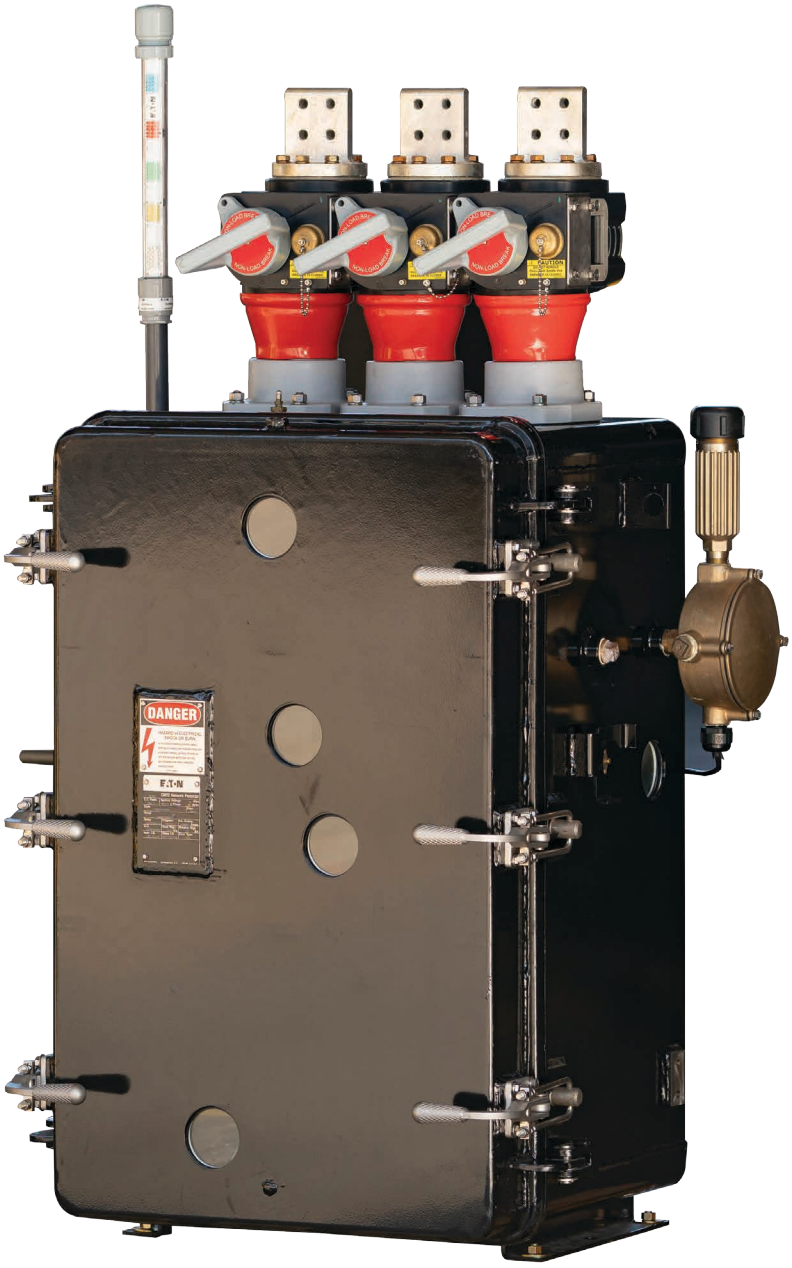
VisoBlock disconnect switch



Powering Business Worldwide

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General

Eaton's VisoBlock low profile disconnect switch was designed to provide total isolation and safety when working on a network system. Crews are never exposed to live components and no tools are required unlike other methods such as removing energized fuses or disconnecting a live link.

The conductors are completely isolated and self-contained within the confines of a special thermoset resin mold. Additionally, crews will never have to worry about inadvertent connection when a user is upstream because the connection rod is completely removable, the rods can be stored away and padlocked until the feeder is scheduled to be put back into service.

The design is non-load break, which means the network protector must be in the OPEN state before the connection rod can be withdrawn. The VisoBlock disconnect switch package comes with a Kirk-Key interlock kit that can be quickly placed on the associated network protector, regardless of type or vintage.

