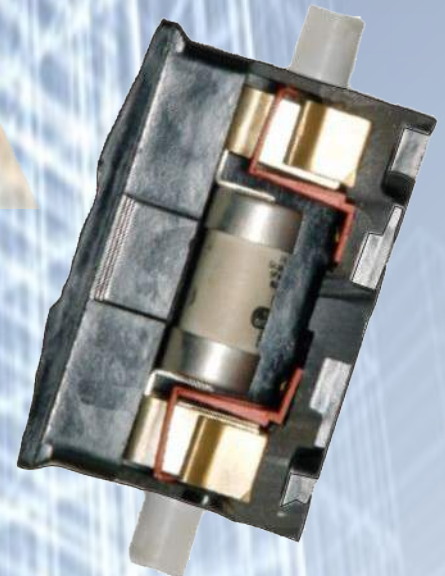


LOW VOLTAGE HRC FUSE RANGE

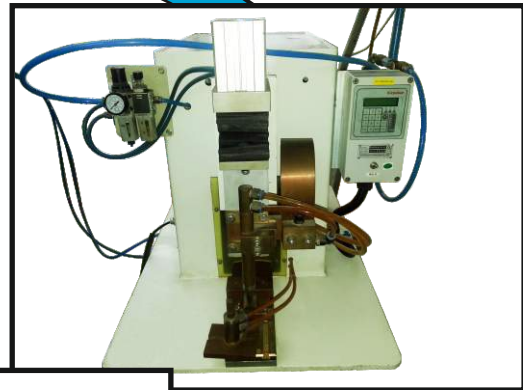


ISO 14001:2004 Certified
ISO 9001:2008 Certified



LAWSON FUSES INDIA LTD

Lawson Fuses India Ltd is a wholly owned subsidiary of Lawson Fuses Ltd, a long established UK company with a worldwide reputation for product quality and service excellence.



LOW VOLTAGE HRC FUSE RANGE

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500 Volt NH System Fuse-links with Blade Contacts to IEC60269-2/IS13703-2

Applications

Lawson Type "LSPN" fuse-links with blade contacts have a breaking capacity of 120kA (80kA for size 000) they are for use by authorised persons, mainly in industrial applications, and are suitable for fitting in fuse-bases and fuse-gear.

Standards

The fuse-links meet the requirements of the latest editions of IEC60269-2 together with IS 13703-2.

Wiring Regulations

In complying with these standards the fuse-links have the classification "gG" thus meeting the requirements of IEC60364 for the Electrical Installation of Buildings and national wiring regulations based on the IEC document.

Characteristics

The fuse-links have time-current characteristics which meet the disconnection times required by the wiring regulations and ensure discrimination between current ratings in a ratio of 1.6:1. The fuse-link characteristics also ensure satisfactory performance under both cyclic low overload conditions and repeated transient overloads such as motor starting surges and inrush currents to transformers or capacitors.

Electromagnetic Compatibility

The fuse-links meet the electromagnetic compatibility (EMC) requirements of European legislation since they are not sensitive to normal electromagnetic disturbances and any significant electromagnetic disturbance generated by the fuse-links themselves is limited to the instant of operation and controlled by the requirements of the IEC and IS standards.

Range

The range includes ratings up to 630A in standardized body sizes 000, 00, 0, 1, 2 and 3 in the standard "gG" classification.

Dimensions

The dimensions are in accordance with DIN43620.

Indicator

The fuse-links incorporate a top mounted mechanical spring indicator.

Marking

The fuse-links have marking on the front and back faces of the body so that the marking is visible whether the fuse-links are mounted in a fuse-base or a fuse-switch.

500 Volt NH Fuse System Accessories

ACCESSORIES

Fuse Bases

A range of fuse bases for sizes 00, 1, 2, and 3 is available with silver plated contacts mounted on moulded DMC plinths.

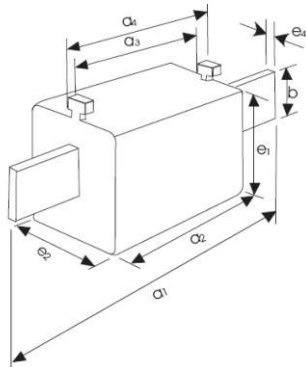
Replacement Handle

A universal replacement handle capable of accommodating all sizes is available.

Solid/Neutral Links.

A range of silver plated solid/neutral links is available for sizes 00, 1, 2 and 3.

Fuse-link Current Ratings and Principal Dimensions



DIMENSION

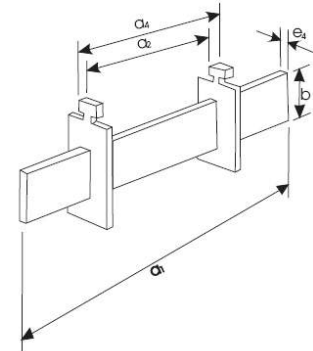
Size	List Ref	Current Ratings (A)	Dimensions (mm)							
			a1	a2	a3	a4	b	e1	e2	e4
000	LSPN000	6, 10, 16, 20, 25, 32, 40, 50, 63, 80, 100	80	54	45	49	15	42	21	6
00	LSPN00	6, 10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160	80	54	45	49	15	43	30	6
0	LSPN0	32, 40, 50, 63, 80, 100, 125, 160	125	68	62	66	15	48	40	6
1	LSPN01	32, 40, 50, 63, 80, 100, 125, 160, 200, 250	135	70	62	66	25	46	46	6
2	LSPN02**	100, 125, 160, 200, 250, 315, 355*, 400	150	70	62	66	30	57	57	6
3	LSPN03**	315, 400, 500, 630	150	71	63	68	35	72	72	6

*non-standardized current rating
**ratings also available from 25A onwards in these sizes

Solid/Neutral Links

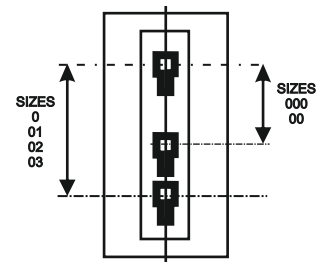
DIMENSION

Size	List ref	Current Ratings (A)	Dimensions (mm)				
			a1	a2	a3	b	e4
00	SLLPN00	160	78.5	45	49	15	6
0	SLLPN0	160	125	62	66	15	6
1	SLLPN01	250	135	62	66	20	6
2	SLLPN02	400	150	62	66	25	6
3	SLLPN03	630	150	63	69	32	6



Universal Replacement Handle

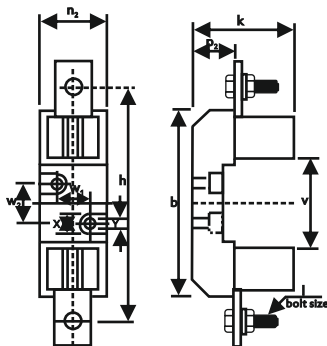
DIMENSION



List Ref	Current Rating (A)
DUCH	630

Fuse-base Current Ratings and Principal Dimensions

DIMENSION



Size	List ref	Current Ratings (A)	Dimensions (mm)										
			v	b	h	j	K	n2	p2	w1	w2	x	y
00	DFB00	160	56.5	93	100	M8	56	33.5	21	00	25	14	7.5
1	DFB01	250	80	150	175	M10	85	59	36	30	25	20	10.5
2	DFB02	400	80	150	200	M10	94	59	36	30	25	20	10.5
3	DFB03	630	80	150	210	M12	106	59	36	30	25	20	10.5

415 Volt BS System Fuse-links with Bolted Connections to IEC60269-2/BS88-2/IS13703-2

Applications

Lawson Type "DN & DT" fuse-links with offset blade and bolted connections have a breaking capacity of 80kA. They are for use by authorised persons, mainly in industrial applications, and are suitable for fitting in fuse-units and fuse-gear.

