

WARNING

1. RISK OF ELECTRICAL SHOCK!
2. Disconnect before servicing.
3. Service to be performed by qualified personnel only.



APEX IMAX HT

HT-AO-IMAX Series

INSTALLATION INSTRUCTIONS



Thank you for your recent purchase of our surge protection solution. Your satisfaction with our product and service is important to us. If you have any questions, comments or concerns, please contact us at 800.882.9110 or visit our website at transtector.com. We look forward to continuing to serve your protection needs.

HT-IMAX-M Rev B
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HT-AI-IMAX Series

Installation Instructions

The HT-AI-IMAX-120 suppression cabinet is designed to provide EMP protection for equipment and facilities per Department of Homeland Security (DHS) and the Alliance for Telecommunications Industry Solutions (ATIS) guidelines, and have been tested for survivability to the peak threat levels of the harsh Early Time (E1) and Intermediate Time (E2) High-Altitude (HEMP) environments as defined in MIL-STD-188-125.

The HT-AI-IMAX-120 suppression cabinets utilize high-power, solid-state Silicon Avalanche Suppression Diodes (SASD) in conjunction with Metal Oxide Varistors (MOV) to provide robust, non-degrading protection against nominal transients. These cabinets are intended for use in 120/240VAC single phase, or 120/208VAC three phase systems.

MOUNTING

The HT-AI-IMAX-120 suppression cabinets feature a metal enclosure with 2 mounting tabs (See Figure 1) designed to accept 1/4" hardware. The cabinets are intended to be installed after a service panel or transfer switch using an external disconnect.

Refer to Figure 1 for mechanical mounting requirements for wall space and adequate door clearance.

WIRING

The HT-AI-IMAX-120 suppression cabinet must be installed by a licensed electrician and/or qualified personnel! The device is intended to be wired in parallel with the load or electrical system wiring as shown in Figure 2. Compression lugs are provided inside the cabinet for the phase, neutral & ground connections; all lugs should be torqued to 27ft-lb for proper installation. It is recommended that all wiring entering and exiting the enclosure be housed in grounded metal conduit to maintain the integrity of the containment of high energy transient events. All four (4) latches must be securely fastened for the suppression cabinet to operate as intended for high energy transient events.

TROUBLESHOOTING

Status indicator lights are visible through the front panel to provide visual indication of module functionality. The HT-AI-IMAX-120 suppression cabinet also includes remote annunciation circuitry using form C isolated relay contacts which are factory configured series/parallel with all modules interconnected to a single connector for ease of monitoring the status of the entire Imax suppressor. Relay contact positions are identified in a power applied state with the three terminal positions NO-C-NC as indicated on the PCB.

EXTERNAL DISCONNECT

It is recommended that the suppressor be installed off a dedicated disconnect, molded case switch or circuit breaker with a minimum 60 Amp rating. This provides a safe means for electrical system power up or disconnect. The disconnect means should be sized for use with the appropriate gauge wire for the application and fault current rating of the power distribution system components. Using the recommended disconnect means, in addition to minimizing wire length between the disconnect and the protector, will ensure that the disconnect does not nuisance trip during extreme HEMP or lightning events.

GROUNDING

Proper grounding is critical for adequate HEMP protection. Keep ground wire as short as possible between the surge protector ground and the site grounding point. Less than 3 feet, #6 AWG stranded wire is recommended for optimum performance. To maintain shielding effectiveness, grounded EMI tight conduit must be used. Refer to local codes and equipment manufacturers standards before installation.

USAGE AND MAINTENANCE

The suppression cabinet should be scheduled for periodic inspection to ensure the cabinet is operational and all wire connections are tight. Disconnect power prior to inspection and maintenance. If the suppression cabinet is damaged, contact Transtector for replacement.

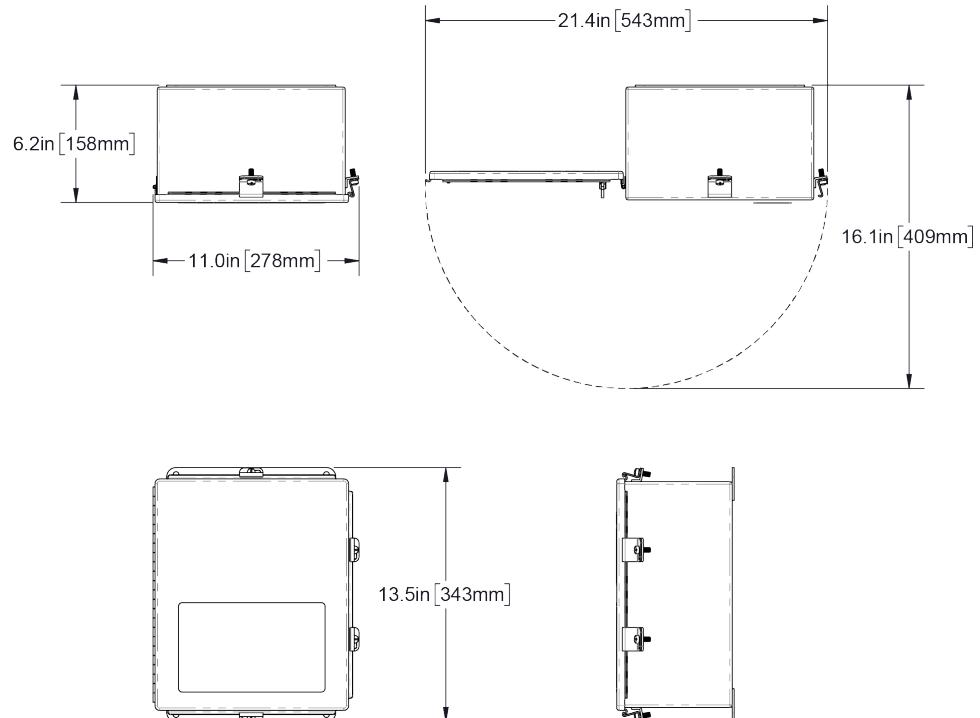


Figure 1

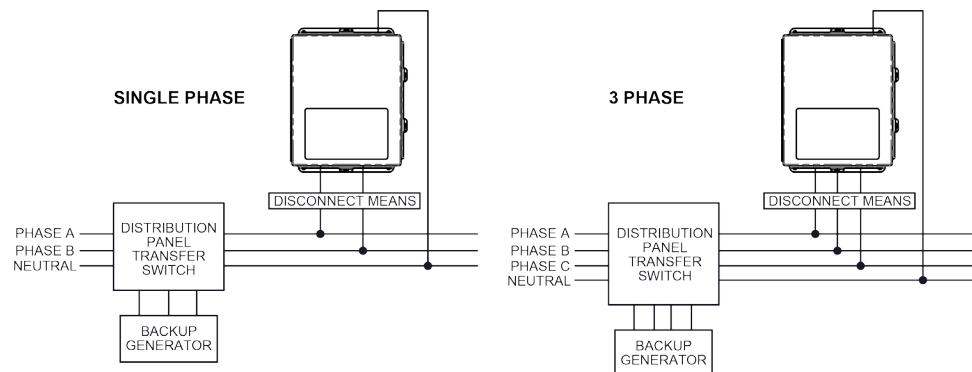


Figure 2 - System Wiring Diagrams