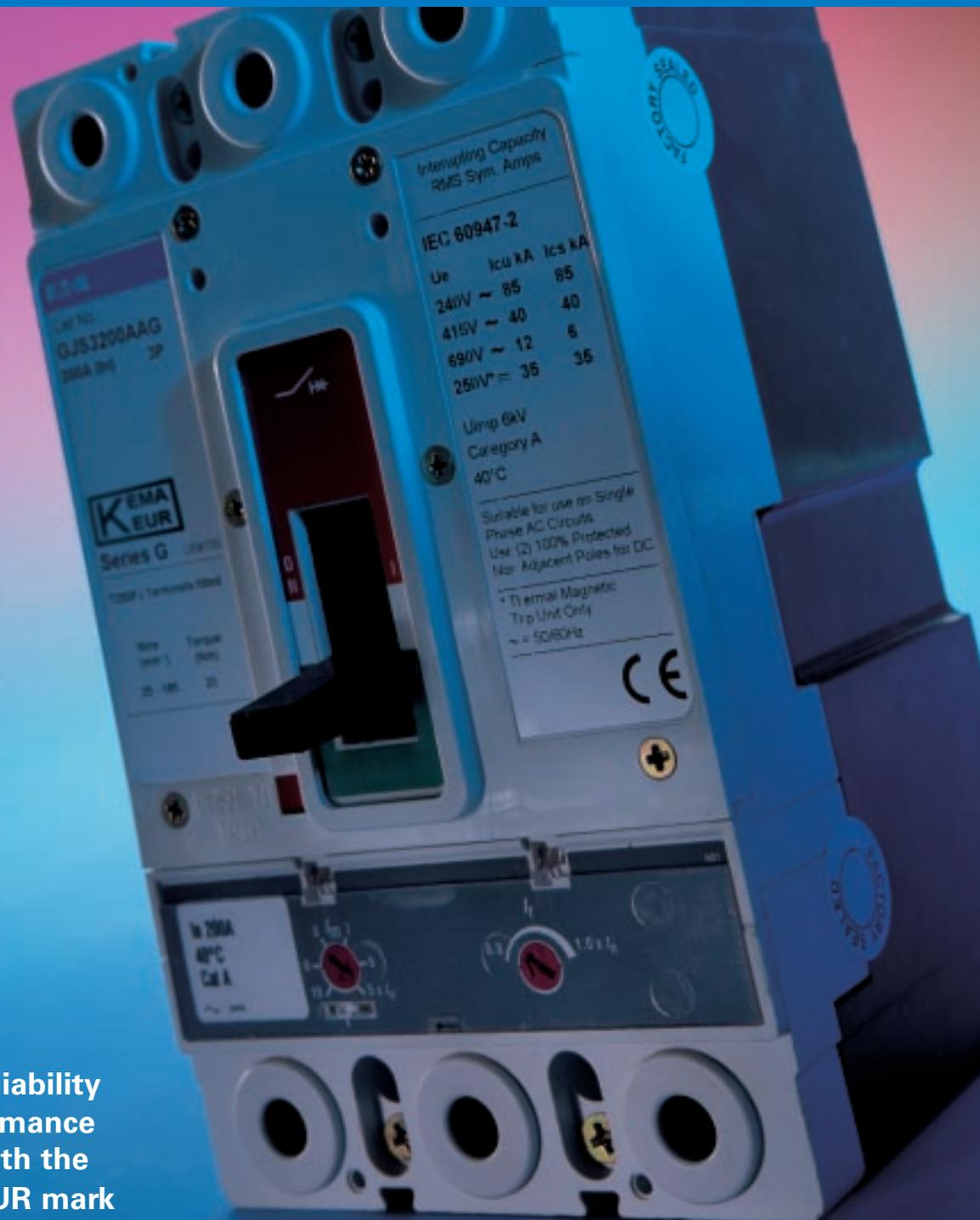




Series G Moulded Case Circuit Breakers

Product Focus

- Up to 690 Vac
- 18kA to 100kA I_{cu}
- 16-2500 Amperes
- IEC 60947-2



Safety, Reliability
and Performance
verified with the
KEMA KEUR mark



Safety, Reliability and Performance.

Endorsed by third party witness testing and certified in compliance with IEC 60947-2, and other global standards.

Continuous follow-up witness test programmes that re-assure safety, reliability and performance as endorsed by the KEMA KEUR mark.



Moulded Case Circuit Breakers in only five frame sizes covering ratings from 16 to 2500 amperes have been designed to meet:



One of our globally located component assembly centres working to Eaton's Business System processes to ensure safety, reliability and performance of the Series G Moulded Case Circuit Breakers are built-in and delivered on time, every time.

- The application and discrimination considerations of the specification and consulting engineers
- The product selection, delivery and panel assembly lead times of the electrical equipment builder
- The different cable termination options and the quick on-site accessory installations demanded by site contractors
- The safety, reliability and performance requirements of lifelong service essential to facility or equipment owners.



Eaton's frame size GE, KEMA certified, 160A circuit breaker, one of five sizes covering ratings from 16 to 2500 amperes and interrupting capacities up to 100kA and voltages up to 690V AC.

