COOPER Bussmann

High Speed Fuses

British Style - BS 88

COOPER Bussmann

British Style - 240V

All Bussmann British style fuses are tested to IEC 60269 Part 4. This standard requires a test voltage which is 5% higher than the rated voltage. In the North America fuses are required to clear only their rated voltage.

LCT, LET, LMT & LMMT

Voltage Rating: 240Vac/150Vdc
Current Rating: 6 - 900 Amps
Interrupting Rating: 200kA RMS Symmetrical

Agency Information
Designed & Tested to BS88: Part 4, IEC 60269 Part 4
UL Recognized, Std. 248-13, CE
Watt loss provided at rated current

Electrical Characteristics

Size	Rated Current RMS-Amps	I^2t (A^2 SEC) Pre-arc	I^2t (A^2 SEC) Clearing at 120V	I^2t (A^2 SEC) Clearing at 240V	Watts Loss	Part Number	Carton Qty.	Carton Weight	Figure
LCT	6	2	6	9	1.0	6LCT	20	0.110	Fig 1
	10	3.8	12	22	2.5	10LCT	20	0.110	
	12	7	22	32	2.5	12LCT	20	0.110	
	16	20	50	100	2.5	16LCT	20	0.110	
	20	25	80	160	4.0	20LCT	20	0.110	
LET	25	18	120	250	4.0	25LET	10	0.310	Fig 2
	32	32	200	450	5.0	32LET	10	0.310	
	35	50	320	600	5.0	35LET	10	0.310	
	50	100	500	1400	7.0	50LET	10	0.310	
	63	180	1100	2200	9.0	63LET	10	0.310	
	80	300	1900	3800	10.0	80LET	10	0.310	
	100	600	3800	7500	10.0	100LET	10	0.310	
	125	600	3800	7500	16.0	125LET	10	0.310	
	160	1100	7000	16000	20.0	160LET	10	0.310	
	180	1600	12000	29000	21.0	180LET	10	0.310	
LMT	160	1100	7000	16000	17.0	160LMT	1	0.180	Fig 3
	200	1500	10000	20000	28.0	200LMT	1	0.180	
	250	3200	20000	40000	28.0	250LMT	1	0.180	
	315	6000	35000	75000	35.0	315LMT	1	0.180	
	355	8000	50000	100000	35.0	355LMT	1	0.180	
	400	14000	70000	160000	40.0	400LMT	1	0.180	
	450	18000	100000	220000	42.0	450LMT	1	0.180	
LMMT	400	6000	35000	80000	60.0	400LMMT	1	0.370	Fig 4
	500	14000	80000	170000	64.0	500LMMT	1	0.370	
	630	24000	150000	300000	75.0	630LMMT	1	0.370	
	710	32000	200000	460000	77.0	710LMMT	1	0.370	
	800	52000	300000	600000	82.0	800LMMT	1	0.370	
	900	75000	400000	800000	97.0	900LMMT	1	0.370	

Note: 7LET, 10LET, 12LET and 16LET are available for replacement purposes on existing equipment (not UL recognized) till stocks last

BIF Document : 720004

CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002.

High Speed Fuse - BS 88

British Style - 690V

CT, ET, FE, EET, FEE, FM, FMM, MT†, MMT†

Voltage Rating: 690Vac/500Vdc
Current Rating: 6 - 710 Amps
Interrupting Rating: 200kA RMS Symmetrical

Agency Information
Designed & Tested to BS88: Part 4, IEC 60269 Part 4
UL Recognized, Std. 248-13, CE
Watt loss provided at rated current
MT, MMT and additional ratings of ET and EET are available for replacement purposes on existing equipment and are BS 88: Part 4 approved