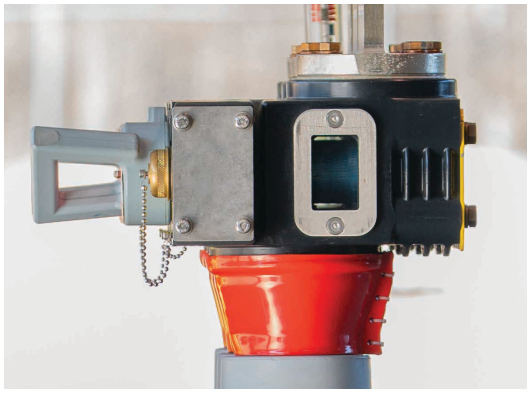
This insures the correct procedure is followed by forcing the user to place the handle of the network protector in the OPEN position. Only after this action, can the user gain access to the keys to unlock the disconnect rods for withdrawal. Each VisoBlock disconnect switch also has provisions for users to install a utility approved padlock.

VisoBlock disconnect switch packages include VisoBlock low profile disconnects, safety end caps for when rods are removed, network protector mounting adapters, molded insulated boots to cover adapters, and Kirk-Key interlock package for the network protector.

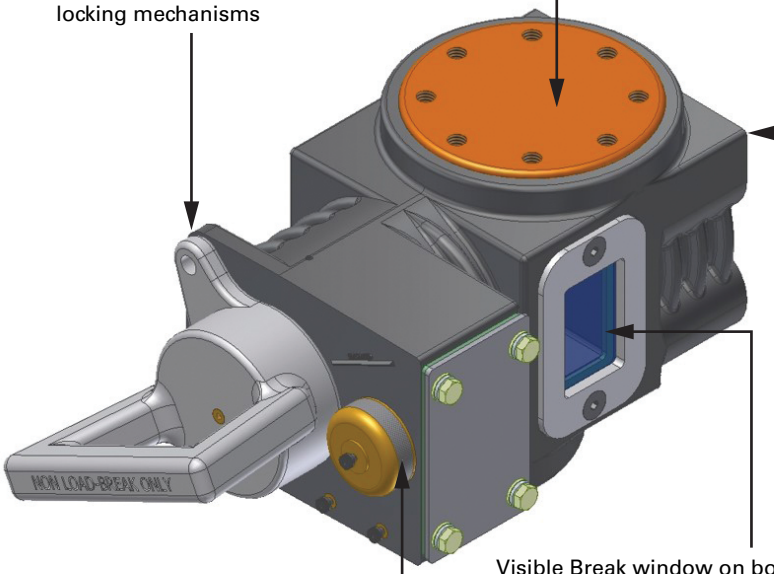
Design highlights

- Disconnect does not require the handling of energized components for isolation
- Completely self-contained with no exposure to live parts
- No tools or hook sticks required
- One model for amp ratings up to 3500A
- Visible break window for isolation or connection verification
- Submersible IP68 Rating
- Adapters available to fit any protector regardless of vintage or type
- Insulation boots for total isolation protection
- Kirk-Key interlocked to ensure that the protector is in the OPEN position before disconnected is removed
- Padlock provisions
- Can be separately mounted using vault wall bracket
- Low height profile
- Testing probes available to safely pull transformer and network voltages to a test set

VisoBlock disconnect switch front view



VisoBlock disconnect switch side view


Universal pad provides ability to install any base adapter and top terminal for connection to the VisoBlock disconnect switch
Padlock provisions. Allows users to install additional locking mechanisms
Low profile horizontal-contact design to meet the space constraints of most underground network vaults. Standard 7-inch height and submersible up to 15ft with a IP68 rating. Also available with wall mounting bracket
Visible Break window on both sides of the VisoBlock disconnect switch. Provides positive verification of open gap for all three phases when rods are removed
Submersible gasketed Kirk-Key cover

