

# PRODUCT CATALOGUE























# **TIMELINE**

1938	Company founded as Lawson Beck Ltd  Collaborative to find solutions to some  true company problems
1939	Second World War  Production of aircraft fuses under direction of industry program
1944	Pullcap Fuses  Fuse-holder range patented in the UK and several other countries
1947	Post War Electrification  Participation in the UK postwar electrification program
1950	Company Name Changes  Company name changed to  Lawson Fuses
1960	Greenfield Site  Business moved to a Greenfield site in Ponteland, Newcastle

# **TIMELINE**

1979	Direct Exports  Direct exports commence
1980's	Company founded as Lawson Beck Ltd  Products accredited to the ASTA 20 in 1982 and Authorisation Scheme Company independently accredited to quality standard BS5750 (now
1996	Standard Electricals Ltd of Delhi  The Company joins with Standard Electricals Ltd of Delhi, India, to form a 50/50 Joint Venture  Company, Standard Lawson FusegearLtd, located in Delhi
2003	Lawson Fuses India Ltd.  Joint Venture Company dissolved with Lawson Fuses Ltd taking control and renaming the Company Lawson Fuses India Ltd.
2018	Lucy Group  Lawson Fuses acquired by Lucy Group
2020	Relocation to Vadodara  Lawson Fuses India manufacturing facility relocates to Vadodara, India, close to Lucy Electric facility and changes its name to Lawson Lucy India Private Limited



#### Who Are We?

Lawson Fuses plays a leading role in formulating fuse standards and specifications through its membership of the relevant committees of BSI, IEC, CENELEC and other standards organisations. The company has sponsored and participated in many research and development programmes.

#### **Mission**

To manufacture and supply globally accredited fuse-gear products that represent the best of British design and offering our customers world class service characterised by quality, speed, dependability and flexibility.

#### **Vision**

To become a market leading fuse-gear business that will offer safe and sustainable products for the electrical community by harnessing human capital, automation and product innovation.

#### **Lucy Group Acquisition**

Lawson Fuses was originally founded in 1938 specialising in the design, development and manufacture of HRC low voltage fuses. Having been an independent business for over 70 years, Lawson Fuses was acquired by Lucy Group in 2018. The acquisition was part of Lucy Group's strategy of acquiring businesses in complementary industries to deliver long-term sustainable growth. Lucy Group shares Lawson's values of quality, customer service and engineering excellence.

The company moved to purpose built premises at its present location in 1960 and has subsequently expanded on both the original and adjacent sites. The present day modern facility comprises some 40,000 square feet of accommodation for manufacturing, research & development and customer service support.



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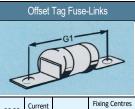
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# 400/415 Volt Industrial Fuse-Links to IEC 60269-2/BS 88-2

Rated Voltages 415V a.c. 250V d.c. • Breaking Capacities 80kA a.c. 40kA d.c. • Breaking Ranges and Utilisation Category gG/gM





BS 88	Current Rating	List Ref.	Fixing (	
Ref.	(A)		mm	ins
	2	NIT 2		
	4	NIT 4		
	6	NIT 6		
A1	10	NIT 10	44.5	1¾
AI	16	NIT 16	44.5	1/4
	20	NIT 20		
	25	NIT 25		
	32	NIT 32		
	2	TIA 2		
	4	TIA 4		
	6	TIA 6		
۸.2	10	TIA 10	72	21/8
A2	16	TIA 16	73	Z'/s
	20	TIA 20		
	25	TIA 25		
	32	TIA 32		
	35	TIS35		
	40	TIS 40		
	50	TIS 50		
A3	63	TIS 63	73	21/8
	80	TIS 80		
	100	TIS 100		
	125	TIS 125		
	6	TCP 6		
	10	TCP 10		
	16	TCP 16		
	20	TCP 20		
	25	TCP 25		
A4	32	TCP 32	94	311/16
	40	TCP 40		
	50	TCP 50		
	63	TCP 63		
	80	TCP 80		
	100	TCP 100		
	125	CTFP 125		
(as A4)	160	CTFP 160	94	311/16
	200	CTFP 200		

A schedule of Motor Starting Capability for Lawson type N&T Industrial Fuse-Links is

125 TFP 125



BS 88 Ref.	Curren t Rating	List Ref.	-	entres	Fixing Centres G2		
	(A)		mm ins		mm	ins	
-	355 400	85TM 355 85TM 400	102	4	22	7/8	
-	450 500 560 630	86TT 450 86TT 500 86TT 560 86TT 630	102	4	22	7/ /S	
-	670 710 750 800	86TT 670 86TT 710 86TT 750 86TT 800	102	4	22	7/ /S	

Dimensions and current ratings of the Lawson type N&T Industrial Fuse-Links comply with the standardized requirements of IEC 60269-2 and BS 88-2.

Additional types and current ratings are included in the range.

Lawson type N&T Industrial Fuse-Links can be fitted in Boltin Fuse-Holders (see page 15) or suitable fusegear.

V		31	A					1	و > ,	\(\frac{1}{2}\)	61_	
	Current		Fixing (	Centres	<		Current		Fixing (	Centres	Fixing (	Centres
BS 88 Ref.	Rating (A)	List Ref.	mm	ins		BS 88 Ref.	Rating (A)	List Ref.	mm	ins	mm	ins
-	2 4 6 10 16 20 25 32 35 40 50 63	TB 2 TB 4 TB 6 TB 10 TB 16 TB 20 TB 25 TB 32 TB 35 TB 40 TB 50 TB 63	97	3 <sup>13</sup> / <sub>16</sub>		C1	355 400	TM 355 TM 400	133	51/4	184	71/4
(as B1)	2 4 6 10 16 20 25 32 35 40 50 63	TBC 2 TBC 4 TBC 6 TBC 10 TBC 16 TBC 20 TBC 25 TBC 32 TBC 32 TBC 35 TBC 40 TBC 50 TBC 63	111	<b>4</b> <sup>3</sup> / <sub>8</sub>		-	355 400	TMT 355 TMT 400	165	6½	229	9
B1	80 100	TC 80 TC 100	111	4⅓		C2	450 500 560 630	TTM 450 TTM 500 TTM 560 TTM 630	133	5¾	184	71/4
B2	125 160 200	CTF 125 CTF 160 CTF 200	111	43/8		-	450 500 560 630	TT 450 TT 500 TT 560 TT 630	165	6½	229	9
B2	125 160 200	TF 125 TF 160 TF 200	111	43/8		C3	670 710 750 800	TLM 670 TLM 710 TLM 750 TLM 800	133	51/4	184	71/4
-	80 100 125 160 200	84TF 80 84TF 100 84TF 125 84TF 160 84TF 200	99	3 <sup>29</sup> / <sub>32</sub>		-	670 710 750 800	TLT 670 TLT 710 TLT 750 TLT 800	165	6½	229	9
В3	250 315	TKF 250 TKF 315	111	43/8		D1	670 710 750 800	TLU 670 TLU 710 TLU 750 TLU 800	149	51/4	32	1¼
-	250 315	84TK 250 84TK 315	99	329/32								
-	125 160 200 250 315	TKM 125 TKM 160 TKM 200 TKM 250 TKM 315	133	51/4								
В4	355 400	TMF 355 TMF 400	111	311/16								

