NH gBat fuse-link 1000V d.c.

General characteristics

Rated voltage	1000V d.c. (L/R=1ms)
Breaking capacity	30kA d.c.
Characteristic	gBat
Standard	IEC 60269-7
Application	Fuse-link for battery protection.

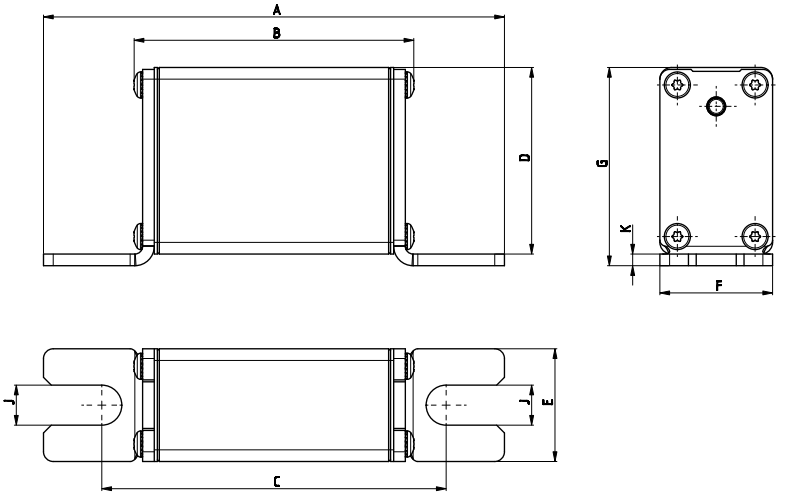
Patented technology by European Patent Office



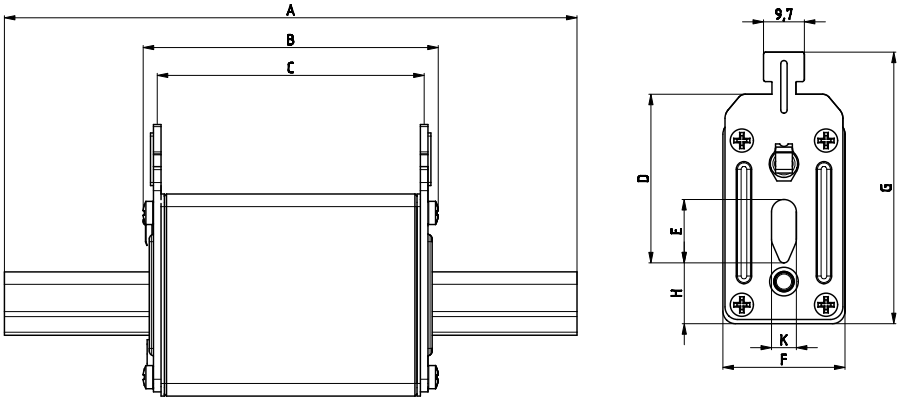
NH gBat fuse-link 1000V d.c.

Size	I_n [A]	Standard indicator	S_{110} screw contact	U_{110} screw contact	G screw contact with centre trip indicator for microswitch MK	Power dissipation [W]	Power dissipation $0,7xI_n$ [W]	Pre-arcing Joule integral [A²s]	Operating Joule integral [A²s]	g	
00/90	32	004110950	/	/	/	8,8	3,8	52	430	300	3/45
	40	004110951	/	/	/	10,3	4,3	96	730		
	50	004110952	/	/	/	14,1	5,7	155	920		
	63	004110953	/	/	/	15,8	6,4	290	1.760		
	80	004110954	/	/	/	17,1	7,0	520	3.160		
	100	004110955	/	/	/	19,5	8,1	1.110	5.280		
	125	004110956	/	/	/	19,0	7,9	2.800	11.340		
	160	004110957	/	/	/	26,1	10,5	5.950	20.750		
0	32	004110960	/	/	/	8,8	3,8	52	430	280	3/45
	40	004110961	/	/	/	10,3	4,3	96	730		
	50	004110962	/	/	/	14,1	5,7	155	920		
	63	004110963	/	/	/	15,8	6,4	290	1.760		
	80	004110964	/	/	/	17,1	7,0	520	3.160		
	100	004110965	/	/	/	19,5	8,1	1.110	5.280		
	125	004110966	/	/	/	19,0	7,9	2.800	11.340		
	160	004110967	/	/	/	26,1	10,5	5.950	20.750		
1C	32	004110970	/	/	/	8,8	3,8	52	430	300	3/45
	40	004110971	/	/	/	10,3	4,3	96	730		
	50	004110972	/	/	/	14,1	5,7	155	920		
	63	004110973	/	/	/	15,8	6,4	290	1.760		
	80	004110974	/	/	/	17,1	7,0	520	3.160		
	100	004110975	/	/	/	19,5	8,1	1.110	5.280		
	125	004110976	/	/	/	19,0	7,9	2.800	11.340		
	160	004110977	/	/	/	26,1	10,5	5.950	20.750		
1	200	004110760	/	/	/	27	11	4.400	29.000	500	3/24
2	200	004110761	004110769	004110774	004110755	26	11	4.400	29.000	650	1/16 (G type 2/32)
	250	004110762	004110770	004110775	004110756	36	15	6.000	38.000		
3	160	004110763	/	/	/	38	15	5.000	10.000	1200	3/15 (G type 2/9)
	200	004110764	/	/	/	45	18	10.000	20.000		
	250	004110765	/	/	/	44	18	20.000	40.000		
	315	004110766	004110771	004110776	004110757	54	24	40.000	80.000		
	350	004110767	004110772	004110777	004110758	55	25	45.000	90.000		
	400	004110768	004110773	004110778	004110759	58	24	46.000	138.000		

