

BRITISH STANDARD

Bussmann Part No.	SSD	NSD	ESD	SMD	STD	NITD	AAO	BAO	CEO	OSD	DEO	AC/BC	AD/BD	CD	DD	ED	EFS	EF	FF	FG	GG	GF	GH	
Lawson	SS	NS	ES	MD	LST	NIT	TIA	TIS	TCP	TIS	TFP	TB	TBC	TC	TF	TMF	TKM	TM	TTM	TT	TLT	TLM	TLU	
GE	SS	NS	ES	-	LST	NIT	TIA	TIS	TCP	OS	TFP	TB	TBC	TC	TF	TMF	TKM	TM	TTM	TT	TLT	TLM	TLU	
MEM	SS	SN2	SP	-	LS	SA2	SB3	SB4	SD5	SO	SD6	SE3/SE4	SF3/SF4	SF5	SF6	SF7	SG7	SH8	SH9	SY9	SY10	SH10	-	
IEC Utilisation Class	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	gG	
Voltage Rating	240 Vac	550 Vac	550 Vac	415 Vac	240 Vac	550 Vac	550 Vac	550 Vac	550 Vac	550 Vac	415 Vac	550 Vac	550 Vac	415 Vac	415 Vac	415 Vac	415 Vac	415 Vac	550 Vac	550 Vac	550 Vac	550 Vac	550 Vac	
Current Ratings	2 4 6 10 16 20 25 32	2 4 6 10 16 20 25 32	2 4 6 10 16 20 25 32 40 50 63	2 4 6 10 16 20 25 32	2 4 6 10 16 20 25 32	2 4 6 10 16 20 25 32	2 4 6 10 16 20 25 32	2 4 6 10 16 20 25 32	35 32 40 50 63	32 40 50 63	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	80 125 160 200	
Extended Motor Range		20M25 20M32 20M36 32M36 32M40 32M50 32M63	63M80 63M100			20M25 20M32 32M40 32M50 32M63	32M40 32M50 32M63	63M80 63M100	100M125 100M160 100M200	100M125 100M160	200M250 200M315	63M80 63M100		100M125 100M160 100M200	200M250 200M315	315M400 400M500		400M500						
Dimensions (mm)																								
Overall Length	47.0	34.5	35.5	29.0	47.0	55.0	85.0	87.0	11.0	95.0	110.0	113.5	128.5	126.0	136.0	136.0	158.0	210.0	210.0	262.0	262.0	210.0	198.0	
Fixing Centres	N/A	N/A	N/A	N/A	35.0	44.0	73.0	73.0	94.0	73.0	94.0	97.5	111.0	111.0	111.0	111.0	133 / 184	133 / 184	133 / 184	167 / 231	165 / 231	134 / 185	149.0	
Maximum Diameter	12.0	17.5	21.0	13.0	17.5	17.5	21.0	21.0	31.0	26.0	31.0	21.0	31.0	31.0	31.0	59.0	59.0	59.0	74.0	74.0	74.0	83.0	100.0	
Tag Configuration	Solid Blade	Solid Blade	Solid Blade	Ferrule	Off-Set	Off-Set	Off-Set	Off-Set	Off-Set	Off-Set	Off-Set	Centre	Centre	Centre	Centre	Centre	Centre	Centre	Centre	Centre	Centre	Centre	Centre	
No. of Hole Fixings	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4	
Standard Fuse Holder	-	32NNSF	63ENSF	-	-	CM32FC	CM32F	CM63F	-	CM100F	CM100H	-	-	-	200DF	400EF	-	-	-	-	-	-	-	
Competitor Fuse Holder	SC20H-D	SC32H-D	-	-	-	RS20H	RS32H	RS63H	RS100H	RS100H	RS200H	-	-	-	-	-	RS400H	-	-	-	-	-	-	
Approvals																								
BS88	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
IEC60269	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
ASTA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
DIN VDE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