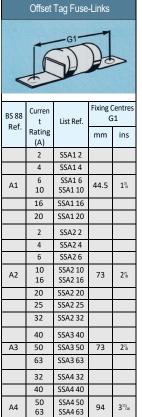
Central Tag Fuse-Links

	Motor circuit protection Fuse-Links - Current and dimensional equivalents									
Continuous	Motor Starting	Link Dod	Equivalent			Continuous	Motor Starting	Lint Dof	Equivalent	
Current Rating (A)	Rating (A)	List Ref.	Standard Type	BS 88 Reference		Current Rating (A)	Rating (A)	List Ref.	Standard Type	BS 88 Reference
20 20 32 32 32	25 32 40 50 63	NIT20M25 NIT20M32 NIT32M40 NIT32M50 NIT32M63	NIT	A1		100 100 100	125 160 200	TCP100M125 TCP100M160 TCP100M200	ТСР	A4
32 32 32	40 50 63	TIA32M40 TIA32M50 TIA32M63	TIA	A2		100 100 100	125 160 200	TC100M125 TC100M160 TC100M200	тс	B1
63 63 100		TIS63M80 TIS63M100 TIS100M125	TIS	А3		200 200	250 315	TFP200M250 TFP200M315	TFP	(as A4)
63 63	80 100	TB63M80 TB63M100	ТВ	-		200 200	250 315	TF200M250 TF200M315	TF	B2
62	00	TDCC21/400				315	400	TKF315M400	TKF	В3
63 63	80 100	TBC63M80 TBC63M100	TRC	(AS B1)		400	500	TMF400M500	TMF	B4
						400	500	TM400M500	TM	C1

# 690 Volt Industrial Fuse-Links to IEC 60269-2/BS 88-2

Rated Voltages 690V a.c. 250V d.c.(min) • Breaking Capacities 80kA a.c. 40kA d.c. • Breaking Ranges and Utilisation Category gG/gM





80

SSA4 80

Offset Tag Fuse-Links									
G1 G2									
BS 88 Ref.	Dating	List Ref.		Centres 1	Fixing Centres G2				
кет.	(A)		mm	ins	mm	ins			
-	355 400	85SSM 355 85SSM 400	102	4	22	7/8			
-	450 500 560 630	86SST 450 86SST 500 86SST 560 86SST 630	102	4	22	7/, /8			
-	670 710 750 800	86SST 670 86SST 710 86SST 750 86SST 800	102	4	22	7/ <sub>/8</sub>			

Dimensions and current ratings of the Lawson type SS Industrial Fuse-Links comply with the standardized requirements of IEC 60269-2 and BS 88-2.

 $\label{lem:Additional types and current ratings} are included in the range.$ 

Lawson type SS Industrial Fuse-Links can be fitted in Boltin Fuse-Holders (see page 15) or suitable fusegear.

Central Tag Fuse- Links										
GS G										
BS 88	Curren t	List Ref.		Centres G1		Centres 62				
Ref.	Rating s(A)		mm	ins	mm	ins				
	2 4 6 10 16 20 25 32 40 50 63	SSB 2 SSB 4 SSB 6 SSB 10 SSB 16 SSB 20 SSB 25 SSB 32 SSB 40 SSB 50 SSB 63	97	3 <sup>13</sup> / <sub>h6</sub>	-					
(asB1)	2 4 6 10 16 20 25 32 40 50 63	SSBC 2 SSBC 4 SSBC 6 SSBC 10 SSBC 16 SSBC 20 SSBC 25 SSBC 32 SSBC 32 SSBC 40 SSBC 50 SSBC 63	111	4 <sup>3</sup> /z	-					
B1	80 100	SSB1 80 SSB1 100	111	43/8	-					
B2	125 160 200	SSB2 125 SSB2 160 SSB2 200	111	43/8	-					
-	125 160 200	84SSF 125 84SSF 160 84SSF 200	99	4 <sup>29</sup> / <sub>32</sub>	-					
В3	250 315	SSB3 250 SSB3 315	111	43/8	-					
-	250 315	84SSK 250 84SSK 315	133	329/32	-					
-	250 315	SSKM 250 SSKM 315	133	51/4	-					
B4	355 400	SSB4 355 SSB4 400	111	43/8	-					
C1	355 400	SSC1 355 SSC1 400	133	5¾	184	71/4				
-	355 400	SSMT 355 SSMT 400	165	6½	229	9				
C2	450 500 560 630	SSC2 450 SSC2 500 SSC2 560 SSC2 630	133	51/4	184	71/4				
-	450 500 560 630	SST 450 SST 500 SST 560 SST 630	165	6½	229	9				
C3	670 710 750 800	SSC3 670 SSC3 710 SSC3 750 SSC3 800	133	51/4	184	71/4				
-	670 710 750 800	SSLT 670 SSLT 710 SSLT 750 SSLT 800	165	6½	229	9				
D1	450 500 560 630 670 710 750 800	SSLU 450 SSLU 500 SSLU 560 SSLU 630 SSLU 670 SSLU 710 SSLU 750 SSLU 800	149	5 <sup>7</sup> /s	32	11/4				

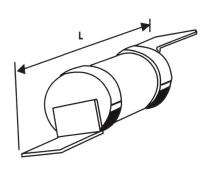
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#### 230/240 & 400/415 Volt Compact Dimension Fuse-Links to IEC 60269-2/BS 88-2

Rated Voltages 240 & 415V a.c. • Breaking Capacities 20kA at 240V, 80kA at 415V • Breaking Range and Utilisation Category gG



Lawson type CDS Compact Dimension Fuse-Links are for use in single or three phase commercial or industrial installations and can be fitted into Clipfit Fuse-Holders (see page 15) or suitable distribution fusegear.

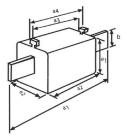


Voltage, curr	ent ratings and principal o	limensions				
BS 88	VoltageRating(V a.c.)	BreakingCapacity(kA)	Current Rat-ing	List De f	Overall Length (L)	
Ref.			(A)	List Ref.	mm	ins
E1	240	20	2 4 6 10 16 20 25 32	SS 2 SS 4 SS 6 SS 10 SS 16 SS 20 SS 25 SS 32	51	2
F1	415	80	2 4 6 10 16 20 25 32 20,25 20,32 32,40 32,50 32,63	NS 2 NS 4 NS 6 NS 10 NS 16 NS 20 NS 25 NS 32 (NS20M25) (NS20M32) (NS32M40) (NS32M50) (NS32M63)	62	2%
F2	415	80	10 16 20 25 32 40 50	MES10 MES16 MES20 MES25 MES32 MES40 MES50 MES63	69	2 <sup>11</sup> / <sub>h6</sub>

