VaultTech™ VisoBlock
Low Profile Disconnect Switch
Our commitment to help companies protect what they value most

Eaton is the leader in Network Solutions and has over a 90 year track record in secondary network systems. Our experience has lead us to develop innovative solutions to solve the arc flash concerns. Eaton understands that arc flash safety is tremendously important to businesses striving to protect their most valuable assets—their people. That’s why we’ve made a $500,000 contribution to the Institute of Electrical and Electronic Engineers (IEEE) and the National Fire Protection Association (NFPA) Arc Flash Phenomena Collaborative Research Project. As a platinum level sponsor of this important initiative, we will support efforts to improve electrical safety standards, predict the hazards associated with arcing faults and accompanying arc blasts, and provide safeguards for employees.

The Secondary Bus of a Network System is ALWAYS energized, so unless your customer is completely out of power, the hazards are real.

Did you know?
- That the secondary’s of networks are tied together and fed by multiple primary feeders
- That although accidents are rare in networks, that a mistake in networks, especially at the 480V level, often can lead to a catastrophic event
- That the fault current level could approach 200kA and beyond
- That the majority of accidents associated with Network Protectors involve the mis-handling of energized components such as links and fuses
- That live front protectors require the handling of energized components such as fuses or links just to perform maintenance or to provide isolation
- That the method today of handling live links and fuses is “up close and personal” typically within an 8”-12” inch user exposure window
- That the calorie and energy exposure can be much greater than commercially available PPE
- Eaton produces a comprehensive set of solutions for networks that meet or exceed the standards from NFPA 70E-2009 “Standard for Electrical Safety in the workplace”

The grid serves a dense load area and is nominally applied at a 216Y/125 Volt level. Normally, a Spot application serves a single load and is nominally served at a 480Y/277 voltage level. Although care must be given at any voltage level, at 480V/277, the arc is no longer self clearing and requires extreme care when working around associated equipment. In addition, the majority of 480Y/277 applications reside in underground vault space, this fact combined with the large amount of fault current availably make working in these environments challenging.

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VisoBlock, One size fits any Network Protector up to 3500 amps!

VisoBlocks installed on network protector, notice the visible break windows aligned for positive verifications across all 3 phases!
Superior protection to mitigate risks

Our mission…
To eliminate the need to handle energized links or components that could lead to arc flash hazards in secondary networks.

Our solution…
An innovative low profile disconnect called the VisoBlock that can be applied to any make or vintage Network Protector.

The VisoBlock was designed with total isolation and safety in mind. You are never exposed at any time to live components and never have to use tools to disconnect a live link.

The conductors are completely isolated and self contained within the confines of a special thermoset resin mold. Additionally, you 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 is withdrawn. The conversion kit comes with a Kirk-Key® key interlock kit that can be quickly placed on the associated Network Protector, regardless of type or vintage. This goes above and beyond just a warning label but 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.

Additionally, each VisoBlock has provisions for a utility padlock.
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 insure 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
- Heavy Duty O-Ring handle sealing versus a large flat gasket

What is included in a VisoBlock Disconnect Package?
(See Catalog Number Generation Cross-Reference for ordering instruction on last page)
- (3) VisoBlock Low Profile Disconnects
- (3) Safety End Caps to cover rod removal
- (3) Adapters for Network Protector mounting
- (3) Molded insulated boots to cover adapter
- (3) Disconnect Rod Nameplates
- (1) Kirk-key interlock package for Protector

Design features
- A Network Side Always Energized Rear Connection (Spade or Stud) can be bolted in place.
- B Network Protector Connection Pad (Adapters are used to fit any Network Protector)
- C High Thermal Helical Connection Contacts @ 100+% IACS
- D Visual Break Window
- E Copper Connection Rod
- F Heavy Duty O-Ring Handle Seal
- G Fully Insulated Pull Handle
Adaptability

The VisoBlock is designed to work with any Network Protector regardless of Vintage or Model.
Optional VisoBlock Accessories

Submersible End Caps for Extended isolation in harsh environments

This Vault Rod Storage Cabinet is made to quickly store multiple rods in vault environment; the cabinets are shallow, padlock able and made from non-corrosive SST

VisoBlocks can be separately mounted! A wall provision fixed plate can be mounted to the (4) threaded inserts on the back of the VisoBlock.

Never have to touch a live bus again in order to Test your Protectors!

These adapters fit into place after the rods are removed and has an outlet to accept a Network Protector test kit cable with special male adapters (provided with kit) for total isolation and risk mitigation. This design will work with any Network Protector Test Set.
Remote VisoBlock Accessories

VisoBlocks are available with a remote operating mechanism. The design allows operators to OPEN or CLOSE the secondary disconnect remotely through a pendant or SCADA control. The system comes with a separate power supply/status module that can be easily mounted externally to the network protector. Indicating lights are provided for status indication.

Conversion kits are available for systems that already have standard VisoBlocks installed.

- Heartbeat indicates operating mechanism is energized
- Trouble indicates operating mechanism did not complete command
- Closed indicates close status position
- In Motion indicates operating mechanism is performing command
- Open indicates open status position

The power supply also provides indication of the three-phase set.
How to Order- VisoBlock Secondary Disconnect Kit

PICK Codes from Tables Below

VB _______ _______ _______ _______

Step 1: Existing Network Side Terminator Type (Determines Adapter)

<table>
<thead>
<tr>
<th>Description</th>
<th>Comments</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>Removable Stud /Spade Terminal</td>
<td>CM-22, CM-52, CMD</td>
<td>RT</td>
</tr>
<tr>
<td>Fixed Stud</td>
<td>CM-22 or GE</td>
<td>FD</td>
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<tr>
<td>Fixed Spade</td>
<td>CM-22 or GE</td>
<td>FS</td>
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<tr>
<td>Separately Mounted Version</td>
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Step 2: Amperes (Determines Adapter Size)

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<th>Description</th>
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<tr>
<td>800A-2000A</td>
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<td>SM</td>
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<td>2250A-3500A</td>
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<td>LG</td>
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Step 3: Kirk Key Unit Type

<table>
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<tbody>
<tr>
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<td>GE</td>
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<td>Separately Mounted Version</td>
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Step 4: Options

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<tr>
<th>Description</th>
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<tr>
<td>Test Kit Adapter Rod Kit</td>
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</tr>
<tr>
<td>Vault Wall</td>
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<td>S</td>
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<tr>
<td>Handle Storage Unit</td>
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<td></td>
</tr>
<tr>
<td>Submersible End Caps</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Remote VisoBlock Operator and Power Supply*</td>
<td></td>
<td>R</td>
</tr>
<tr>
<td>Remote VisoBlock Conversion Kit*</td>
<td></td>
<td>RC</td>
</tr>
</tbody>
</table>

*Test kit adapter rods, handle storage kit, or submersible end caps not available with Remote VisoBlock.

Example A
I have an older 3000A CM-22 Protector that the external stud network termination is one piece
• Style Number VB-FD-LG-22-T

Example B
I have a 1875A CM-22 built in 1990 that has a removal top spade on the secondary bushing
• Style Number VB-RT-SM-22

Example C
I have a 2500A CMD protector and I wanted the test kit adaptors, submersible end caps and the vault rod storage unit
• Style Number VB-RT-LG-MD-TSC

Example D
I have a 1875A CM-52 protector that has a spade terminal and I want to have remote operation functionality
• Style Number VB-RT-SM-52-R

Example E
I already have VisoBlock installed on my protector and want to add remote operation functionality
• Style Number VB-XX-XX-XX-RC

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