MOTOR CIRCUIT PROTECTION USING BRITISH STANDARD FUSE LINKS

Full load currents of typical induction motors

Motor Rating	Voltage Ratings (Vac)							
	kW	HP	220	380	415	440	550	660
0.37	0.5	2.0	1.15	1.05	1.0	0.8	0.7	
0.55	0.75	2.7	1.6	1.5	1.4	1.1	0.9	
0.75	1.0	3.9	2.3	2.0	1.9	1.5	1.3	
1.10	1.5	4.7	2.8	2.5	2.4	1.9	1.6	
1.5	2.0	6.5	3.8	3.5	3.3	2.6	2.2	
2.2	3.0	9.3	5.4	5.0	4.7	3.8	3.2	
3.0	4.0	12.0	7.1	6.5	6.1	4.9	4.1	
4.0	5.5	15.4	9.0	8.4	7.9	6.4	5.3	
5.5	7.5	20.7	11.9	11.0	10.3	8.2	6.9	
7.5	10.0	28.0	16.1	14.4	14.0	11.2	9.3	
11.0	15.0	39.1	23.0	21.0	19.8	15.8	13.2	
15.0	20.0	52.8	30.5	28.0	26.4	21.1	17.6	
18.5	25.0	66.0	38.0	35.0	33.0	26.4	22.0	
22.0	30.0	77.0	45.0	41.0	39.0	31.0	26.0	
30.0	40.0	103.0	60.0	55.0	52.0	42.0	35.0	
37.0	50.0	128.0	75.0	69.0	65.0	52.0	43.3	
45.0	60.0	151.0	87.0	80.0	75.0	60.0	50.0	
55.0	75.0	185.0	107.0	98.0	92.0	74.0	62.0	
75.0	100.0	257.0	148.0	136.0	128.0	102.0	85.0	
90.0	120.0	308.0	180.0	164.0	158.0	123.0	102.0	
110.0	150.0	370.0	214.0	196.0	185.0	148.0	123.0	
132.0	175.0	426.0	247.0	226.0	213.0	170.0	142.0	
150.0	200.0	500.0	292.0	268.0	252.0	202.0	168.0	
160.0	215.0	-	300.0	275.0	260.0	207.0	173.0	
200.0	270.0	-	391.0	358.0	338.0	270.0	225.0	
240.0	320.0	-	467.0	428.0	404.0	323.0	269.0	
280.0	375.0	-	533.0	488.0	460.0	368.0	307.0	
300.0	400.0	-	573.0	525.0	495.0	396.0	330.0	
320.0	425.0	-	587.0	538.0	507.0	406.0	338.0	

Assumed starting conditions

Motor Rating	Direct On-Line Starting	Assisted Start
Up to 1kW	5 x FLC for 5 secs	2.5 x FLC for 20 secs
1.1 to 7.5kW	6 x FLC for 10 secs	3.5 x FLC for 20 secs
7.6 to 75kW	7 x FLC for 10 secs	
Greater than 75kW	6 x FLC for 15 secs	

Direct on-line starting

Motor FLC	(Amps)	Recommended fuse link	Alternative extended motor circuit rating
From	To	Amps	Amps
0.0	0.7	2	
0.8	1.4	4	
1.5	2	6	
2.1	3	10	
3.1	6.1	16	
6.2	9	20	
9.1	11	25	
11.1	14.4	32	20M25
14.5	15.4	35	20M32
15.5	18	40	32M40
18.1	22	50	32M40
22.1	28	63	32M50
28.1	45	80	32M63
45.1	58	100	63M80
58.1	80	125	63M100
80.1	99	160	100M125
99.1	128	200	100M160
128.1	180	250	200M250
180.1	216	315	200M315
216.1	270	355	
270.1	328	400	315M400
328.1	385	450	
385.1	430	500	400M500
430.1	500	560	
500.1	560	630	
560.1	620	670	

Recommendation are based on ambient temperatures of 35C. At higher temperatures some fuse links may have to be de-rated. Ensure that the voltage rating of the fuse suitable for the application. If in doubt contact Cooper Bussmann for further information.

Assisted Start (Star/Delta, Auto-transformer)

Motor FLC	(Amps)	Recommended fuse link	Alternative extended motor circuit rating
From	To	Amps	Amps
0.0	0.7	2	
1.5	1.4	4	
2.2	3.1	6	
3.2	5.5	10	
5.6	10	16	
10.1	14	20	
14.1	18	25	
18.1	22	32	20M25
22.1	28	35	
28.1	32	40	32M40
32.1	40	50	32M40
40.1	51	63	
51.1	80	80	
80.1	100	100	
100.1	125	125	
125.1	160	160	
160.1	200	200	
200.1	250	250	
250.1	315	315	
315.1	355	355	
355.1	400	400	
400.1	450	450	
450.1	500	500	
500.1	560	560	
560.1	0	630	



Productivity Through Protection™

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