BS compact fuse links

- Complies with BS 88
- Reduced dimensions
- Low watts loss

Refer catalogue NF

FUSES PROVIDE SUPERIOR SHORT CIRCUIT PROTECTION

NNS 2

NES 20

NNIT 16

NTIA 16

Clip-in offset tags

Rating (A)	BS 88 ref.	Overall length (mm)	Overall Dia. (mm)	Cat. No. [1])
2	F1	60	14	NNS 2
4				NNS 4
6				NNS 6
10				NNS 10
16				NNS 16
20				NNS 20
25				NNS 25
32				NNS 32
20M25				NNS 20M25
20M32				NNS 20M32
20	F2	68	17	NES 20
25				NES 25
32				NES 32
40				NES 40
50				NES 50
63				NES 63

Bolted pattern offset tags

Rating (A)	BS 88 ref.	Fixing centres (mm)	Cat. No. [1])
2	A1	44.5	NNIT 2
4			NNIT 4
6			NNIT 6
10			NNIT 10
16			NNIT 16
20			NNIT 20
25			NNIT 25
32			NNIT 32
20M25			NNIT 20M25
20M32			NNIT 20M32
32M40			NNIT 32M40
32M50			NNIT 32M50
32M63			NNIT 32M63
2	A2	73	NTIA 2
4			NTIA 4
6			NTIA 6
10			NTIA 10
16			NTIA 16
20			NTIA 20
25			NTIA 25
32			NTIA 32
32M40			NTIA 32M40
32M50			NTIA 32M50
32M63			NTIA 32M63

Note: [1]) 'M' in catalogue No. denotes motor starting type.

Refer catalogue NF

BS compact fuse links

FUSES PROVIDE SUPERIOR SHORT CIRCUIT PROTECTION

Bolted pattern offset tags (cont.)

NOS 100M125

NTFP125

Rating (A)	BS 88 Ref	Fixing centres (mm)	Cat. No. [1])
35	A3	73	NTIS 35
40			NTIS 40
50			NTIS 50
63			NTIS 63
63M80			NTIS 63M80
63M100			NTIS 63M100
80	HYBRID A3	73	NOS 80
100			NOS 100
100M125			NOS 100M125
100M160			NOS 100M160
80	A4	94	NTCP 80
100			NTCP 100
100M125			NTCP 100M125
100M160			NTCP 100M160
125	HYBRID A4	94	NTFP 125
160			NTFP 160
200			NTFP 200
200M250			NTFP 200M250

Bolted pattern centre tags

NTB 16

NTBC 20

2	-	97	NTB 2
4			NTB 4
6			NTB 6
10			NTB 10
16			NTB 16
20			NTB 20
25			NTB 25
32			NTB 32
40			NTB 40
50			NTB 50
63			NTB 63
63M80			NTB 63M80
63M100			NTB 63M100
2	B1	111	NTBC 2
4			NTBC 4
6			NTBC 6
10			NTBC 10
16			NTBC 16
20			NTBC 20

Note: [1]) 'M' in catalogue number denotes motor starting type

BS compact fuse links

Refer catalogue NF

FUSES PROVIDE SUPERIOR SHORT CIRCUIT PROTECTION

Bolted pattern centre tags (cont.)

NTF 200

NTM 400

NTLT 710

NTXU 1250

Rating (A)	BS 88 Ref.	Fixing centres (mm)	Cat. No. [1])
25	B1	111	NTBC 25
32			NTBC 32
40			NTBC 40
50			NTBC 50
63			NTBC 63
63M80			NTBC 63M80
63M100			NTBC 63M100
80	B1	111	NTC 80
100			NTC 100
100M125			NTC 100M125
100M160			NTC 100M160
100M 200			NTC 100M200
125	B2	111	NTF 125
160			NTF 160
200			NTF 200
200M 250			NTF 200M250
200M 315			NTF 200M315
250	B3	111	NTKF 250
315			NTKF 315
315M 400			NTKF 315M400
250		133	NTKM 250
315			NTKM 315
355	B4	111	NTMF 355
400			NTMF 400
355	C1	133/184	NTM 355
400			NTM 400
450	C2	133/184	NTTM 450
500			NTTM 500
560			NTTM 560
630			NTTM 630
450		165/229	NTT 450
500			NTT 500
560			NTT 560
630			NTT 630
710	C3	133/184	NTLM 710
800			NTLM 800
710		165/229	NTLT 710
800			NTLT 800
1000	D1	149	NTXU 1000
1250			NTXU 1250

Note: [1]) 'M' in catalogue number denotes motor starting type.

DIN and BS fuse link selection chart

BS Fuses

Switch-fuses								Fuse type Cat. No. Prefix
800	630	400	315	250	200	160	125	
								NNS_
								NNIT_
						✔	✔	NTIA_
						✔	✔	NTIS_
						✔	✔	NOS_
						✔		NTCP_
								NTFP_
								NTSL00_
		✔	✔	✔	✔			NTBC_
		✔	✔	✔	✔			NTC_
		✔	✔	✔	✔			NTF_
		✔	✔	✔				NTKF_
								NTSL3_
		✔						NTMF_
✔	✔							NTM_
✔	✔							NTTM_
✔								NTLM_

Quick - Link fuse reference guide

NHP HRC fuse holders									Fuse type Cat. No. Prefix
NC (Bolt-in)						NV (Clip-in)			
315	200	100	63	32	20	63	32	20	
							✔	✔	NNS_
						✔			NES_
				✔	✔				NNIT_
	✔ [1])	✔	✔						NTIA_
	✔ [1])	✔	✔ [2])						NTIS_
	✔ [1])	✔							NOS_
	✔								NTCP_
	✔								NTFP_
✔									NTBC_
✔									NTC_
✔									NTF_
✔									NTKF_

DIN Fuses

Switch-fuses						Fuse type Cat. No. Prefix
800	630	400	250	160	125	
				✔	✔	N00_
			✔			N1_
		✔				N2_
✔	✔					N3_

Legend:
- ✔ Fuse links fit direct.
- ✔ [1]) Fuses require 100MFLK adaptor, see page 11-107.
- ✔ [2]) 'M' type (motor rated) NTIS not suitable for NC63_. Use NC100 fuse holder.

BS compact fuse links

Bolted pattern - Centre tag

Motor rated fuse links

BS 88 aligns with international fuse specification IEC 269. Special motor rated fuse links are listed and are available in various barrel sizes, in each case fitted with special fuse elements. Their selection frequently permits the use of lower rated switch and/or fusegear than would be the case if using Class gG fuse links. This range of fuse-links has been ASTA certified for a breaking capacity of 80 kA at 415 V AC.

NHP Compact industrial bolted pattern fuse links conform with BS 88: Part 2: 1998 and have been ASTA certified for a breaking capacity of 80 kA at 415 V AC or 550 V AC and have utilisation categories gG.