# 500 Volt Industrial Fuse-Links to IEC 60269-2/BS 88-2

Rated Voltage 500V a.c. • Breaking Capacity I 20kA • Breaking Range and Utilisation Category gG





The state of the s	a	6	
 available: es of Fuse-Li	nks for moto	r circuit and sen	ni-conductor

	Current ratings and principal dimensions									
Size	List Ref.	ist Ref		Dimensions (mm)						
3120	LIST NEI.	Rating (A)	a1	a2	a3	a4	b	e1	e2	
000	LPSN 000	6 10 16 20 25 32 40 50 63	78.5	54	45	49	15	35	21	
00	LSPN 00	10 16 20 25 32 40 50 63 80 100 125 160	78.5	54	45	49	15	43	30	
0	LSPN 0	32 40 50 63 80 100 125 160	125	68	62	68	15	48	40	
1	LSPN 1	32 40 50 63 80 100 125 160 200 250	135	75	62	68	25	46	46	
2	LSPN 2	40 50 63 80 100 125 160 200 250 315 350 400	150	75	62	68	30	57	57	
3	LSPN 3	315 400 500 630	150	75	62	68	35	72	72	

#### Dual Indicator 500 Volt Industrial Fuse-Links to IEC 60269-2

Rated Voltage 500V a.c. Breaking Capacity 120kA Breaking Range and Utilisation Category gG. Short circuit type tested and certified 14 to 15.



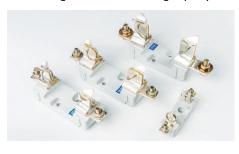
protection

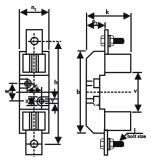
	Current ratings and principal dimensions									
Size	List Reference	Current Rating	Dimensions (mm)							
		(A)	a1	a2	a3	a4	b	e1	e2	
000	LSPN 000 DI	4,6,10,16,20,25,32,40,50,63,80,100	78.5 +/- 1.5	49.5 +/- 1.5	45.0 +/- 1.5	49.0 +/- 1.5	15.0	20.0 +/-	41.0 +/-	
00	LSPN 00 DI	10,16,20,25,32,40,50,63,80,100,125,160	78.5 +/- 1.5	49.0 +/- 1.5	45.0 +/- 1.5	49.0 +/- 1.5	15.0	43.0 +/- 2.5	29.0 +/-	
1	LSPN 1 DI	32,40,50,63,80,100,125,160,200,250	135.0 +/- 2.5	66.0 +/- 1.5	62.0 +/- 2.5	68.0 +/- 2.5	20.0	46.0 +/- 2.5	46.0 +/- 2.5	
2C	LSPN 2C DI	32,40,50,63,80,100,125,160, 200,250	150.0 +/- 2.5	66.0 +/- 1.5	62.0 +/- 2.5	68.0 +/- 2.5	20.0	46.0 +/- 2.5	46.0 +/- 2.5	
2R	LSPN 2R DI	250,300,315,355,400	150.0 +/- 2.5	66.0 +/- 1.5	62.0 +/- 2.5	68.0 +/- 2.5	25.0	57.0 +/- 2.5	57.0 +/- 2.5	
3	LSPN 3 DI	315,355,400,500,630	150.0 +/- 2.5	66.0 +/- 1.5	62.0 +/- 2.5	68.0 +/- 2.5	35.0	72.0 +/- 2.5	72.0 +/- 2.5	

NH FUSE-BASES TYPE DFB

#### 500 Volt Fuse-Bases to IEC 60269-2

Rated Voltage 500V a.c. • Breaking Capacity I 20kA





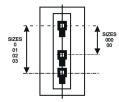
	Specifications												
C:	List	Current Rating		Dimensions (mm)									
Size	Ref.	(A)	v	b	h	j	k	n2	p2	w1	w2	х	у
00	DFB00	160	56.5	93	100	M8	56	33.5	21	00	25	14	7.5
1	DFB01	250	80	150	175	M10	85	59	36	30	25	20	10.5
2	DFB02	400	80	150	200	M10	94	59	36	30	25	20	10.5
3	DFB03	630	80	150	210	M12	106	59	36	30	25	20	10.5

NH FUSE-HANDLE TYPE LUCH

#### 500 Volt Fuse-Handle to IEC 60269-2

Rated Voltage 500v a.c. • Breaking Capacity I 20kA





Specification							
List Ref.	Current Rating (A)						
LUCH	630						

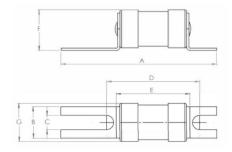
#### Fuse resistance compliant with ENA TS 12-6 Table 1

LTFL Type Fuse Links available in: 3 A, 5 A, 7.5 A, 10 A, 12.5 A, 15 A • Network Voltage: 400/230 V A

• Suitable for system voltages: 6.6 kV, 11 kV, 20 kV



6 18-5- 111	Dimensions (mm)								
Current Rating (A)	Α	В		D			G		
	max.	max.	max.	max.	max.	max.	max.		
3 - 15	57.1	11.9	5.6	35.3	27.0	15.0	14.3		



Lawson LTFL fuses are used with circuit-breakers fitted with current transformer trip coils. They meet ENA Technical Specification 12-6 and are designed to protect distribution transformers rated from 200 kVA to 1,500 kVA. These components are designed for use with circuit-breakers fitted with standard a.c. trip coils, typically in 6.6 kV, 11 kV and 20 kV distribution switchgear, but they're also suitable for other applications.

NOTE: Distribution transformers with rated powers exceeding 1,500 kVA are intended to be protected by relays.

# CYLINDRICAL FUSE-LINKS

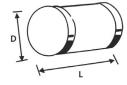
TYPE LFN

#### 400/500/690 Volt Cylindrical Fuse-Links to IEC 60269-2, IEC 60269-3

Rated Voltages 400V a.c., 500V a.c., 690V a.c., 690V a.c. • Breaking Capacities 20kA, 80kA, I 20kA • Breaking Range and Utilisation Category gG/aM



For motor circuit protection Fuse-Links, replace 'G' by 'M' in the list reference. A range of semiconductor protection Fuse-Links is also available.



	Voltage and current rating and principal dimensions									
Voltage	0	Current		List Ref.		Principal Dimensions				
Rating (V a.c.)	Capacity (kA)	Rating (A)	Standard	Indicator	Striker	L mm	D mm			
400	20	2 4 6 8 10 12 16 20 25	LFN8G	LFN8GI		31	8			
500	120	1 2 4 6 8 10 12 16 20 25 32	LFN10G	LFN10GI		38	10			
600	80	2 4 6 8 10 12 16 20 25								
500	120	32 40	LFN14G	LFN14GI	LFN14GS	51	14			
400	120	50								
660	80	4 6 8 10 12 16 20 25 32 40 50 63 80								
500	120	100	LFN22G	LFN22GI	LFN22GS	58	22			
400	120	125								

# MODULAR FUSE-HOLDERS FOR CYCLINDRICAL FUSE-LINKS

TYPE MS

#### 400/500/690 Volt Fuse-Holders to IEC 60269-2, IEC 60269-3

Rated Voltages 400V a.c., 500v a.c., 690V a.c. • Breaking Capacities 20kA, 80kA, 120kA





Modular Fuse-Link holders for Cartridge Fuse-Links Modular fuse-holders accommodate industrial cylindrical fuse-links. They have operating handles for non load-break disconnecting and electrical isolation for fuse-link replacement without tools. All contacts are silver plated. 2, 3 or 4-pole units can be made up with suitable conversion kits.