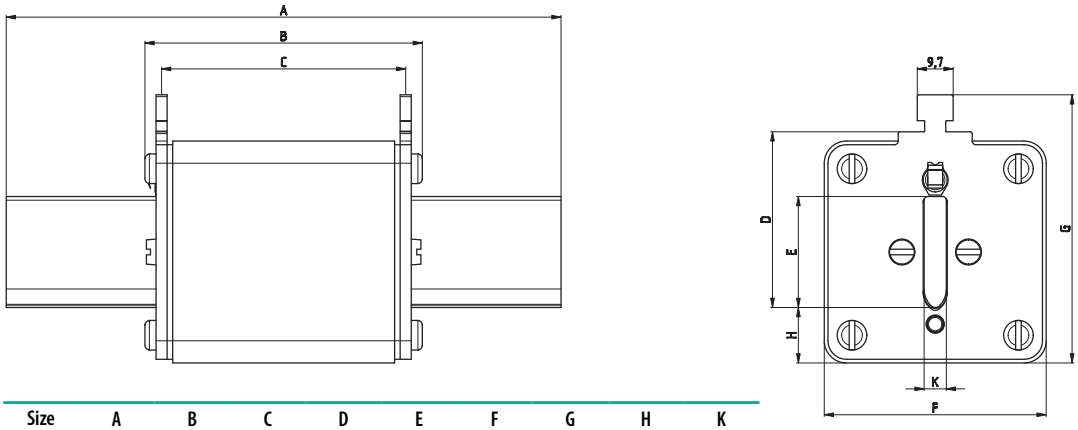
Standard indicator



Size	A	B	C	D	E	F	G	K	J
00/90	119	72	92	48	29	29	51	3	10

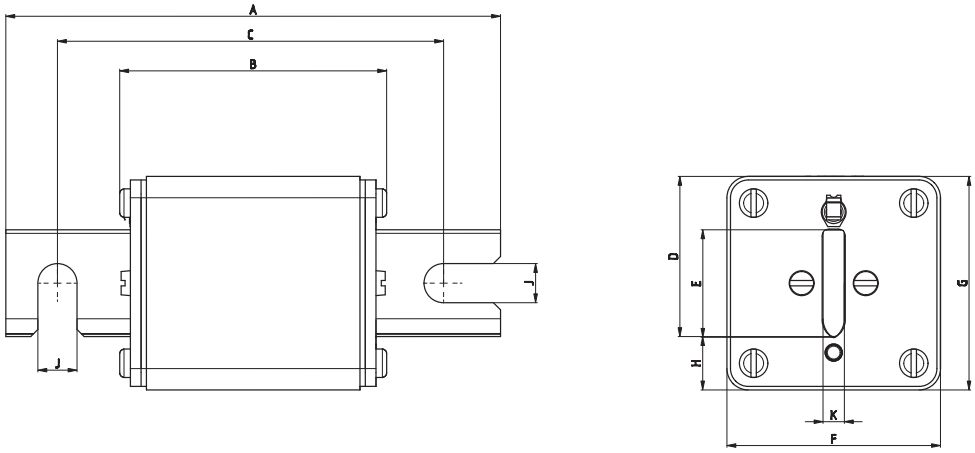


Size	A	B	C	D	E	F	G	H	K
0	125	72	66	35	15	30	60	15	6
1C	135	72	66	40	15	30	65	15	6

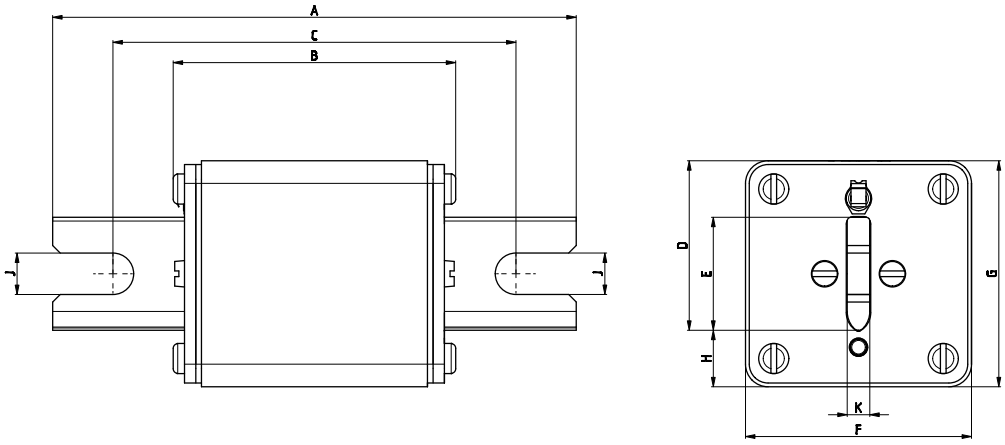


Size	A	B	C	D	E	F	G	H	K
1	135	74	70	42	24	51	67	13,5	6
2	150	74	70	48	30	61	71	15	6
3	150	74	70	60	37	73	87	18	6