NHP Compact fuse-links are suitable for back-up protection in motor circuits, having excellent time delay characteristics with low fusing factor and high rupturing capacity.

Fuses for use in motor circuits should be selected in accordance with the requirements for the protection of motor control gear as specified by the control gear manufacturer.

As a guide, the following table shows the minimum fuse sizes that may be associated with motors based on the assumption that the starting conditions for typical 3 phase 4 pole 415 V motors are; 8 x FLC for 6 secs [DOL] and 4 x FLC for 12 secs [Star-delta].

Fuse link selection for motor circuit protection

Motor rating kW	hp	Approx. FLC (A)	DOL starting fuse link (A)	Motor rated fuse-link (A)	Start assisted standard fuse link (A)
0.19	0.25	0.7	4		2
0.37	0.5	1.3	6		4
0.55	0.75	1.6	6		4
0.75	1.0	1.8	10		4
1.1	1.5	2.6	10		6
1.5	2.0	3.4	10		10
2.2	3.0	5.0	16		10
3.0	4.0	6.5	16		10
4.0	5.5	8.0	20	20M25	16
5.5	7.5	11.0	25	20M32	16
7.5	10	15	40	32M40	25
11.0	15	22	50	32M50	32
15.0	20	28	63	32M63	40
18.5	25	36	80	63M80	50
22	30	39	80	63M80	63
30	40	52	100	63M100	63
37	50	69	160	100M160	80
45	60	79	160	100M160	100
55	75	96	200		160
75	100	125	200	200M250	160
90	125	156	250	200M250	160
110	150	189	315		200
132	175	224	355		250
150	200	255	355		250
160	220	275	400		315
185	250	318	450		315
200	270	339	500		355
220	300	374	560		400
257	350	450	630		450
295	400	500	710		500
315	430	535	710		560
355	483	580	800		630
400	545	646	800		710
450	612	725	1000		800

Fuse equivalent chart

This chart is designed to help choose the correct fuse to fit a particular switch-fuse (or vice versa) and to help choose the correct replacement fuse. Some data is from other manufacturers publications and as such cannot be guaranteed by NHP. Beware that some motor start fuses are in a larger body size than a normal fuse. It is wise to consult the fuse manufacturer's data to determine their particular fuse sizes (i.e. A2-C3).

Fuse manufacturer's part numbers - Australian/British standard

BS Ref.	Amps	NHP COMPACT FUSES	EATON/ MEM	Holec	Alstom GEC	Bussmann	PDL	Siemens
F1	2...32	NNS	SN2	NS	NS	NSD	N20C	3NW NS
F2	20...63	NES	SP	MES	ES	ESD	N63E	3NW ES
A1	2...32	NNIT	SA2	NIT	NIT	NITD	N20B	3NW NIT
A2	2...32	NTIA	SB3	TIA	TIA	AAO	N32B	3NW TIA
A3	35...63	NTIS	SB4	TIS	TIS	BAO	N63B	3NW TIS
Hybrid (A3)	80...100	NOS	SO	-	OS	OSD	NOSD	3NW OS
Hybrid (A3)	125...160	NTSL00	–	–	–	–	–	–
A4	80...100	NTCP	SD5	TCP	TCP	CEO	N100B	3NW TCP
Hybrid (A4)	125...200	NTFP [1])	SD6	TFP	TFP	DEO	N200B	3NW TFP
-	2...32/40...63	NTB	SE3/SE4	TB	TB	AC/BC	N_TB	3NW TB
B1	2...32/40...63	NTBC	SF3/SF4	TBC	TBC	AD/BD	N63B_	3NW TBC
B1	80...100	NTC	SF5	TC	TC	CD	N100B_C	3NW TC
B2	125...200	NTF	SF6	TF	TF	DD	N200B_C	3NW TF
B3	250...315	NTKF	SF7	TKF	TKF	ED	N315B_C	3NW TKF
-	250...315	NTKM	SG7	TKM	TKM	EFS	N315B_C	3NW TKM
B4	355...400	NTMF	SF8	TMF	TMF	ED	N400B_C	3NW TMF
Hybrid (B4)	450...630	NTSL3	–	–	–	–	–	–
C1	355...400	NTM	SH8	TM	TM	EF	N404B_C	3NW TM
C2	450...630	NTTM	SH9	TTM	TTM	FF	N504B_C	3NW TTM
-	450...630	NTT	SY9	TT	TT	FG	N630B_C	3NW TT
C3	710...800	NTLM	SH10	TLM	TLM	GF	N804B_C	3NW TLM
-	710...800	NTLT	SY10	TLT	TLT	GG	B804B_C	3NW TLT
D1	1000...1250	NTXU	SJ11	TXU	TXU	GH	N_U44	3NW TXU
DIN pattern								
00	6...160	N00	NH00	-	NHG-00	NH00G	-	3NA5
1	25...250	N1	NH01	-	NHG-1	NH1G	-	3NA4 144
2	80...400	N2	NH02	-	NHG-2	NH2G	-	3NA4 260
3	315...800	N3	NH03	-	NHG-3	NH3G	-	3NA1
Fuse holders								
Clip-in	20A	NV20FW	V20FF	-	SC20H	-	FC20FW	-
	32A	NV32FW	V32FF	-	SC32H	32NNSF	NC32FW	3NW 32NNSF
Front wired	20A	N20FW	20MFB	-	RSM20H	-	FB20FW	3NWCM20FC
	32A	NC32FW	32MFB	200846	RSM32H	-	FB32FW	3NW CM32F
	63A	NC63FW	63MFB	LCF63FCFC	RSM63H	-	FB63FW	3NW CM63F
	100A	NC100FW	100MFB	-	RSM100H	-	FB100FW	3NW CM100F
	200A	NC200FW	200MFB	-	RSM200H	-	FB200FW	3NW 200DF
Stud/	20A	N20SFW	20MFD	-	RSM20PH	-	FB20SF	-
front wired	32A	NC32SFW	32MFD	LCF32FCBC	RSM32PH	-	FB32SF	-
	63A	NC63SFW	63MFD	LCF63FCBC	RSM63PH	-	FB63SF	-
	100A	NC100SFW	100MFD	-	RSM100PH	-	FB100SF	-
	200A	NC200SFW	200MFD	-	RSM200PH	-	FB200SF	-

Note: [1]) This hybrid type fuse is actually an A4 size fuse, but as it is over 100 amps it cannot be called an A4 fuse to AS 2005.

HRC cartridge fuse-links

NHP Compact 415V fuse-links are available in ratings from 2A up to 1250A and advanced design techniques mean that watts loss figures have been substantially reduced whilst protection characteristics remain unchanged.

All NHP Compact HRC fuse-links are manufactured using precision assembly methods to ensure that their performance will conform with the published characteristics within very close tolerances.