	Specifications											
Reference	Current Rating (A)	Colour	Lawson Fuse Type	Solid Link								
MSC 81 MSC 81 N	20		LFN 8G	SLLFN 820								
MSC 101 MSC 101 I MSC 101 N	32		LFN 10G LFN 10M	SLLFN 10 32								
MS 101 MS 101 N		Grey	LFIN 10IVI									
MS 141 MS 141 N	50		LFN 14G LFN 14M	SLLFN 14 50								
MS221 MS221 N	125		LFN 22G LFN 22M	SLLFN 22 125								

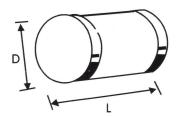
400/415 Volt House Service Fuse-Links to IEC 60269-3/BS 88-3 (Also meets requirements of BS 7657)

Rated Voltage 415V a.c.  $\, \cdot \,$  Breaking Capacity 80kA a.c.  $\, \cdot \,$  Breaking Range and Utilisation Category gG



Lawson type ME & MF Industrial Fuse-Links are for use in single or three phase house service cut-outs or similar installations. The standardised breaking capacity is 31.5kA at 0.3pf. However, to cater for increased fault levels, all Fuse-Links have been ASTA certified to 80kA at 0.15pf.

Note: MEI00A Fuse-Links tested to BS 1361.



		Current ratings and	d principal dimensions						
BS 1361		List Ref.	Principal Dimensions						
Туре	CurrentRating(A)	LIST REI.		L	D				
			mm	ins	mm	ins			
	5	ME 5							
	10	ME 10							
	16	ME 16							
	20	ME 20							
	25	ME 25							
IIA	32 40	ME 32 ME 40	57	21/4	22.23	7/ /s			
	45	ME 45							
	50	ME 50							
	63	ME 63							
	80	ME 80							
	100	ME 100							
	20	MF 20							
	32	MF 32							
	40	MF 40							
IIB	50	MF 50	57	2¼	30.16	13/16			
	63	MF 63							
	80	MF 80							
	100	MF 100							

# **ELECTRICITY SUPPLY FUSE-LINKS WITH WEDGE CONNECTIONS**

400/415 Volt Electricity Supply Distribution Fuse-Links to IEC 60269-2/BS 88-2 (Also meets requirements of BS 7656)

Rated Voltage 415V a.c. • Breaking Capacity 80kA a.c. • Breaking Range and Utilisation Category gU



Dimensions and current ratings of the Lawson type J Industrial Fuse-Links comply with the standardized requirements of IEC 60269-2 and BS 88-2 for Fuse-Links of 82mm and 92mm fixing centres.

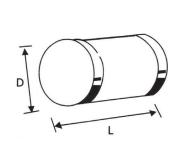
Additional current ratings are available with these fixing centres.

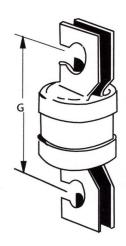
The range also includes non-standardised Fuse-Links with 76mm fixing centres and female contact Fuse-Links.

#### Notes:

- JPU450, 500, 560, 630A are restricted to intermittent loading when installed in 400A fixed contacts.
- JSU800A is restricted to intermittent loading when installed in 630A fixed contacts.
- IEC 60269 and BS 88-2 specify performance requirements up to 630A fixed contacts, therefore the performance of JSU800A Fuse-Links complies with the Breaking Range and Utilisation Category "gG'.

	Current ratings and fixing centres									
Current		Cylindrical L x D								
Rating	76mm (3")	76mm (3") 82mm (3 <sup>1</sup> / <sub>4</sub> )		47mm x 40mm						
(A)	List Ref.	List Ref.	List Ref.	List Ref.						
20	JHU 20	JPU 20	JSU 20	JF 20						
32	JHU 32	JPU 32	JSU 32	JF 32						
40	JHU 40	JPU 40	JSU 40	JF 40						
50	JHU 50	JPU 50	JSU 50	JF 50						
63	JHU 63	JPU 63	JSU 63	JF 63						
80	JHU 80	JPU 80	JSU 80	JF 80						
100	JHU 100	JPU 100	JSU 100	JF 100						
125	JHU 125	JPU 125	JSU 125	JF 125						
160	JHU 160	JPU 160	JSU 160	JF 160						
200	JHU 200	JPU 200	JSU 200	JF 200						
250	JHU 250	JPU 250	JSU 250	JF 250						
315	JHU 315	JPU 315	JSU 315	JF 315						
355		JPU 355	JSU 355							
400		JPU 400	JSU 400							
450		JPU 450	JSU 450							
500		JPU 500	JSU 500							
560		JPU 560	JSU 560							
630		JPU 630	JSU 630							
800			JSU 800							





# **ELECTRICITY SUPPLY FUSE-CARRIERS**

TYPE FH

For 400/415 Volt Electricity Supply Distribution Carriers to IEC 60269-2/BS 88-2 (Also meets requirements of BS 7656)

Rated Voltage 415V a.c. • Breaking Capacity 80kA a.c.



FH 82 Fuse Holders

Suitable for JPU 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.

FH 92 Fuse Holders

Suitable for JSU 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.

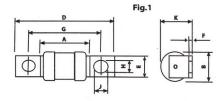
# 240/690 Volt Semi-conductor Protection Fuse-Links to IEC 60269-4/BS 88-4

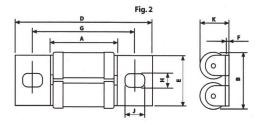
Rated Voltages 240V a.c./120V d.c., 690V a.c./350V d.c. • Breaking Capacities 100kA a.c. 100kA d.c. • Breaking Range and Utilisation Category aR

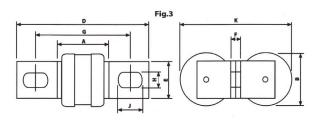


A comprehensive range of Fuse-Links for the protection of semiconductor devices. The 240 and 690 volt series comply with the performance and dimensional requirements of BS 88: Part 4 and IEC 60269-4.

In addition to the current ratings specified in IEC 60269-4 and BS 88-4, other non-standard current ratings are available.