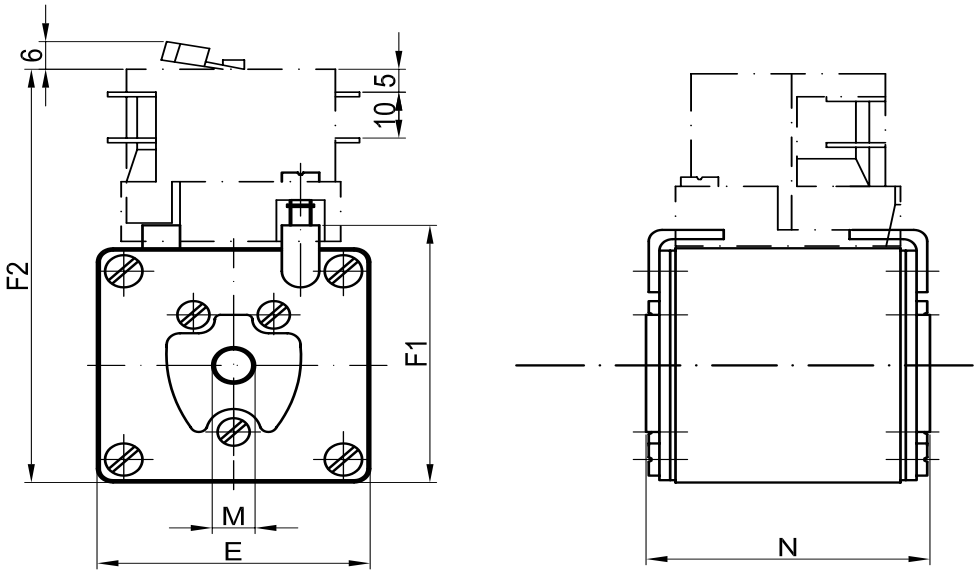
S_{110} screw contact



U_{110} screw contact



Size	A	B	C	D	E	F	G	H	K	J - NHS	J - NHU
2 S,U	140	73	110	45	30	60	60	15	6	11	13
3 S,U	140	73	110	55	37	73	73	18	6	11	13

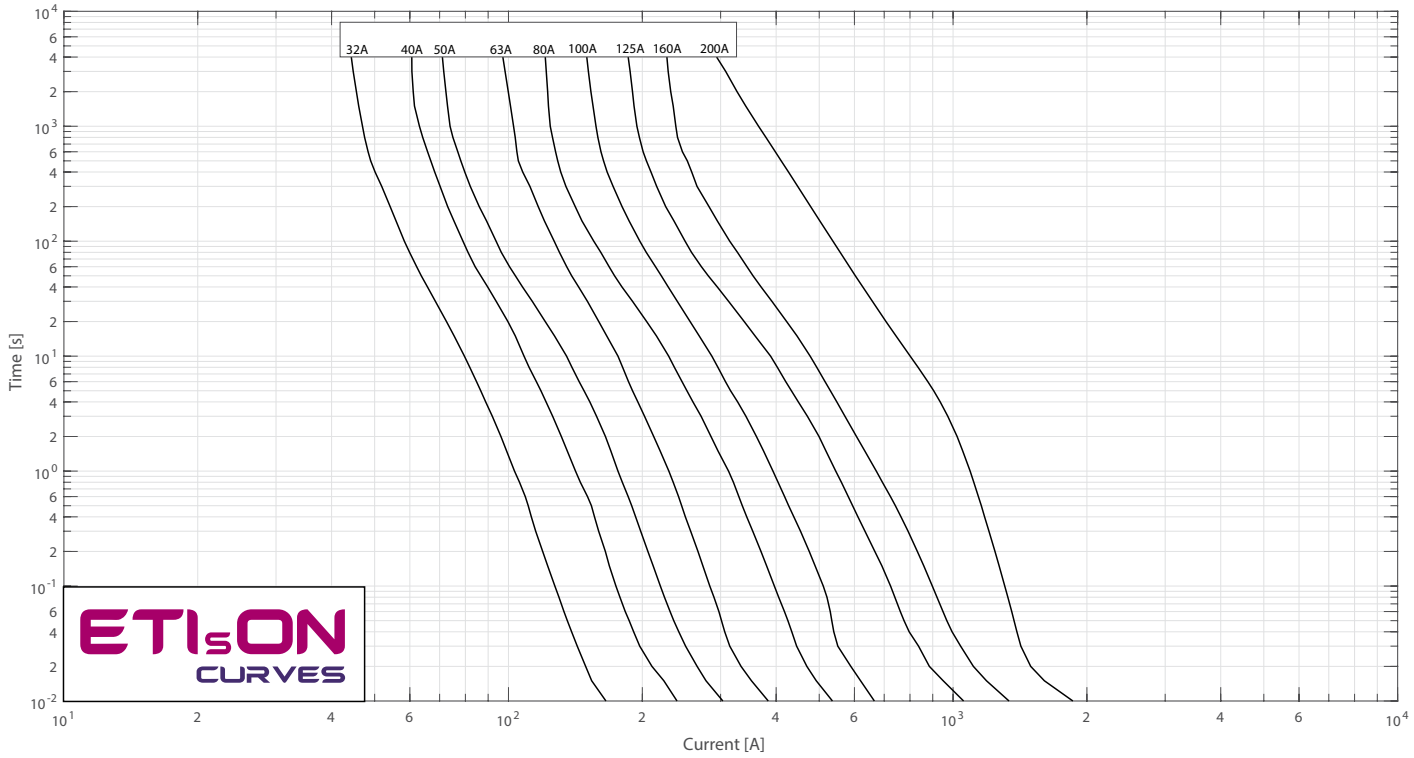


G screw contact

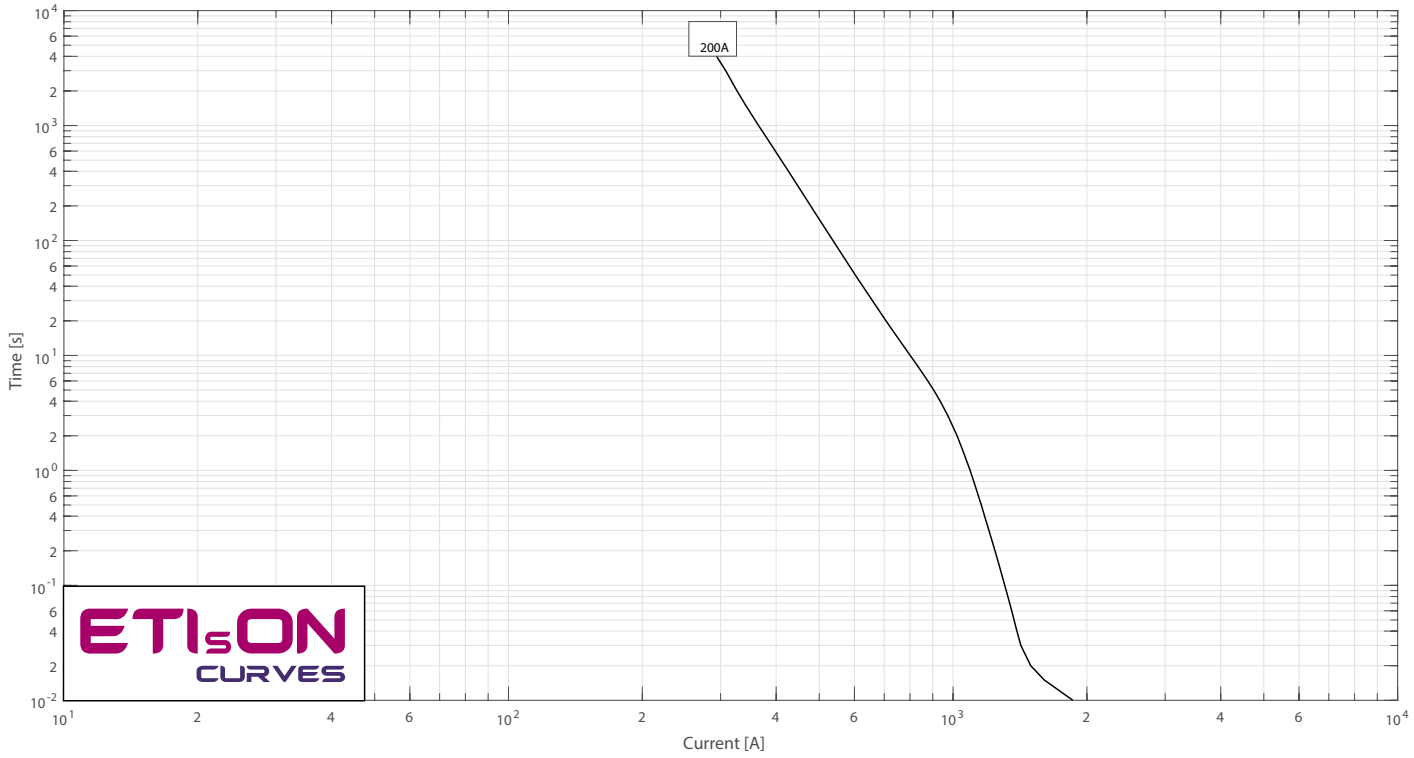
Size	D	E	F1	F2	M	N
2	60	60	65	99	M10	75
3	75	75	80	114	M12	75

