

Application Information

You Have a Choice in Protection



Hydraulic-Magnetic

- Precision Custom Calibration
- Requires No Derating (100% Rated)
- Ambient Compensating (-40°C to +85°C)
- Immediate Reset After Fault
- Broad Range of Integral Internal Accessories
- Provides Equipment and Wire Protection



Fuse Protection

- No-Reset Capability
- Fuses Degrade Over Time
- Protection Effected by Ambient Temperature
- Requires More Panel Space
- No Accessories Available
- Provides Equipment and Wire Protection



Thermal-Magnetic

- Fixed Calibration Band, Wide Variation
- Device Must be Derated to 80% Load
- Protection Effected by Ambient Temperature
- Requires "Cooling-Off" Period
- Accessories in Multi-Pole Devices Only
- Provides Basic Wire Protection

Nuisance Tripping Eliminated

Heinemann hydraulic-magnetic circuit breakers offer three major advantages:

- *Elimination of nuisance tripping* caused by high ambient temperatures in or near the installation. The breaker responds only to current variations, not to temperature change.
- *Continuous operation at 100% current.* There is no such assurance with a thermal device, which may fail to carry rated current when subjected to above normal ambient temperatures. A Heinemann breaker rated at 20 amperes, for example, will sustain 20 amperes, even at elevated temperatures. Derating and other forms of temperature compensation are unnecessary.
- *Immediate reset.* Since there are no thermal elements, heat build-up is not a factor. Therefore, no "cooling off" period is required after a fault.

Guaranteed Power Availability

Using a controlled time delay, Heinemann circuit breakers can eliminate nuisance tripping caused by transient current surges. In any installation where a power supply or compressor motor is on the line, an inrush of current occurs when the equipment is first turned on. The bigger the equipment, the larger the surge. Although inrush surges are, in fact, transient overloads, they usually pose no threat of damage to the line or the equipment. So, it's simply not necessary or even desirable to interrupt the power when they occur.

The hydraulically controlled time-delay mechanism of a Heinemann breaker eliminates nuisance tripping without reducing the overload protection. The delay is inversely proportional to the overload; response is quicker on large overloads where greater potential danger exists, and slower on small overloads. For sensitive electronic equipment, Heinemann breakers can be purchased with an instantaneous trip feature to prevent damage.

Precision Protection

The current rating of the hydraulic-magnetic circuit breaker is determined by the number of wire turns in the load sensing coil. By altering the number of turns and the wire size, Heinemann can provide a breaker of virtually any rating within the unit's overall current carrying range. Regardless of your needs, we can deliver custom equipment protection, even at fractional amperages.

Shock and Vibration

A precision, counterbalanced armature design prevents mechanical tripping due to shock and vibration. This makes the Heinemann family of products perfect anywhere shock and vibration are a concern. Some popular applications include railcars, mobile industrial equipment, generators and marine power distribution.

Global Ready

Heinemann breakers are tested to meet global certifications and standards including UL®, CE, VDE, TUV and CSA®.

Mission Control

With a variety of control and indicating options, the Heinemann line of circuit breakers allows you to take control of your complex operations. Available with integral remote trip coils and indicating contacts, Heinemann breakers can be integrated into your control logic. We also offer a lighted handle design that can allow operators to see breaker conditions at a distance.

Self-Adjusting

The time delay feature is self-adjusting to ambient temperature conditions. At high ambients where the overload tolerance of most circuits is lowered, the viscosity of the fluid in the breaker's dashpot is lessened, and the time delay is thereby shortened. At low temperatures, the response is correspondingly longer to allow for cold equipment startups.

Product Families

KD Series



TECHNOLOGY	POLES	VOLTAGE	CURRENT	INT. CAPACITY
Thermal	1	250 Vac	0.25 – 20 A	1 kA
		32 Vdc	0.25 – 15 A	0.2 kA
		50 Vdc	0.25 – 10 A	0.2 kA

A low-cost pushbutton supplementary protector for electrical equipment. Designed to fit a standard 5/8" round or "D" shaped panel cutout. With a variety of accessories, the KD Series is a perfect replacement for traditional panel-mounted fuse holders.

PROPAK Series



TECHNOLOGY	POLES	VOLTAGE	CURRENT	INT. CAPACITY
Hydraulic	1	250 Vac	0.1 – 20 A	1 kA
Magnetic	2	50 Vdc	0.1 – 20 A	1 kA
		72 Vdc	0.1 – 20 A	1 kA

Miniature single- or 2-pole circuit breaker available with paddle or rocker handle. Available with or without illumination and a variety of internal accessories including auxiliary switches and remote tripping options. Carries UL 1077, CSA and VDE approvals.