Cartridge barrels are extruded under vacuum to prevent the occurrence of air pockets. Each fuse is then fully filled, using a vibratory method, with specially prepared, dried and graded powdered silica. The end caps are press fitted on to the precision ground barrels ensuring a very tight fit.

Fuse elements are accurately shaped and manufactured for consistency and reliability.

All NHP Compact fuse-links are subjected to a resistance test to prove correct assembly.

NHP Compact HRC fuse-links, other than motor rated patterns, have utilisation categories gG.

Schedules of equivalent fuse-links made by certain other manufacturers are included in the following pages. No claim is made of identical performance under all conditions, the schedules being provided to assist on the selection of fuse-links having similar ratings, dimensions and fixing centres. Characteristic curves and associated data are provided to aid accurate discrimination.

Motor rated fuse-links

BS88 now aligns with the international fuse specification IEC 269. The concept of "fusing factor" has been replaced with "utilisation category". Class Q1 fusing factor is now referred to as "gG" and motor rated fuse-links are referred to as "gM". Special motor rated fuse-links are also listed and are available in various barrel sizes, in each case fitted with special fuse elements. Their selection frequently permits the use of lower rated switch and/or fusegear than would be the case using Class gG fuse-links. This range of fuse-links has been ASTA certified for a breaking capacity of 80kA at 415V AC.

NHP Compact industrial bolted pattern fuse-links conform with BS 88: Part 2: 1988 and, have been ASTA certified for a breaking capacity of 80kA at 415V AC or 550V AC and have utilisation categories gG.

NHP Compact fuse-links are suitable for back-up protection in motor circuits, having excellent time delay characteristics with low fusing factor and high rupturing capacity.

Fuses for use in motor circuits should be selected in accordance with the requirements for the protection of motor control gear as specified by the control gear manufacturer.

As a guide, the following table shows the minimum fuse sizes that may be associated with motors based on the assumption that the starting conditions for typical 3 phase 4 pole 415V motors are; 8 x F.L.C. for 6 secs [D.O.L.] and 4 x F.L.C. for 12 secs [Star Delta].

Should more specific information be required to assist on individual projects please contact your nearest NHP office or distributor.

fuse-link selection for motor circuit protection

Motor rating		Approx f.l.c. amps	D.O.L. standard fuse-link amps	Starting motor circuit fuse-link	Assisted start standard fuse-link amps
kW	hp				
0.19	0.25	0.7	4		2
0.37	0.5	1.3	6		4
0.55	0.75	1.6	6		4
0.75	1.0	1.8	10		4
1.1	1.5	2.6	10		6
1.5	2.0	3.4	10		10
2.2	3.0	5.0	16		10
3.0	4.0	6.5	16		10
4.0	5.5	8.0	20	20M25	16
5.5	7.5	11.0	25	20M32	16
7.5	10	15	40	32M40	25
11.0	15	22	50	32M50	32
15.0	20	28	63	32M63	40
18.5	25	36	80	63M80	50
22	30	39	80	63M80	63
30	40	52	100	63M100	63
37	50	69	160	100M160	80
45	60	79	160	100M160	100
55	75	96	200		160
75	100	125	200	200M250	160
90	125	156	250	200M250	160
110	150	189	315		200
132	175	224	355		250
150	200	255	355		250
160	220	275	400		315
185	250	318	450		315
200	270	339	500		355
220	300	374	560		400
257	350	450	630		450
295	400	500	710		500
315	430	535	710		560
355	483	580	800		630
400	545	646	800		710
450	612	725	1000		800

Fuse-link terminology

HRC
High rupturing capacity (HRC) or High breaking capacity denotes the ability of a fuse-link to interrupt extremely high fault currents, usually up to 80kA.

Current limiting fuse-link
A fuse-link that limits the circuit current during it's operation to a value much lower than the peak value of the prospective current. In practice, the terms HRC and current limiting are synonymous.

Rated breaking capacity
The highest value of fault current that a fuse-link has been tested to interrupt eg. 80kA.

Rated voltage
The maximum system voltage that the fuse-link is designed to interrupt. Rated voltages may be in AC, DC, or both.

Current rating
The value of current that a fuse-link will carry continuously without deterioration under specified conditions.

Minimum fusing current
The minimum value of current that will cause melting of the fuse element.

Power dissipation
The power released in a fuse-link carrying rated current under a specified condition, usually expressed in watts.

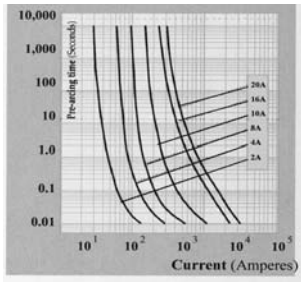
Time current characteristics (refer table 1)
A curve detailing the pre-arcing or operating time as a function of prospective current.

Let through characteristics (I^2t) (refer table 2)
A curve or chart showing values 'pre-arcing' and 'operating' let through energies as a function of prospective current, I^2t is proportional to energy in Amp^2 seconds.

Cut off characteristics (refer table 3)
A curve detailing the cut off current as a function of prospective current. Cut off current being the maximum instantaneous value of current let through by the fuse-link during operation.

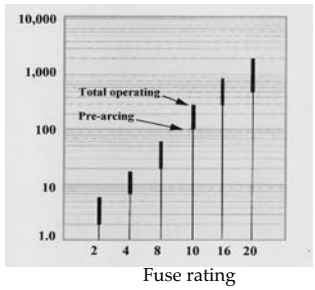
Discrimination (refer tables 4 and 5)
Discrimination is the ability of fuse-links to operate selectively and to disconnect only the parts of the circuit that are subject to faults. Discrimination can be checked by ensuring that the time current characteristics, including their tolerances, do not overlap at any point and that the total let through energy (I^2t) of the downstream (or minor) fuse-link does not exceed the pre-arcing energy (I^2t) of the upstream (or major) fuse-link at the applied system voltage. Discrimination is normally achieved with the ratio of 1.6 between upstream and downstream fuses.