Time current characteristics I/t

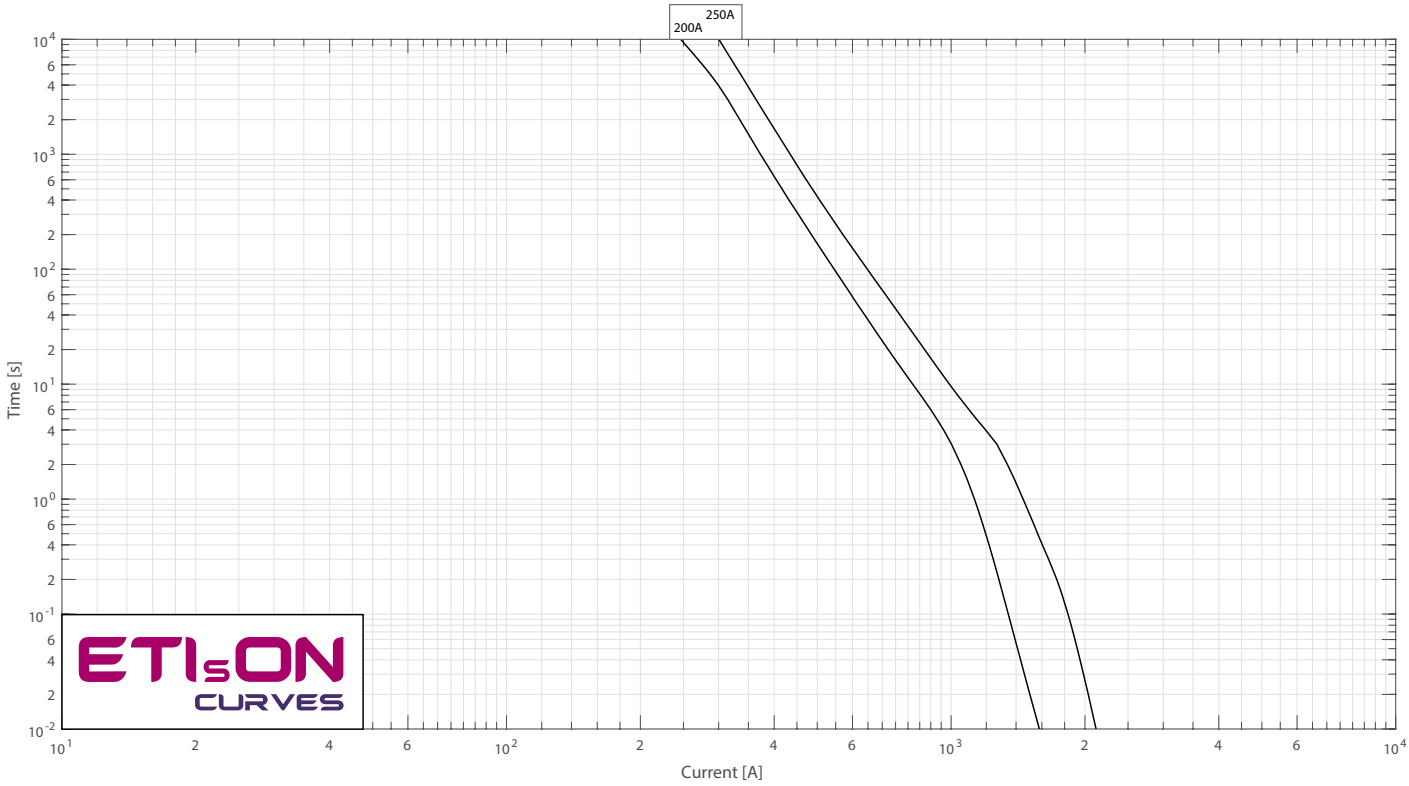
NH0, 1C, 1 1000V



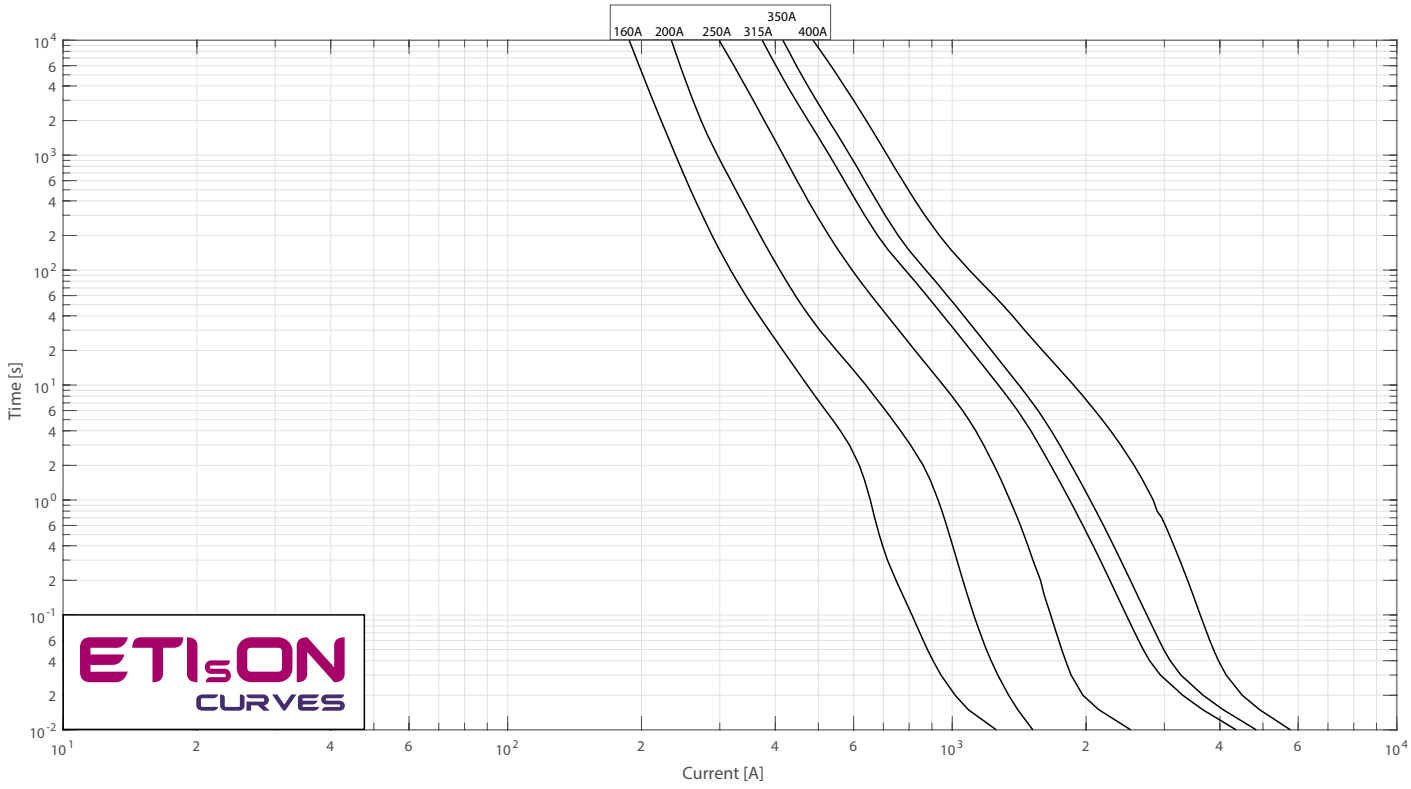
NH1 1000V



NH2 1000V



NH3 1000V



NH XL gBat fuse-link 1500V d.c.

General characteristics

Rated voltage	1500V d.c. (L/R=3ms)
Rated current	50 - 630A
Breaking capacity	100kA d.c.
Standard	IEC60269-7
Application	For battery protection. Applied in fuse base PK XL 1500V.

