



Spec Sheet: IPD N&T Fuse Links

- ASTA(20) certified, **guaranteed performance**
- Complies to the RoHS European Directive, **free from heavy metals**
- Manufactured by Mersen to ISO 9001, **high quality**
- New compact designs, **suit greater range of switchgear**
- Tested to 80kA, **high short circuit strength**
- Designed to suit IPD RS fuse fittings
- Utilisation categories gG and gM



Standards

Australian Standard AS60269 and BS88 Part 1&2

Technical

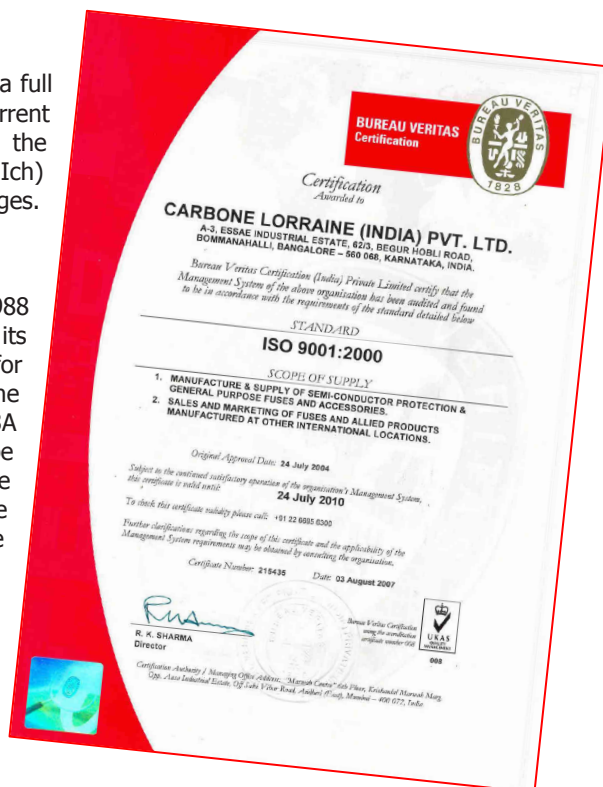
Utilisation Categories 'gG' and 'gM'

Some of the fuse link types used in some European Countries have only **partial range breaking** capacity (ie, they interrupt short circuit fault currents, but are unable to interrupt overload currents safely). To distinguish these types from the much more widely used **general purpose** fuse links, the concept of 'utilisation category' has been introduced in the international standard IEC269.

Since AS2005 & BS88 are based upon IEC269, it includes the same utilisation classes, each of which is defined by a two letter code. The first letter indicates the breaking range of the fuse link, as follows: '**g**' **full range** breaking capacity fuse link. '**a**' **partial range** breaking capacity fuse link. The second letter indicates utilisation category, as follows: '**G**' Fuse link for general application, including the protection of motor circuits. '**M**' Fuse link for protection of motor circuits. The standards combine these letters to recognise three classes ie, gG, gM and aM.

All type 'N&T' fuse links are classified as either gG or gM, and so have a full range breaking capacity. A class gM fuse link has a dual basis of current rating, the smaller one of which is its continuous rating (I_n), whilst the larger one is its rating with respect to its time/current characteristics (I_{ch}) and is thus an indication of its ability to withstand motor starting surges. The two ratings are separated by an 'M' in list numbers, eg, 32M63.

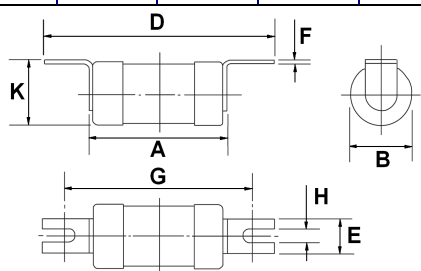
A class gG fuse link has only one, continuous rating. BS88:Part 2:1988 specifies a time/current zone for each current rating within which its published time/current characteristics must lie. The time/ current zone for a gM type is defined according to its larger current rating, and thus the characteristics of a 32M63 rating must fall within the same zone as a 63A class gG rating. Class gM fuse links exist only to enable economies to be achieved in the size of equipment used in motor circuits, eg, 32M63 fuse links can be fitted in 32A fuse holders in a 15kW, 415V, direct on line motor circuit, instead of 63A gG fuse links in 63A fuse holders, because although the motor starting surge required the use of fuse links with 63A time/current characteristics, the motor FLC is less than 32A (about 28A). It should therefore be noted that gM fuse links complement the standard range of ratings, ie, gG types are also used in many motor circuits, with gM ratings applied only when there is an economic advantage to be gained from their use.