Standards

The fuse-links meet the requirements of the latest editions of IEC60269-2 together with IS 13703-2 and BS88-2.

Wiring Regulations

In complying with these standards the fuse-links have the classification "gG" or "gM" thus meeting the requirements of IEC60364 for the Electrical Installation of Buildings and national wiring regulations based on the IEC document.

Characteristics

The fuse-links have time-current characteristics which meet the disconnection times required by the wiring regulations and ensure discrimination between current ratings in a ratio of 1.6:1. The fuse-link characteristics also ensure satisfactory performance under both cyclic low overload conditions and repeated transient overloads such as motor starting surges and inrush currents to transformers or capacitors.

Motor Circuits

For usage in transient conditions, such as motor starting, where standard ratings (classification "gG") are not suitable, a range of motor circuit protection fuse-links (classification "gM") with enhanced transient withstand capability is available.

I²t Values

Type "DN & DT" fuse-links have pre-arcing I²t values at 0.01 sec in the lower half of the standardized ranges which is the region identified as ensuring satisfactory co-ordination between fuses and contactors/motor starters.

Environment

Energy efficiency in type "DN & DT" fuse-links is ensured by power dissipations substantially below standardized limits. This low energy performance reduces the temperature of the fuse-links and their surrounding equipment thus reducing the risk of thermal deterioration of adjacent contacts or joints. In addition by operating at a lower temperature the fuse-links require less derating in high ambient temperature operating environments.

Economy

Energy consumption is lowered through the reduction in wasteful watts losses, which also give the economic benefits of smaller costs of KWh and max demand charges.

Electromagnetic Compatibility

The fuse-links meet the electromagnetic compatibility (EMC) requirements of European legislation since they are not sensitive to normal electromagnetic disturbances and any significant electromagnetic disturbance generated by the fuse-links themselves is limited to the instant of operation and controlled by the requirements of the IEC and IS standards.

Range

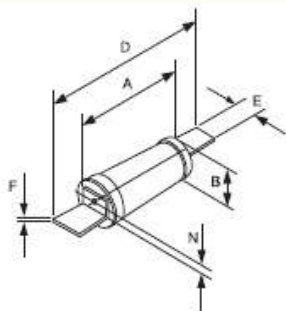
The range includes all standardized reference fuse-links up to 800A rating in the standard "gG" classification and up to 200M315A rating in the motor circuit protection "gM" classification. Non-reference tag variants are available to allow installation in non-standard or specialised equipment.

Dimensions

With dimensions very much less than the standardized limits the fuse-links are small and light in weight thus assisting cooling in installations and reducing the strain on fuse-switch mechanisms.

Fuse-link Current Ratings and Principal Dimensions

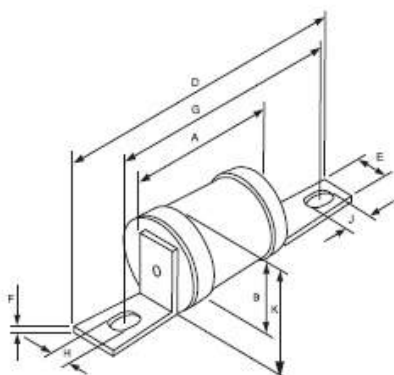
Offset plain tags



IEC/IS/BS Ref	List Ref	Current Ratings (A)	Dimensions (mm)					
			A (max)	B (max)	D (max)	E (nom)	F (nom)	N (nom)
F1	DNS	2,4,6,10,16,20,25,32	35.5	13.3	62	11	0.8	3.5
		40*, 50*, 63*	39	17.5	62	11	0.8	3.5
F2	DMES	10,16,20,25,32,40,50,63	39	17.5	69	15	1.4	3.5

*non-standardized current rating
dimension A is distance over barrel, contact feet and rivet heads

Offset tags

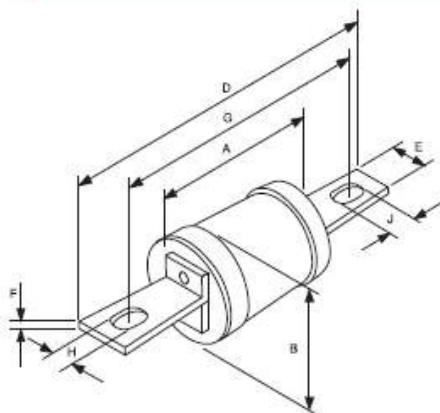


IEC/IS/BS Ref	List Ref	Current Ratings (A)	Dimensions (mm)									
			A (max)	B (max)	D (max)	E (max)		G (nom)	H (nom)	J (nom)	K (max)	
A1	DNIT	2,4,6,10,16,20,25*,32*	35.5	13.3	56	10	0.8	44.5	4.1	aos	14.3	
A2	DTIA	2,4,6,10,16,20,25,32	49	22	86	8.7	1.2	73	5.5	8	24	
-	DNITL	32,40,50,63	39	17.5	65	11	1.2	53	5.5	aos	18	
A3	DTIS	35*,40,50,63	49	22	89	13	1.2	73	5.5	aos	24	
		80*,100*,125*	49	26	89	13	1.2	73	5.5	aos	28	
		16,20,25,32,40,50,63	51	22	110	20	2.5	94	8.7	11	25	
		80,100*,125*	51	26	110	20	2.5	94	8.7	11	29	
A4	DTCP	160*	51	30	110	20	2.5	94	8.7	11	33	
		125,160,200	51	30	110	20	2.5	94	8.7	11	33	

*non-standardized current rating
dimension A is distance over barrel, contact feet and rivet heads

aos=axial open-ended slot

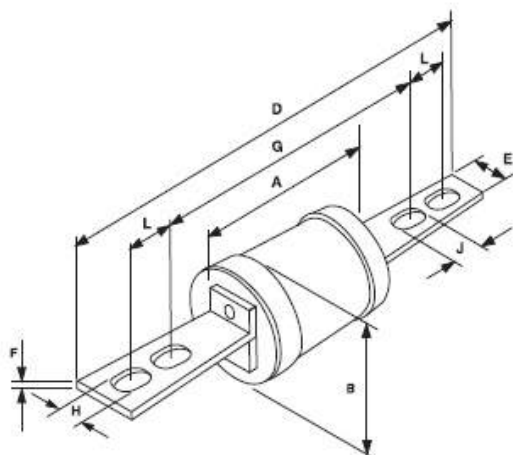
Central tags single hole fixing



IEC/IS/BS Ref	List Ref	Current Ratings (A)	Dimensions (mm)							
			A (max)	B (max)	D (max)	E (max)	F (max)	G (nom)	H (nom)	J (nom)
B1	DTC	80,100,125*	49	26	137	20	3.2	111	8.7	16
B2	DTF	125,160,200	49	30	137	20	3.2	111	8.7	16
B3	DTKF	250,315	49	41	137	26	3.2	111	8.7	16
B4	DTMF	355*,400	49	51	137	26	5	111	8.7	16

*non-standardized current rating
dimension A is distance over barrel, contact feet and rivet heads

Central tags double hole fixing



IEC/IS/BS Ref	List Ref	Current Ratings (A)	Dimensions (mm)								
			A (max)	B (max)	D (max)	E (max)	F (max)	G (nom)	H (nom)	J (nom)	L (nom)
C1	DTM	355*,400	52	51	210	26	5	133	10.3	16	25.4
C2	DTTM	450*,500,560*,630	54	61	210	26	6.4	133	10.3	16	25.4
C3	DTLM	670*,710*,750*,800	56	73	210	26	9.5	133	10.3	16	25.4