Table 1



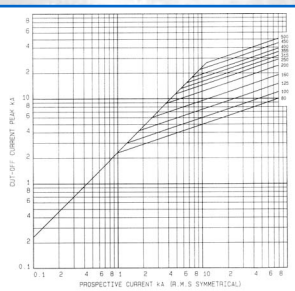
Typical time current curves

Table 2



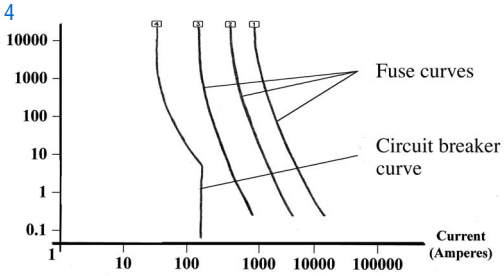
Operating and pre-arcing I^2t values

Table 3



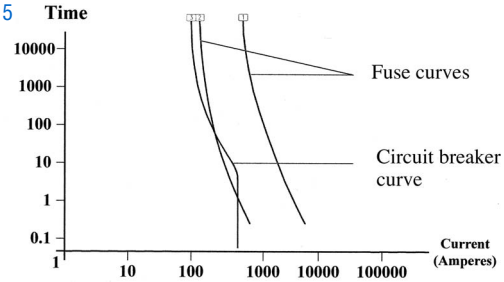
Cut off characteristics

Table 4



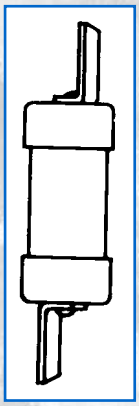
Discrimination achieved

Table 5



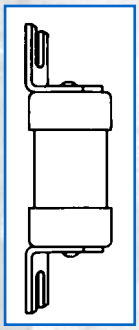
Discrimination *NOT* achieved

HRC cartridge fuse-links



NNS-Type staggered contacts breaking capacity 80kA at 415V AC to BS 88: Part 6: 1988 Ref. F1

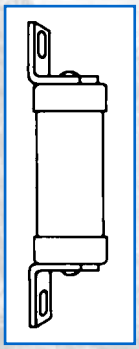
Current rating A Normal	Motor	Overall length mm	Overall dia. mm	NHP Cat No.	Cross reference MEM	GEC/Lawson	Siemens	Brush/ Hawker	Bussman/ Dorman Smith
2				NNS2	2SN2	NS2	3NW NS2	2F06	NSD2
4	-			NNS4	4SN2	NS4	3NW NS4	4F06	NSD4
6	-			NNS6	6SN2	NS6	3NW NS6	6F06	NSD6
10	-			NNS10	10SN2	NS10	3NW NS10	10F06	NSD10
16	-			NNS16	16SN2	NS16	3NW NS16	16F06	NSD16
20	-	60	14	NNS20	20SN2	NS20	3NW NS20	20F06	NSD20
20	25			NNS 20M25	20SN2M25	NS20M25	3NW M25	20M25F06	NSD20M25
20	32			NNS 20M32	20SN2M32	NS20M32	3NW M32	20M32F06	NSD20M32
25	-			NNS25	25SN2	NS25	3NW NS25	25F06	NSD25
32	-			NNS32	32SN2	NS32	3NW NS32	32F06	NSD32

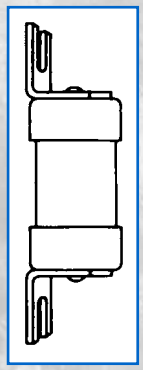


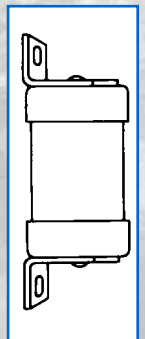
NES-Type staggered contacts breaking capacity 80kA at 415V AC to ASTA certified to BS 88: Part 6: 1988

20		68	17	NES20	20SP	-	-	-	ESD20
25				NES25	25SP	-	-	-	ESD25
32				NES32	32SP	-	-	-	ESD32
40				NES40	40SP	40ES	3NWES40	40G05	3SD40
50				NES50	50SP	50ES	3NWES50	50G05	ESD50
63				NES63	63SP	63ES	3NWES63	63G05	ESD63

Industrial bolted pattern. Offset contacts ASTA certified to BS 88: Part 2: 1988. Complies with IEC 269 Parts 1 and 2. Tested to 80kA at 415V AC







Current rating A Normal	Motor	Fixing centres	BS88 ref	NHP Cat No.	Cross reference MEM	GEC/Lawson	Siemens	Brush/ Hawker	Bussman/ Dorman Smith
2				NNIT2	2SA2	NIT2	3NWNIT2	2F21	NITD2
4	-			NNIT4	4SA2	NIT4	3NWNIT4	4F21	NITD4
6	-			NNIT6	6SA2	NIT6	3NWNIT6	6F21	NITD6
10	-		A1	NNIT10	10SA2	NIT10	3NWNIT10	10F21	NITD10
16	-			NNIT16	16SA2	NIT16	3NW NIT16	16F21	NITD16
20	-			NNIT20	20SA2	NIT20	3NWNIT20	20F21	NITD20
20	25	44.5	-	NNIT20M25	20SA2M25	NIT20M25	3NWNIT20M25	20M25F21	NITD20M25
20	32		-	NNIT20M32	20SA2M32	NIT20M32	3NWNIT20M32	20M32F21	NITD20M32
25	-		-	NNIT25	25SA2	-	3NWNIT25	25F21	NITD25
32	-		-	NNIT32	32SA2	-	3NWNIT32	32F21	NITD32
32	40		-	NNIT32M40	32SA2M40	-	3NWNIT32M40	-	-
32	50		-	NNIT32M50	32SA2M50	-	3NWNIT32M50	-	-
32	63		-	NNIT32M63	32SA2M63	-	3NWNIT32M63	-	-
2	-			NTIA2	2SB3	TIA2	3NWTIA2	2H07	AA02
4	-			NTIA4	4SB3	TIA4	3NWTIA4	4H07	AA04
6	-			NTIA6	6SB3	TIA6	3NWTIA6	6H07	AA06
10	-			NTIA10	10SB3	TIA10	3NWTIA10	10H07	AA010
16	-			NTIA16	16SB3	TIA16	3NWTIA16	16H07	AA016
20	-	73	A2	NTIA20	20SB3	TIA20	3NWTIA20	20H07	AA020
25	-			NTIA25	25SB3	TIA25	3NWTIA25	25H07	AA025
32	-			NTIA32	32SB3	TIA32	3NWTIA32	32H07	AA032
32	40			NTIA32M40	32SB3M40	TIA32M40	3NWTIA32M40	32M40H07	AA032M40
32	50			NTIA32M50	32SB3M50	TIA32M50	3NWTIA32M50	32M50H07	AA032M50
32	63			NTIA32M63	32SB3M63	TIA32M63	3NWTIA32M63	32M63H07	AA032M63
35	-			NTIS35	35SB4	TIS35	3NWTIS35	35KO7	BAO35
40	-			NTIS40	40SB4	TIS40	3NWTIS40	40KO7	BAO40
50	-			NTIS50	50SB4	TIS50	3NWTIS50	50KO7	BAO50
63	-	73	A3	NTIS63	63SB4	TIS63	3NWTIS63	63KO7	BAO63
63	80			NTIS63M80	63SB4M80	TIS63M80	3NWTIS63M80	63M80KO7	BAO63M80
63	100			NTIS63M100	63SB4M100	TIS63M100	3NWTIS63M100	63M100KO7	BAO63M100
80	-			N0S80	80SO	OS80	3NW0S80	80KO7R	OSD80
100	-			N0S100	100SO	OS100	3NW0S100	100KO7R	OSD100
100	125	73		NOS100M125	-	OS100M125	-	100M125KO7R	OSD100M125
100	160			NOS100M160	-	OS100M160	-	100M160KO7R	OSD100M160
80	-			NTCP80	80SD5	TCP80	3NWTCP80	80L14	CEO80
100	-			NTCP100	100SD5	TCP100	3NWTCP100	100L14	CEO100
100	125	94	A4	NTCP100M125	100SD5M125	TCP100M125	3NWTCP100M125	100M125L14	CEO100M125
100	160			NTCP100M160	100SD5M160	TCP100M160	3NWTCP100M160	100M160L14	CEO100M160
125	-			NTFP125	125SD6	TFP125	3NWTFP125	125M14	DEO125
160	-			NTFP160	160SD6	TFP160	3NWTFP160	160M14	DEO160
200	-			NTFP200	200SD6	TFP200	3NWTFP200	200M14	DEO200
200	250	94		NTFP200M250	200SD6M250	TFP200M250	-	200M250M14	DEO200M250