Type	Off-set tags	Current (A)	Catalogue Number	A	B	D	E	F	G	H	K
	(2 hole fixing)	2A	NIT2L	35.5	13.5	56.0	11.2	0.8	44.5	4.8	14.5
		4A	NIT4L								
		6A	NIT6L								
		10A	NIT10L								
		16A	NIT16L								
		20A	NIT20L								
		25A	NIT25L								
		32A	NIT32L								
		25A	NIT20M25L								
		32A	NIT20M32L								

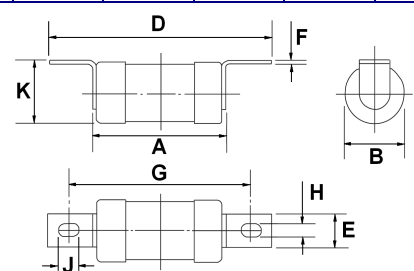




Dimensions in mm

Type	Off-set tags	Current (A)	Catalogue Number	A	B	D	E	F	G	H	J	K
	(2 hole fixing)	2A	TIA2L	35.5	13.5	86.0	9.2	0.8	73.0	5.5	8.0	14.5
		4A	TIA4L									
		6A	TIA6L									
		10A	TIA10L									
		16A	TIA16L									
		20A	TIA20L									
		25A	TIA25L									
		32A	TIA32L									
		25A	TIA25L									
		32A	TIA32L									
		32M35	TIA32M35L									
		32M40	TIA32M40L	56.5	21.9	86.0	9.2	1.2	73.0	5.5	8.0	23.5
		32M50	TIA32M50L									
		32M63	TIA32M63L									
		35	TIS35L									
		40	TIS40L	57.0	21.9	88.5	13.0	1.2	73.0	5.5	12.0	23.5
		50	TIS50L									
		63	TIS63L									
		80	TIS80L									
		100	TIS100L	56.5	27.0	86.0	13.0	1.6	73.0	9.5	12.0	28.0
		63M80	TIS63M80L									
		63M100	TIS63M100L									
		80	OS80									
		100	OS100	57.7	26.3	88.6	12.7	1.3	73.0	5.1	7.5	17.1
		100M125	OS100M125									
		63	TCP63L									
		80	TCP80L	59.5	26.9	111.0	19.5	2.4	94.0	11.0	8.7	28.5
		100	TCP100L									
		100M125	TCP100M125L									
		100M160	TCP100M160L									
		100M200	TCP100M200L									
		125	TFP125L	47.0	31.0	111.0	19.5	3.2	94.0	8.7	8.7	32.5
		160	TFP160L									
		200	TFP200L									
		200M250	TFP200M250L	76.0	41.0	111.0	19.5	3.2	94.0	11.0	8.7	44.0
		200M315	TFP200M315L									





