



AR and AP Series

Description:

Eaton Heinemann hydraulic-magnetic circuit breakers are reducing your total cost of ownership by avoiding down time on nuisance tripping and optimizing the cross section of cables. This enhances your reputation and improves your profitability over time.



Benefits:

Eaton Heinemann circuit breakers avoid nuisance tripping caused by:

- High starting current on motor start or capacitive circuits
- Derating of tripping value due to ambient T° variations
- Interferences caused by long wiring acting like antenna
- Chock and vibrations

In addition they offer a proven longevity and are maintenance free.

Additional features:

- In-Rush capabilities (8x - 15x - 22xIn) in standard
- Auxiliary contacts: single (SPDT) or double (DPDT), protected or not on same pole
- Mid-Trip and alarm switch options with or without test button
- Different types of handles (toggle short, long, illuminated or rocker standard, flat, protected or not)
- Large choice of terminals (stud, plug-in, fast-on, screw...)
- Circuit breakers for traction application are delivered with special washers and HFR nuts

Series characteristics

- The Eaton Heinemann AR series is hydraulic-magnetic circuit protector up to 100A in both DC and AC applications
- AR series allows a very precise and reliable current overload and short circuit protection in a compact size, benefiting from all advantages for the hydraulic-magnetic technology
- AR series is available in multi-poles version (up to 4) with an unique assembly where trip mechanisms are internally coupled. As a result, any fault on one of the coupled poles will simultaneously open all poles and allow an efficient and reliable protection of multi phases circuits
- The Eaton Heinemann AP series is a high current hydraulic-magnetic circuit protector for DC applications from 101A up to 300A
- Its unique parallel assembly design allows a very precise current overload and short circuit protection in a very compact size, benefiting from all advantages for the hydraulic-magnetic technology
- AP series is equipped with standards or customized Busbars to better address your requirements

Performance:

- Electrical protection from 0.1 to 100 amperes up to 125 VDC and 480 VAC for AR and from 101 to 300 amperes up to 80 VDC in AP configuration interrupting capacity up to 10 000 amperes
- Large choice of delay curves and internal circuit
- Fixed current tripping value between -40°C and +80°C
- Compliance with last standards such as NF EN 45545 for fire and smoke
- UL, VDE, CSA, CE, GOST and CCC approved

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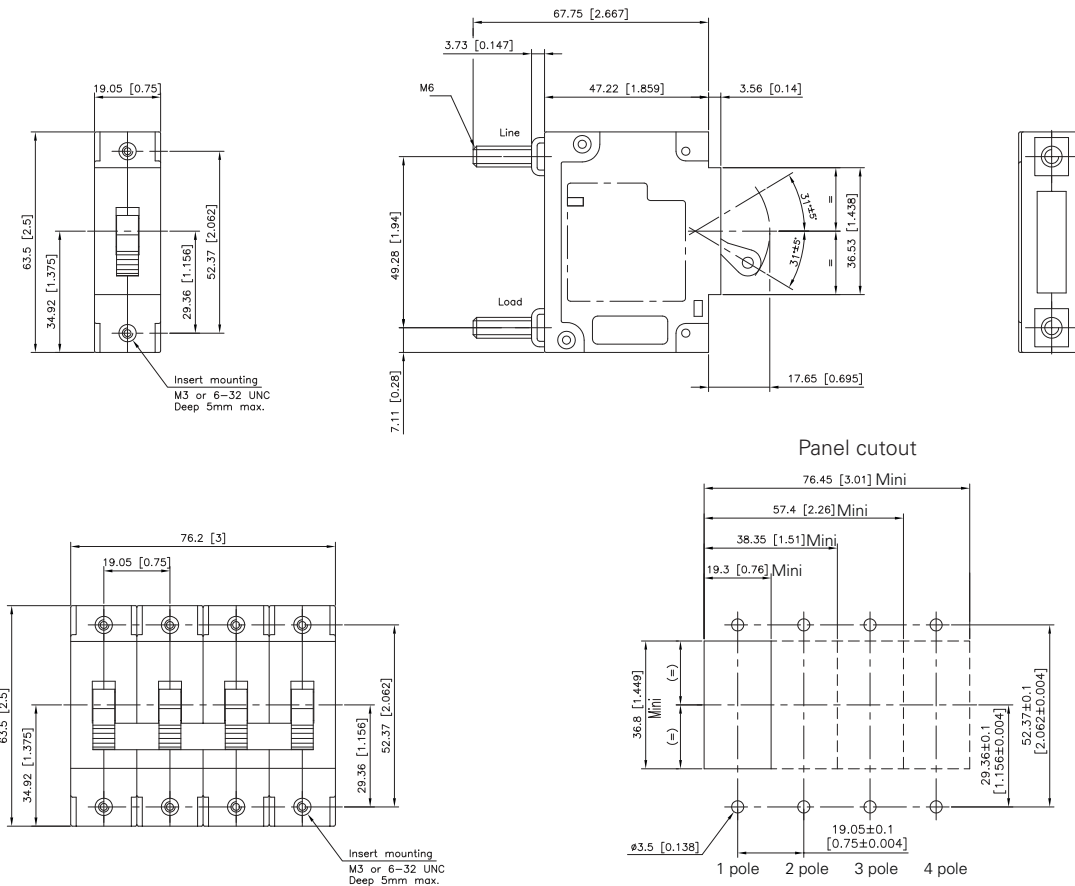
Electrical characteristics