HRC cartridge fuse-links

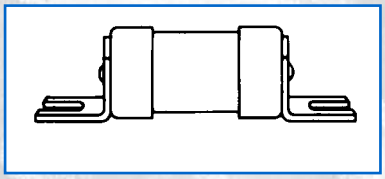
NHP Compact industrial bolted pattern. Centre contacts, ASTA certified to BS 88: Part 2: 1988. Complies with IEC 269 parts 1 and 2. Tested to 80kA at 415V AC. *550V AC.

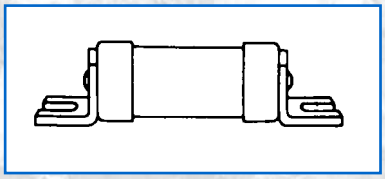
Current rating A		Fixing	BS88	NHP	Cross reference				
Normal	Motor	centres	ref	Cat No.	MEM	GEC/Lawson	Siemens	Brush/ Hawker	Bussman/ Dorman Smith
2	-			NTB2*	2SE3	TB2	3NWTB2	2KO8	AC2
4	-			NTB4*	4SE3	TB4	3NWTB4	4KO8	AC4
6	-			NTB6*	6SE3	TB6	3NWTB6	6KO8	AC6
10	-			NTB10*	10SE3	TB10	3NWTB10	10KO8	AC10
16	-			NTB16*	16SE3	TB16	3NWTB16	16KO8	AC16
20	-			NTB20*	20SE3	TB20	3NWTB20	20KO8	AC20
25	-	97	–	NTB25*	25SE3	TB25	3NWTB25	25KO8	AC25
32	-			NTB32*	32SE3	TB32	3NWTB32	32KO8	AC32
40	-			NTB40*	40SE3	TB40	3NWTB40	40KO8	BC40
50	-			NTB50*	50SE3	TB50	3NWTB50	50KO8	BC50
63	-			NTB63*	63SE3	TB63	3NWTB63	63KO8	BC63
63	80			NTB63M80	63SE4M80	TB63M80	3NWTB63M80	-	-
63	100			NTB63M100	63SE4M100	TB63M100	3NWTB63M100	-	-
2	-			NTBC2	2SF3	TBC2	3NW TBC2	2KO9	AD2
4	-			NTBC4	4SF3	TBC4	3NW TBC4	4KO9	AD4
6	-			NTBC6	6SF3	TBC6	3NW TBC6	6KO9	AD6
10	-			NTBC10	10SF3	TBC10	3NW TBC10	10KO9	AD10
16	-			NTBC16	16SF3	TBC16	3NW TBC16	16KO9	AD16
20	-			NTBC20	20SF3	TBC20	3NW TBC20	20KO9	AD20
25	-	111	B1	NTBC25	25SF3	TBC25	3NW TBC25	25KO9	AD25
32	-			NTBC32	32SF3	TBC32	3NW TBC32	32KO9	AD32
40	-			NTBC40	40SF3	TBC40	3NW TBC40	40KO9	AD40
50	-			NTBC50	50SF3	TBC50	3NW TBC50	50KO9	AD50
63	-			NTBC63	63SF3	TBC63	3NW TBC63	63KO9	AD63
63	80			NTBC63M80	63SF4M80	TBC63M80	3NW TBC63M80	-	-
63	100			NTBC63M100	63SF4M100	TBC63M100	3NW TBC63M100	-	-
80	-			NTC80	80SF5	TC80	3NW TC80	80LO9	CD80
100	-	111	B1	NTC100	100SF5	TC100	3NW TC100	100LO9	CD100
100	125			NTC100M125	100SF5M125	TC100M125	3NW TC100M125	100M125LO9	CD100M125
100	160			NTC100M160	100SF5M160	TC100M160	3NW TC100M160	100M160LO9	CD100M160
100	200			NTC100M200	100SF5M200				
125	-			NTF125	125SF6	TF125	3NW TF125	125MO9	DD125
160	-	111	B2	NTF160	160SF6	TF160	3NW TF160	160MO9	DD160
200	-			NTF200	200SF6	TF200	3NW TF200	200MO9	DD200
200	250			NTF200M250	200SF6M250	TF200M250	3NW TF200M250	200M250MO9	DD200M250
200	315			NTF200M315	200SF6M315	TF200M315	3NW TF200M315	200M315M09	
250	-	111	B3	NTKF250	250SF7	TKF250	3NW TKF250	250NO9	ED250
315	-			NTKF315	315SF7	TKF315	3NW TKF315	315NO9	ED315
315	400			NTKF315M400	315SF7M400		3NW TKF315M400		
250	-	133	–	NTKM250	250SG7	TKM250	3NW TKM250	250N11	EFS250
315	-			NTKM315	315SG7	TKM315	3NW TKM315	315N11	EFS315
355	-	111	B4	NTMF355	355SF8	TMF355	3NW TMF355	355PO9	ED355
400	-			NTMF400	400SF8	TMF400	3NW TMF400	400PO9	ED400
355	-	133/	C1	NTM355	355SH8	TM355	3NW TM355	355P11	EF355
400	-	184		NTM400	400SH8	TM400	3NW TM400	400P11	EF400
450	-			NTTM450	450SH9	TTM450	3NW TTM450	450R11	FF450
500	-	133/	C2	NTTM500	500SH9	TTM500	3NW TTM500	500R11	FF500
560	-	184		NTTM560	560SH9	TTM560	3NW TTM560	560R11	GF550
630	-			NTTM630	630SH9	TTM630	3NW TTM630	630R11	GF630
450		165/	–	NTT450	450SY9	TT450	3NWTT450	450R12	FG450
500		229		NTT500	500SY9	TT500	3NWTT500	500R12	FG500
560				NTT560	560SY9	TT560	3NWTT560	560R12	FG560
630				NTT630	630SY9	TT630	3NWTT630	630R12	FG630
710		165/	–	NTLT710	710SY10	TLT710	3NWTLT710	710S12	GG710
800		229		NTLT800	800SY10	TLT800	3NWTLT800	800S12	GG800
710	-	133/	C3	NTLM710	710SH10	TLM710	3NW TLM710	700S11	GF710
800	-	184		NTLM800	800SH10	TLM800	3NW TLM800	800S11	GF800
1000	-	149	D1	NTXU1000	1000SJ11	TXU1000	-	1000U44	GH1000
1250	-			NTXU1250	1250SH11	TXU1250	-	1250U44	GH1250