*non-standardized current rating
dimension A is distance over barrel, contact feet and rivet heads

MOTOR CIRCUIT PROTECTION FUSE-LINKS

A motor circuit protection fuse-link has a dual basis of current rating. The lower rating is the maximum continuous current rating determined by the rating of the equipment in which the fuse-link is normally fitted. The higher rating is the operational current rating determined by the time/current characteristic of the fuse-link. The list reference incorporates both ratings separated by the letter "M". (eg DNS20M32)

IES/IS/BS REF	List Ref	Current Rating Cont M motor (A) (A)	Equivalent Standard List ref	Dimensions(mm)									
				A (max)	B (max)	D (max)	E (max)	F (max)	G (nom)	H (nom)	J (nom)	K (max)	N (nom)
F1	DNS	20M25	DNS	35.5	13.3	62	11	0.8	-	-	-	-	3.5
		20M32		39	17.5	62	11	0.8	-	-	-	-	3.5
		32M40* [^]											
		32M50* [^]											
A1	DNIT	20M25	DNIT	36.5	13.3	56	10	0.8	44.5	4.1	aos	14.3	-
		20M32		39	17.5	62	11	1.2	44.5	5.5	aos	18	-
		32M40* [^]											
		32M50* [^]											
A2	DTIA	32M40	DTIA	49	22	86	8.7	1.2	73	5.5	8	24	-
		32M50											
		32M63											
A3	DTIS	63M80	DTIS	49	26	89	13	1.2	73	5.5	aos	28	-
		63M100											
		100M125*											
A4	DTCP	100M125	DTCP	51	30	110	20	2.5	94	8.7	11	33	-
		100M160											
		100M260											
As A4	DTFP	200M250	DTFP	51	41	110	20	2.5	94	8.7	11	45	-
		200M315											
B1	DTC	100M125	DTC	49	30	137	20	3.2	111	8.7	16	-	-
		100M160											
		100M200											
B2	DTF	200M250	DTF	49	41	137	20	3.2	111	8.7	16	-	-
		200M315											

*non-standardized current rating

[^]barrel exceeds standardized dimensions

aos = asial open-ended slot

FUSE-LINK SELECTION FOR 3 PHASE 415V a.c. INDUCTION MOTOR CIRCUITS

MAXIMUM FULL LOAD CURRENT STARTING CAPABILITY

MOTOR RATING			DOL START 7xFLC for 10sec FUSE-LINK RATING (A)		ASSISTED START 3.5xFLC for 20sec FUSE-LINK RATING (A)	
KW	HP	FLC	"gG"	"gM"	"gG"	"gM"
0.75	1	2	6	-	4	-
11	1.5	2.5	10	-	6	-
1.5	2	3.5	10	-	6	-
2.2	3	5	16	-	10	-
3	4	6.5	20	-	16	-
4	5	8	25	20M25	16	-
5.5	7.5	11	32	20M32	20	-
7.5	10	14	40	32M40	25	20M25
10	13.5	19	50	32M50	32	20M32
11	15	21	50	32M50	32	-
15	20	28	63	32M63	40	32M40
18.5	25	35	80	63M80	50	-
22	30	41	100	63M100	50	-
26	35	48	100	63M100	63	-
30	40	55	125	100M125	80	63M80
33	45	62	160	100M160	80	63M80
37	50	69	160	100M160	100	-
45	60	83	200	100M200	100	-
53.5	70	97	200	100M200	125	100M125
60	75	100	200	100M200	125	100M125
67	80	110	250	200M250	160	-
75	90	120	250	200M250	160	-
90	1	135	250	200M250	160	-
93	1.5	160	315	200M315	200	-
110	2	170	355*	-	200	-
130	3	200	400	-	250	200M250
150	4	230	400	-	315	-
160	5	260	450*	-	315	-
170	7.5	280	500	-	355*	-
180	10	290	500	-	355*	-
200	13.5	320	560*	-	400	-
220	15	350	630	-	400	-
250	20	380	670*	-	450	-
260	25	420	710*	-	500	-
300	30	450	750*	-	560	-

ASSISTED START (7xFLC for 10sec)		
FUSE-LINK RATING (A)		MAXIMUM MOTOR FLC
"gG"	"gM"	
2	-	1.3
4	-	2.4
6	-	4.3
10	-	6.4
16	-	11
20	-	14
25	20M25	19
32	-	24
40	32M40	31
50	-	46
63	-	51
80	-	69
100	-	94
125	-	110
160	-	150
200	-	180
250	-	220
315	-	250
355*	-	310
400	-	340
450*	400M500*	380
500	-	430
560*	-	460
630	-	500
670*	-	530
710*	-	550
750*	-	570
800	-	600

DOLSTART (7xFLC for 10 sec)		
FUSE-LINK RATING (A)		MAXIMUM MOTOR FLC
"gG"	"gM"	
2	-	0.6
4	-	1.3
6	-	2.3
10	-	4.1
16	-	6.0
20	-	7.9
25	-	10
32	-	13
40	-	18
50	-	26
63	-	30
80	-	40
100	-	54
125	-	61
160	-	82
200	-	110
250	-	150
315	-	170

This data is based upon normal condition and average efficiencies and power factors. Conditions such as long run-up times, large numbers of starts in succession, high ambient temperatures or abnormal transients during starting may necessitate adjustments to fuse-link selection.

INDUSTRIAL FUSE-LINKS WITH BOLTED CONNECTIONS

TYPE SS

660/690 Volt Industrial Fuse-Links with Bolted Connections to BS88: Part 2 • IEC60269-2 • EN60269-2

Rated voltages: 660V a.c., 250V d.c. Breaking range and utilization category: gG Rated breaking capacities: 80kA at 660V a.c., 40kA at 250V d.c.



Lawson Type "SS" fuse-links are for use in industrial applications and have been approved by leading authorities including Electricity Supply Authorities. The range includes all BS88: Part 2 reference fuse-links up to 800 Amps and has gG classification. Non-reference tag variants cater for installation in non-standard or specialised equipment.

The range has a rated voltage of 660V a.c., and has been certified at a test recovery voltage of at least 110%. These fuse-links are therefore suitable on systems that meet the nominal harmonised voltage of 690V a.c., + 5%. The range also has a rating of 250V d.c.

A complementary range of solid/neutral links is available to suit our fuse-link range.

These Fuse-Links are manufactured in the UK and Comply with the quality assurance systems employed by Lawson Fuses Ltd.