Dimensions in mm

TIS
35-100A



OS
80-125A

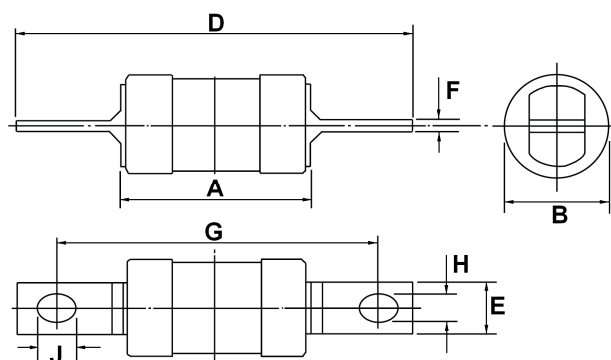
TCP
63-200



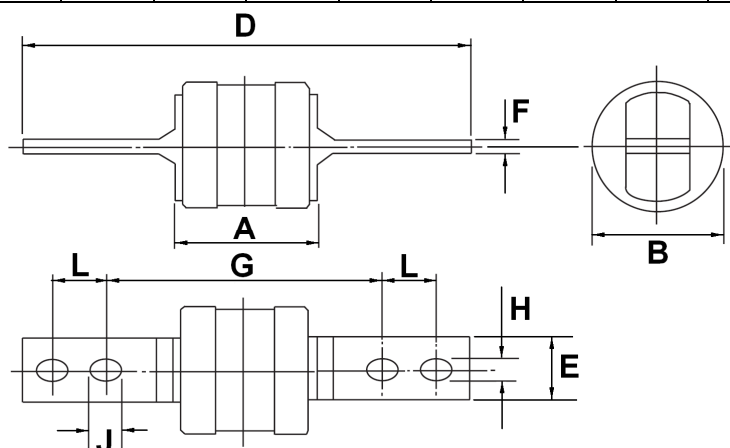
TFP
125-315A



Type	Centre tags	Current (A)	Catalogue Number	A	B	D	E	F	G	H	J
	(2 hole fixing)	80A	TC80L	57.0	26.9	137.0	19.5	3.2	111.0	8.7	14.0
		100A	TC100L								
		125A	TF125L								
		160A	TF160L	63.0	36.1	137.0	19.5	3.2	111.0	8.7	14.0
		200A	TF200L								
		200M250	TF200M250L								
		200M315	TF200M315L	73.0	41.9	138.0	19.5	3.2	111.0	8.7	14.0
		250A	TKF250L								
		315A	TKF315L								
		315M400	TKF315M400L	75.0	59.0	138.0	26.0	4.8	111.0	8.7	14.0
		355A	TMF355L								
		400A	TMF400L								
		250A	TKM250L	73.0	41.9	159.0	26.0	3.2	133.0	10.3	14.0
		315A	TKM315L								



Type	Off-set tags	Current (A)	Catalogue Number	A	B	D	E	F	G	H	J	L
	(4 hole fixing)	355A	TM355L	75.0	59.1	212.0	26.0	4.8	133.0	10.3	16.0	25.4
		400A	TM400L									
		450A	TTM450L									
		500A	TTM500L	83.0	74.4	212.0	26.0	6.3	133.0	10.3	16.0	25.4
		560A	TTM560L									
		630A	TTM630L									
		670A	TLM670L	86.0	82.4	212.0	26.0	9.5	133.0	10.3	16.0	25.4
		710A	TLM710L									
		750A	TLM750L									
		800A	TLM800L									



Installation: use in IPD RS fuse fittings



Type N Performance Data 2 – 32A

Current Rating (A)	BS Cat	Pre-Arc I ² t (A ² sec)	Total I ² t (A ² sec) @ 415V	Watts Loss (W)	Voltage (AC)	Breaking Capacity (AC)	Voltage (DC)	Breaking Capacity (DC)
2	gG	1.0	3.5	0.9	415V	80kA	240V	40kA
4		7.6	26	1.5				
6		28	100	1.8				
10		70	315	1.2				
16		120	540	1.6				
20		250	1125	1.7				
25		420	1890	2.0				
32		670	3000	2.9				
20M25	gM	420	1890	1.3				
20M32		670	3000	1.1				