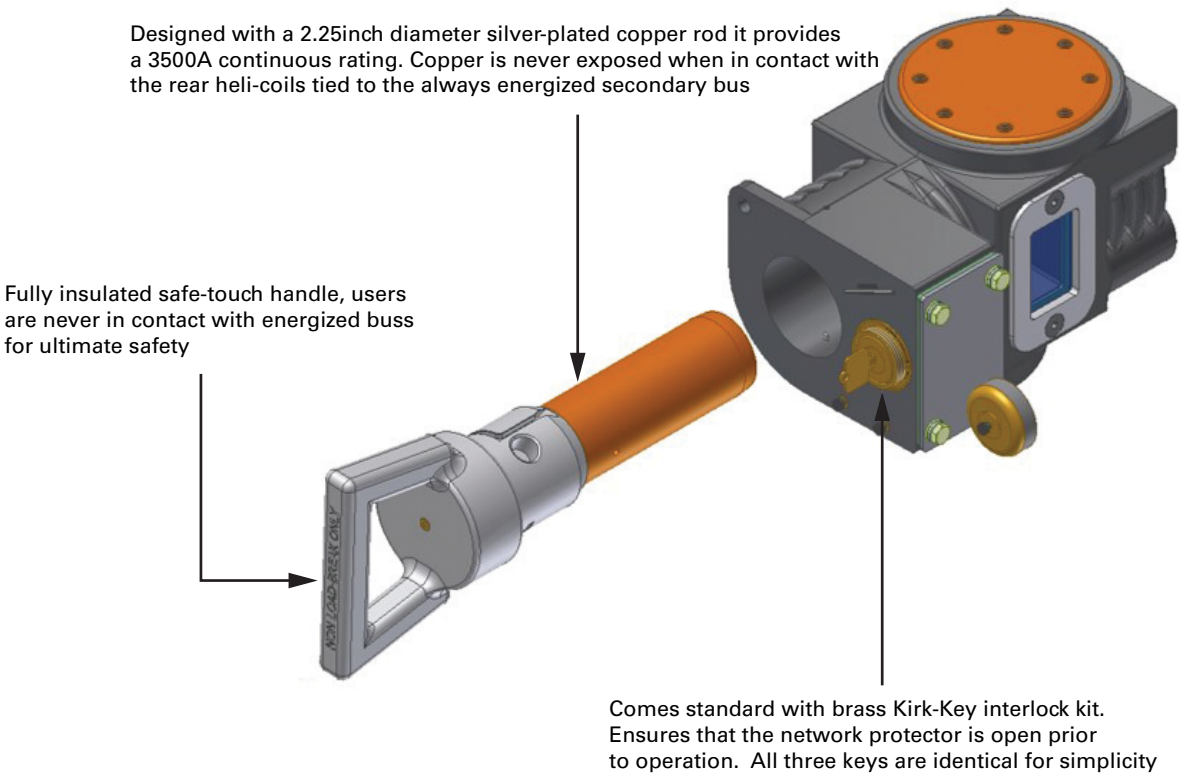
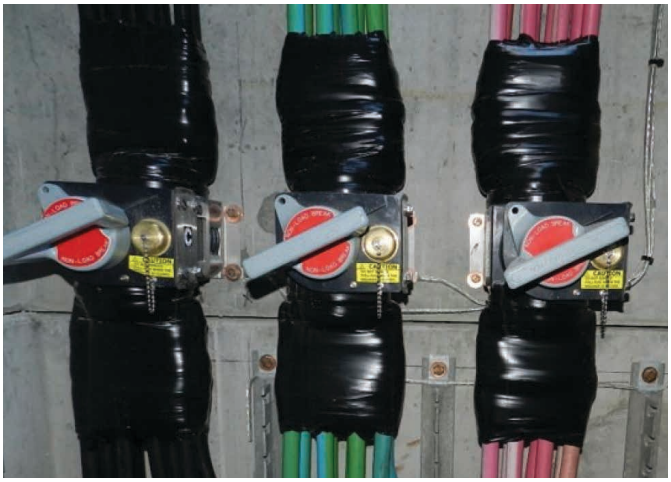

Designed with a 2.25inch diameter silver-plated copper rod it provides a 3500A continuous rating. Copper is never exposed when in contact with the rear heli-coils tied to the always energized secondary bus
Fully insulated safe-touch handle, users are never in contact with energized buss for ultimate safety
Comes standard with brass Kirk-Key interlock kit. Ensures that the network protector is open prior to operation. All three keys are identical for simplicity

Table 1. General specifications

Feature	Rating
Maximum design voltage (V)	600
Continuous current, 50/60 Hz (A)	3500
1s sym withstand rating (kA)	60
Momentary withstand, asym pk. (kA)	138
Submersible rating	IP68

Comparison summary of Eaton VisoBlock disconnect switch versus alternative options

Features	Eaton VisoBlock	Drop down link	Fuse removal
Provides visible break between network protector and network collector bus	√	√	√
Allows for easy retrofit to existing base of network protectors	√	√	√
Totally isolates the user, removes exposure of front facing live equipment	√	X	X
Removes the need to handle an energized component for isolation	√	X	X
Removes the need for tools or hook stick for operation	√	X	X
Insures the device can only be disconnected when the protector is in the open state mechanically interlocked with the network protector	√	X	X
Low profile design	√	X	X
Secure storage of isolating rod once removed; prevents re-energizing when worker is downstream	√	X	X
Ability to test LV bus without exposure to energized parts - available with safe-touch test probes	√	X	X
Comes with remote operation or available for future upgrade	√	X	X



Wall mounted VisoBlock disconnect switches

Network protector mounting on a CM52 1875A unit shown

Kirk-Key Interlocks

VisoBlock disconnect switch packages come standard with a Kirk-Key interlock system provided for user safety. The key block provided mounts to the network protector handle and keys can only be removed when the handle is on the OPEN position. Once the network protector is OPEN the keys can be removed and inserted into the VisoBlock disconnect switch for rod removal.

