

Series NRX™

Low voltage power circuit breaker

For low voltage distribution applications



Powering Business Worldwide

Protection, you can count on....

Trust Eaton, whose market leading technologies in circuit protection offer you the peace of mind you've been looking for.





Finding accurate, reliable, and safe protection for your electrical system and personnel is your number one priority. With a complete portfolio of circuit protection products, including low and medium voltage circuit breakers, you can feel confident that whatever the application, Eaton has the solution.

**Now you can do far more.
For far less.**

Introducing the Series NRX Low Voltage Power Circuit Breaker - A major breakthrough of minor proportions.

Here's what you know: You have a limited amount of space and resources, a desire to expand your operation, and a constant need to upgrade your electrical systems.

This is what you will find out: Eaton's Series NRX low voltage power circuit breaker is designed to help you get much more out of what you have, while making expanding and upgrading much easier.

The Series NRX gives you the performance of a power circuit breaker - 65 kA interrupting - in the compact size of a molded case breaker. It offers you the protection and features of a power circuit breaker - along with increased flexibility - at a portion of the size.



Maintain, with little maintenance

The most important part of managing your process, facility or specific application is managing the equipment you rely on to keep you up and running. What if you could maintain peak efficiency while spending less time and money on maintenance?

Now you can with the Series NRX power circuit breaker from Eaton Corporation.

The Series NRX is tested to 20,000 mechanical operations and 10,000 electrical operations – significantly higher than third party standards, such as UL and IEC, require or the capabilities of equivalent products on the market. Free up your maintenance personnel to do what needs to be done, instead of spending valuable time inspecting and maintaining the breakers in your system.

Because it is most often used in switchgear and switchboards, it's important that it be easily accessible during scheduled gear and board maintenance. The cassette fold-up design (patent pending) allows you to inspect parts and add accessories or renewal parts without removing the cassette from the switchgear cell. The design of the breaker and cassette enables full use of the breaker handle and cassette rails with a gloved hand, allowing electricians to remain in the appropriate PPE protective gear.

The breaker handle's ergonomic design also maximizes functionality and leverage across 7 complete strokes (with an average of 21 lbs of force) - charging the breaker quickly and easily, and making it easier to cycle when needed during commissioning or scheduled maintenance.

The ability to maintain without everyday maintenance... a concept made possible by the **Series NRX**.



Much more than expected in a much smaller footprint



In today's manufacturing environment, available space for new or retrofit equipment is a precious commodity. When building space is at a premium, or when system upgrading requires additional functionality, equipment dimensions can present a challenge. In fact, studies have shown that space savings can have a value of up to \$4000 per square meter depending on the application. The compact size and broad capabilities of the Series NRX make it the right choice for applications where space savings is a priority.

The small size of the Series NRX, coupled with a variety of connection options, gives you the ability to efficiently layout distribution equipment. And, the one frame size reduces drawing conversion, structure integration time, and parts inventory for board, gear and machinery applications.

The reduced weight of the Series NRX makes it easier to handle during start-up and scheduled inspection. A three-pole, fully-populated drawout breaker weighs only 53 lbs / 24 kg!

If you could mount two times as many feeder breakers in your enclosure or reduce your enclosure by 50%, why wouldn't you switch?

Giving you the protection you need in a significantly smaller footprint.

That's a huge step forward.



800A Magnum® Standard

Height: 20.64 in / 524.3 mm
Width: 17.05 in / 433.1 mm
Depth: 21.95 in / 557.5 mm
Volume: 7724 cu in / .126 cu meters
Weight: 285 lbs / 129.97 kg



800A Magnum® Narrow

Height: 20.64 in / 524.3 mm
Width: 13.23 in / 336 mm
Depth: 18.67 in / 474.2 mm
Volume: 5098 cu in / .083 cu meters
Weight: 168 lbs / 76.2 kg



800A Series NRX

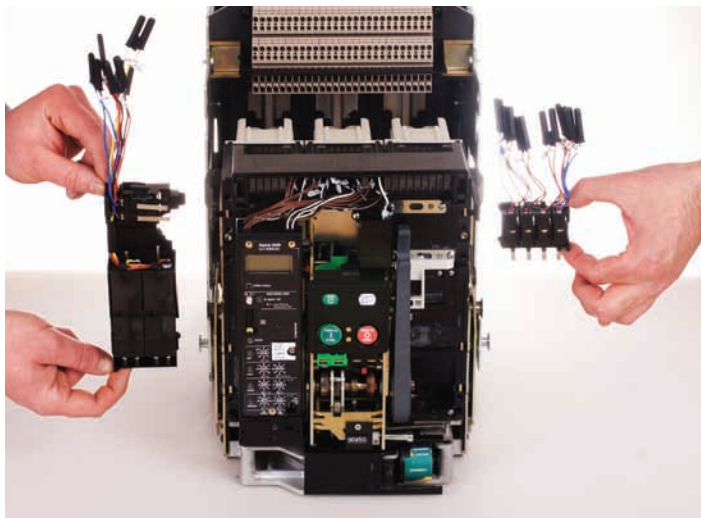
Height: 14.18 in / 360.2 mm
Width: 10.02 in / 254.5 mm
Depth: 10.69 in / 271.5 mm
Volume: 1519 cu in / .025 cu meters
Weight: 85.2 lbs / 38.65 kg



Series C® and Series G®

Height: 16 in / 406.4 mm
Width: 8.25 in / 209.6 mm
Depth: 5.5 in / 139.7 mm
Volume: 726 cu in / .012 cu meters
Weight: 46.8 lbs / 21.2 kg

More than just a breaker....



Have you been on a job site for product installation or start-up and realized that the breakers were ordered with the wrong accessories due to a last minute specification change? Eaton knows that it's more than just the breaker you need – you need the correct accessories, built for quick and easy field installation.