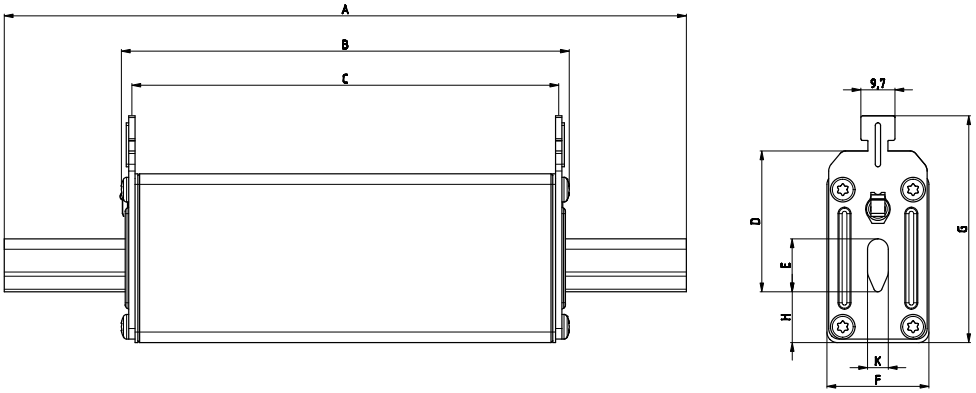
Patented technology by European Patent Office

NH gBat fuse-link 1500V d.c.

Size	I_n [A]	Standard indicator	S_{170} screw contact	U_{170} screw contact	Power dissipation [W]	Power dissipation $0,7xI_n$ [W]	Pre-arcing Joule integral L/R=3ms [A^2s]	Operating Joule integral L/R=3ms [A^2s]	For use with	g	
01XL	50	004110698	004110782	004110788	18	7	1.100	6.500	PK1XL 1500V	450	3/30
	63	004110699	004110783	004110789	22	8,5	2.500	13.000			
	80	004110700	004110784	004110790	21	9	4.500	32.500			
	100	004110701	004110785	004110791	29	11	7.500	54.000			
	125	004110702	004110786	004110792	36	13	9.000	65.000			
	160	004110703	004110787	004110793	46	17	13.000	104.000			
1XL	50	004110650	004110657	004110664	14	6	1.000	8.000		950	1/15
	63	004110651	004110658	004110665	14	6,2	2.000	13.000			
	80	004110652	004110659	004110666	16	7	6.000	32.000			
	100	004110653	004110660	004110667	19	8,3	12.500	56.000			
	125	004110654	004110661	004110668	22	9,7	19.000	80.000			
	160	004110655	004110662	004110669	30	13,2	24.000	104.000			
	200	004110656	004110663	004110670	32,5	13,7	27.500	160.000			
2XL	200	004110671	004110673	004110675	36	15,9	50.000	165.000	PK2XL 1500V	1350	1/9
	250	004110672	004110674	004110676	44	19,3	90.000	286.000			
3L	315	004110677	004110682	004110687	57	22,2	60.000	350.000	PK3L 1500V	1970	1/9
	350	004110678	004110683	004110688	61	23,7	70.000	400.000			
	400	004110679	004110684	004110689	67	26,8	80.000	550.000			
	450	004110680	004110685	004110690	75	29	120.000	700.000			
	500	004110681	004110686	004110691	79	44,3	150.000	850.000			
	630	004110779	004110780	004110781	102	40	280.000	1.600.000			