Each key is the same only for that set. The key block prevents anyone from moving the network protector handle while the VisoBlock disconnect switch rods are out. Key blocks are available for any make, model and vintage network protector. VisoBlock disconnect switches and Kirk-Key blocks can come installed from the factory when ordered with an Eaton network protector.

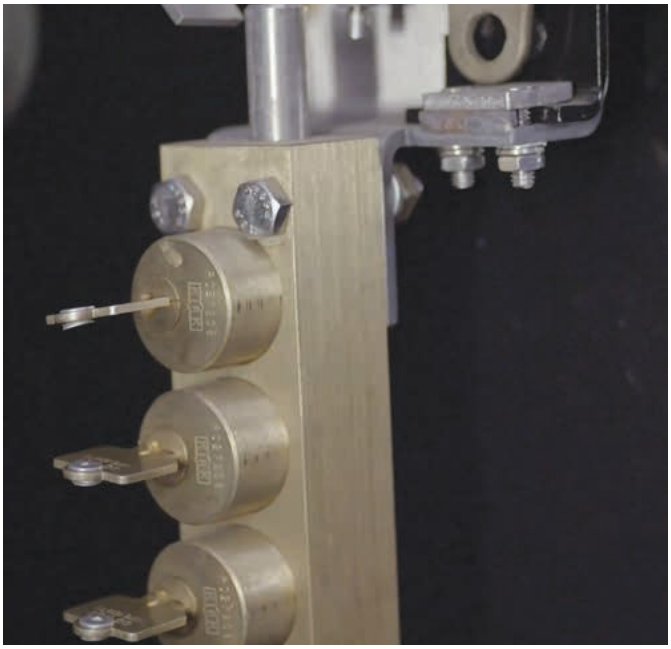


Figure 1 – Kirk-Key block side view CM52 shown

Figure 2 – Kirk-Key block assembly kit supplied to match network protector type

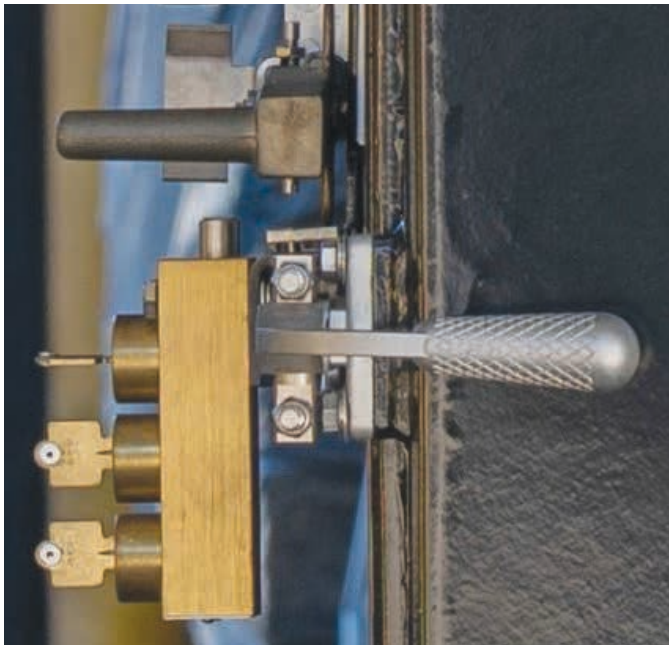


Figure 3 – Kirk-Key block front view CM52 shown

Standard VisoBlock disconnect switch packages contain the following:

(3) VisoBlock low profile disconnects

(3) Safety-end dust caps to cover rod removal during maintenance

(3) Base adapters for network protector mounting

(3) Molded insulated boots to cover base adapters (non-submersible applications)

(1) Kirk-key interlock package for the associated network protector

(3) Load side terminals as required for the application

(Lot) Associated mounting hardware

Note: VisoBlock disconnect switch packages are configured to customer specifications. Unit type or wall mount, base adapters, load side terminals and accessories should be specified at time of order.