Series NRX accessories can be quickly installed at the job site, without any special tools. Each breaker comes standard with an accessory tray – the needed accessories simply plug and lock into the tray.

A full range of trip units, ranging from basic protection (LSI or LSIG) to metering, system diagnostics, protective relay functions, and communications, complement the breaker offering. Two of the trip unit models also include Eaton's Arcflash Reduction Maintenance System™, built to reduce arc flash energy on a downstream unit during system maintenance.

Wherever your job site is, Series NRX provides the accessories you need, when you need them.

The ideal partnership between breaker and gear

What about achieving as much as a 50% size reduction in the floor space supporting your switchgear? Whether you are building your own gear, or buying it from Eaton, the Series NRX breaker is the perfect match for your low voltage power distribution applications.

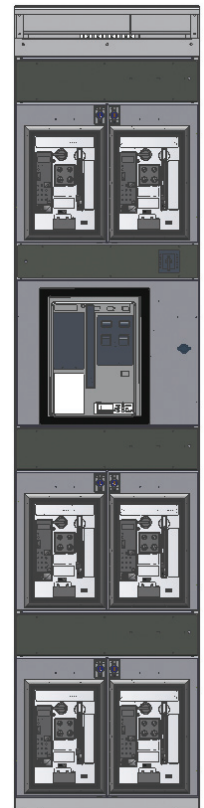
The small size – 10" wide x 10.7" deep x 14.2" high (254mm x 272mm x 360mm) – of the Series NRX allows for much higher densities of power circuit breakers in a structure – up to eight breakers in a 24" (600mm) wide structure!

Multiple cable and bus connection options enable quick and flexible integration. Options include cable termination, front or rear bus connection in both drawout and fixed mounted styles. Tension clamp secondary contact terminations allow for quick connection of control wiring, reducing wiring time and costs.

When communications are required, the Series NRX uses breaker mounted modules – Modbus, Profibus, Ethernet or Eaton's INCOM – saving space and time compared to discrete, panel-mounted modules used by many manufacturers today.

It's all about effective integration. With the Series NRX, you can effectively double the feeder breakers within your existing enclosure. Fitting within UL 1558, UL 891 and IEC 60439 enclosures, the Series NRX gives you a fully capable solution.

A solid partnership between breaker and gear – Series NRX is what you've been waiting for.





Important Features of the Series NRX Power Circuit Breaker

- UL1066, UL489 and IEC Ratings from 800-1600 amperes

- Up to 65 kA interruption at 480 VAC and 42 kA short time withstand ratings

- Small size allows for easy integration into new and existing structures

- One frame size reduces drawing conversion, structure integration time and parts inventory

- Multiple cable and bus connection options enable quick and flexible integration into switchgear and switchboards

- Breaker charging handle can charge springs in 7 strokes using the right or left gloved hand

- A wider contact gap improves fault interruption and open circuit isolation capabilities to extend contact life

- Electronic trip unit innovation, including Arcflash Reduction Maintenance System and breaker mounted communication modules

- Easy to install shutters for cassettes/cradles

- Easy to install breaker accessories

Magnum Switchgear with Series NRX Breaker Integration

- Up to (8) 800 ampere UL 1066 circuit breakers in a 24"/600mm wide UL 1558 switchgear assembly

- Up to (8) 1200 ampere UL 489 circuit breakers in a 24"/600mm wide UL 891 switchboard assembly

- Interlocking runback supports allow 2 NRX breakers to be mounted side-by-side in a 24"/600mm Magnum MDS enclosure

- Series NRX breakers can be combined with Magnum MDS/MWI and MDN/MWN breakers in a single assembly, providing increased flexibility in layout design

UL1066 RATINGS

Continuous Current Rating (Amps)	800
Short Circuit Rating (kA)	
254 Vac	85
508 Vac	65
635 Vac	35
Short Time Withstand (kA)	42

UL 489 RATINGS

Continuous Current Rating (Amps)	800	1200
Short Circuit Rating (kA)		
240 Vac	85	85
480 Vac	65	65
600 Vac	42	42
Short Time Withstand (kA)	42	42

IEC 60947-2 RATINGS

Continuous Current Rating (Amps)	630 & 800		1000 & 1250		1600	
	Icu	Ics	Icu	Ics	Icu	Ics
Short Circuit Rating (kA)						
240/254 Vac	85	50	85	50	85	50
415/435 Vac	65	50	65	50	65	50
690/725 Vac	42	42	42	42	42	42
Short Time Withstand = Icw (kA)	42	42	42	42	42	42

CIRCUIT BREAKER DIMENSIONS IN INCHES (MM) AND WEIGHTS IN LBS (KG)

		Height	Width	Depth	Weight
Fixed	3-Pole	13.18 (334.8)	8.25 (209.6)	7.15 (181.6)	33.58 (15.23)
	4-Pole	13.18 (334.8)	11.00 (279.4)	7.15 (181.6)	44.40 (20.14)
Drawout with Cassette	3-Pole	14.18 (360.2)	10.02 (254.5)	10.69 (271.5)	85.20 (38.65)
	4-Pole	14.18 (360.2)	12.69 (322.3)	10.69 (271.5)	104.00 (47.17)

Eaton's Electrical Sector is a global leader in power distribution, power quality, control & automation and monitoring products. When combined with Eaton's full-scale engineering services, these products provide customer-driven PowerChain Management® solutions to serve the power system needs of the data center, industrial, institutional, government, utility, commercial, residential, IT, mission critical and OEM markets worldwide.

PowerChain Management solutions help enterprises achieve sustainable and competitive advantages through proactive management of the power system as a strategic, integrated asset throughout its life cycle, resulting in enhanced safety, greater reliability and energy efficiency.

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