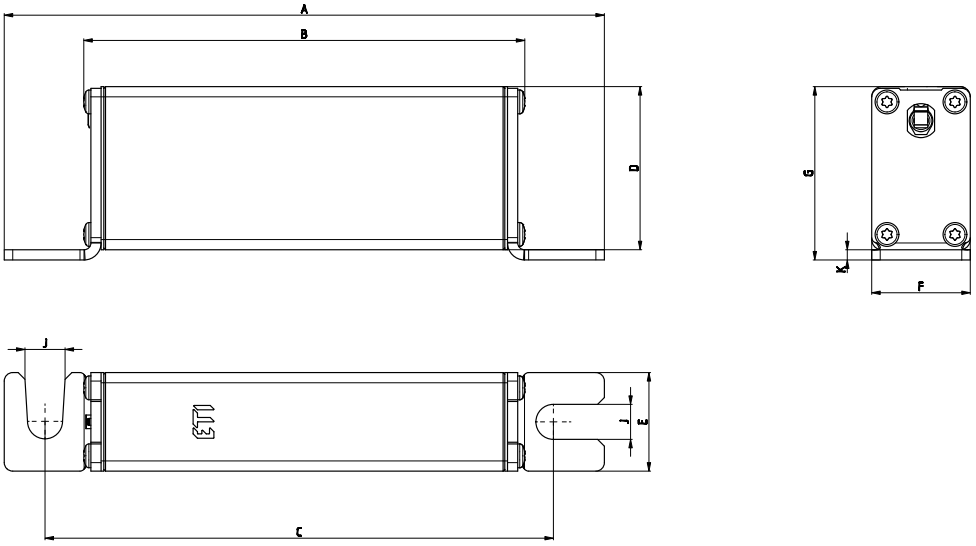


NH 01XL

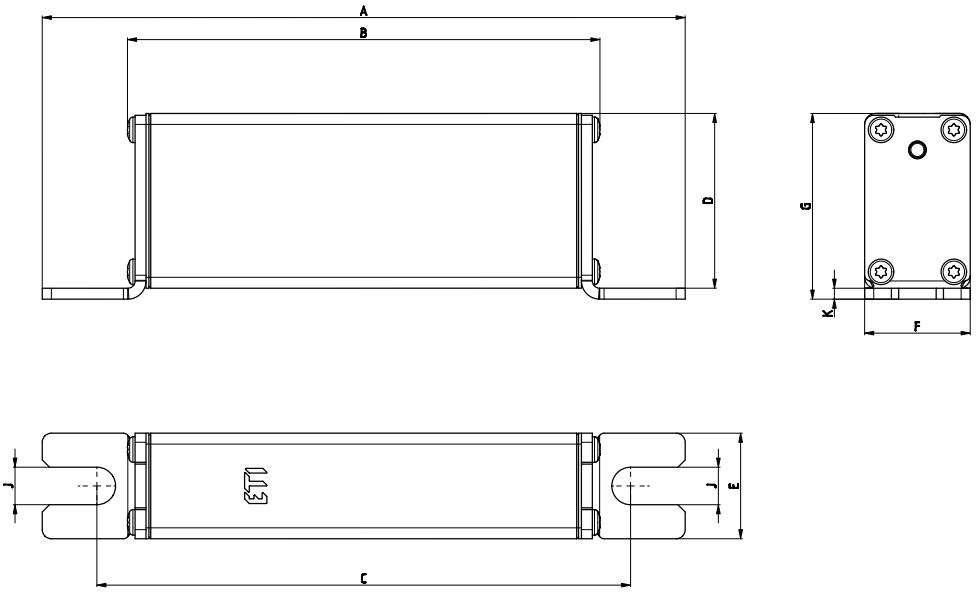


	A	B	C	D	E	F	G	H	K
01XL	194	128	123,2	40	15	29	65	15	6

NHS 01XL

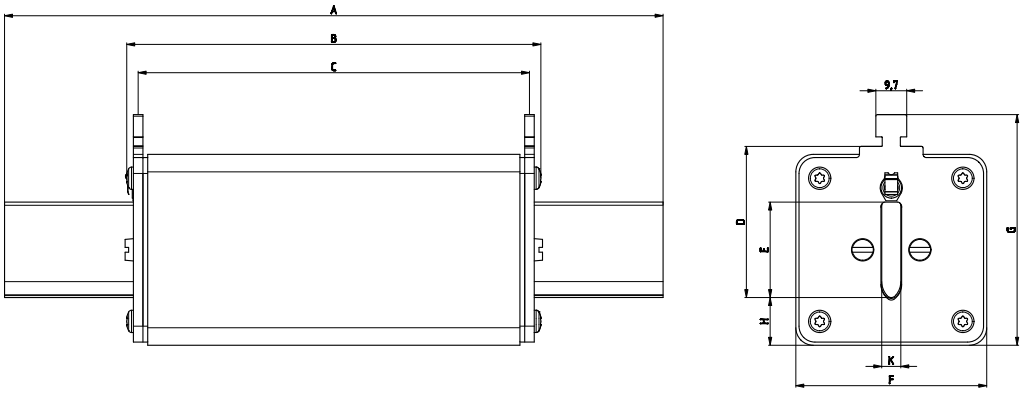


NHU 01XL



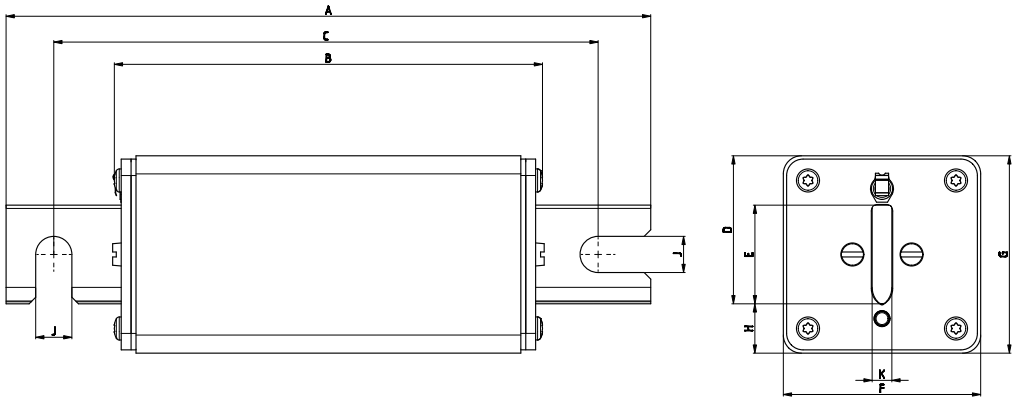
	A	B	C	F	G	K	J
01XL S,U	177	130	150	29	51	3	10

