

LV POWER BREAKERS

MAGNUM DS LOW VOLTAGE POWER CIRCUIT BREAKERS

Highest ANSI Interrupting and Short Time (Withstand)
Ratings in the Industry



Cutler-Hammer

EATON

MAGNUM DS™ LOW VOLTAGE POWER CIRCUIT BREAKERS



New through-the-door design provides clear and safe access to the trip unit and all breaker controls and indicators. Even breaker levering is accomplished with the breaker compartment door closed.



Secondary contacts are located at the top providing for easy access. Primary disconnects are safely located at the rear of the breaker.



Electrical accessories are plug-in mounted in special cavities, saving installation time and cost. Unique windows in the breaker cover enable accessories to be quickly viewed by name and rating.

Highest Interrupting and Short Time (Withstand) Ratings... in the Smallest Physical Size

Design innovations provide opportunities that are unique in an ANSI power breaker:

- A system design that can withstand larger available fault currents, increasing system reliability.
- Improved coordination with downstream devices, increasing system uptime.
- Elimination of limiters in most instances, reducing cost and floor space.
- Smaller switchgear footprint, reducing floor space.

Highest ANSI Ratings Available Without Current Limiters

- Up to 100 kA at 600 V AC interrupting capacity.
- Up to 100 kA 1.0 second at 600 V AC short time (withstand) capacity.

Breaker Cassette

- Integrally designed breaker cassette for drawout breakers provides clear indication of connect, test and disconnect positions.

Only Two Physical Frame Sizes

- Six continuous current frame sizes, 800 through 5000 amperes, are covered by two physical sizes that have the same heights and depths.

Amperes	Dimension – Inches		
	H	D*	W
800-3200	16.40	15.40	16.30
4000-5000	16.40	15.40	34.20

*Drawout breaker with finger clusters.

MAGNUM DS WITHOUT CURRENT LIMITERS Breaker Ratings at 240, 480 and 600 Volts

Maximum Amperes	Breaker Designation	Interrupting Rating	Short Time Rating
800	MDS-408	42 kA	42 kA
	MDS-608	65 kA	65 kA
	MDS-808	85 kA	85 kA
	MDS-C08	100 kA	85 kA
1600	MDS-616	65 kA	65 kA
	MDS-816	85 kA	85 kA
	MDS-C16	100 kA	85 kA
2000	MDS-620	65 kA	65 kA
	MDS-820	85 kA	85 kA
	MDS-C20	100 kA	85 kA
3200	MDS-632	65 kA	65 kA
	MDS-832	85 kA	85 kA
	MDS-C32	100 kA	85 kA
4000	MDS-840	85 kA ^①	85 kA
	MDS-C40	100 kA ^①	100 kA
5000	MDS-850	85 kA ^①	85 kA
	MDS-C50	100 kA ^①	100 kA

^① Interrupting rating is 130 kA at 240 volts.

Rigid Frame Housing

- Provides the strength and stability required by an operating mechanism during arc interruption.
- Thermoset composite resin housing provides excellent structural properties, dielectric strength, and arc track resistance.

Two-Step Stored Energy Mechanism

- Energy is held in waiting to close the breaker in 5 cycles or less. Energy required to open the breaker is always pre-stored following a closing operation.
- After closing, the charging spring can be recharged to provide energy for reclosing after a fault for high continuity of service.

Ease-of-Maintenance

- Visual contact wear indicator shows when contact replacement is necessary.
- Stored energy mechanism, control devices, accessories, and secondary contacts are easily and safely accessible (in the withdrawn and disconnect positions) by removing the front cover.

A Selection of Trip Units Provide Expanded Protection and Information Capabilities

- A new family of proven, industry-leading Cutler-Hammer Digitrip RMS Trip Units.
- Accuracy of 1% of metered values and 2% of energy and power.

MAGNUM DIGITRIP TRIP UNITS

Functions	220	520	520M	1150
LSIG Protection	Yes ^①	Yes	Yes	Yes
Disable (I)	No	Yes	Yes	Yes
GF Protection	No	Yes	Yes	Yes
GF Alarm	No	No	Yes	Yes
Display	No	No	Yes ^②	Yes ^③
Programmable	No	No	No	Yes
Metering	No	No	Yes ^④	Yes
Power and Energy Values	No	No	No	Yes
Power Quality	No	No	No	Yes
Communication	No	No	No	Yes

^① Long and Instantaneous only.

^② One-line, (four characters per line) LCD display.

^③ Three-line, (eight characters per line) LED display.

^④ Phase, neutral, ground, and high load current only.

100 Percent Rated... Meets or Exceeds ANSI and UL Standards

- Magnum DS Breakers are 100 percent rated, UL listed, and are built and tested in an ISO 9000 certified facility to applicable standards including ANSI C37.13, C37.16, C37.17, C37.50, NEMA SG3, and UL 1066.
- Suitable for use in UL 1558 LV Switchgear.
- Suitable for use in UL 891 LV Switchboards.
- Suitable for use in UL CSA 22.2.31 LV Assemblies.

Global Applications

For information and specifications on Magnum Circuit Breakers designed to meet global standards, please contact your local Cutler-Hammer representative.

More Information

Additional literature about this innovative next generation product is available from authorized Cutler-Hammer distributors or sales engineers.

For more information on Cutler-Hammer products and services, call 1-800-525-2000 or 1-732-417-5660, or visit our website at www.cutlerhammer.eaton.com

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