Electrical Characteristics

Size	Rated Current RMS-Amps	I²t (A² SEC) Pre-arc	I²t (A² SEC) Clearing at 415V	I²t (A² SEC) Clearing at 660V	Watts Loss	Part Number	Carton Qty.	Carton Weight	Figure
CT	6	1.8	8.5	12	2	6CT	20	0.16	Fig 5
	10	7	30	48	3	10CT	20	0.160	
	12	10	40	65	3	12CT	20	0.160	
	16	16	66	110	7	16CT	20	0.160	
	20	32	150	220	7	20CT	20	0.160	
ET	25	25	150	250	7	25ET	10	0.420	Fig 6
	32	32	190	350	11	32ET	10	0.420	
	35	52	310	500	11	35ET	10	0.420	
	40	103	600	900	9	40ET	10	0.420	
	45	103	680	1100	11	45ET	10	0.420	
	56	135	950	1500	14	56ET	10	0.420	
	63	171	1200	2000	16	63ET	10	0.420	
	80	360	2500	4000	18	80ET	10	0.420	
FE	35	33	130	200	9	35FE	10	0.420	Fig 6
	40	52	180	300	9	40FE	10	0.420	
	45	76	270	450	11	45FE	10	0.420	
	50	103	380	600	11	50FE	10	0.420	
	63	135	480	750	12	63FE	10	0.420	
	71	210	600	950	17	71FE	10	0.420	
	80	250	900	1500	20	80FE	10	0.420	
	90	360	1300	2100	20	90FE	10	0.420	
	100	470	1800	2800	23	100FE	10	0.420	
EET	90	490	3000	4500	19	90EET	5	0.450	Fig 7
	110	600	4000	6500	27	110EET	5	0.450	
	140	1050	7000	12000	35	140EET	5	0.450	
	160	1500	10000	17000	39	160EET	5	0.450	
FEE	100	400	1600	2400	24	100FEE	5	0.450	Fig 7
	120	540	1900	3100	32	120FEE	5	0.450	
	140	850	2500	3800	36	140FEE	5	0.450	
	160	1000	3700	5700	46	160FEE	5	0.450	
	180	1400	5300	8400	46	180FEE	5	0.450	
	200	1900	7100	11400	52	200FEE	5	0.450	
FM	180	1400	7500	13500	40	180FM	1	0.240	Fig 8
	200	2600	10500	18500	40	200FM	1	0.240	
	225	3700	14500	26500	44	225FM	1	0.240	
	250	5200	20500	37500	48	250FM	1	0.240	
	280	7000	30500	55000	48	280FM	1	0.240	
	315	10000	40000	77000	55	315FM	1	0.240	
	350	15000	60000	105000	55	350FM	1	0.240	
FMM	400	10000	40000	72500	85	400FMM	1	0.450	Fig 9
	450	15000	60000	105000	90	450FMM	1	0.450	
	500	20000	82000	150000	100	500FMM	1	0.450	
	550	30000	120000	215000	100	550FMM	1	0.450	
	630	45000	180000	310000	100	630FMM	1	0.450	
	700	60000	245000	420000	120	700FMM	1	0.450	
MT†	160	2400	15000	25000	26	160MT	1	0.260	Fig 8
	180	3800	25000	38000	26	180MT	1	0.260	
	200	6000	40000	58000	27	200MT	1	0.260	
	250	11500	80000	110000	32	250MT	1	0.260	
	280	16500	100000	150000	35	280MT	1	0.260	
	315	19000	125000	180000	42	315MT	1	0.260	
	355	22000	160000	200000	51	355MT	1	0.260	
MMT†	180	1650	12000	18000	42	180MMT	1	.0470	Fig 9
	200	2200	16000	23000	42	200MMT	1	.0470	
	225	3700	26000	40000	42	225MMT	1	.0470	
	280	6600	47000	70000	47	280MMT	1	.0470	
	315	8600	62000	91000	51	315MMT	1	.0470	
	355	13500	97000	140000	54	355MMT	1	.0470	
	400	21000	150000	220000	60	400MMT	1	.0470	
	450	30000	220000	320000	57	450MMT	1	.0470	
	500	42000	300000	450000	64	500MMT	1	.0470	
	560	60000	430000	640000	64	560MMT	1	.0470	
	630	68500	500000	720000	86	630MMT	1	.0470	
	710	78000	600000	850000	105	710MMT	1	.0470	

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000V AC, 75-1500V DC). Refer to BIF document #8002.

Note: 8ET, 12ET, 15ET, 20ET, 65EET and 75EET are available for replacement purposes on existing equipment (not UL recognized) till stocks last

† 350V DC (IEC) rating. No UL Recognition.

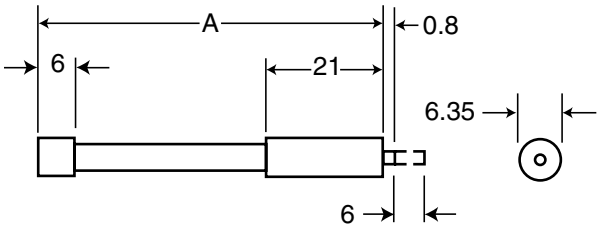
BIF Document : 720024

Trip-indicator fuselinks are available for use in parallel with the main fuselinks. They can either be attached to the associated fuselink or mounted separately in panel mounted fuse clips, Part No. CL1. A push-on adaptor and microswitch attachment is available for use with the trip indicator to give the facility of remote indication, reference MAI or MBI.