J Series



TECHNOLOGY	POLES	VOLTAGE	CURRENT	INT. CAPACITY
Hydraulic	1	125 Vac	0.2 – 50 A	1 kA ¹
Magnetic	2	250 Vac	0.1 – 50 A	5 kA ¹
		415 Vac	0.1 – 30 A	1.5 kA ¹
	4	32 Vdc	0.1 – 50 A	5 kA
		72 Vdc	0.1 – 30 A	2 kA
		80 Vdc	0.1 – 20 A	1 kA

¹ With series fuse.

Small lightweight hydraulic-magnetic circuit breaker perfect for telecom and marine applications. Available in ratings from 0.1 – 50 amperes, the J Series offers a variety of options including snap-in mounting and rocker style handles. The compact size of the J Series makes it well suited for applications where space comes at a premium.

SPHM Series



TECHNOLOGY	POLES	VOLTAGE	CURRENT	INT. CAPACITY
Hydraulic	1	250 Vac	0.1 – 63 A	5 kA
Magnetic	2	480/277 Vac	0.1 – 30 A	3 kA
		80 Vdc	0.1 – 63 A	5 kA
	4			

The SPHM Series Circuit Breaker snaps easily onto a standard 35 mm DIN rail. This saves valuable installation time. Available with a wide range of accessories, the SPHM Series is the perfect alternative to DIN-rail mounted fuse blocks.

AMR Series



TECHNOLOGY	POLES	VOLTAGE	CURRENT	INT. CAPACITY
Hydraulic	1	120/240 Vac	0.2 – 30 A	10 kA ²
Magnetic	2	250 Vac	0.1 – 100 A	3 kA ²
		277 Vac	0.2 – 20 A	10 kA ³
	4	480 Vac	0.1 – 30 A	3 kA ³
		80 Vdc	0.1 – 100 A	5 kA
		125 Vdc	0.1 – 100 A	5 kA

² 5 kA with series fuse.

³ With series fuse.

Ultra-high interrupting circuit breaker for single- or multi-pole applications. The AMR Series delivers significant performance advantages in a compact package. Available as a UL 489 listed device, suitable for branch circuit protection, the AMR can be used in a wide variety of applications, including lighting and power distribution equipment. Also carries UL 1077, CSA and TUV approvals.

Frame
Information
KD Series



KD Series

Resettable Pushbutton
Circuit Protector

- Provides basic thermal protection.
- Ratings from 0.25 – 20 amperes.
- UL recognized.

The KD Pushbutton Circuit Protector provides circuit protection similar to a fuse but does not require replacement after a fault. This resettable design allows your customer to stay online and eliminate downtime.

Easy Installation

The KD Series is easily installed in a 5/8" round or D-Shaped panel cutout similar to that used on conventional panel-mounted fuse holders. It can be mounted from either the front or rear and is held in place by special hardware. Its 1/4" quick-connect terminals are solderable.

Industry Approvals

The KD Series has been tested to meet the requirements of UL 1077, and is recognized as a supplemental protector by UL. We also carry CSA approval for applications in Canada.

Positive Action

The KD Pushbutton Circuit Protector trips without delay on short circuit, and with a controlled delay upon sustained overloads upon tripping, the contacts open with a positive snap action, thereby suppressing the arc.

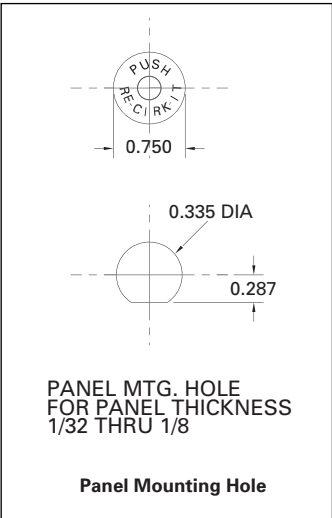
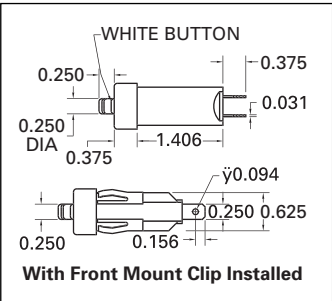
Protective Covers

For applications where equipment may be exposed to dust or moisture, protective boots are available. Two styles are available, one which protects the breaker from splashing water and another which seals the panel opening.

To order the slip-on boot, choose Catalog Number 006-10469 or for a panel sealing version, purchase Catalog Number 006-10528.

Standard Product Offering	
CURRENT	CATALOG NUMBER
0.25 A	KD1-0R25
0.50 A	KD1-0R50
0.75 A	KD1-0R75
1.00 A	KD1-1
1.50 A	KD1-1R5
1.75 A	KD1-1R75
2.00 A	KD1-2
2.50 A	KD1-2R5
3.00 A	KD1-3
4.00 A	KD1-4
5.00 A	KD1-5
6.00 A	KD1-6
7.00 A	KD1-7
8.00 A	KD1-8
9.00 A	KD1-9
10.00 A	KD1-10
15.00 A	KD1-15
20.00 A	KD1-20

Typical Dimensions



Accessories