NH 1XL, 2XL, 3L

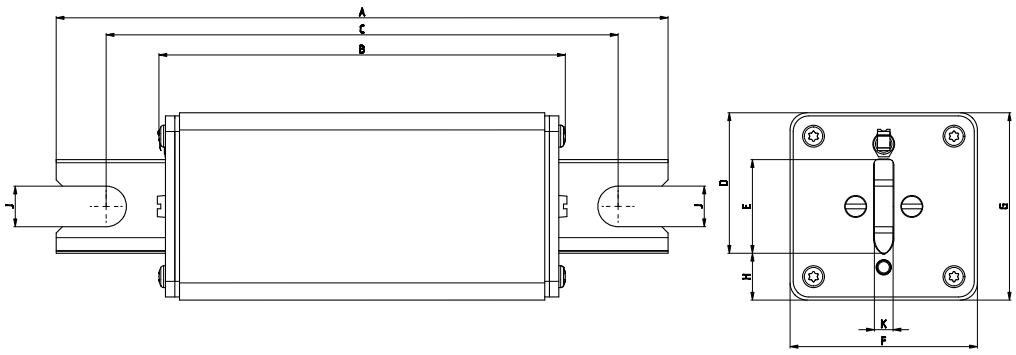


	A	B	C	D	E	F	G	H	K
1XL	192	131	125	42	24	51	67	13,5	6
2XL	208	130	126	48	30	61	71	15	6
3L	208	130	126	60	37	73	87	18	6

NHS 1XL, 2XL, 3L



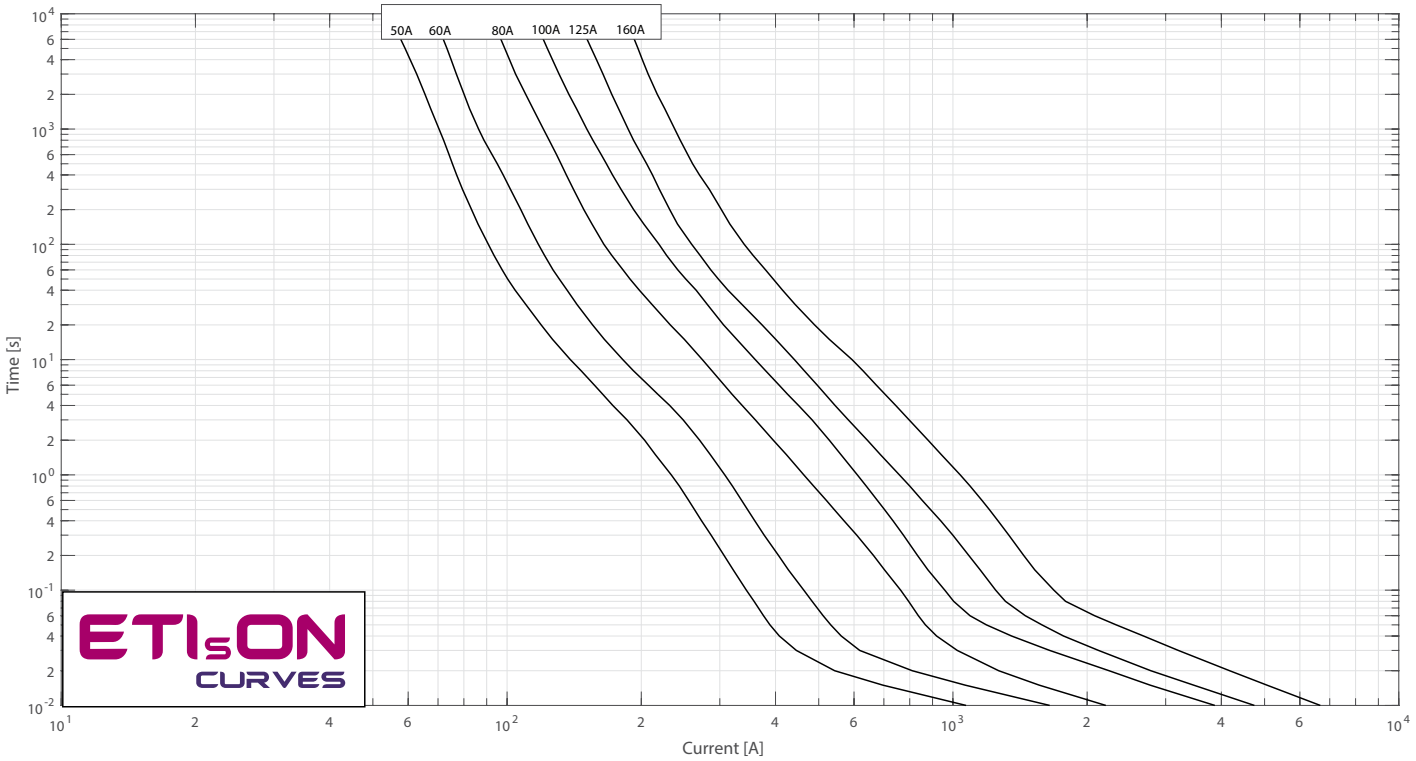
NHU 1XL, 2XL, 3L



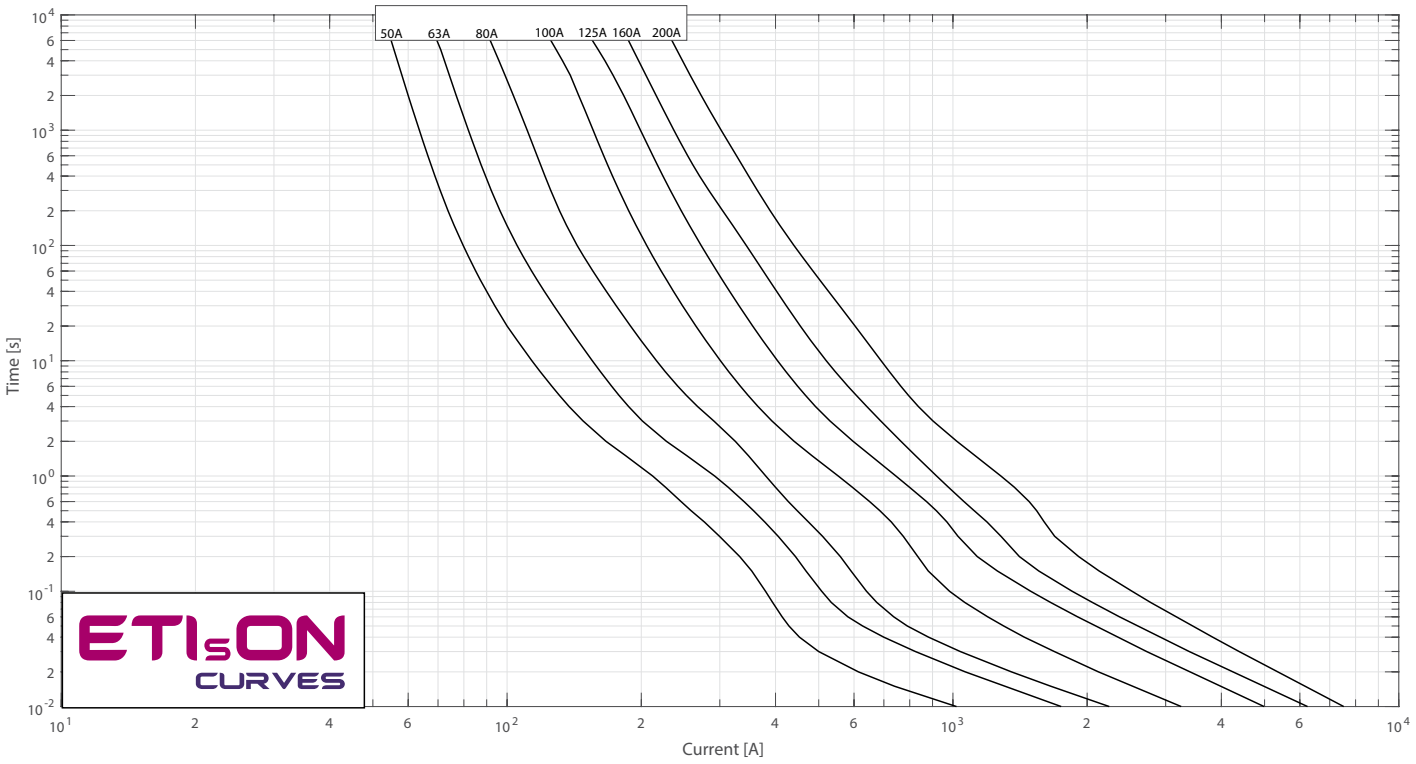
	A	B	C	D	E	F	G	H	K	J - NHS	J - NHU
1XL S,U	200	130	170	40	30	51	51	13,5	6	11	11
2XL S,U	200	130	170	45	30	61	61	15	6	11	13
3L S,U	200	130	170	55	37	73	73	18	6	11	13