Fuse ratings of 20A and below cannot usually accommodate a trip fuselink in parallel.

Trip-indicator Fuselink Data

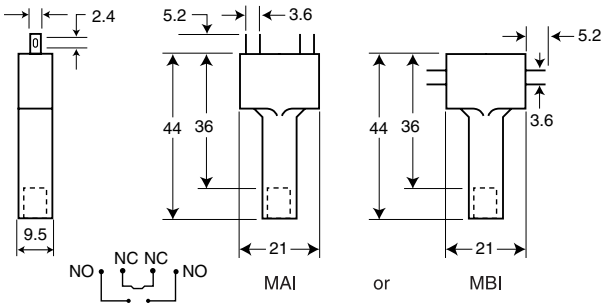
Type	Dim. 'A' Max.	Voltage Rating	Type	Dim. 'A' Max.	Voltage Rating
TI250	37.6	250	TI1100	98.4	1100
TI500	47.5	500	TI1500	120.8	1500
TI600	55.7	600	TI2000	147.5	2000
TI700	61.8	700	TI2500	198.3	2500



Dimensions in mm.
1mm = 0.0394" 1" = 25.4mm

Microswitch and Adaptor Type MAI

Current Rating:	
AC 50/60Hz resistive load @ 250 VRMS	4A
AC 50/60Hz resistive load @ 127 VRMS	6A
DC, resistive load @ 110 Vdc	0.7
DC, resistive load @ 30 Vdc	2
Maximum Working Voltage:	
Contact-to-contact (RMS)	1000V
Contact-to-contact (RMS)	1500V



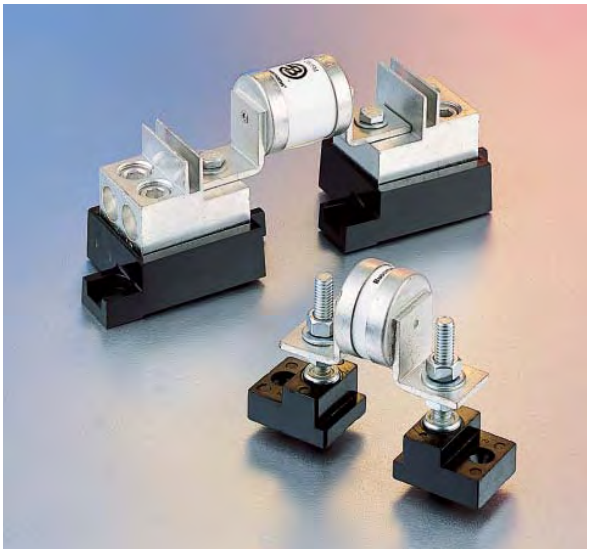
Where trip indicator fuselinks are to be attached to the main fuselink, an accessory pack comprising a pair of mounting clips and an appropriate trip indicator fuselink will be required.

The ordering code references for these packs are listed below:

Fuse Type	Order Ref.	Fuse Type	Order Ref.
ET	EC-600	FM	MC-600
EET	EC-600	FMM	MC-600
FE	EC-600	LMT	MC-250
FEE	EC-600	LMMT	MC-250
LET	EC-250		

Stud Fuseblocks

Part No.	Stud Height	Stud Dia & Threads
C5268-1	1.00"	5/16-18
C5268-2	1.75"	5/16-18
C5268-3	0.75"	5/16-18
C5268-4	1.00"	1/4-20
C5268-5	1.75"	1/4-20



Universal Fuseblocks

Modular Base	Max. Voltage	Max. Fuse Current Rating	BIF Document
1BS101	600V	100A	1206
1BS102	600V	400A	1207
1BS103	600V	400A	1208
1BS104	600V	600A	1209