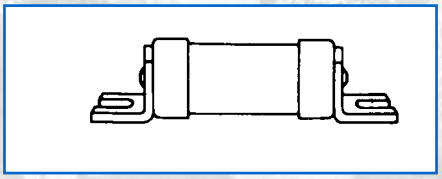
HRC cartridge fuse-links

Dimensions (mm)

Fuse link type	A max. mm	B max. mm	D max. mm	E mm	F mm	G nom. mm	H mm	J mm
NNIT	36	14	55	11	0.8	44.5	4.8	-
NTIA } NTIS	56	21	86	9	1.2	73	5.5	7.5
NTIS(M)	58	26	90	13	1.6	73	5.5	-
NOS	58	27	90	13	1.6	73	5.5	-
NTCP	62	27	110	19	2.4	94	8.7	-
NTCP(M)	62	30	110	19	2.4	94	8.7	-
NTFP	77	30	110	19	2.4	94	8.7	10.3
NTFP(M)	77	40	110	19	2.4	94	8.7	10.3

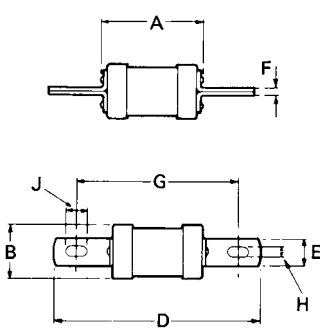




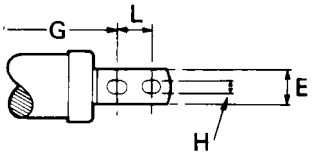


Dimensions (mm)

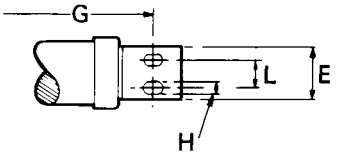
Fuse link type	A max. mm	B max. mm	D max. mm	E mm	F mm	G nom. mm	H mm	J mm	L mm
NTB	57	21	114	13	1.6	97	7.2	11	-
NTB...M...	57	26	116	13	1.6	97	7.2	11	-
NTBC	57	21	134	16	2.0	111	8.7	16	-
NTBC...M...	58	26	136	16	3.2	111	8.7	16	-
NTC	66	36	135	19	3.6	111	8.7	16	-
NTF	76	41	137	19	3.6	111	8.7	16	-
NTKF	76	51	137	26	4.0	111	8.7	16	-
NTMF	81	58	136	26	5.2	111	8.7	16	-
NTKM	76	51	158	26	4.0	133	8.7	16	-
NTM	81	58	210	26	5.2	133/184	10.3	16	25.4
NTTM	83	74	210	26	6.5	133/184	10.3	16	25.4
NTLM	84	82	210	26	10	133/184	10.3	16	25.4
NTT	83	74	267	38	6.5	165	10.3	16	32
NTLT	84	82	267	38	10	165	10.3	16	32
NTXU	83	100	198	63.5	9.5	149	14.3	19	32



