

Industry leading breakers and switches for direct current applications



The Eaton DC breaker family is engineered to address the highest performance requirements while providing numerous accessories to fit different site specifications. Today's direct current applications have expanded to include solar photovoltaics, electric vehicle charging stations, battery storage and UPS systems, as well as commercial and industrial DC distribution.

Advantages

Applying more than 80 years of circuit breaker innovation, Eaton provides reliable circuit protection for DC applications ranging from 15 A to 3000 A that emphasize:

- Reliable operation
- Robust performance
- Enhanced safety
- Improved sustainability

Reliable operation, enhanced safety

Eaton breakers meet or exceed rigorous quality standards established by UL® and provide premium quality and reliability. The DC breaker family is UL 489 Listed and exceeds the requirements in UL 489 Supplement SC for UPS applications. Eaton breakers are tested for use in both ungrounded and select grounded applications, with poles connected in series to operate at the maximum voltages shown in the table on **Page 2**.

Sustainability

Protect your system with a sustainable solution. Unlike non-resettable devices, circuit breakers are reusable after clearing an electrical fault. Once the condition that created the electrical fault has been identified and fixed, the circuit breaker can be reset without the cost, labor and inventory associated with replacing non-resettable devices such as fuses. Moreover, there is no need to dispose of hazardous materials when circuit breakers are used.

Robust performance

Eaton DC breakers have a contact design that forces the contact arms apart with magnetic repulsion during fault conditions. Thermal-magnetic trip units provide reliable overload and superior short-circuit protection and are engineered to protect the wire and the equipment downstream of the circuit breaker from damage.

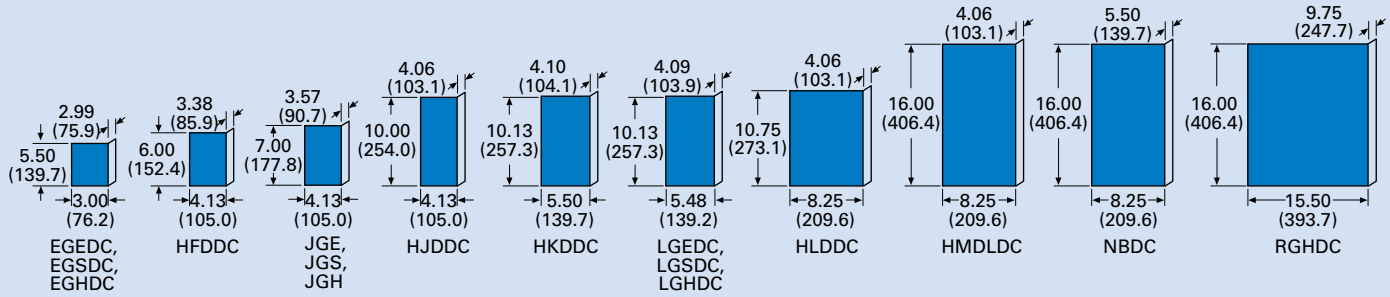
Available features and accessories

- Horizontal or vertical mounting
- Shunt trip
- Auxiliary switch
- Bell alarm
- Combination alarm / auxiliary switch
- Undervoltage release
- Handle mechanisms
- Padlockable handle lock hasp
- Electrical operators



