



As global demand for energy increases and our dependence on clean, efficient electricity deepens, the necessity for reliable, high-voltage protection becomes increasingly evident.

Our Bussmann series Battery Energy Storage Systems (BESS) fuses, with their 1500 VDC rating, stand as a cornerstone in safeguarding the future of energy and powering innovations.

Features

- 1500 VDC voltage rating
- Breaking capacity: 250 kA at 3ms or 4 ms L/R and 300 kA at 10ms L/R (CBMG range)
- Compliant to IEC 60269-4; -7 (180D) and UL 248-13
- Low watts loss for energy efficiency
- Fast acting aR type for semiconductor protection
- Fast acting aBat type for battery energy storage protection
- Optional microswitch indication available
- A range of end tag options and mounting connection configurations are available.



Applications

- AC to DC Rectifier protection
- DC to AC Inverter protection
- DC to DC converters protection
- Battery Energy Storage Systems (BESS)
- Electric vehicles charging stations (Megawatt charging stations)
- Power conversion systems
- Regenerative drives
- DC Common bus
- Data centres



Powering Business Worldwide

1500 VDC Fuse links - Ordering information and technical data

Fuse body size	Flush end	DIN 43653	US Style	Rated current	Breaking capacity	Pre-arcing I ² t (A ² Sec)	Power loss at In (W)	Pack quantity
1	180D7420	180D7426	180D7432	100 A	250 kA at 3ms L/R	815	56	1
1	180D7421	180D7427	180D7433	125 A		1700	65	1
1	180D7422	180D7428	180D7434	160 A		3800	70	1
1	180D7423	180D7429	180D7435	200		7300	80	1
1	180D7424	180D7430	180D7436	250		15,000	90	1
1	180D7425	180D7431	180D7437	315		31,000	100	1
2	ESS2B-100	ESS2J-100	ESS2H-100	100	250 kA at 4ms L/R	1000	50	1
2	ESS2B-125	ESS2J-125	ESS2H-125	125		3000	60	1
2	ESS2B-160	ESS2J-160	ESS2H-160	160		5300	74	1
2	ESS2B-200	ESS2J-200	ESS2H-200	200		10,000	87	1
2	ESS2B-250	ESS2J-250	ESS2H-250	250		19,000	94	1
2	ESS2B-315	ESS2J-315	ESS2H-315	315		38,000	113	1
2	ESS2B-350	ESS2J-350	ESS2H-350	350	250 kA at 3ms L/R	53,000	117	1
2	ESS2B-400	ESS2J-400	ESS2H-400	400		79,000	129	1
2	ESS2B-450	ESS2J-450	ESS2H-450	450		111,000	137	1
2	180D5707	180D5857	180D5957	500		190,000	88	1
3			ESS3-100	100	250 kA at 4ms L/R	1200	55	1
3			ESS3-125	125		2200	70	1
3			ESS3-160	160		3900	85	1
3			ESS3-200	200		6600	90	1
3			ESS3-250	250		13,600	115	1
3			ESS3-315	315		24,100	120	1
3			ESS3-350	350	250 kA at 3ms L/R	34,700	125	1
3			ESS3-400	400		60,000	135	1
3			ESS3-450	450		78,000	150	1
3			ESS3-500	500		96,000	170	1
3			ESS3-550	550		112,000	185	1
3			ESS3-630	630		172,000	198	1
3	180D8722	180D8735	180D8748	350	250 kA at 3ms L/R	25,000	132	1
3	180D8723	180D8736	180D8749	400		35,000	160	1
3	180D8724	180D8737	180D8750	450		45,000	175	1
3	180D8725	180D8738	180D8751	500		65,000	180	1
3	180D8726	180D8739	180D8752	550		85,000	190	1
3	180D8727	180D8740	180D8753	630		130,000	200	1
3	180D8728	180D8741	180D8754	700	250 kA at 4ms L/R	180,000	203	1
3	180D8729	180D8742	180D8755	800		265,000	205	1
3	180D8730	180D8743	180D8756	900		375,000	225	1
3	180D8731	180D8744	180D8757	1000		510,000	238	1
3	180D8732	180D8745	180D8758	1100		695,000	247	1
3	180D8733	180D8746	180D8759	1250		1,030,000	262	1
3	180D8734	180D8747	180D8760	1400	250 kA at 4ms L/R	1,420,000	267	1
4	ESS5-900			900		467,000	212	1
4	ESS5-1000			1000		658,000	233	1
4	ESS5-1100			1100		804,000	241	1
4	ESS5-1250			1250		1,140,000	262	1
4	ESS5-1350			1350		1,430,000	273	1
4	ESS5-1500			1500	250 kA at 4ms L/R	1,870,000	286	1
4	ESS5-1600			1600		2,450,000	284	1
4	ESS5-1800			1800		3,170,000	315	1