High Speed Fuse - Dimensions

COOPER Bussmann

British Style - 240 Volts

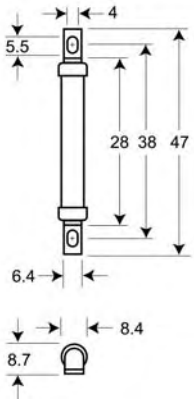


Fig 1

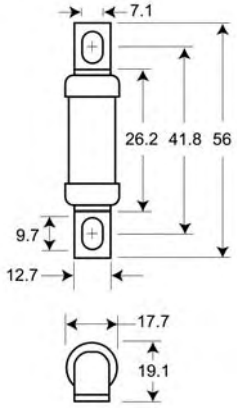


Fig 2

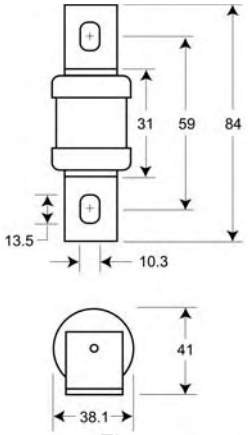


Fig 3

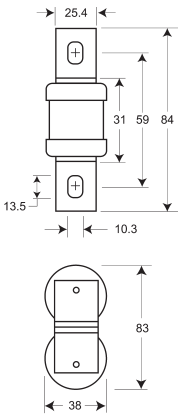


Fig 4

British Style - 690 Volts

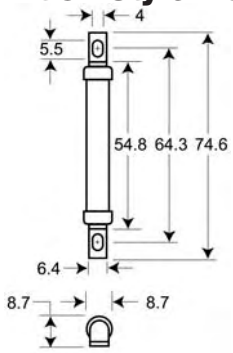


Fig 5

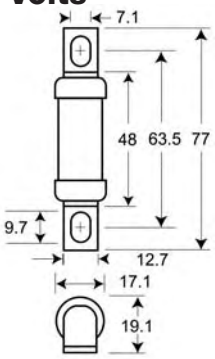


Fig 6

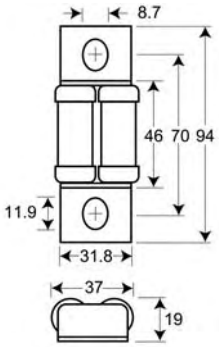


Fig 7

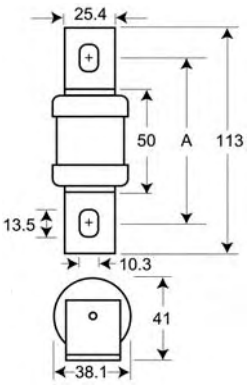


Fig 8

Dim. 'A'		
	FM	80 - 85
	MT	85
	MMT/FMM	85

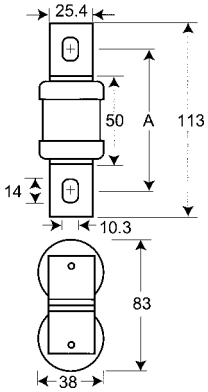


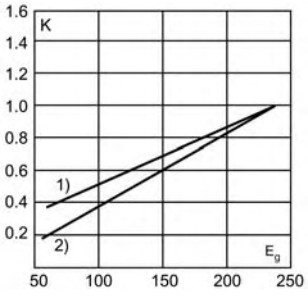
Fig 9

Electrical Characteristics

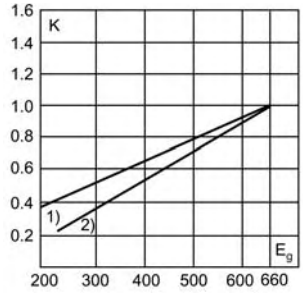
Total Clearing I^2t

The total clearing I^2t at rated voltage and at power factor of 15% are given in the electrical characteristics. For other voltages, the electrical I^2t is found by multiplying by correction factor K, given as a function of applied working voltage E_g (RMS).

Curves below : 1) - LCT
2) - LET, LMT & LMMT



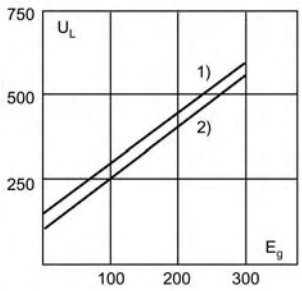
Curves below : 1) - CT
2) - ET, EET, FE, FEE, MT, MMT, FM & FMM



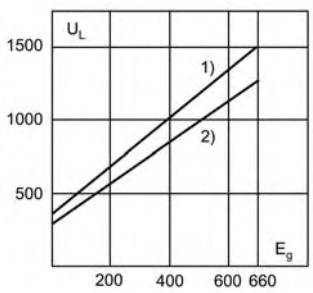
Arc Voltage

This curve gives the peak arc voltage U_L, which may appear across the fuse during its operation as function of the applied working voltage E_g (RMS) at a power factor of 15%.