Type T Performance Data 2 – 315A

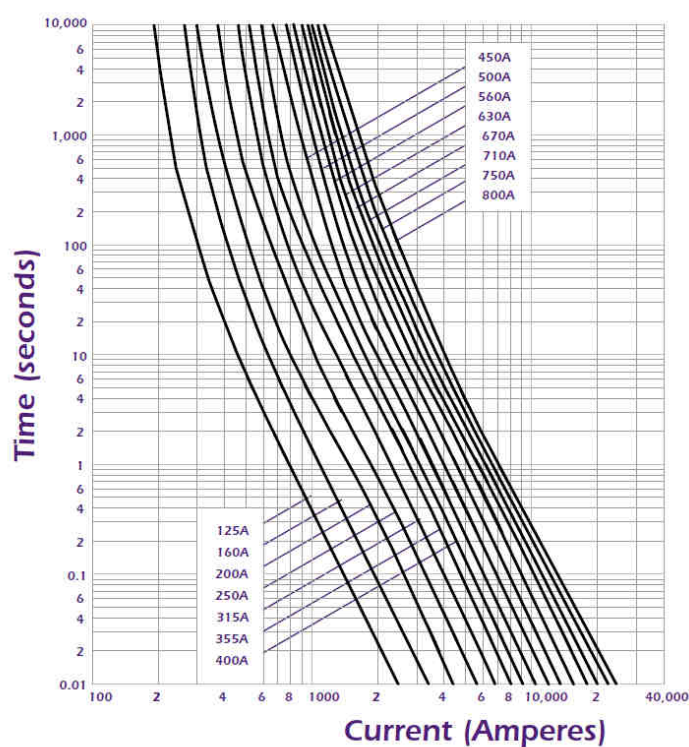
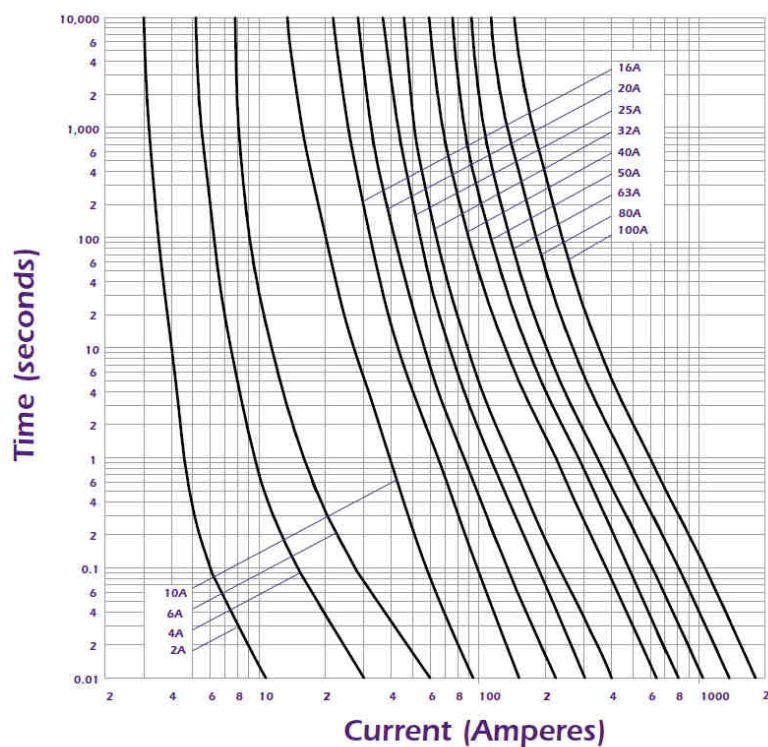
Current Rating (A)	BS Cat	Pre-Arc I ² t (A ² sec)	Total I ² t (A ² sec) @ 415V	Watts Loss (W)	Voltage (AC)	Breaking Capacity (AC)	Voltage (DC)	Breaking Capacity (DC)
2	gG	1.0	3.5	0.9	415V	80kA	240V	40kA
4		7.6	26	1.5				
6		28	100	1.8				
10		70	315	1.2				
16		120	540	1.6				
20		250	1125	1.7				
25		420	1890	2.0				
32		670	3000	2.9				
35		700	4500	3.6				
40		1300	5850	4.0				
50		2600	11700	4.8				
63	gM	4000	17500	5.9				
32M35		700	4500	3.6				
32M40		1.0	3.5	4.0				
32M50		7.6	26	2.6				
32M63		28	100	1.6				
80	gG	8500	38250	6.5				
100		14000	65000	7.5				
125		28000	78400	11.3				
160		60000	168000	14.0				
200		105000	293000	16.2				
63M80	gM	8500	38250	4.0				
63M100		14000	65000	3.0				
100M125		28000	78400	7.2				
100M160		60000	168000	5.5				
100M200		105000	293000	4.1				
200M250		190000	532000	15.4				
200M315		270000	756000	12.5				