Product Detail

Product detail - Offset Tag Fuse-Links

List Reference	Current Rating (A)	BS88 Reference	Voltage Rating (V)	Breaking Capacity (kA)	BS Standard	IEC Standard	Carton Quantity	Carton Weight (Kg)
SSA1	2,4,6,10,16,20	A1	660a.c. 250d.c.	80kA-a.c. 40kA-d.c.	BS88: Part 2	60269-2	10	0.15
SSA2	2,4,6,10,16,20,25,32	A2					10	0.50
SSA3	35,40,50,63	A3					10	0.80
SSA4	32,40,50,63,80,100	A4					5	0.90
SSFP	125,160,200	(asA4)					1	0.25
85SSM	355,400	-					1	1.05
86SST	450,500,560,630	-					1	1.40
86SST	670,710,750,800	-					1	1.40

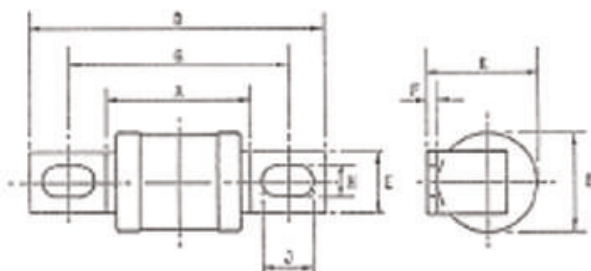
Product detail - Central Tag Fuse-Links

List Reference	Current Rating (A)	BS88 Reference	Voltage Rating (V)	Breaking Capacity (kA)	BS Standard	IEC Standard	Carton Quantity	Carton Weight Kg
SSB	2,4,6,10,16,20,25	-	660a.c. 250d.c.	80kA-a.c. 40kA-d.c.	BS88: Part 2	60269-2	10	0.60
SSB	32,35,40,50,63	-					10	0.75
SSBC	2,4,6,10,16,20,25	(as B1)					10	0.60
SSBC	32,35,40,50,63	(as B1)					10	0.75
SSB1	80,100	B1					5	0.90
SSB2	125,160,200	B2					1	0.25
84SSF	125,160,200	-					1	0.25
SSB3	250,315	B3					1	0.45
84SSK	250,315	-					1	0.45
SSKM	125,160,200,250,315	-					1	0.45
SSB4	355,400	B4					1	0.65
SSC1	355,400	C1					1	0.78
SSMT	355,400	-					1	0.83
SSC2	450,500,560,630	C2					1	1.05
SST	450,500,560,630	-					1	1.05
SSC3	670,710,750,800	C3					1	1.40
SSLT	670,710,750,800	-					1	1.40
SSLU	450,500,560,630	D1					1	2.40
SSLU	670,710,750,800	D1					1	2.40

INDUSTRIAL FUSE-LINKS WITH BOLTED CONNECTIONS

TYPE SS

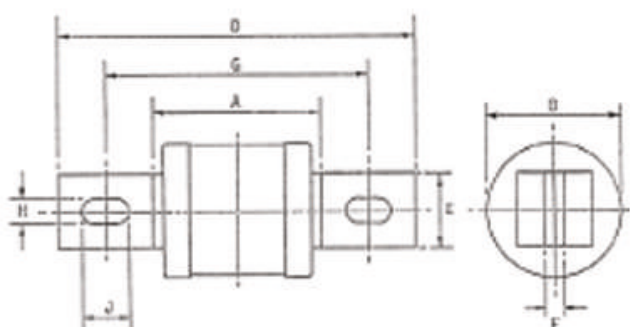
Dimensional Drawings



BS88 Part 2 reference 'A' fuse-link dimensions and tag variants

BS88 Ref.	Type Ref.	Current Ratings (A)	Dimensions (mm)								
			A	B	D	E	F	G	H	J	K
A1	SSA1	2,4,6,10,16,20	34	14,3	56	6,5	1,2	40,5	4,0	— ^a	14,3
A2	SSA2	2,4,6,10,16,20,25,32	40	22	86	6	1,2	73	5,5	8	24
A3	SSA3	25 ^a ,40,50,63	53	26	89	1,5	1,2	73	5,5	— ^a	28
A4	SSA4	32,40,50,63	57	26	110	2,0	2,4	94	8,7	11	25
A4	SSA4	80,100	60	25	110	2,0	2,4	94	8,7	11	38
as A4	SSFP	1,25,160,200	60	41	110	2,0	2,4	94	8,7	11	42
—	SSSA4	255,400	60	61	110	2,0	2,4	102	8,7	11	42
—	SSSI	450 ^a ,500,560 ^a ,630	60	73	110	2,0	2,4	102	8,7	11	42
—	—	670 ^a ,710 ^a ,750 ^a ,800	60	83	110	2,0	2,4	102	8,7	11	42

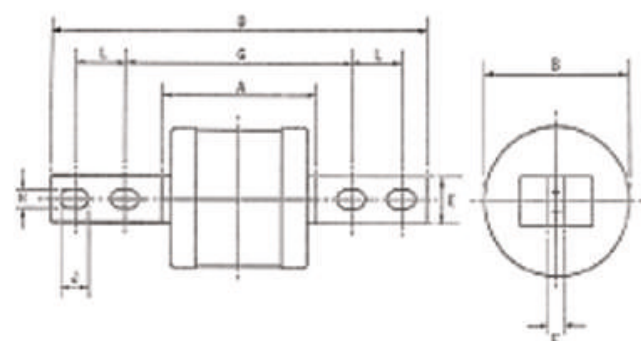
^a Non-standardized current rating additional to BS88: Part 2



BS88 Part 2 reference 'B' fuse-link dimensions and tag variants

BS88 Ref.	Type Ref.	Current Ratings (A)	Dimensions (mm)								
			A	B	D	E	F	G	H	J	K
—	SSB	2,4,6,10,16,20,25,32	45	22	111	3,2	1,2	47	7,1	13	—
—	—	35 ^a ,40,50,63	53	26	111	3,2	1,2	47	7,1	13	—
as B1	SSBC	2,4,6,10,16,20,25,32	45	22	137	3,2	1,4	111	8,2	14	—
—	—	35 ^a ,40,50,63	53	26	137	3,2	1,4	111	8,2	14	—
B1	SSB1	80,100	60	25	137	2,0	3,2	111	8,2	14	—
B2	SSB2	125,160,200	60	41	137	2,0	3,2	111	8,2	14	—
—	B4SS2	125,160,200	60	41	137	2,0	3,2	111	8,2	14	—
B3	SSB3	250,315	75	51	137	2,0	3,2	111	8,2	14	—
—	B4SS3	250,315	60	51	137	2,0	3,2	111	8,2	14	—
—	SSB4	125,160,200,250,315	75	51	159	2,0	3,2	133	10,3	14	—
B4	SSB4	355 ^a ,400	77	60	137	2,0	6,4	111	8,2	16	—

^a Non-standardized current rating additional to BS88: Part 2



BS88 Part 2 reference 'C' fuse-link dimensions and tag variants

BS88 Ref.	Type Ref.	Current Ratings (A)	Dimensions (mm)								
			A	B	D	E	F	G	H	J	L
C1	SSC1	255 ^a ,400	77	61	210	2,0	6,3	133	10,3	16	25,4
—	SSM1	255 ^a ,400	77	61	267	2,0	6,3	165	10,3	16	31,8
C2	SSC2	450 ^a ,500,560 ^a ,630	80	73	210	2,0	7,8	133	10,3	16	25,4
—	SSI	450 ^a ,500,560 ^a ,630	80	73	267	2,0	7,8	165	10,3	16	31,8
C3	SSC3	670 ^a ,710 ^a ,750 ^a ,800	83	83	210	2,0	9,5	133	10,3	16	25,4
—	SSI3	670 ^a ,710 ^a ,750 ^a ,800	83	83	267	2,0	9,5	165	10,3	16	31,8
—	—	450 ^a ,500,560 ^a ,630	83	73	267	2,0	9,5	140	10,3	16	31,8
D1	SSU1	670 ^a ,710 ^a ,750 ^a ,800	83	83	267	2,0	9,5	140	10,3	16	31,8

^a Non-standardized current rating additional to BS88: Part 2



Parallel tag fixings on SSU only

415 Volt BS System Fuse-holders

Applications

Lawson Type "DBFF" Fuse Holders accommodate Industrial fuse-links with offset blade and bolted connections to IEC60269-2 together with IS 13703-2 and BS88-2.

Standards

The fuse-holders meet the requirements of IS 13703-2 --

Construction

The basic fuse-holder incorporates a base with unshrouded terminal blocks.