Innovation

As with all Eaton products, every part undergoes the most stringent testing and review during the development and production stages to ensure critical performance factors are built-in. You can be assured, in a system where reliability and performance is paramount; the Series G Moulded Case Circuit Breaker will consistently perform to IEC 60947-2.

Series G utilises a patented contact conductor design, this feature is a high-speed "opening force" action that results in superior performance when high level fault currents produce extraordinary electromechanical forces.

Unmatched flexibility

While meeting IEC 60947-2 and other global standards these breakers provide unmatched flexibility by employing a wide variety of thermal magnetic and electronic trip units with earth leakage options. They are calibrated to 40°C ambient as standard with higher temperature calibrations available.



Global circuit protection solutions...that's Series G Moulded Case Circuit Breakers from Eaton



Certification marks assure product compliance with standards via the third party witnessing of tests by globally recognised, independent certification organisations. KEMA is a highly recognised, completely independent international organisation that offers certification and inspection facilities for equipment in many industries. The KEMA-KEUR mark is the highest certification an electrical product can receive from KEMA.



Only five frame sizes - any number of applications. Eaton's Series G range of Moulded Case Circuit Breakers provides safe and reliable protection to every application, anywhere in the world.

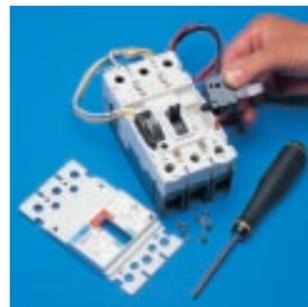
From the main distribution board to the final load, Eaton's moulded case circuit breakers are designed for applications, anywhere in the world. The Series G range gives complete system protection across all levels, including overload protection of the transformer secondary.

The modular design and construction of Series G makes it the breaker of choice. Its in-built flexibility helps reduce inventory costs, and during the design and build stage, changes in requirements can be made later in the project without consequential delays to the critical path of completion.

Speed and responsive service

Eaton's Component Assembly Centres have been conceived with speed and responsiveness to service in mind. Components are quickly configured to meet individual project requirements. This provides late point definition of individual MCCB's resulting in short order lead times – saving time and cost.

With all Series G MCCB's, installation, maintenance and modification can be easily carried out with access from the front, using standard tools. This modular design approach means that cost-intensive downtimes can be considerably minimised – providing extremely valuable cost-savings.



The design also ensures that maintenance is simple too, as individual components can be exchanged quickly on site. With a range from 16A to 2500A in 5 frame sizes, Series G is a truly a global family of Moulded Case Circuit Breakers.



A complete family of accessories

Series G flexibility is enhanced with a wide range of internal and externally mounted accessories that complements the family of moulded case circuit breakers.

Plug-in internal accessories are common for the first three frame sizes covering 16 – 630 Amps and have been certified for on-site installation.

Plug-in accessories include:

- Alarm switch
- Auxiliary switch
- Shunt trip
- Low energy shunt trip
- Under voltage release mechanism

An extensive line of operating accessories provides indirect electrical or manual circuit breaker operations, these include:

- Electrical (solenoid) operator
- Motor driven electrical operator
- Rotary handle
- Variable depth handle mechanism
- Flexible shaft handle mechanism



Whether bench, or field installed, all accessories are easily located from the front of the breaker. Plug-ins are certified for on-site installation and are simple to fit and remove. Terminal shields are available for 1, 2, 3, & 4-pole breakers.



Plug-in adaptors are available providing front removal and rear cable connections for 3 and 4 pole breakers.

The Series G Earth Leakage devices are field-installable and self-powered. Features include adjustable earth leakage pick-up, adjustable time delay, status indication, earth fault alarm contacts, push to test and push to trip.

Unparalleled protection and monitoring

Eaton's family of electronic trip units offer unparalleled protection and monitoring. These units provide long delay, short delay, instantaneous and earth fault protection. Curve shaping, system diagnostics and system monitoring with communications available to create the ultimate higher level energy management and system protection solutions.



