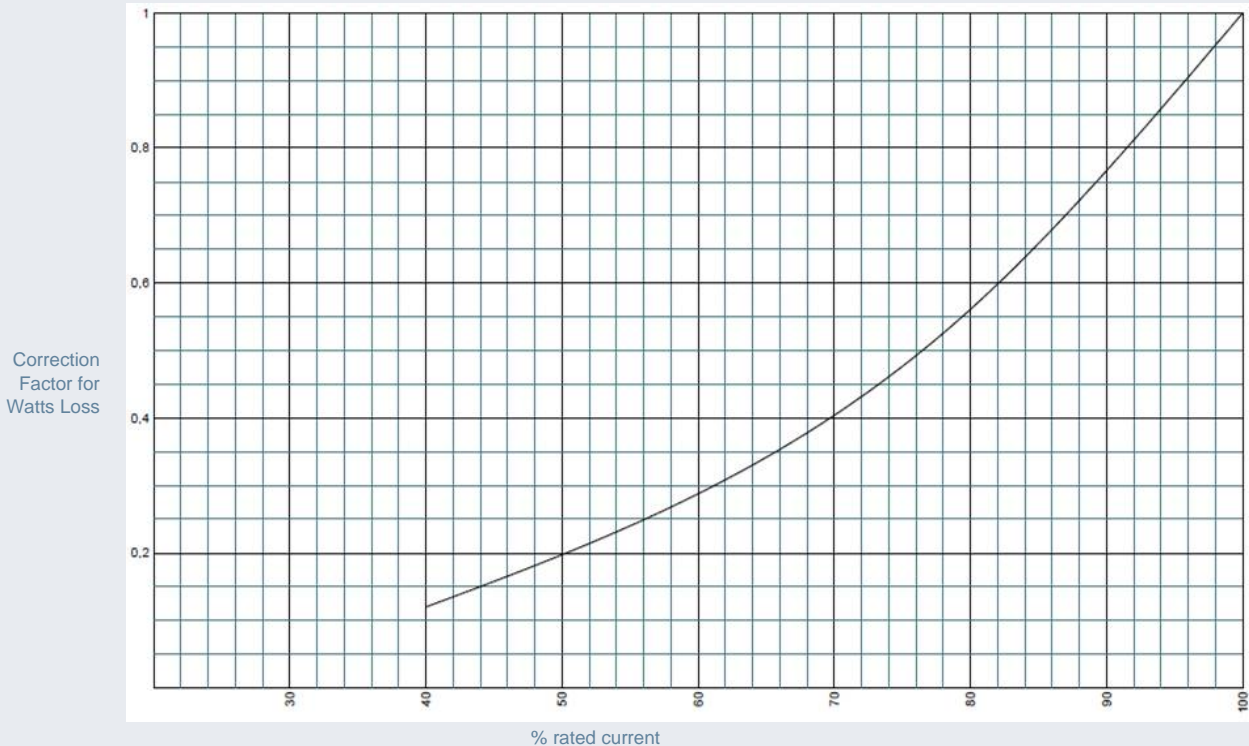


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Watts loss vs % rated current  
Size 120



Watts loss vs % rated current  
Size 121





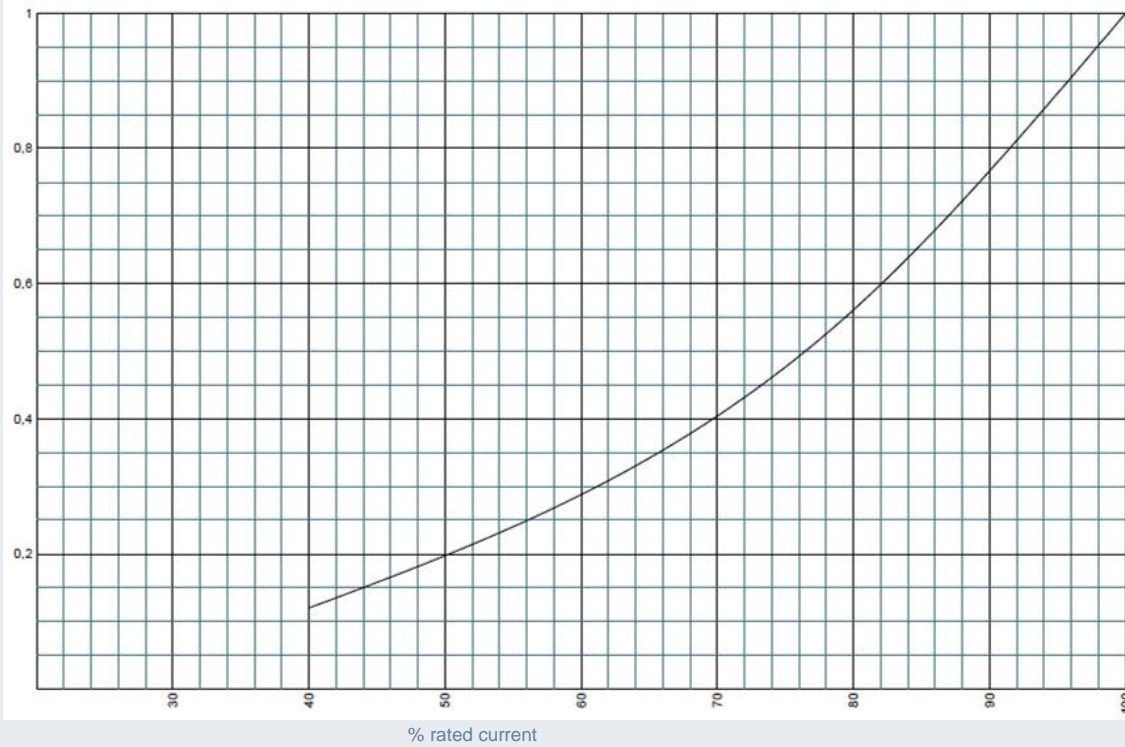


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Watts loss vs % rated current  
Size 122

Correction  
Factor for  
Watts Loss



Watts loss vs % rated current  
Size 123

Correction  
Factor for  
Watts Loss