Range

The fuse-holder range consists of five fuse-holders which accommodate compact dimension 415V fuse-links up to 32A rating together with 415V offset tag industrial fuse-links up to 100A.

Also have 415V compact dimension fuse-holders to BS88, IEC60269, IS13703 Type DCF (Clip Fit Range)

Wiring Connection

The fuse-holders are available with double front wiring connections (FC/FC) or a single front wiring connection together with a rear busbar connection (FC/BBC). The 20A Fuse-holder is available in two versions which accommodate compact dimension fuse-links and offset tag fuse-links. Both versions are available with double back connections (BC/BC).

Base Terminals

To Improve the mechanical and electrical connection of the cable the 32A, 63A and 100A terminal blocks incorporate double terminal screws.

Degrees of Protection

When installed the basic fuse-holders have the degree of protection IP2X.

Terminal Shrouds

For enhanced protection the 32A, 63A and 125A fuse-bases can be supplied or retro fitted with separate insulated terminal shrouds for fitting over both incoming and outgoing terminal blocks. The terminal shrouds provide protection to degree IP2X when the fuse-carrier is removed and enable work to be carried out on a dead terminal with the other terminal live.

With terminal shrouds fitted the bases accommodate Lawson fuse-links from the "DN&DT" range, which feature barrel dimensions below standardized limits. Fuse-links with larger dimensions may not be able to be fitted in the shrouded bases.

Cable Ferrules

Insulated cable ferrules may be fitted to all front connected cable entries to provide cable support at the point of entry together with an enhanced degree of protection.

Din Rail Adaptor

A multi fixing adaptor is available which can be fitted to the rear of the DBFF20F1, the DBFF20A1 and the DBFF32 bases enabling them to be mounted on the standard 35mm top hat DIN rail. The adaptor can also be used to attach other items of equipment to the DIN rail.

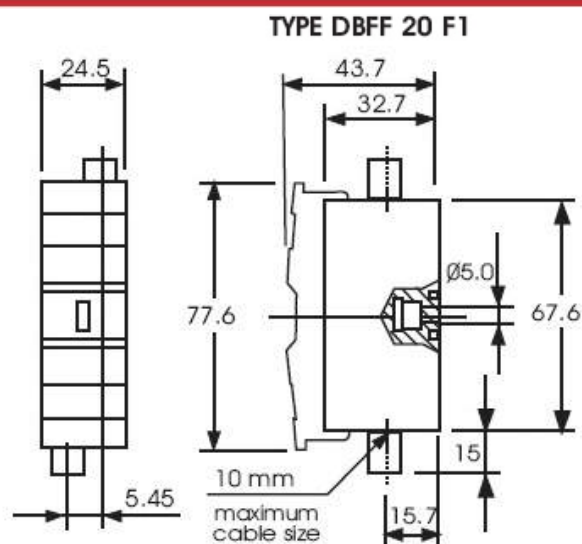
Labelling

The fuse carriers incorporate two white labels. Circuit identification can be entered on one label. Circuit details such as fuse-link rating can be entered on the other.

Indicators

The fuse-carriers can be supplied or retro fitted with a neon indicator which glows when the fuse-link has operated.

Fuse-holder Current Ratings and Principal Dimensions



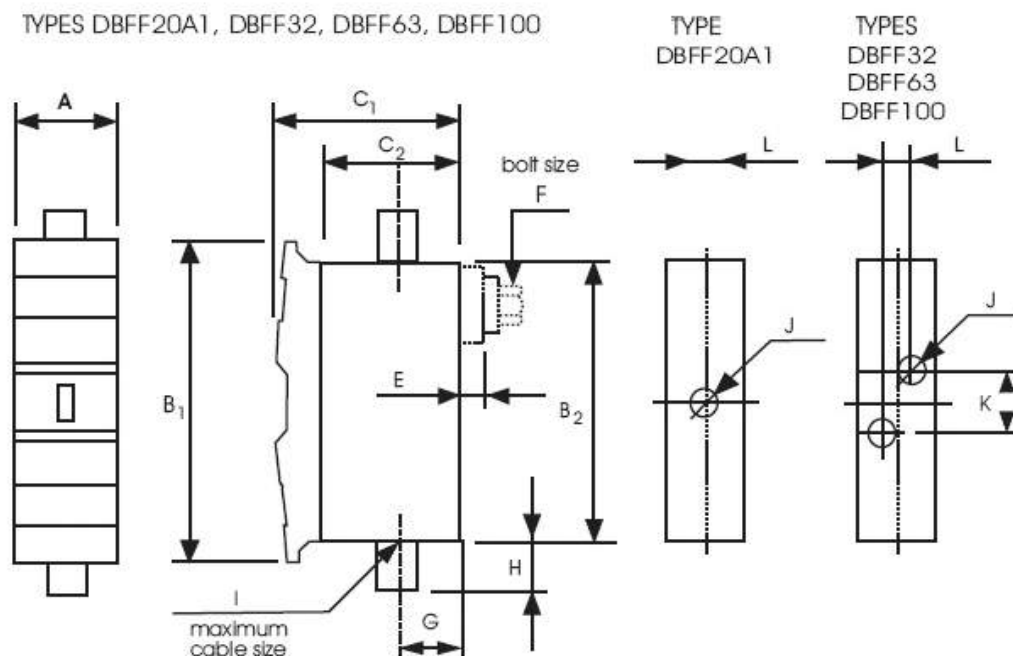
DIMENSION

REFERENCE	CURRENT RATING (A)	LAWSON FUSE-LINK REFERENCE
DBFF 20 F1 FC/FC BK	20/32	DNS
DBFF 20 F1 FC/BBC BK	20/32	DNS
DBFF 20 F1 BC/BC BK	20/32	DNS
DCF 32 FC/FC BK	32A	DNS(F1)*
DCF 32 FC/BBC BK	32A	DNS(F1)*
DCF 32 FC/BC BK	32A	DNS(F1)*
DCF 32 FC/BC BK	32A	DNS(F1)*

*All bases include integral DIN-rail adaptor.

FIXING DETAILS

TYPES DBFF20A1, DBFF32, DBFF63, DBFF100



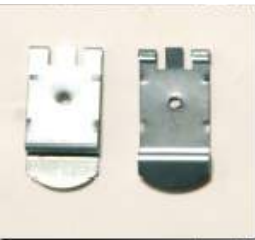
REFERENCE	CURRENT RATING (A)	LAWSON FUSE-LINK REFERENCE	DIMENSIONS (mm.)												
			A	B ₁	B ₂	C ₁	C ₂	E	F	G	H	I _{mm²}	J	K	L
DBFF 20 A1 FC/FC BK	20/32	DNIT	24.5	77.6	67.6	43.7	32.7	-	-	18.7	15	10	5.0	-	5
DBFF 20 A1 FC/BBC BK	20/32	DNIT	24.5	77.6	67.6	43.7	32.7	-	-	18.7	15	10	5.0	-	5
DBFF 20 A1 BC/BC BK	20/32	DNIT	24.5	77.6	67.6	43.7	32.7	-	-	18.7	15	10	5.0	-	5
DBFF32 FC/FC BK	32	DT1A	32.2	103	99	64	41	-	-	21	15	16	5.8	6.3	12.7
DBFF32 FC/BBC BK	32	DT1A	32.2	103	99	64	41	1.5	M6	21	15	16	5.8	6.3	12.7
DBFF63 FC/FC BK	63	DT1S	36	111	105	72.5	46	-	-	23	15	25	5.8	6.3	12.7
DBFF63 FC/BBC BK	63	DT1S	36	111	105	72.5	46	1.5	M6	23	15	25	5.8	6.3	12.7
DBFF100 FC/FC BK	100	DTCP	51	141	130	98	64	-	-	28.5	15	70	8.7	22	19
DBFF100 FC/BBC BK	100	DTCP	51	141	130	98	64	1.5	M10	28.5	15	70	8.7	22	19