Voltage	Current	Fig			[	Dimensio	ons in mi	llimetres	i		
Rating (V)	Rating	No.	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

	Principal r	atings*			Principal ratings*					
Voltage Rating a.c. (V)	Current Rating (A)	List Ref.	Fig.		Voltage Rating a.c. (V)	Current Rating (A)	List Ref.	Fig.		
240	10 12 16 20 25 30 32 35 40 50 60 63 70 75 80 85 100	LSCA10 LSCA12 LSCA12 LSCA20 LSCA25 LSCA30 LSCA32 LSCA30 LSCA50 LSCA60 LSCA60 LSCA63 LSCA75 LSCA80 LSCA75 LSCA80 LSCA85 LSCA80	1		690	10 12 16 20 25 30 32 35 40 45 50 55 63 70 71 75 80 90 100	LSCB10 LSCB12 LSCB16 LSCB20 LSCB25 LSCB30 LSCB32 LSCB35 LSCB40 LSCB45 LSCB50 LSCB55 LSCB63 LSCB70 LSCB71 LSCB75 LSCB80 LSCB90 LSCB100	1		
	125 160 180	LSA125 LSA160 LSA180			65 75 85 90 100	LSCBT65 LSCBT75 LSCBT85 LSCBT90 LSCBT100				
	125 LSCA125 140 LSCA140 150 LSCA150 160 LSCA160 175 LSCA175 180 LSCA180			690	110 120 125 140 150 160 180 200	LSCBT110 LSCBT120 LSCBT125 LSCBT140 LSCBT150 LSCBT160 LSCBT180 LSCBT200	2			
240	200 225 250 260 300 315 350 355 400 450	LSCA200 LSCA225 LSCA250 LSCA260 LSCA300 LSCA315 LSA350 LSA355 LSA400 LSA450	1	1		690	160 170 180 190 200 225 250 280 315 350 355	LSCB160 LSCB170 LSCB180 LSCB190 LSCB200 LSCB225 LSCB250 LSCB280 LSCB315 LSCB350 LSCB355	1	
240	300 315 325 350 355 400 450 500 600 630 710 800 900	LSAD300 LSAD315 LSCAD325 LSCAD325 LSCAD355 LSCAD400 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500 LSCAD500	3		690	175 180 200 225 235 280 300 315 325 350 400 450 550 560 630 710	LSCBD175 LSCBD180 LSCBD200 LSCBD225 LSCBD235 LSCBD300 LSCBD315 LSCBD325 LSCBD355 LSCBD350 LSCBD355 LSCBD400 LSCBD450 LSCBD550 LSCBD550 LSCBD560 LSCBD630 LSCBD630 LSCBD630	3		

<sup>\*</sup>Additional ratings available

#### 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.

MINIATURE FUSE-LINKS TYPE MIN

# 230/240 Volt Miniature Fuse-Links generally to IEC 60127

Rated Voltage 250V a.c. • Breaking Capacities - Various



Lawson type MIN Fuse-Links are available to meet a wide variety of applications.

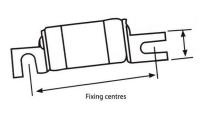
Miniature and other small dimensioned Fuse-Links are grouped into several different application categories and comply with different specifications.

	Current ratings and principal dimensions									
Dimensionmm	Operating	Body Material	TypeRef.	Rating		Fuse Holder				
	Characteristics			mA	Amps	Туре				
	Fast	Glass	PDC	32, 40, 50, 63, 80, 100, 125, 160, 200, 315, 400, 500, 630, 800	1, 1.25. 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10, 15					
5 x 20		Ceramic	PCC	32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800	1, 1.25, 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10	KP				
5 X ZU	Slow	Glass	PDC-S	32, 40, 50, 63, 80, 100, 125, 160, 200, 315, 400, 500, 630, 800	1, 1.25. 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10	- KP				
		Ceramic	PCC-S	125, 160, 200, 250, 315, 400, 500, 630, 800	1, 1.25. 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10					
	Ultra Fast		PCC-UR		1.6, 2, 3.15, 4, 5, 8, 10					
Fast		Glass		10, 32, 40, 63, 100, 125, 150, 175, 187, 200, 250, 300, 375, 500, 600, 750	1, 1.25, 1.5, 1.6, 2, 2.5, 3, 4, 5, 6, 7, 8, 10					
		Ceramic	ксс	125, 250, 375, 500, 750	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 15, 20, 25, 30					
6.3 x 3.2	Slow	Glass	KDC-S	10, 32, 40, 63, 100, 125, 150, 175, 187, 200, 250, 300, 375, 400, 500, 600, 700, 750, 800	5, 6, 7, 8, 20, 25, 30	К				
		Ceramic	KCC-S	10, 32, 63, 100, 125, 150, 175, 187, 200, 250, 300, 375, 400, 500, 600, 700, 750, 800	1, 1.25, 1.5, 1.6, 2, 2.5, 3, 4, 5, 6, 7, 8, 10, 12, 15, 20, 25, 30					
	Ultra-Fast		KCC-UR		1, 1.25, 2, 3, 4, 5, 6, 7, 8, 10, 12, 15, 20, 25, 30					
		Glass	TDC	80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800	1, 1.25, 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10					
5 x 25	Fast	Ceramic C/W Indicator	TCC		1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10					
		Glass	TDC-M	80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800	1, 1.25, 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10					
		Ceramic C/W Indicator	TCC-M	80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800	1, 1.25, 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10					

# 230/240 Volt Street Lighting Fuse-Links to IEC 60269-1/BS 88-1 (Also meets requirements of BS 7654)

Rated Voltages 240V a.c. • Breaking Capacity 20kA • Breaking Range and Utilisation Category gG





Current ratings and fixing centre									
Link Dod	Fixing	Centre							
LIST Ref.	mm	ins							
LST2									
LST4									
LST6									
LST10	20	11/2							
LST16	30	1 /2							
LST20									
LST25									
LST32									
	List Ref.  LST2 LST4 LST6 LST10 LST16 LST20 LST25	List Ref. Fixing mm  LST2 LST4 LST6 LST10 LST16 LST20 LST25							

Lawson type LST Fuse-Links are for use in single phase street lighting cut-outs or similar installations. The Fuse-Links comply with UK Electricity Supply Industry Standards and BS 7654.

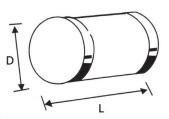
# **GENERAL PURPOSE FUSE-LINKS**

TYPE MD

#### 400/415 Volt General Purpose Fuse-Links to IEC 60269-1/BS 88-1

Rated Voltage 415V a.c. • Breaking Capacity 80kA • Breaking Range and Utilisation Category gG





Current ratings and principal dimensions							
Current		Pi	rincipal D	imensions			
Rating	List Ref.	ı	L		)		
(A)		mm	ins	mm	ins		
2	MD2						
4	MD4						
6	MD6						
8	MD8						
10	MD10	29	11/8	12.7	1/2		
16	MD16						
20	MD20						
25	MD25						
32	MD32						

Lawson type MD cylindrical Fuse-

Links are for general purpose use in three phase sub-circuits. With a breaking capacity of 80kA, these Fuse-Links can be used to protect circuits with high fault levels in industrial installations.

# CONSUMER UNIT FUSE-LINKS

TYPE L

#### 230/240 Consumer Unit Fuse-Links to IEC 60269-3/BS 88-3 and BS 1361

Rated Voltage 240V a.c. • Breaking Capacity 16.5kA a.c. • Breaking Range and Utilisation Category gG



Lawson type L Fuse-Links are for use in household consumer units or other single phase installations with fault levels up to 16.5kA. They can be fitted into Pullcap Fuse-Holders (see page 16) or other suitable Fuse-Holders.