Curves below : 1) - LCT
2) - LET, LMT & LMMT

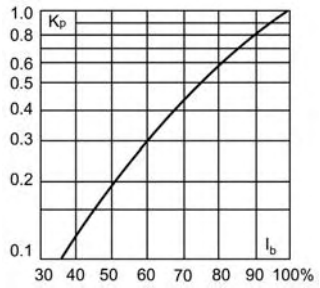


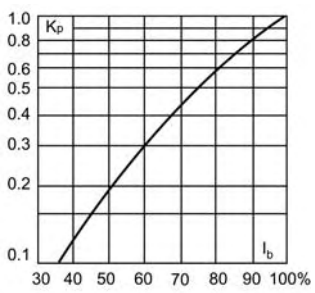
Curves below : 1) - CT
2) - ET, EET, FE, FEE, MT, MMT, FM & FMM



Power Losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the power losses at load currents lower than the rated current. The correction factor K_p, is given as a function of the RMS load current I_b, in % of the rated current.





COOPER Bussmann

Cooper Bussmann Products And Technical Expertise Delivered Worldwide

Customer Assistance

Customer Satisfaction Team

Cooper Bussmann India Customer Satisfaction Team is available in Pondicherry to answer questions regarding Cooper Bussmann products Sales, Supply and Services. Calls should be made between 9.00 am - 5.00pm IST.

- **Phone : +91 413 267 2015**
- **Fax : +91 413 267 8182**
- **E-mail : sales@cooperbussmann.co.in**

Application Engineering

Application Engineering and selection assistance is available to all customers. This team is staffed by subject matter expert, electrical application engineers and available Monday - Friday 9.00am - 5.00pm IST.

Application Engineering can be reached via

- **Phone : +91 413 220 5512**
- **Fax : +91 413 220 5501**
- **E-mail : technicalhelp@cooperbussmann.co.in**

Regional Contacts

Ahmedabad : +91 98793 55485
Bangalore : +91 98451 75290
Chennai : + 91 98403 26095
Coimbatore : +91 99449 53779
Hyderabad : +91 98490 23461
Jaipur : + 91 94141 19288
Kolkata : +91 94330 07468
Mumbai : +91 98206 48785
Delhi : + 91 98110 86586
Pune : +91 98226 97408

Regional E-mails

For E-mail, prefix cityname to sales@cooperbussmann.co.in
Example, for Delhi, write - delhisales@cooperbussmann.co.in

Web services

www.cooperbussmann.com/1/technicalinformation.html

Cooper Bussmann website offers free information & resources that include:

- Products data sheets and complete technical information.
- Latest European & US Catalogues.
- Safety BaSICs™ for the essentials of electrical safety.
- Training modules for increasing skill levels of customers and end users.
- Cross referencing to find the correct Cooper Bussmann replacement for a competitor's fuse.

Your Authorised Cooper Bussmann Distributor is :

Cooper Bussmann India Pvt. Ltd.,
3A, EVR Street,
Sedarpet Indl. Estate,
Pondicherry - 605 111, India.
P : +91 413 267 2005
www.cooperbussmann.com/1/index.html

CBIL/HSBS-R3/1-2008/L1-3000

Printed in India

COOPERBussmann

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Eaton:

16LCT 200LMT 125LET 355LMT 35FE 120FEE 180FM 90EET 80LET 100FEE 160LET 63FE 100LET 40FE 315FM 25ET 35LET 32ET 100FE 10CT 10LCT 110EET 12CT 12LCT 140EET 140FEE 160EET 160FEE 160MT 16CT 180FEE 180LET 180MMT 180MT 200FEE 200FM 200MMT 200MT 20CT 20LCT 225FM 225MMT 250FM 250LMT 250MT 280FM 280MMT 280MT 315LMT 315MMT 315MT 32LET 350FM 355MMT 355MT 35ET 400FMM 400LMMT 400MMT 40ET 450FMM 450LMT 450MMT 45ET 45FE 500FMM 500LMMT 500MMT 50FE 550FMM 560MMT 56ET 630FMM 630LMMT 630MMT 63ET 63LET 6CT 6LCT 700FMM 710LMMT 710MMT 71FE 800LMMT 80ET 80FE 900LMMT 90FE