FUSE-HOLDER ACCESORIES

Fuse-base Terminal Shrouds



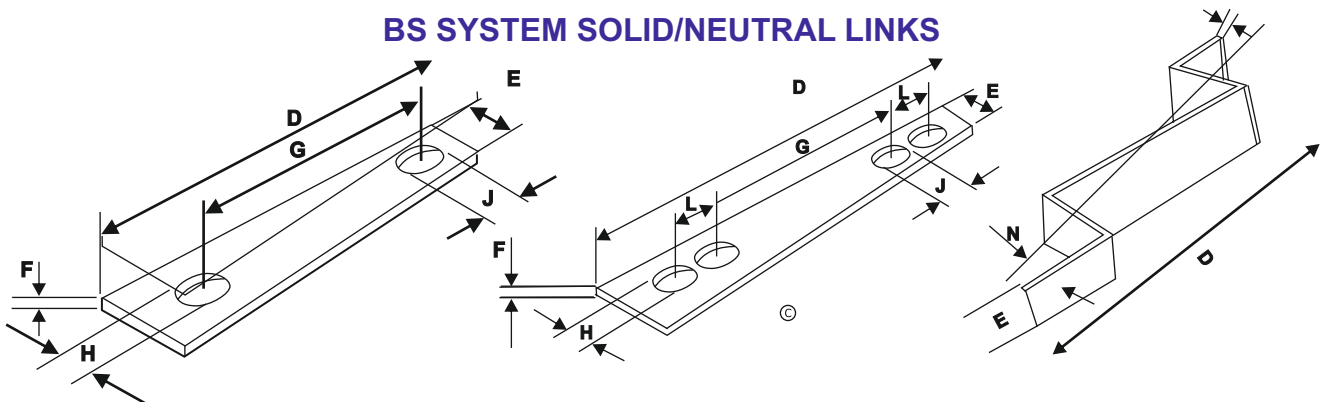
Cable Ferrules



DIN Rail Adaptor



BS SYSTEM SOLID/NEUTRAL LINKS



List Ref	current Rating(A)	Dimensions(mm)							
		D(max)	E(max)	F(max)	G(nom)	H(nom)	J(nom)	L(nom)	N(nom)
DSLA1	20	56	10	0.8	44.5	4.1	qos	-	-
DSLA2	32	86	8.7	1.2	73	5.5	8	-	-
DSLA1L	63	65	11	1.2	53	5.5	qos	-	-
DSLA3	63	89	13	1.2	73	5.5	qos	-	-
DSLA4	125	110	20	2.5	94	8.7	11	-	-
DSLB1	100	137	20	3.2	111	8.7	16	-	-
DSLB2	200	137	20	3.2	111	8.7	16	-	-
DSLB3	315	137	26	3.2	111	8.7	16	-	-
DSLB4	400	137	26	5	111	8.7	16	-	-
DSLCL1	400	210	26	5	133	10.3	16	26	-
DSLCL2	630	210	26	6.4	133	10.3	16	26	-
DSLCL3	800	210	26	9.5	133	10.3	16	26	-
DSLFL1	32	62	11	0.8	-	-	-	-	3.5

ELECTRICITY SUPPLY FUSE-LINKS

TYPE J

DJPU & DJSU

400/415 Volt Electricity Supply Distribution Fuse-Links BS88-2/ IEC60269-2

Rated Voltage: 415V a.c., Breaking Range and Utilization Category: gU, Rated Breaking Capacity:80kA



Lawson Type “J” fuses are for use in a.c. electricity supply networks. They are installed in distribution boards, feeder pillars, line boxes, pole mounted cut-outs and heavy duty service intakes. The range includes all the current ratings up to 400A specified in BS88-2/IEC60269-2 for fuse-links with the standard 82mm and 92mm fixing centres, together with additional non-standardized current ratings.

The range has a rated voltage of 415 V a.c. and has been certified at a test recovery voltage of 110%. These fuse-links are therefore suitable for use on systems with voltages up to 457V a.c. The rated & test voltages also ensure that the range meets all the transitional voltage requirements specified within the harmonized nominal voltage of 400V a.c.



Performance Data and Product Detail

Performance Data-Electricity Supply Fuse-Links

LIST REF.	RATED CURRENTS (A)	RATED VOLTAGE (V a.c.)	RATED BREAKING CAPACITY (kA)	BS/IEC STANDARDS
DJPU	20,32,40,50,63, 80,100*,125,160*,200*, 250*,315*,355*,400*	415	80	BS 88-2/IEC 60269-2
DJSU	20,32,40,50,63, 80,100*,125,160*,200*, 250*,315*,355*,400*			

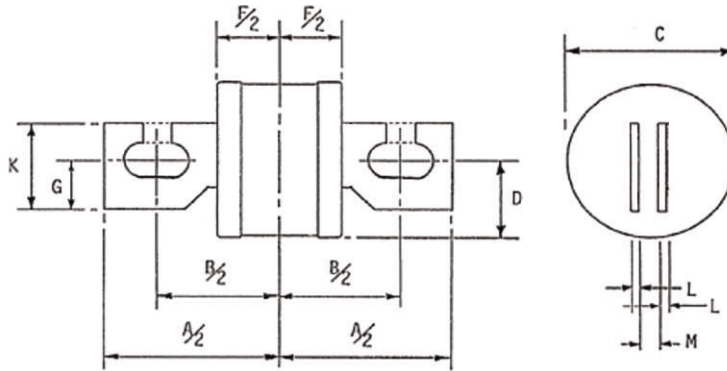
*Standardized current rating to BS88-2/IEC 60269-2

Principal Dimensions

DIMENSION

400/415 Volt Electricity Supply Distribution Fuse-Links BS88-2/IEC60269-2

Rated Voltage: 415V a.c., Breaking Range and Utilization Category: gU, Rated Breaking Capacity: 80kA



LIST REF.	CURRENT RATINGS (A)	DIMENSIONS(mm)								
		A	B	C	D	F	G	K	L	M
		Max	Nom	Max	Max	Max	Nom	Max	Max	Max
										Min
STANDARDIZED DIMENSIONS										
DJPU	20,32,40,50,63, 80,100,125,160*,200*	112	82	31	16	45	18	31	2.4	6.53
	250*,315*,355*,400*			41	18					6.45
DJSU	20,32,40,50,63, 80,100,125,160*,200*	132	92	31	16	45	22	38	3.2	8.13
	250*,315*,355*,400*			41	20					8.05

*Standardized current rating to BS88-2/IEC 60269-2

FUSE-HOLDERS FOR ELECTRICITY SUPPLY FUSE-LINKS TYPE DFH

DFH 92 Fuse Holders

Suitable for DJSU fuse-Links rated up to 630A. Breaking Capacity rating of 80kA at 415V a.c. tested in compliance with BS 88-1/IEC 60269-1 and BS 88-2/IEC 60269-2



DFH 82 Fuse Holders

Suitable for DJPU fuse-Links rated up to 400A. Breaking Capacity rating of 80kA at 415V a.c. tested in compliance with BS 88-1/IEC 60269-1 and BS 88-2/IEC 60269-2

CYLINDRICAL FUSE-LINKS

TYPE DFN

ROUND TYPE

500 Volt Cylindrical Fuse-Links to IEC60269-2

Rated Voltage 500V a.c., Breaking Range & Utilization Category:gG, Rated Breaking Capacity 80kA

Lawson Type DFN Cylindrical fuse-links are used widely in both commercial and industrial applications. The fuse-links are tested in compliance with IEC 60269-2. A complementary range of solid/neutral links is available.