NTT, NTLT, NTM, NTTM, NTLM types



NTXU type

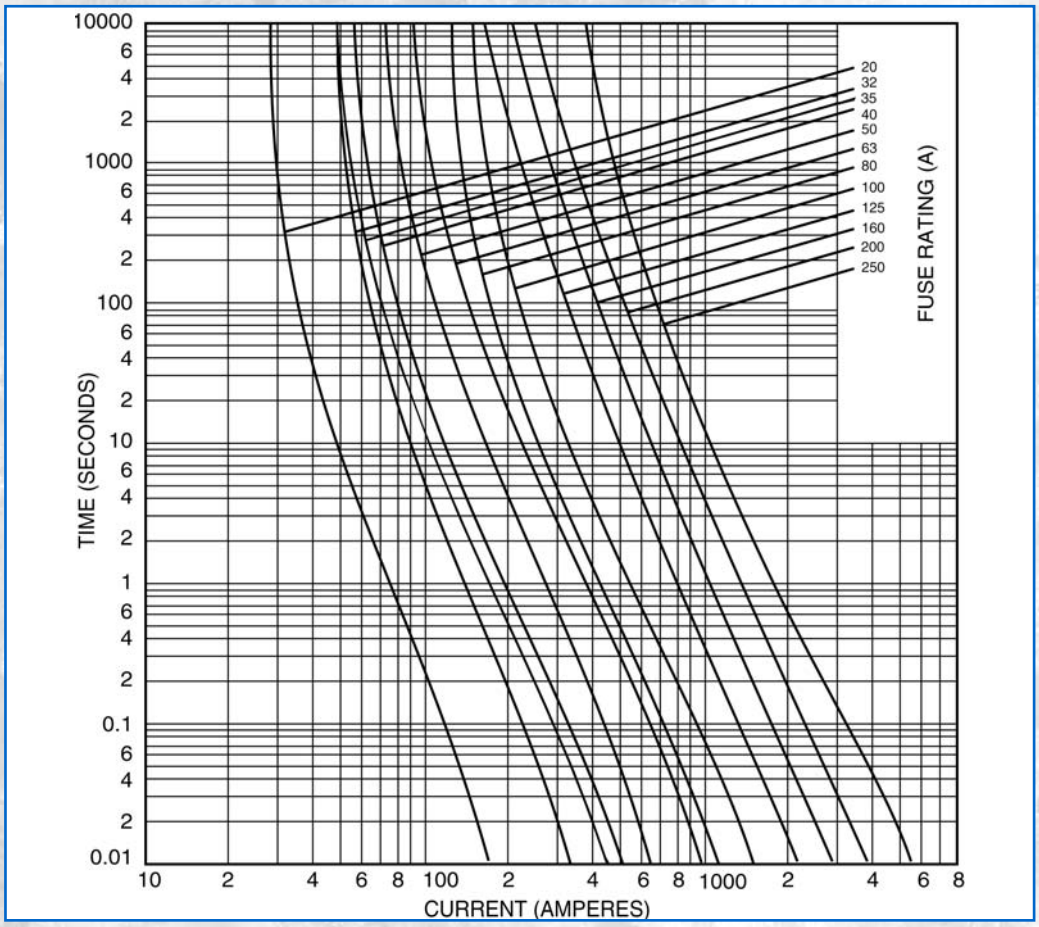


I²t characteristics

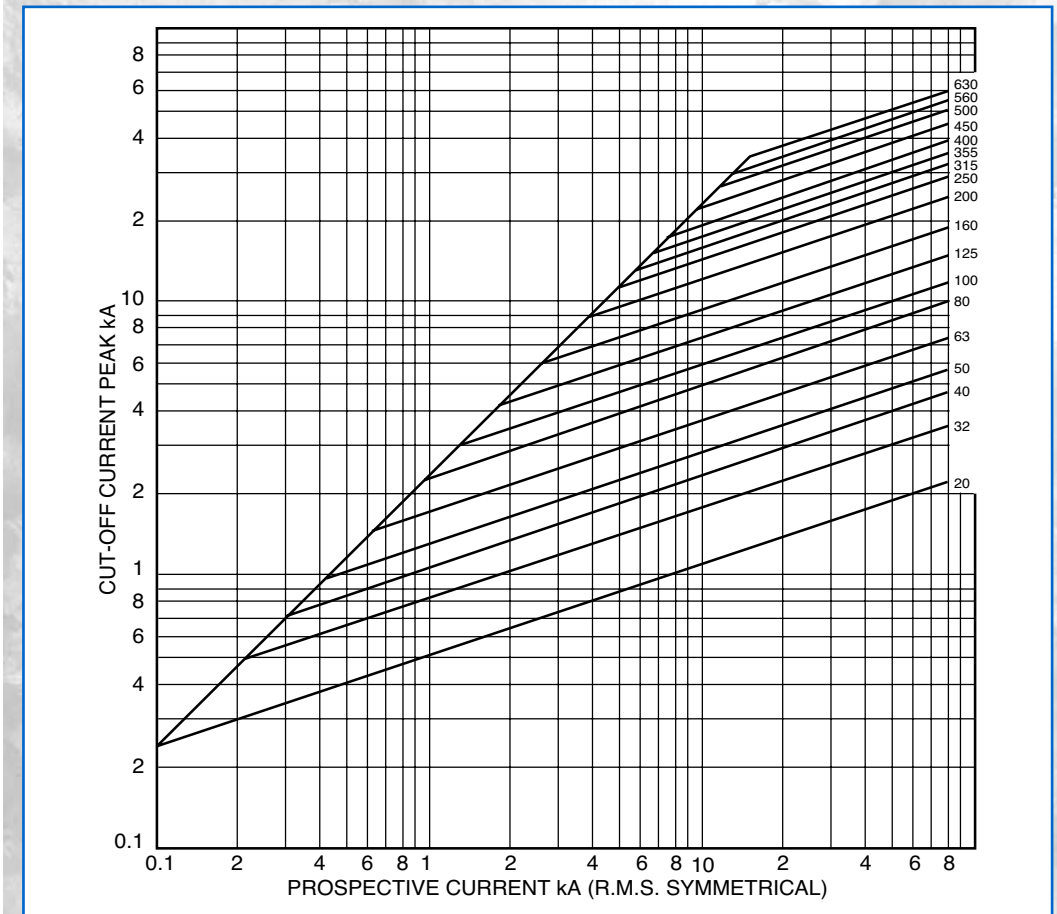
I²t characteristics

Rating (amperes)	I²t pre-arcing	I²t total @ 240 volts	I²t total @ 415 volts
2	2	2	4
4	10	15	21
6	34	52	74
10	188	289	408
16	92	211	412
20	155	355	690
20M25	574	1084	1809
20M32	574	1561	2605
25	826	1084	1809
32	826	1561	2605
35	1200	2400	4100
32M40	2482	4416	7019
32M50	3305	5879	9345
32M63	5875	10452	16612
40	2482	4416	7019
50	3305	5879	9345
63	5875	10452	16612
80 & 63M80	7800	15500	26000
100 & 63M100	14000	28000	46000
125 & 100M125	30000	51000	75500
160 & 100M160	58500	99000	145000
200 & 100M200	120000	205000	300000
250 & 200M250	210000	360000	530000
315 & 200M315	270000	460000	680000
355	365000	620000	915000
400 & 315M400	480000	820000	1200000
450	755000	1300000	1900000
500	1100000	1850000	2700000
560	1200000	2400000	4000000
630	1550000	3100000	5150000
710	1903565	2992861	4306813
800	3820349	6006505	8643534
1000	7000000	1500000	16000000
1250	12000000	20500000	30000000

Fuse curves



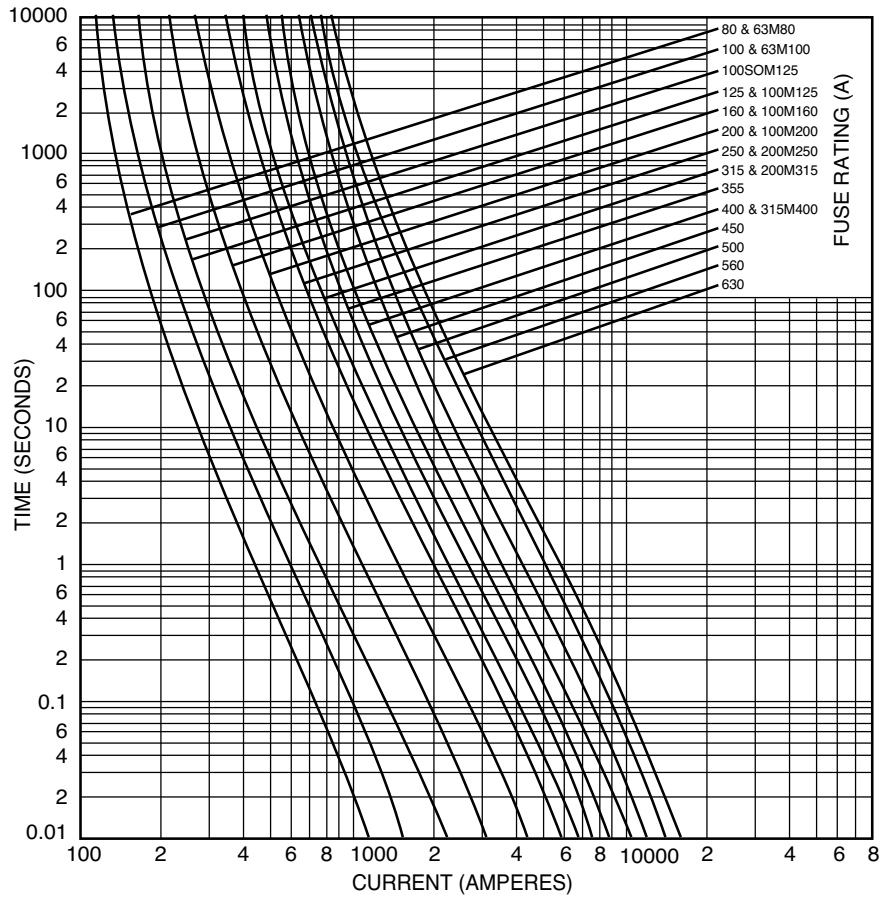
NHP Compact BS fuses from 20 to 250 amps