Powering Business Worldwide

500 Vdc or 600 Vdc three-pole dimensions in inches (millimeters)



UL® 489 interrupting capacity

Circuit Breaker Type	UL 489		Interrupting Capacity (kA)							
	Minimum Amperes	Maximum Amperes	125 Vdc	Poles in Series	250 Vdc	Poles in Series	500 Vdc	600 Vdc	Poles in Series	Molded-Case Switch
EGEDC	25	100	10	1	35	2	35	—	3	Available
EGSDC	25	100	35	1	42	2	50	—	3	Available
EGHDC	25	100	42	1	50	2	65	—	3	Available
HFDDC	15	225	42	1	50	2	—	42	3	Available
JGEDC	70	250	35	1	35	2	—	35	3	Available
JGSDC	70	250	42	1	42	2	—	50	3	Available
JGHDC	70	250	50	1	50	2	—	65	3	Available
HJDDC	70	250	42	1	50	2	—	42	3	Available
HKDDC	100	400	42	1	50	2	—	42	3	Available
LGEDC	250	600	22	1	22	2	—	35	3	Available
LGSDC	250	600	22	1	22	2	—	50	3	Available
LGHDC	250	600	50	1	50	2	—	65	3	Available
HLDDC	300	600	42	1	50	2	—	35	3	Available
HLDDC ①	600	1200	42	1	50	2	—	—	—	Available
HMDLDC	300	800	42	1	50	2	—	35	3	Available
NBDC	700	1200	50	1	50	2	—	50	3	N/A
RGHDC	1600	3000	50	1	50	2	—	65	3	Available

① Four-pole frame with two poles wired in parallel.

DC breaker terminal wire ranges and rear connectors

Circuit Breaker Frame	Maximum Breaker Amperes	Terminal Body Material	Wire Type	AWG Wire Range / Number of Conductors	Metric Wire Range (mm ²)	Number of Terminals Included	Standard Terminal Catalog Number
EGEDC, EGSDC, EGHDC	100	Aluminum	Cu/Al	14–1/0	2.5–50	3	3TA125EF
HFDDC	20	Steel	Cu/Al	14–10 (1)	2.5–4 (1)	3	3T20FB
	100	Steel	Cu/Al	14–1/0 (1)	2.5–50 (1)	3	3T100FB
JGEDC, JGSDC, JGHDC	225	Aluminum	Cu/Al	4–4/0 (1)	25–95 (1)	3	3TA225FD
	250	Stainless steel	Cu	4–350 kcmil	25–185	1	T250FJ
HJDDC	250	Aluminum	Cu/Al	4–350 kcmil (1)	25–185 (1)	1	TA250KB
HKDDC	225	Aluminum	Cu/Al	3–350 kcmil (1)	35–185 (1)	1	TA300K
	350	Aluminum	Cu/Al	250–500 kcmil (1)	120–240 (1)	1	TA350K
	400	Aluminum	Cu/Al	3/0–250 kcmil (2)	95–120 (1)	3	3TA400K
LGEDC, LGSDC, LGHDC	400	Aluminum	Cu/Al	2–500 (1)	35–240 (1)	1	TA350LK
	630	Aluminum	Cu/Al	2–500 kcmil (2)	35–240 (2)	1/3	TA632L / 3TA632LK
HLDDC	500	Aluminum	Cu/Al	3/0–350 kcmil (2)	95–150 (2)	1	TA602LD
	600	Aluminum	Cu/Al	400–500 kcmil (2)	185–240 (2)	3	3TA603LDK
HMDLDC	600	Aluminum	Cu/Al	1–500 kcmil (2)	—	1	TA700MA1
	800	Aluminum	Cu/Al	3/0–400 kcmil (3)	—	1	TA800MA2
NBDC	700	Aluminum	Cu/Al	3/0–400 kcmil (3)	95–185 (3)	1	TA1000NB1
	800	Aluminum	Cu/Al	3/0–400 kcmil (3)	95–185 (3)	1	TA1000NB1
	900	Aluminum	Cu/Al	3/0–400 kcmil (3)	95–185 (3)	1	TA1000NB1
	1000	Aluminum	Cu/Al	3/0–400 kcmil (3)	95–185 (3)	1	TA1000NB1
	1200	Aluminum	Cu/Al	4/0–500 kcmil (4)	120–240 (4)	1	TA1200NB1
RGHDC (rear connectors)	1600	Copper	—	—	—	—	B2500RD
	2500	Copper	—	—	—	—	B2500RD
	2000	Copper	—	—	—	—	B2500RD
	3000	Copper	—	—	—	—	B3000RD

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