LIST REFERENCE	PRINCIPAL DIMENSIONS (mm) as per IEC		RATED CURRENT (A)	RATED VOLTAGE	RATED BREAKING CAPACITY	RATED POWER DISSIPATION (W)
	DIAMETER	LENGTH				
DFN 10G	10	38	6	500V a.c.	80 kA	0.9
			10			1.0
			16			1.7
			20			2.0
			25			3.0
			32			3.0
DFN 14G	14	51	10	500V a.c.	80 kA	1.0
			16			1.8
			20			3.0
			25			3.1
			32			4.7
			40			4.9
			50			5.0
			63			6.0

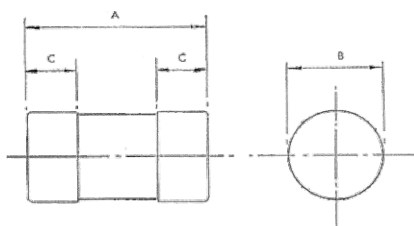
HOUSE SERVICE CUT-OUT FUSE LINKS

TYPE DRH & DRHL

400/415 Volt House Service Cut-Out Fuse-Links to BS1361 and IEC60269-3

Rated voltage:415V a.c. Fusing factor: not exceeding 1.5 (Class Q1) Rated breaking capacity: 33kA at 0.3p.f. (tested at 80kA at 0.15p.f.)

Current ratings and principal dimensions



Type Reference	Dimensions (mm)		
	A	B	C
DRH	57	22.23	16
DRHL	57	30.16	16

BS1361 TYPE	CURRENT RATING (A)	LIST REFERENCE	PRINCIPAL DIMENSIONS			
			D		L	
			mm	in	mm	in
IIA	15	DRH15	22.23	$\frac{7}{8}$	57	$2\frac{1}{4}$
	20	DRH20				
	25	DRH25				
	30	DRH30				
	40	DRH40				
	45	DRH45				
	50	DRH50				
	60	DRH60				
	80	DRH80				
IIB	30	DRHL30	30.16	$1\frac{3}{16}$	57	$2\frac{1}{4}$
	40	DRHL40				
	50	DRHL50				
	60	DRHL60				
	80	DRHL80				
	100	DRHL100				

MODULAR FUSE-HOLDER

TYPE LMSC

FUSE HOLDER

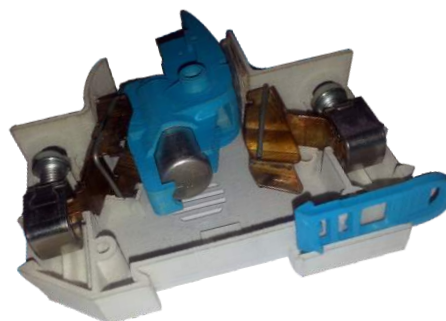


LMSC14 Fuse-holder

Suitable for the cylindrical 14x51mm fuse-links rated up to 63A. Breaking capacity rating of 80kA at 500V a.c. tested in compliance with IEC60269-1

LMSC10 Fuse-holder

Suitable for the cylindrical 10x38mm fuse-links rated up to 32A. Breaking capacity rating of 80kA at 500V a.c. tested in compliance with IEC60269-1



Voltage & Current Ratings and Principal Dimensions

FUSE-HOLDER LIST REFERENCE	VOLTAGE RATING (V a.c.)	RATED BREAKING CAPACITY	CYLINDRICAL FUSE-LINK LIST REFERENCE	CURRENT RATING (A)	PRINCIPAL DIMENSIONS (mm) as per IEC	
					DIMETER	LENGTH
LMSC10	500	80 kA	DFN10G	6,10,16,20,25,32	10	38
LMSC14	500	80 kA	DFN14G	10,16,20,25,32,40,50,63	14	51

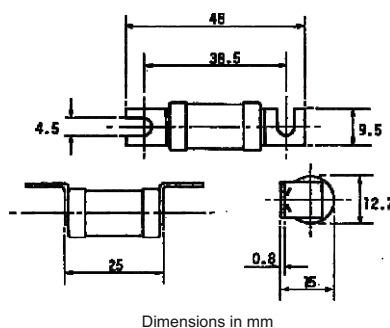
STREET LIGHTING

TYPE DLST

230/240 Volt Street Lighting Cut-Out Fuse-Links to BS88: Part 1 and IEC602669-1

Rated Voltage 240V a.c., Breaking Range & Utilization Category:gG, Rated Breaking Capacity: 20kA at 240Va.c.

Current ratings and fixing centre



CURRENT RATING (A)	LIST REFERENCE	FIXING CENTRE	
		mm	in
2	DLST2	38.5	1½
4	DLST4		
6	DLST6		
10	DLST10		
16	DLST16		
20	DLST20		
25	DLST25		
32	DLST32		

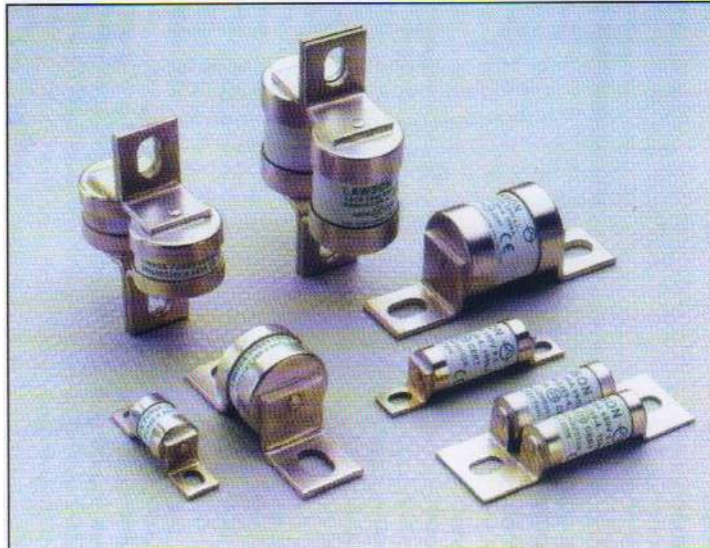
SEMICONDUCTOR FUSE-LINKS WITH BOLTED CONNECTIONS

TYPE LSC

Semiconductor Protection Fuse-Links to BS88: Part4.IEC60269-4

Rated Voltages:240/690V a.c

Rated breaking capacities: 100KA at 240/690V a.c & 120/350V d.c

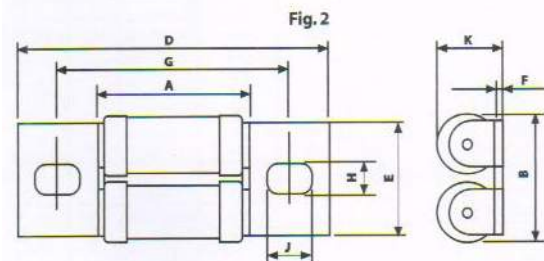
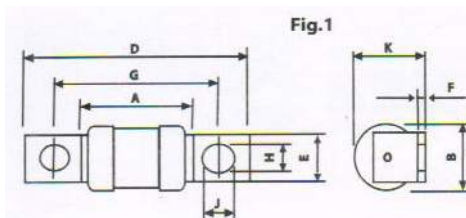


A comprehensive range of Fuse-Links for the protection of semiconductor devices. The 240 and 690 volt, series comply with the performance and dimensional requirements of BS88; Part 4 and IEC60269-4. These Fuse-Links are manufactured in the UK and Comply with the quality assurance systems employed by Lawson Fuses Ltd.