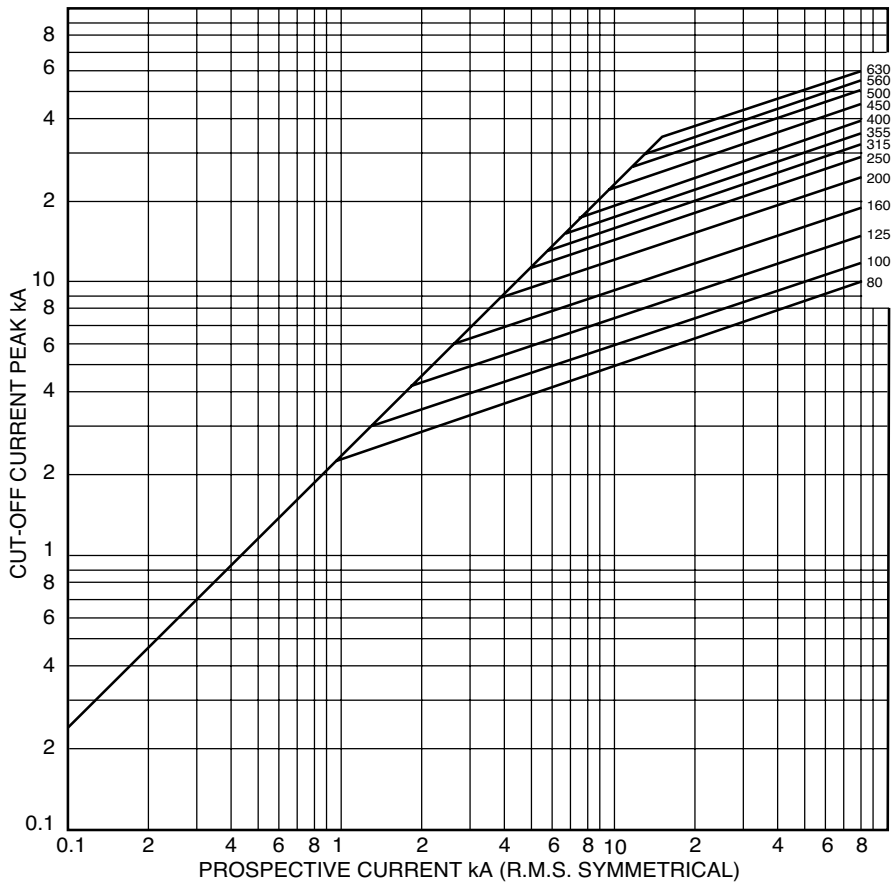
NHP Compact BS fuses cut-off current data from 20 to 630 amps

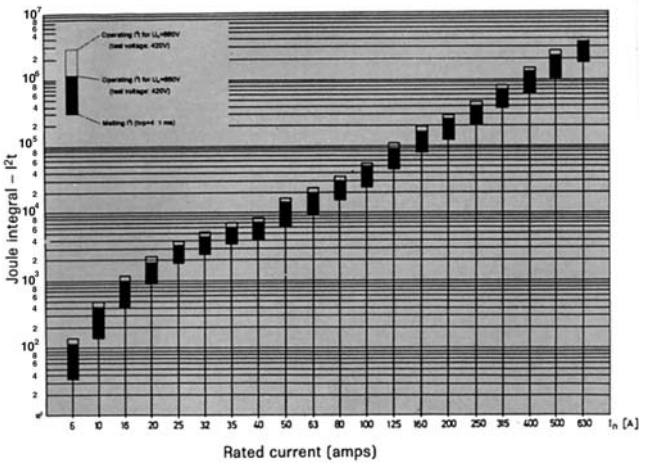
Fuse curves

NHP Compact BS fuses from 80A to 630 amps (including motor rated fuses)



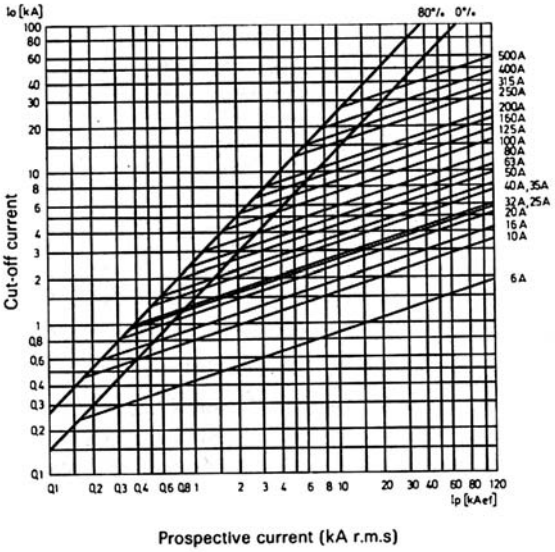
NHP Compact BS fuses cut-off current data from 80 to 630 amps

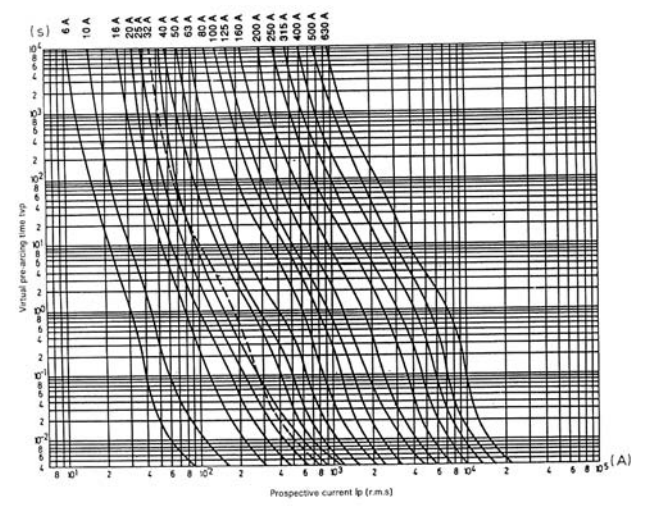




NHP Compact DIN fuses
Pre-arcing and Total I²t energies, from 6 to 630 amps

NHP Compact DIN fuses
cut-off current data from 6 to 500 amps





NHP Compact DIN fuses
Fuse curves from 6 to 630 amps