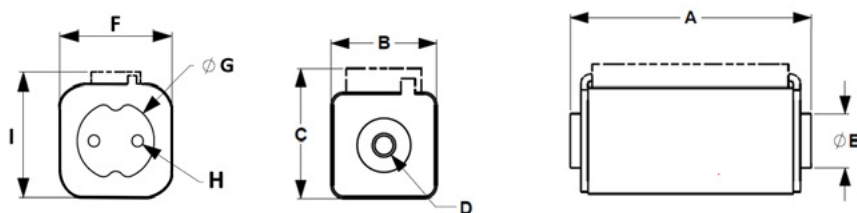
1500 VDC Fuse links - Ordering information and technical data

Fuse body size	Flush end	DIN 43653	US Style	Rated current	Breaking capacity	Pre-arcing I ² t (A ² Sec)	Power loss at I _n (W)	Pack quantity
24	180D7739			1600	250 kA at 3ms L/R	2,139,000	270	1
24	180D7740			1800		3,044,000	300	1
24	180D7741			2000		4,251,000	315	1
24	180D7742			2200		5,660,000	330	1
24	180D7743			2500		8,100,000	390	1
24	180D7744			2800		11,407,000	410	1
24	180D7745			3000		14,021,000	425	1
5	CBMG-1250			1250	300 kA at 10ms L/R	695,000	340	1
5	CBMG-1350			1350		825,000	365	1
5	CBMG-1500			1500		1,100,000	390	1
5	CBMG-1800			1800		1,650,000	460	1
5	CBMG-2000			2000		2,300,000	480	1
5	CBMG-2500			2500		4,650,000	530	1
5	CBMG-3000			3000		8,100,000	585	1
5	CBMG-3500			3500		13,200,000	640	1
5	CBMG-4000			4000		20,000,000	690	1

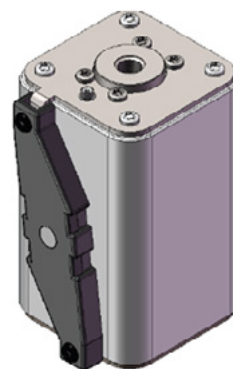
Links to technical data sheets

Fuse size	180D	ESS	CBMG
1	TD135025EN		
2	TD135026EN	TD135030EN	
3	TD135027EN	TD135031EN	
4		TD135032EN	
24	TD135029EN		
5			TD135035EN

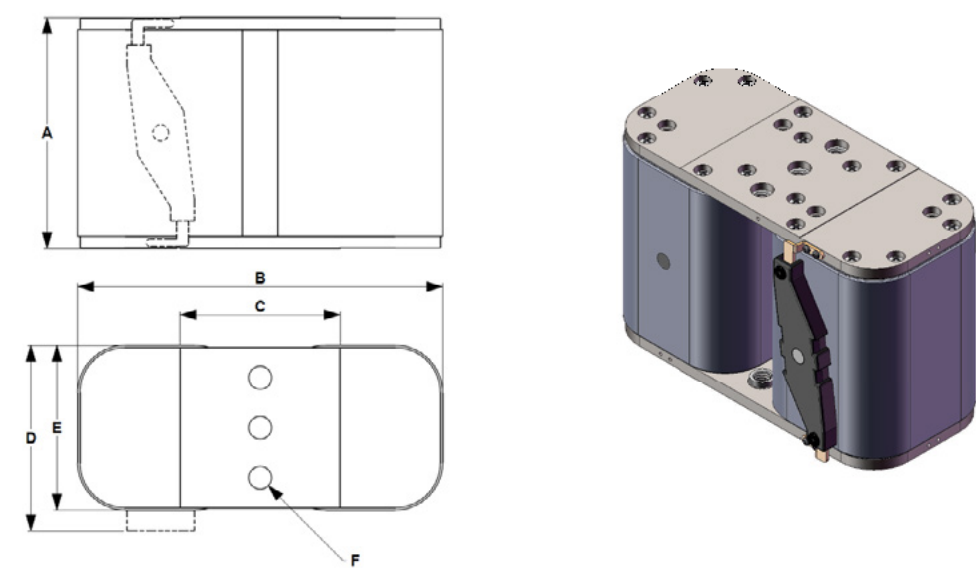
Dimensions (mm) - Flush end - Sizes 1 to 4