A range of Hi-Speed Fuse-Links to DIN 43620 is also available. Ranges of cylindrical Fuse-Links are available for mounting in fuse clips, fuse holders, fuse blocks or fused switches.

Principal ratings

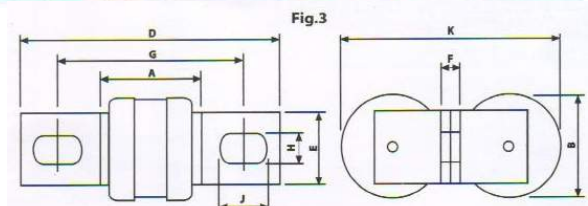
Voltage Rating a.c (V)	Current Ratings (A)	List Ref.	Fig.
240	10	LSCA 10	1
	16	LSCA 16	
	20	LSCA 20	
	25	LSCA 25	
	32	LSCA 32	
	40	LSCA 40	
	50	LSCA 50	
	63	LSCA 63	
	80	LSCA 80	
	100	LSCA 100	
240	125	LSCA 125	1
	160	LSCA 160	
	200	LSCA 200	
	250	LSCA 250	
	315	LSCA 315	
240	350	LSCA 350	3
	400	LSCA 400	
	450	LSCA 450	
	500	LSCA 500	
	630	LSCA 630	
690	10	LSCB 10	1
	16	LSCB 16	
	20	LSCB 20	
	25	LSCB 25	
	32	LSCB 32	
	40	LSCB 40	
	50	LSCB 50	
	63	LSCB 63	
	80	LSCB 80	
	100	LSCB 100	
690	125	LSCB 125	2
	140	LSCB 140	
	160	LSCB 160	
	180	LSCB 180	
	200	LSCB 200	
690	200	LSCB 200	1
	225	LSCB 225	
	250	LSCB 250	
	315	LSCB 315	
	355	LSCB 355	
	355	LSCB 355	
690	350	LSCB 350	3
	400	LSCB 400	
	500	LSCB 500	
	630	LSCB 630	
	630	LSCB 630	



Indicators

Trip-indicator fuse-links are available for use in parallel with the main fuse-link. Indicator fuse-links can either be attached to the associated fuse-link or mounted separately in panel mounted fuse clips. A push-on adaptor and micro switch attachment is available for use with the trip indicator to give the facility of remote indication.

Voltage Ratings (V)	Current Ratings (A)	Figure No.	Dimensions in millimetres								
			A max.	B max.	D max.	E nom.	F max.	G nom.	H nom.	J min.	K max.
240	10 - 100	1	29.2	17.7	58.4	12.7	2.5	41.8	6.4	7.9	19.3
240	125 - 315	1	32.6	38.2	85.0	25.4	3.3	59.0	10.3	13.0	41.5
240	350 - 630	3	32.6	38.2	85.0	25.4	6.4	59.0	10.3	13.0	83.0
690	10 - 100	1	50.6	17.7	79.8	12.7	2.5	63.5	6.4	7.9	19.3
690	125 - 200	2	50.6	37.0	95.0	32.0	1.6	70.0	8.7	10.3	19.9
690	200 - 355	1	60.0	38.2	114.0	25.4	3.3	85.0	10.3	13.0	41.5
690	350 - 630	3	60.0	38.2	114.0	25.4	6.4	85.0	10.3	13.0	83.0



Comparatives

LAWSON	BUSSMANN	SIBA	GEPOWER	MEM	FERRAZ	IR	DORMAN
LSCA10	LET10			10FNA	N076648	L350-10	DSL10
LSCA16	LET16			16FNA	Q077650	L350-16	DSL16
LSCA20	LET20			20FNA	L097507	L350-20	DSL20
LSCA25	LET25	5005306/25	GSA25	25FNA	R076651	L350-25	DSL25
LSCA32	LET32			32FNA		L350-32	DSL32
LSCA40	LET40		GSA40	40FNA	T076653	L350-40	DSL40
LSCA50	LET50	5005306/50	GSA50	50FNA	V076654	L350-50	DSL50
LSCA63	LET63			63FNA		L350-63	DSL63
LSCA80	LET80			80FNA	Z085559	L350-80	DSL80
LSCA100	LET100	5005306/100	GSA100	100FNA	Y08558	L350-100	DSL100
LSCA125			GSA125				
LSCA160	LMT160			160FPA			
LSCA200	LMT200	5005406/200	GSA200	200FPA	P082468	T350-200	DST200
LSCA250	LMT250		GSA250	250FPA	N082467	T350-250	DST250
LSCA315	LMT315		GSD315	315FPA	M082466	T350-315	DST315
LSCA350			GSA350				
LSCA400	LMMT400		GSA400	400FPA2	H082462	TT350-400	DSTT400
LSCA500	LMMT500		GSA500	500FPA2	G082461	TT350-500	DSTT500
LSCA630	LMMT630		GSA630	630FPA2	F082460	TT350-630	DSTT630
LSCB10	10ET	5007306/10		10FRB		E1000-10	DSG10
LSCB16	15ET	5007306/16	GSGB16	16FRB	G075883	E1000-15	DSG15
LSCB20	20ET	5007306/20		20FRB	H075884	E1000-20	DSG20
LSCB25	25ET	5007306/25	GSB25	25FRB	J075885	E1000-25	DSG25
LSCB32	32ET	5007306/32	GSGB30	32FRB	K075886	E1000-32	DSG32
LSCB40	40ET	5007306/40	GSGB40	40FRB	M075888	E1000-40	DSG40
LSCB50	56ET	5007306/55	GSB55	56FRB	Q075891	E1000-56	DSG55
LSCB63	63ET	5007306/63	GSGB63	63FRB	R075892	E1000-63	DSG64
LSCB80	80ET	5007306/80	GSB80	80FRB	T075894	E1000-80	DSG80
LSCB100	100ET	5007306/100	GSB100	100FRB		E1000-100	DSG100
LSCBT125	125EET		GSGB125	125FTB2	B099959	EE1000-125	DSGG125
LSCBT140	140EET			140FTB2	J075908	EE1000-140	DSGG140
LSCBT150			GSGB150				
LSCBT160	160EET		GSGB160	160FTB2	K075909	EE1000-160	DSGG160
LSCBT180							
LSCBT200	200EET		GSGB200	200FTB2		EE1000-200	DSGG200
LSCB200	200MT	5007406/200	GSB200	200FUB	T097169	M1000-200	DSM200
LSCB225							
LSCB250	250MT	5007406/250	GSB250	250FUB	W097171	M1000-250	DSM250
LSCB315	315MT	5007406/315		315FUB	B097176	M1000-315	DSM315
LSCB355	355MT	5007406/355		355FUN	C097177	M1000-355	DSM355
LSCBD350		5007506/350	GSGB350				
LSCBD400	400MMT	5007506/400	GSB400	400FUB2	T097284	MM1000-400	DSMM400
LSCBD500	500MMT	5007506/450	GSB500	500FUB2	Z097289	MM1000-500	DSMM500
LSCBD630	630MMT	5007506/630		630FUB2	B097291	MM1000-630	DSMM630

This comparative table is provided only as a guide to semiconductor fuse-link products in the market place. Lawson Fuses do not claim an identical match with the corresponding product codes as these specifications may change without notice. For detailed comparisons please contact Lawson marketing team.

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Metal Enclosures
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*All items from the Lawson Fuses Ltd range of products are also
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The products referred in this publication are manufactured and tested to the specification indicated on the product as applicable to the appropriate type reference number. To provide protection within the capability of the stated ratings and related performance characteristics the product must be correctly installed by competent personnel.

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