	Current ratings and principal dimensions								
Current	Current Rating		BS 1361	Principal Dimensions					
(,	(A)		Colour		L	D			
BS 1361	BS 88		Coding	mm	ins	mm	ins		
- 5	2	LA2 LA5	- White	23	<sup>7</sup> /8	6.35	1/4		
- - - - 15 20	2 5 8 10 16 20	LC 2 LC 5 LC 8 LC 10 LC 15/16 LC 20	- - - - Blue Yellow	26	1	10.32	13/ /32		
- - - - - 30	6 10 16 20 25 32	LD 6 LD10 LD16 LD20 LD25 LD30/32	- - - - Red	29	11/2	12.7	1/2		
- - -	35 40 45	LK35 LK40 LK45	- - Green	35	1¾	16.67	1/32		

Note: In addition to the current ratings specified in BS 1361, additional ratings certified to BS 88 have been included to meet other requirements.

#### Type LFPV-32 Solar DC Fuse complying with IEC 60269-1 & IEC 60269-6

Rated voltages: DC I 000V, Rated current: I-32A, Breaking Capacity: DC 20kA, Utilisation Category gPV for solar protection



Pole	1P		
Rated Voltage (Vdc)	1000		
Rated Current (A)	1,2,3,4,5,6,8,10,12,15,20,25,32		
Maximum Block Capability (kA)	20		
Maximum Power Dissipation (W)	3.5		
Connection (mm²)  Working Temperature (°C)	2.5 to 10mm <sup>2</sup> ~ -30 + 70		
Altitude (m)	≤ 2000		
Autoce (III)			
Relative Humidity	≤ 95%		
. , ,			
Relative Humidity	≤ 95%		

Lawson Type LFPV-32 Solar DC Fuses are a range of  $10\times38$  mm fuse-links specifically designed for protecting photovoltaic strings.

These fuse-links are capable of interrupting low overcurrents associated with faulted photovoltaic string arrays (reverse current, multi-array fault.)













# LFPV-35 SOLAR DC FUSE-LINKS

TYPE LFPV

#### Type LFPV-35 Solar DC Fuse complying with IEC 60269-1 & IEC 60269-6

Rated voltages: DC I S00V, Rated current: I-32A, Breaking Capacity: DC 20kA, Utilisation Category gPV for solar protection

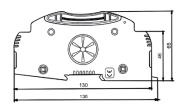




Pole	1P
Rated Voltage (Vdc)	1500
Rated Current (A)	1,2,3,4,5,6,8,10,12,15,20,25,30
Maximum Block Capability (kA)	20

Connection (mm²)	2.5 to 10mm <sup>2</sup>		
Working Temperature (℃)	-30 +70		
Altitude (m)	≤ 2000		
Relative Humidity	≤ 95%		
Protection class/degree	IP20		
Installation Environment	No obvious shock and vibration		
Installation class/type	Class III / DIN rail		

Lawson Type LFPV-35 Solar DC Fuses are a range of 10 x 85 mm fuse-links specifically designed for protecting and isolating photovoltaic strings. These fuse-links are capable of interrupting low overcurrents associated with faulted PV systems (reverse current, multi-array fault.)



NEOZED FUSE-LINKS

TYPE LNZ

#### 400 Volt Neozed Fuse-Links to IEC 60269-3

Rated Voltage 400V a.c. • Breaking Capacity 50kA • Breaking Range and Utilisation Category gG



Also available: Ranges of Fuse-Links for motor circuit and semiconductor protection

Current ratings and principal dimensions							
List	Ref.	Current	Principal Dimensions				
400V a.c.	440V a.c.	Rating (A)	Length mm	Diameter mm			
LNZ11-400 LNZ15-400	LNZ11-440 LNZ15-440	2 4 6 10 16 20 25 35 50 63	36 36	11 15			
LNZ22-400	-	80	43	22			

# **NEOZED FUSE-BASES & ACCESSORIES**

TYPE LNZ

# 400 Volt Neozed Fuse-Holders to IEC 60269-3

Rated Voltage 400V a.c.  $\, \cdot \,$  Breaking Capacity 50kA



In addition to all sizes of Fuse-Bases, the range of accessories includes replacement screw caps and gauge pieces.

# **DIAZED FUSE-LINKS**

TYPE LD

### 400 & 500 Volt Diazed Fuse-Links to IEC 60269-3

Rated Voltages 400 & 500 V a.c. • Breaking Capacity 50 kA • Breaking Range and Utilisation Category gG



Also available: Ranges of Fuse-Links for motor circuit and semiconductor protection

	Current ratings and principal dimensions							
	List Ref.		Current	Principal Dimensions				
SI	low Acting	Quick Acting	Rating (A)	Length mm	Diameter mm			
	LD12	LD12Q	2 4 6 10 16 20 25	50	12			
	LD22	LD22Q	2 4 6 10 16 20 25	50	22			
	LD27	LD27Q	35 40 63	50	27			
	LD37	LD37Q	80 100	63	37			
	LD51	-	125 160 200	66	51			

# **DIAZED FUSE-BASES & ACCESSORIES**

TYPE LD

#### 400 & 500 Volt Diazed Fuse-Holders to IEC 60269-3

Rated Voltages 400 & 500V a.c. • Breaking Capacity 50kA



In addition to all sizes of Fuse-Bases, the range of accessories includes replacement screw caps, gauge pieces and surface mounting plates.

#### 690 Volt Industrial Fuse-Holders to IEC 60269-2/BS 88-2

Rated Voltage 690V a.c. • Breaking Capacity 80kA a.c.



Alternative Colours:

For White, substitute WH for BK

For Green, substitute GN for BK (20A, 32A and 63A only)

Lawson Boltin Fuse-Holders are available with three wiring configurations:-

Double front connected (FC/FC)

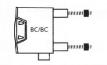
Front/back connected (FC/BC)

Double back connected (BC/BC)

Specifications							
Reference	Current Rating (A)	Colour	Lawson Fuse Type (BS Ref.)	Solid Link			
LBI 20 FC/FC BK LBI 20 FC/BC BK LBI 20 BC/BC BK	20		NIT (A1)	SLA1			
LBI 32 FC/FC BK LBI 32 FC/BC BK LBI 32 BC/BC BK	32		TIA (A2)	SLA2			
LBI 63 FC/FC BK LBI 63 FC/BC BK LBI 63 BC/BC BK	63	Black	TIS (A3)	SLA3			
LBI 100 FC/FC BK LBI 100 FC/BC BK LBI 100 BC/BC BK	100		TC P (A4)	SLA4			
LBI 200 FC/FC BK LBI 200 FC/BC BK LBI 200 BC/BC BK	200		TF (B2)	SLB2			
Spare Carriers	Spare Cable S	Shrouds (Grey)	DIN-Rail	Adaptor			
LBI 20 CA BK LBI 32 CA BK LBI 63 CA BK LBI 100 CA BK LBI 200 CA BK	LBI 20 SH LBI 32 SH LBI 63 SH LBI 100 SH LBI 200 SH		LBI 2	0 DA			







#### BS BOLTED TYPE FUSE HOLDER FOR BS CLIP-IN FUSE LINKS

TYPE LBFF

# BS bolted type Fuse Holder for BS Clip-in Fuse Links to IEC 6029-2/IS/IEC60269-2:2016

Rated Voltages 500V a.c. Breaking Capacities 80kA at 500Vac



Lawson BS Bolted Type Fuse-Holders are available with three wiring configurations:

Busbar Connected Type Fuse Holder (BB)
Back-to-Back Connected Type Fuse Holder (BC)
Front Connected Type Fuse Holder (FC)

The moulded parts of the LBFF Fuse-Holder are made from Bakelite PGF160, a robust, fire-retardant, glass fibre-filled phenolic material with high dielectric strength and V0 rating, ideal for harsh environments.