Fuse type - Fuse body size	A	B	C	D	E	F	G	H	I
180D - Size 1	131	51	69	M8	20	-	-	-	
ESS2B - Size 2	131	59	80	M10	27	-	-	-	
180D - Size 2	140.4	59	77	M10	24	-	-	-	
180D - Size 3	130.9	74	90	M12	30	-	-	-	
ESS5 - Size 4	150	-	-	-	-	105	70.5	M12	123

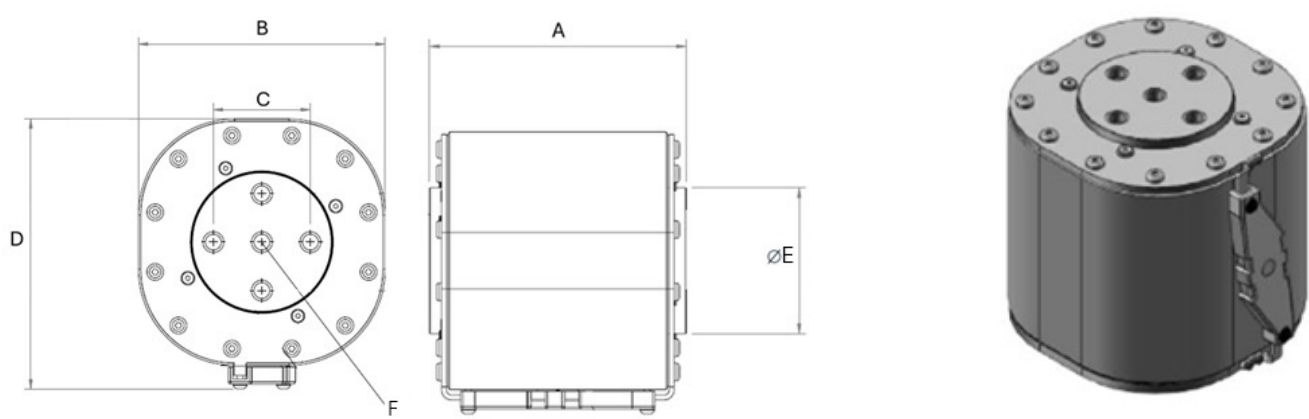


Dimensions (mm) - Flush end - Size 24



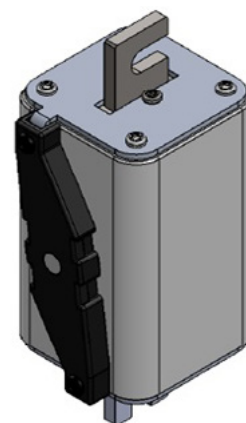
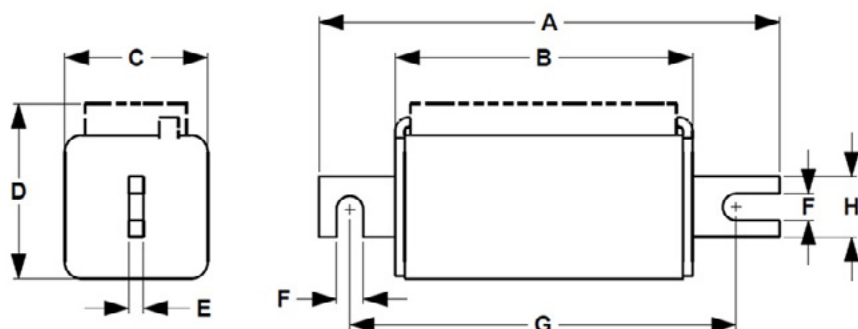
Fuse type - Fuse body size	A	B	C	D	E	F
180D - Size 24	146.2	228	100	120	105	M12