Parameter	Detail	
Rating	DC: 0.1 - 100A (300A for AP) AC: 0.1 - 100A	
Voltage range	DC: 125 Vdc AC: 480 Vac	
	80 Vdc: 100A 125 Vdc: 50A	
Breaker ratings	250V 50/60/400 Hz: 100A 415V 50/60 Hz: 50A 480V 50/60 Hz: 30A	
	80 Vdc: 10 kA 125 Vdc: 5 kA 120V 50/60 Hz: 5 kA	
	Interrupting capacity	250V 50/60 Hz: 5 kA 277V 50/60 Hz: 5 kA 415V 50/60 Hz: 5 kA 480V 50/60 Hz: 3 kA
	Dielectric strength	3750 Vac 50/60 Hz
Insulation resistance	100 MΩ @ 500 Vdc	

Trip specification

Parameter	Detail
Trip options	Series, shunt, relay, remote trip off (Ducon), switch, dual-rating
Trip delay	Instantaneous, short, medium, long delay
High inrush	50Hz : 8x, 15x, 22xIn

Product sizes



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Operating conditions, standards and approvals

Code	Detail
Operating temperature	-40°C to +85°C (-40°F to +185°F)
Shock	IEC 600a68-2-27, MIL-STD-202 method 213
Vibration	IEC 60068-2-6 MIL-STD-202 method 204
Humidity	IEC 60068-2-78, MIL-STD-202 method 103
Approvals	UL, CE, VDE, CSA, CCC
Approvals - Rail	NFF, IEC, ASTM, Bombardier SMP, Boeing BSS, SNCF,GOST
Auxiliary contacts	C-NO-NC, Simple or double both protected or not-protected
Mid Trip	Optional

Physical characteristics

Parameter	Detail
Poles	4 poles for AR (3 poles in // for AP)
Dimensions WxHxD (per pole)	19 x 63.5 x 67 mm
Weight / pole	95 g

Mounting, Handle, Terminals

Parameter	Detail
Mounting styles	Front, Snap-in
Handle	Toggle, rocker, flat rocker, illuminated
Power terminals	Bullet, stud, fuse or screw terminals
Power connection	Rear

Note: Technical information may differ by product variation, please contact your Eaton representative for more detailed information. In the interests of continual product improvement all specifications are subject to change without notice.