Phasing and test rods

The VisoBlock low profile disconnect switch was designed to provide a safer method for isolating users when working on a network system. Additionally, the VisoBlock disconnect switch was designed for providing ease of maintenance and testing. The phasing and test rod allows crews to more safely test and check for proper phasing on the network protector without touching any energized parts. The phasing test rod is a fully insulated rod that pulls isolated source and load side voltages to two safe-touch ports on the front of the rods. These functions can also be performed with the network protector door closed.

The network protector test kit can be powered from the network bus without the need for connecting clips to an energized bus. No exposure is needed when using the leads provided with the phasing test rod kit.

A carrying case can be provided for storage of the phasing and test rods and associated leads.

Figure 4 – Phasing and test rods

Figure 6 – Phasing and test rod set with carrying case

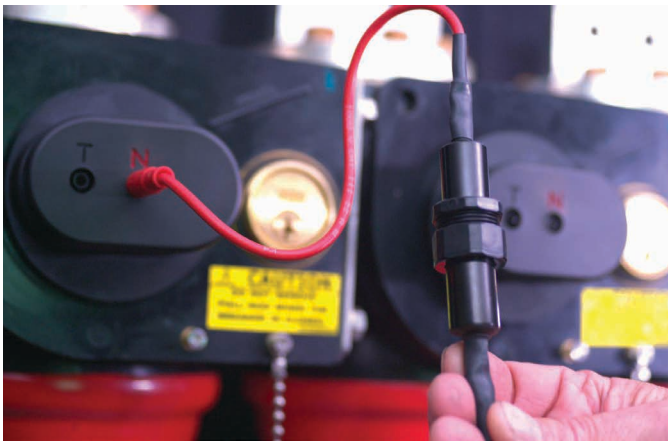


Figure 5 – Test lead used to power test set

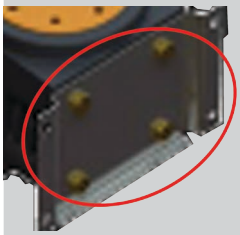
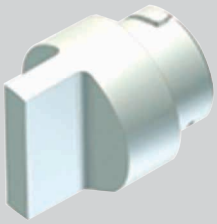
Figure 7 – Phasing test leads installed

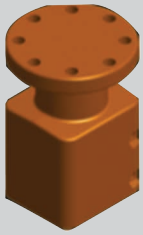
Accessories

VisoBlock disconnect switch packages are available with many options configured to work each user's specific installation requirements. Network protector base adapters should be selected to fit the user's specific bolt pattern and mounting requirements. Similarly, the load side connections should be selected to fit the specific requirements for making secondary terminations.

Accessories are available to provide ease of maintenance for installation and testing. Please see our standard offering of accessories in the following table. Please consult the factory if you have requirements outside of what is shown In the following table.

VisoBlock disconnect switch parts

Picture	Part number	Description
	NAS0549G01	VisoBlock Assembly (qty.1) Without Kirk-Key
	NAS549G03	VisoBlock set (qty. 3) Without Kirk-Key
	NAS0735G01	Separately mounted bracket kit Includes bracket and hardware for qty. 3 VisoBlocks (VisoBlock itself not included)
	NAS0752G01	Test probe set (qty. 3) w/ case
	NAS0609G02	Submersible plug assembly (qty. 3)
	NFX0055H01	Dust cap (qty. 1)
	NAS0750G02	Storage case only

Picture	Part number	Description
	690C292G09	4 hole NEMA spade terminal (qty. 1) Up to 2000A
	690C292G01	8 hole NEMA spade terminal (qty. 1) 2250A - 3500A
	NCU0248G01	Small stud terminal (qty. 1) Up to 2000A
	506B827G01	Large stud terminal (qty. 1) 2250A - 3500A
	NCU0232H05	Large adapter 3" (qty. 1) for legacy fix stud application
	NCU0232H06	Small adapter 1.5" (qty. 1) for legacy fix stud application
	NCU0232H07	Large base adapter (qty. 1) 2250A - 3500A Will fit Eaton and Richards/ETI Network Protectors

Picture	Part number	Description
	NCU0232H08	Small base adapter (qty. 1) Up to 2000A Will fit Eaton and Richards/ETI Network Protectors
	NFX0052H01	Small red boot (qty. 1)
	NFX0052H02	Large red boot (qty. 1)

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