It offers low watt loss and cooler operation. All current-carrying components are crafted from highly conductive, silver-plated materials to minimise power dissipation and heat. Hardware is coated with trivalent zinc for rust-free performance.

		Spe	cifications		
Reference	Voltage Rating (V)	Current Rating(A)	Colour	Lawson Fuse Type(BS Ref.)	Solid Link
LBFF20BBF1	500	20		NS(F1) / SS(E1)	SLE1
LBFF20BCF1	500	20		NS (F1) / SS (E1)	SLF1
LBFF20FCF1	500	20	Black	NS (F1) / SS (E1)	SLF1
LBFF32BCF1	500	32		NS (F1) / SS (E1)	SLF1
LBFF32BBF1	500	32		NS(F1) / SS (E1)	SLF1
LBFF32FCF1	500	32		NS (F1) / SS (E1)	SLF1
LBFF32BBA2	500	32		A2 (TIA 2A-32A)	SLA2
LBFF32FCA2	500	32		A2 (TIA 2A-32A)	SLA2
LBFF63BBA3	500	63		A3 (TIS 35A-63A)	SLA3
LBFF63FCA3	500	63		A3 (TIS 35A-63A)	SLA3
LBFF125BBA4	500	125		A4 (TCP 20A-125A)	SLA4
LBFF125FCA4	500	125		A4 (TCP 20A-125A)	SLA4

#### 230/240 & 400/415 Volt Compact Dimension Fuse-Holders to IEC 60269-2/BS 88-2

Rated Voltages 240 & 415V a.c. • Breaking Capacities 20kA at 240V, 80kA at 415V



Alternative Colours:

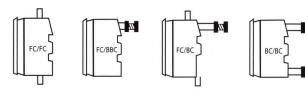
For White, substitute WH for BK

For Green, substitute GN for BK (20A only)

Lawson Clipfit Fuse-Holders are available with four wiring configurations:-

Double front connected (FC/FC)
Front/bushbar connected (FC/BBC)
Front/back connected (FC/BC)
Double back connecteD

Specifications									
Reference	Voltage Rating (V)	Current Rating (A)	Colour	Lawson Fuse Type (BS Ref.)	Solid Link				
LCF 20 FC/FC BK LCF 20 FC/BBC BK LCF 20 FC/BC BK LCF 20 BC/BC BK	240	20		SS (E1)	SLE1				
LCF 32 FC/FC BK LCF 32 FC/BBC BK LCF 32 FC/BC BK LCF 32 BC/BC BK	415	32	Black	NS (F1)	SLF1				
LCF 63 FC/FC BK LCF 63 FC/BBC BK LCF 63 FC/BC BK LCF 63 BC/BC BK	415	63		MES (F2)	SLF2				
Spare Carriers	Spare (	Cable Shrouds (Gr	DIN-Rail Ada	ptor					
LCF 20 CA BK LCF 32 CA BK LCF 63 CA BK		LCF 20 SH LCF 32 SH LCF 63 SH	All bases include integral DIN-Rail Adaptor						



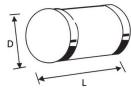
# **PLUG-TOP FUSE-LINKS**

TYPE PL

#### 230/240 Plug Top Fuse-Links to IEC 60269-3/BS 88-3 and BS 1362

Rated Voltage 240V a.c. • Breaking Capacity 6kA a.c.





Current ratings and principal dimensions										
Current Rating			Colour Coding		Principal Dimensions					
4)	A) List Ref.		Colour Coding				L		D	
Preferred	Other		Preferred Other		mm	ins	mm	ins		
-	1	PL1	-	Black						
-	2	PL 2	-	Black						
3	-	PL 3	Red	-						
-	5	PL 5	-	Black	25.4	1	6.3	1/4		
-	7	PL 7	-	Black						
-	10	PL 10	-	Black						
13	-	PL 13	Brown	-						

Lawson type PL Fuse-Links are intended primarily for use in UK domesticplugs to BS 1363, but may also be installed in appropriate single phaseinstallations with fault levels up to 6kA.

 $\bigcirc$ 

# **CUSTOM FUSE SOLUTIONS**

#### Fusegear solutions that fit your application

#### Built to specification, tailored to your design

When you're pushing the boundaries in power distribution, renewable energy, EV technology or industrial automation, off-the-shelf or commercial fuses don't always meet your requirements. That's where Lawson Fuses steps in to address your design and capacity constraints.

#### We have the expertise to deliver complete fusegear solutions that support you with:

- Improved protection and system performance
- Perfectly tailored to your unique space and technical requirements
- Reduced system cost through power-efficient, optimised solutions
- Simplified inventory through standardisation
- Expert technical support at every stage

#### Why should you partner with Lawson Fuses?

#### Capacity: built to print, designed to deliver

We operate state-of-the-art manufacturing facilities in both the UK and India, with over 40,000 square feet of dedicated engineering, production and testing space to support global supply chain efficiency. Our production sites are ASTA Intertek approved, ensuring consistent quality and full compliance with international standards.

Our ISO 17025-accredited in-house testing laboratory provides certified validation across a comprehensive suite of tests, including:

- Pressure and tensile testing
- Accurate metering
- Type and thermal shock testing

- Resistance measurement
- Storage scope analysis
- Microscopic imaging

Our products are type-test compliant with IEC 60269 and the ENA 12-6 series of standards.

We support both high-volume and small-batch manufacturing capabilities, enabling us to support OEMs, industrial partners and niche applications with flexibility and precision.

#### Capabilities: engineered around your requirements

With over 85 years of experience in fuse design and manufacturing, we bring a deep understanding of industry requirements and innovation in protection technologies. Our solutions are custom-engineered for a wide range of sectors, including:

- Renewable energy
- Power distribution
- Industrial automation

- EV infrastructure
- Control panels
- Semiconductor protection

Our Contract Design and Manufacturing (CDM) service supports OEMs seeking white-label and co-branded fuse solutions, offering both flexibility and confidentiality. We offer a full-service approach, from concept design and prototyping to testing, certification and scalable production. Our team comprises highly experienced professionals, each with an average of over 25 years of specialised expertise in fuse engineering, compliance and application-specific design.