Type T Performance Data 80 – 800A

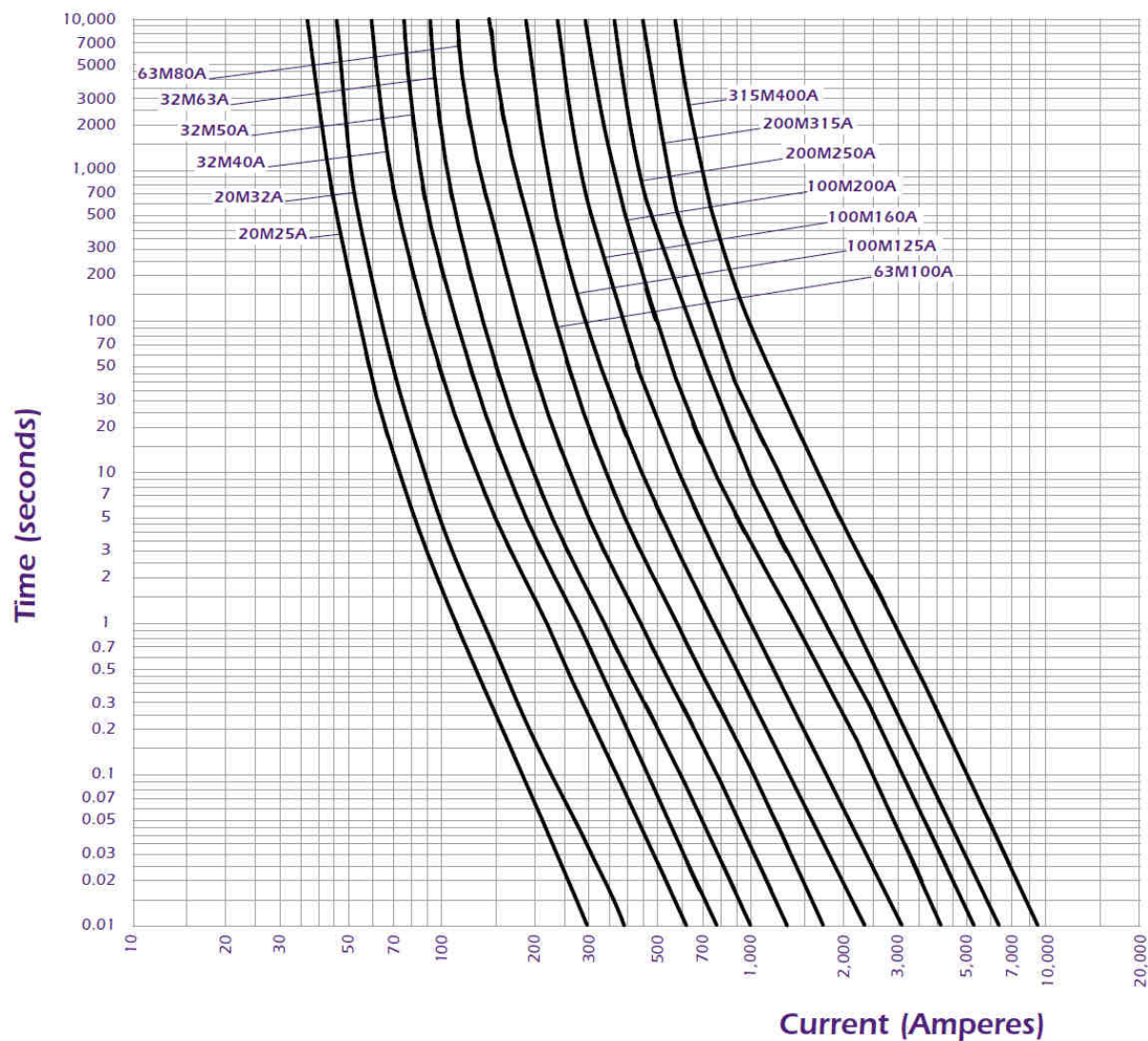
Current Rating (A)	BS Cat	Pre-Arc I ² t (A ² sec)	Total I ² t (A ² sec) @ 415V	Watts Loss (W)	Voltage (AC)	Breaking Capacity (AC)	Voltage (DC)	Breaking Capacity (DC)
80	gG	8500	38250	6.5	415V	80kA	240V	40kA
100		14000	65000	7.5				
125		28000	78400	11.3				
160		60000	168000	14.0				
200		105000	293000	16.2				
250		190000	532000	24.0				
315		270000	756000	31.0				
355		395000	1106000	32.0				
400		505000	1414000	38.0				
100M125	gM	28000	78400	7.2				
100M160		60000	168000	5.5				
100M200		105000	293000	4.1				
200M250		190000	532000	15.4				
200M315		270000	756000	12.5				
315M400		505000	1414000	23.5				
450	gG	650000	1820000	42.0				
500		850000	2380000	48.0				
560		120000	3360000	50.0				
630		1546000	4437000	54.0				
670		1950000	5460000	60.0				
710		2400000	6720000	62.0				
750		3000000	8400000	65.0				
800		3769000	10900000	68.0				

gG curves - 2 to 800A - 415VAC





gM curves - 20M25 to 315M400A - 415VAC





Cut-off Current Characteristics A,B,C & F Type