Time current characteristics I/t

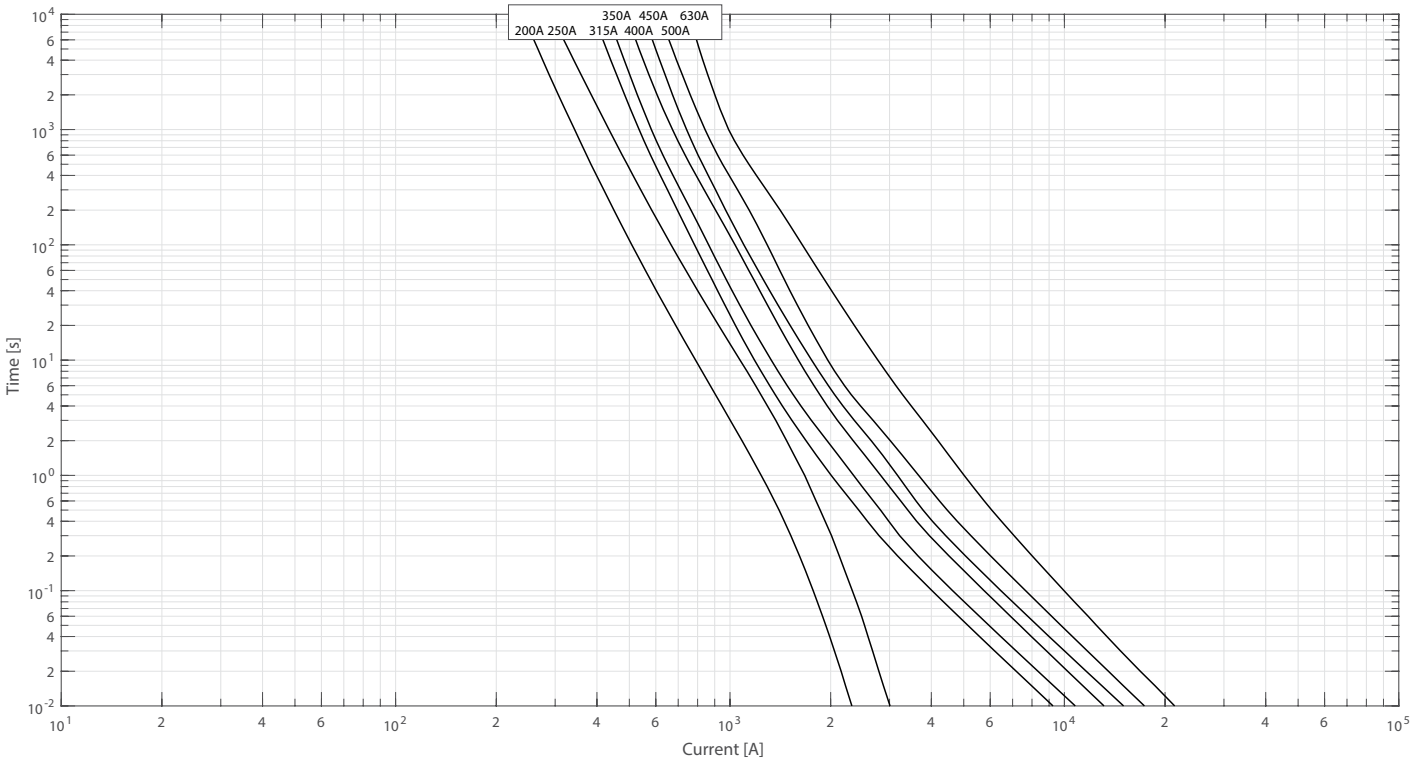
NH01XL

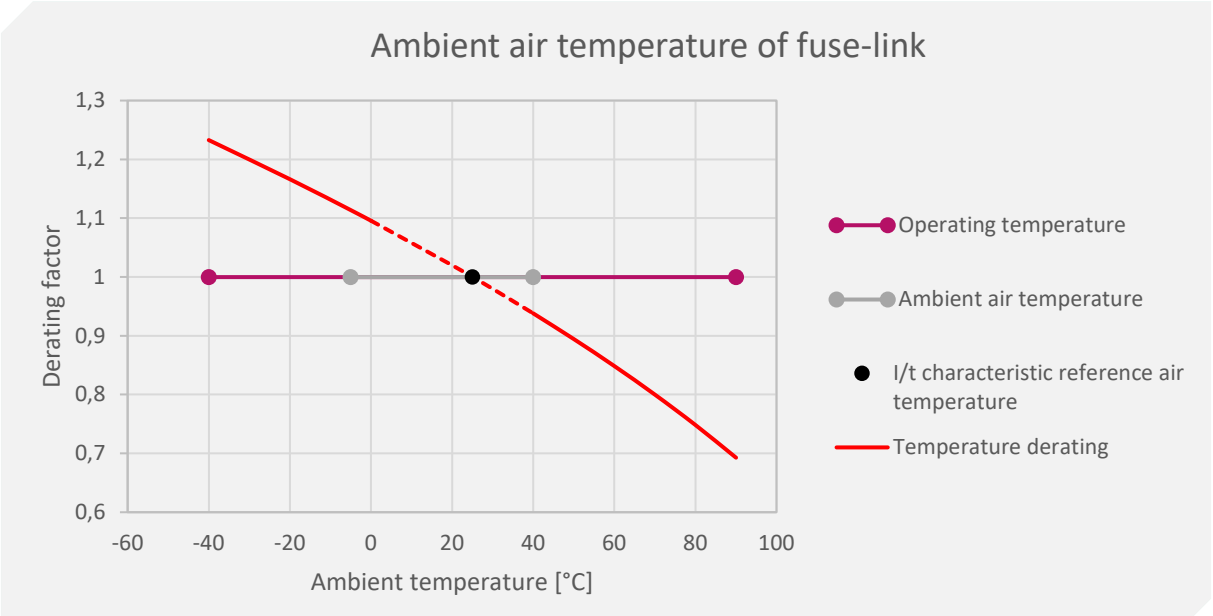


NH1XL



NH2XL, NH3L





Legend:

T_{amb} – Ambient Temperature

TDF – Temperature Derating Factor

I_N – Nominal Current of Fuse-link

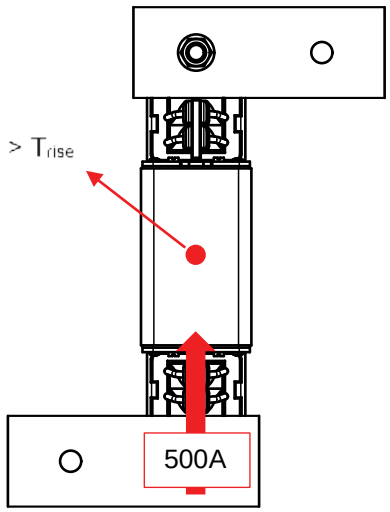
I_{TDF} – Nominal Current Including Temperature Derating Factor

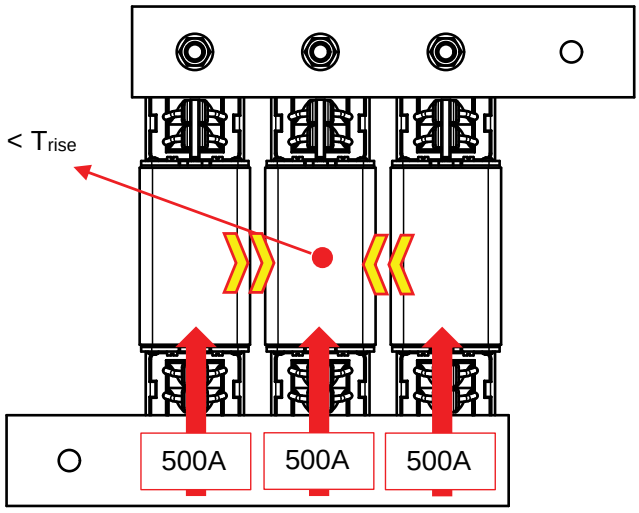
Current calculation: $I_{TDF} = I_N \times TDF$

Parallel connection of fuse-links to increase the rated current

Rules for parallel connection of fuse-links:

- The fuse-links have to be the same type, size, and rating.
- The combination of parallel fuses must be selected by the manufacturer.
- The current rating of parallel-connected fuse-links is lower than the sum of the single fuse-links ($n \times I_n > I_{n\ parallel}$).
- The current distribution on all parallel fuse-links must be the same.
- Parallel fuse-links must be connected as prescribed by the manufacturer.
- The incoming and outgoing connection must have prescribed cross-section.
- The values of power dissipation are equal to the sum of values of power dissipation of a single fuse-link.
- The Pre-arcing
- Joule integral is approximately equal to $n^2 \times I^2t_{[single\ fuse\text{-}link]}$.
- Breaking capacity is not larger than I1 of a single fuse-link.
- The cut-off current is approximately equal $n \times I_{cut\text{-}off\ [single\ fuse\text{-}link]}$.
- The temperature rise of each parallel fuse-links is higher than the temperature rise of single fuse-link.





Parallel solutions

Type	Code No.
NH 550V	On request
NH 700V	
NH 800V	
NH 1000V	
NH 1100V	
NH 1500V	