#### **Credibility: Proven Performance Across Industries**

As part of the Lucy Group, we operate in over 50 countries, with products certified to global standards like ASTA, Intertek, IEC, and UL.

Trusted by leading OEMs and industrial partners, we offer compliance-ready solutions with pre-certification testing to speed up approvals and reduce time to market. Our robust QA and resilient supply chain ensure consistent quality and reliability. We enforce strict IP and confidentiality policies to protect client innovation. All products comply with RoHS and REACH directives, and we uphold the highest standards in health, safety, and regulatory compliance.

#### What we offer

#### **Fuses**

Precisely rated, with defined time-current characteristics and form factors tailored to your system's performance needs. Our fuses conform to all major low voltage fuse standards (BS, UL, IEC).

#### Fuse holders and base

Engineered for secure mounting, optimal heat dissipation and compatibility with your connection layout and safety criteria.

Want to talk to us? Connect with our experts today at www.lawsonfuses.com



# APPLICATION AND GUIDANCE NOTES

#### Selection of a Suitable Fuse

A fuse may be rated for a.c. usage or d.c. usage or both. If the circuit is a.c. then the fuse must have appropriate a.c. ratings, or if the circuit is d.c. then the fuse must have appropriate d.c. ratings.

#### Selection of Voltage Rating

The voltage rating of the fuse must equal or exceed the rated voltage of the circuit.

#### Selection of Breaking Capacity

The breaking capacity of the fuse must equal or exceed the fault level at the point of installation.

#### For protection If<=1.45Iz

The current rating of the fuse must exceed the circuit load. The current rating of the fuse must be less than the continuous current rating of the cable. For overload protection the conventional fusing current of the fuse ( $I_z$ ) must protect the cable against its maximum current carrying capacity ( $I_z$ ).

#### For protection I<sub>f</sub><=1.45I<sub>z</sub>

For protection against earth faults at 5.0 seconds and 0.4 seconds the earth fault loop impedance of the circuit must be less than the maximum earth fault loop impedance ( $Z_s$ ) specified for the fuse-link rating in Tables 41.2 and 41.4 of BS 7671 (formerly IEE Wiring Regulations).

#### Discrimination (or Selectivity)

"gG" fuse-links discriminate in a ratio of 1.6:1. Therefore the upstream major fuse-link must have a current rating of at least 1.6 times the current rating of the downstream minor fuse-link.

#### Capacitor Circuits

For protection of capacitor circuits a general rule is that the current rating of the fuse should be at least 1.5 times the rated current of the capacitor.

#### Fluorescent Lighting

The current rating of the fuse-link should be at least twice the full load current of the maximum number of lights to be switched simultaneously.

#### Thermal Derating

For thermal derating of fuses at temperatures above 40°C a general rule is that the current rating is decreased by 0.5% for each 1°C above 40°C. Where the fuse is mounted in an enclosure use the internal enclosure temperature if known. Where the internal temperature is unknown it should be taken as the external ambient temperature +15°C.

#### Altitude Derating

For installations situated at altitudes of over 2000 metres a general rule is that the current rating of the fuse is decreased by 0.5% for every 100m above 2000m.

#### Type 2 Co-ordination

Motor starter manufacturers recommend the current ratings of "gG" fuse-links which can be used in conjunction with motor starters. This simple and effective means of co-ordination to withstand inrush currents will normally give adequate short circuit protection to the motor starter.

#### Motor Starting

Fuse-Link selection for 3 phase 415V a.c. Induction Motor Circuits								
			Direct-on-		Assisted Start (3.5xFLC for 20 sec)			
N	lotor Ratin	ıg	(7xFLC fo	r 10 sec)	(3.5xFLC†	or 20 sec)		
			Fuse-Link Rati	ing (Amperes)	Fuse-Link Rating (Amperes)			
KW	HP	FLC	"gG" "gM"		"gG"	"gM"		
0.75	1	2	6	-	4	-		
1.1	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	70	97	200	100M200	125	100M125		
55	75	100	200	100M200	125	100M125		
60	80	110	250	200M250	160	-		
67	90	120	250	200M250	160	-		
75	100	135	250	200M250	160	-		
90	120	160	315	200M315	200	-		
93	125	170	355*	315M400*	200	-		
110	150	200	400	315M400*	250	200M250		
130	175	230	400	315M400*	315	-		
150	200	260	450*	400M500*	315	-		
160	215	280	500	400M500*	355*	315M400*		
170	225	290	500	400M500*	355*	315M400*		
180	250	320	560*	-	400	-		
200	270	350	630	-	400	-		
220	300	380	670*	-	450	400M500*		
250	335	420	710*	-	500	-		
260	350	450	750*	-	560*	-		
300	400	500	800	-	630	-		

Maximum full load current starting capability							
Direct-on-line Start							
(7xFLC for 10 sec)							
Fuse-Link Rati	Maximum						
"gG"	"gM"	Motor FLC					
2	-	0.6					
4	-	1.3					
6	-	2.3					
10	-	4.1					
16	-	6.0					
20	-	7.9					
25	20M25	10					
32	20M32	13					
40	32M40	18					
50	32M50	26					
63	32M63	30					
80	63M80	40					
100	63M100	54					
125	100M125	61					
160	100M160	82					
200	-	110					
250	200M250	150					
315	200M315	170					
355*	315M400*	200					
400	315M400*	240					
450*	400M500*	280					
500	400M500* 310						
560*	-	350					
630	-	380					
670*	-	420					
710*	-	450					
750*	- 480						
800	-	510					

	oad current startin Assisted Start	g capability		
(	3.5xFLC for 20 sec)			
Fuse-Link Ra	Maximum			
"gG"	"gM"	Motor FLC		
2	-	1.3		
4	-	2.4 4.3		
6	-			
10	-	6.4		
16	-	11		
20	-	14		
25	20M25	19 24		
32	-			
40	32M40	31 46		
50	-			
63	-	51		
80	-	69 94 110 150 180		
100	-			
125	-			
160	-			
200	-			
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		

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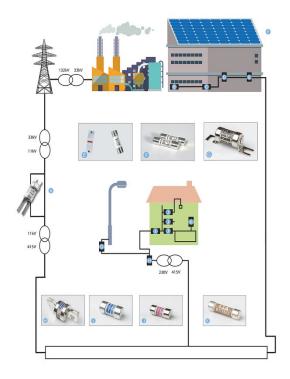
# APPLICATION AND GUIDANCE NOTES











A Time Limit Fuse LTFL
B Industrial Fuse LSPN 3 DI
C Industrial Fuse LSPN 2 DI
D Distribution Fuse Board TC 100
E Modular Fuse MSC & LEN
F PV Fuse LFPV32
G Street Lighting LST 32
H Feeder Pillar JSU 630
I House Service MF 100
J Consumer Unit LD 30
K Plug Top PL 13

NOTES			





Product Design | Application Support | Highest Quality

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