Electrical Characteristics

Frame Sizes GE through GL

Frame size	GE				GJ				GL					
Maximum Rated Current (Amperes)	125				160	125	250		400, 630					
Breaker Type	B		E		S	H		S		H		C ^①		
Number of Poles	1	2, 3		1	3, 4		3, 4	3, 4		3, 4		3, 4		
Breaking Capacity (kA rms) ac 50 – 60 Hz														
IEC 60947-2	220 – 240 Vac	I _{cu}	18	25	25	35	85	100	85	100	200	85	100	200
		I _{cs}	12	13	13	18	43	50	85	100	150	85	100	150
	380 – 415 Vac	I _{cu}	—	18	—	25	40	70	40	70	100	50	70	100
		I _{cs}	—	12	—	13	30	35	40	70	75	50	70	75
	660 – 690 Vac	I _{cu}	—	—	—	—	4	6	12	14	20	20	25	35
		I _{cs}	—	—	—	—	3	3	6	7	10	10	13	18
	250 Vdc ^②	I _{cu}	10	10	10	10	35	42	35	42	42	22	42	42
		I _{cs}	10	10	10	10	35	42	35	42	42	22	42	42
Ampere Range	16 – 160 A				20 – 250 A				100 – 630 A					
Trip Units F= Fixed A= Adjustable T= Thermal M= Magnetic	FT-FM AT-FM				AT-AM Electronic (Digitrip RMS 310)				AT-AM Electronic (Digitrip RMS 310)					
Thermal Magnetic	Fixed Thermal	■				—				—				
	Adjustable Thermal	■				■				■				
	Magnetic	Fixed				Adjustable				Adjustable				
Electronic rms ^③	LSI	—				■ ^③				■ ^③				
	LSIG	—				■ ^③				■ ^③				
Dimensions mm	1-Pole 2-Pole 3-Pole 4-Pole	H	W		D		H	W	D	H	W	D		
		139.7	25.4		81.1		—	—	—	—	—	—		
		—	50.8		—		—	—	—	—	—	—		
		—	76.2		—		177.8	105.0	87.4	258.0	140.0	104.0		
		—	101.6		—		—	135.6	—	—	183.0	—		
Weight (approximate) kg	1-Pole	2-Pole	3-Pole	4-Pole	3-Pole	4-Pole	3-Pole	4-Pole						
	0.5	0.9	1.4	1.8	5.2	7.0	7.3	9.1						
Utilisation Category	A				A				A					

- ① Contact your Eaton representative for availability.
 ② Two poles in series.
 ③ Not suitable for dc application. 4-pole earth fault not available.
 ■ Available
 — Not Available

Frame Sizes GN & GR

Frame size	GN				GR								
Maximum Rated Current (Amperes)	800, 1250				1600	1600, 2000, 2500							
Breaker Type	S		H		C		S		H		C		
Number of Poles	3, 4				3, 4				3, 4				
Breaking Capacity (kA rms) ac 50 – 60 Hz													
IEC 60947-2	220 – 240 Vac	I _{cu}	85	100	200	85	135	200					
		I _{cs}	85	100	100	85	100	100					
	380 – 415 Vac	I _{cu}	50	70	100	50	70	100					
		I _{cs}	50	50	50	50	50	50					
	660 – 690 Vac	I _{cu}	20	25	35	20	25	35					
		I _{cs}	10	13	18	10	13	18					
	250 Vdc	I _{cu}	—	—	—	—	—	—					
		I _{cs}	—	—	—	—	—	—					
Ampere Range	400 – 1250 A				1600 A	800 – 2500 A							
Trip Units	Electronic (Digitrip RMS 310)				Electronic (Digitrip RMS 310, 610 and 910)								
Electronic ^③	LSI	■ ^③				■ ^③							
	LSIG	■ ^③				■ ^③							
Dimensions mm	1-Pole 2-Pole 3-Pole 4-Pole	H	W		D		H	W	D				
		—	—		—		—	—	—				
		—	—		—		—	—	—				
		406.0	210.0		140.0		406.0	394.0	229.0				
		—	280.0		—		—	508.0	—				
Weight (approximate) kg	3-Pole		4-Pole		3-Pole		4-Pole						
	21.3		28.3		47.0		54.0						
Utilisation Category	A				A								

- ③ Not suitable for dc application. 4-pole earth fault not available.
 ■ Available
 — Not Available



Request your Product Guide for full specification and selection information on Eaton's Series G range of Moulded Case Circuit Breakers and accessories.

The Eaton Series G family includes five frame sizes in ratings from 16 – 2500 Amperes, with a choice of several interrupting capacities up to 100kA at 415 Volts ac.

- Field-fit accessories
- Common accessories through 630 Amperes
- Electronic Trip Units from 20 – 2500 Amperes
- Earth Leakage Modules
- Built-in earth fault-protection down to 20 Amperes



Eaton's Electrical business is a global leader in electrical control, power distribution, and industrial automation products and services. Through advanced product development, world-class manufacturing methods, and global engineering services and support, Eaton's Electrical business provides customer-driven solutions under brand names such as Cutler-Hammer®, Durant®, Heinemann®, Holec® and MEM®, which globally serve the changing needs of the industrial, utility, light commercial, residential, and OEM markets. For more information, visit www.EatonElectrical.com.

Eaton Corporation is a diversified industrial manufacturer with 2003 sales of \$8.1 billion. Eaton is a global leader in fluid power systems and services for industrial, mobile and aircraft equipment; electrical systems and components for power quality, distribution and control; automotive engine air management systems and powertrain controls for fuel economy; and intelligent drivetrain systems for fuel economy and safety in trucks. Eaton has 54,000 employees and sells products to customers in more than 100 countries. For more information, visit www.eaton.com.

Eaton Electric Limited
Reddings Lane
Birmingham B11 3EZ
United Kingdom

Customer Support Centre
Tel: +44 (0)8700 545 333
Fax: +44 (0)8700 540 333
email: ukcommorders@eaton.com

Eaton Electric NV
PO Box 23
7550 AA Hengelo
The Netherlands

Customer Support Centre
Tel: +31 (0)74 246 7066
Fax: +31 (0)74 246 7070
email: c-heuropesupport@eaton.com