Dimensions (mm) - Flush end - Size 5



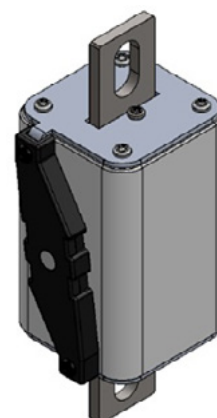
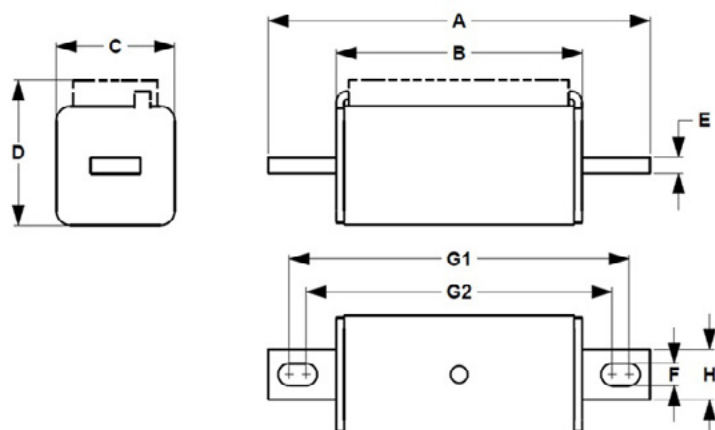
Fuse type - Fuse body size	A	B	C	D	E	F
CBMG - Size 5	158	159	62.5	174	90	M12

Dimensions (mm) - DIN 43653



Fuse type - Fuse body size	A	B	C	D	E	F	G	H
180D - Size 1	190	130	51	68	6	11	155.2	25
ESS2J - Size 2	185.3	125.5	59	80	6	11	153.3	25
180D - Size 2	202	140	61	75	6	11	168	25
180D - Size 3	190	131	73.5	88	6	11	155.3	30

Dimensions (mm) - US Bolted



Fuse type - Fuse body size	A	B	C	D	E	F	G1	G2	H
180D - Size 1	214	129	51	68	6	14.4	181.7	155.3	25
ESS2H - Size 2	191	125.5	59	80	6	11	170	153	25
180D - Size 2	223	140	61	75	6	14.4	194	167	25
ESS3 - Size 3	212	143.1	74.5	90	6	11	188.5	164.5	40
180D - Size 3	214	131	73.5	88	6	16	183	155.1	36

Struggling to find the right fuse for your application?



Eaton's Field Applications Engineers are able to draw upon more than 100 years of fuse design knowledge to fully meet your application needs and ensure you can rely on the best in class electrical circuit protection solutions.

As the trend towards clean energy continues to drive new technologies in renewable energy generation, energy storage, electrical transportation and the adoption of DC technology throughout wider industries, the demand for customised fusing products has only increased.

Our Application and Design Engineers located at R&D centres in North America, Europe and Asia can leverage over 100 years of fuse design and application experience along with our in-house test labs to meet any customised solution requests for **Eaton's Bussmann series fuses**.

Our services include:

- New current/voltage ratings
- Design to meet I2t requirements
- Customised mounting connection and plating materials
- Modify indicator locations/ add or remove indicators
- Special end connections
- Acquire UL/IEC/CCC/CSA certificates
- Customised testing such as shock vibration
- Higher breaking capacity testing

Contact us today:

For general fuse enquiries: buletechnical@eaton.com

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EATON

Powering Business Worldwide

We make what matters work.

Eaton is an intelligent power management company dedicated to protecting the environment and improving the quality of life for people everywhere. We make products for the data center, utility, industrial, commercial and institutional, machine building, residential, aerospace and mobility markets. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power - today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're helping to solve the world's most urgent power management challenges and building a more sustainable society for people today and generations to come. Founded in 1911, Eaton has continuously evolved to meet the changing and expanding needs of our stakeholders. With revenues of \$27.4 billion in 2025, the company serves customers in 180 countries

For more information, visit [eaton.com](https://www.eaton.com). Follow us on [LinkedIn](#).



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