

OVRHT3D

Surge protective device (SPD)

WARNING
Risk of shock, disconnect power before installation.

- This manual shall be read in its entirety prior to installing.
- Failure to follow these instructions can result in death, serious injury and/or equipment damage.
- SPD should be installed by a qualified electrician in accordance with national and local electrical codes.
- Use appropriate safety precautions including personal protection equipment.
- Cannot be used on ungrounded systems.
- The voltage rating of the SPD and system must be verified before energizing the SPD.
- Hazardous voltages exist within SPDs when energized — SPDs should never be installed or serviced when energized. During installation into an electrical system, the SPD must not be energized until the electrical system is completely installed, inspected and tested.
- Do not HIPOT the SPD unit or the electrical system in which the SPD unit is connected without disconnecting the SPD unit's conductors, including phase, neutral and ground.

Installation

OVRHT3D units are Type 1 and do not require upstream overcurrent protection for safe operation; however, the design may require or the installer may choose to connect the OVRHT3D to a circuit breaker, molded case switch or fused disconnect. If a breaker or molded case switch is used for connecting the phase conductors, a 20–30 A breaker is recommended. The unit must be installed in parallel to the electrical distribution system. Careful consideration should be made in selecting the knockout location. The SPD's performance will be limited severely if the conductors are A) too long, B) are of too small a wire gauge, C) have too many bends or D) have sharp bends. Meet all national and local codes. (NEC Article 242 addresses SPDs.) Do not splice SPD conductors within the unit's enclosure or manufacturer's warranty will be void.

1. Prior to installation, ensure the system configuration and voltage is equivalent to the SPD unit being installed.
2. Disconnect power to electrical panel. Use voltmeter to confirm disconnection.
3. Remove the panel screws and cover. Retain these parts for re-installation.
4. Remove appropriate sized knockout.
5. Mount SPD. Connect to equipment using an approved wiring method, including seals appropriate for the enclosure rating.
6. Connect the white or blue wire to the neutral bar and tighten to torque specified on inside of panel. Keep conductor length as short as possible and avoid sharp bends.
7. Connect the green/yellow wire to the ground bar and tighten the terminal to the torque specified inside of panel. Keep conductor length as short as possible and avoid sharp bends. If neutral is bonded to ground, green wire may be terminated to neutral.
8. Connect black or brown wires (model dependent) to the breaker or the bus of the panel. Ensure the short circuit current rating does not exceed 65, 100 or 200 kAIC. On High-Leg Delta units, connect the orange wire to phase B (the high-leg). If the ability to turn off the unit is desired, consider connecting it to a breaker (number of breaker pole positions determined by the number of black or brown wires provided with the unit). Tighten terminals to torque specified on inside of panel. Keep lead lengths as short as possible and avoid sharp bends.
9. Re-install panel cover.

Operation

1. Apply power to the panel. If the phase, neutral and ground have been wired correctly, the green function status LEDs will illuminate. If the LEDs do not turn on, remove the power and review all of the previous installation procedures.
2. If the LED light(s) does not illuminate and the SPD is tied to a breaker, reset the breaker. If the LED light(s) illuminates after reset, the device is ready for operation. If the LED does not illuminate after reset, or the breaker will not reset, SPD must be replaced.

This unit contains no serviceable parts.

CAUTION
Disconnect power before performing any maintenance to device.

These instructions do no purport to cover all details for variations in equipment nor to provide for every possible contingency.

Warranty

ABB warrants that Equipment (excluding Software) shall be delivered free of defects in material and workmanship. The Warranty Remedy Period for Equipment (excluding Software) shall end three (3) years after the original date of purchase. If a nonconformity to the foregoing warranty is discovered in the Equipment during the applicable Warranty Remedy Period, as specified above, under normal and proper use and provided the Equipment has been properly stored, installed, operated and maintained and written notice of such nonconformity is provided to ABB promptly after such discovery and within the applicable Warranty Remedy Period, ABB shall, at its option, either (i) repair or replace the nonconforming portion of the Equipment or (ii) refund the portion of the price applicable to the nonconforming portion of Equipment. If any portion of the Equipment so repaired or replaced fails to conform to the foregoing warranty, and written notice of such nonconformity is provided to ABB promptly after discovery and within the original Warranty Remedy Period applicable to such Equipment or 30 days from completion of such repair, replacement or re-performance, whichever is later, ABB will repair or replace such nonconforming Equipment. The original Warranty Remedy Period shall not otherwise be extended. ABB shall not be responsible for providing temporary power, removal, installation, reimbursement for labor costs or working access to the nonconforming Equipment, including disassembly and reassembly of non-ABB supplied equipment, or for providing transportation to or from any repair facility, or for any other expenses incurred in connection with the repair or replacement, all of which shall be at Purchaser's risk and expense. ABB shall have no obligation hereunder with respect to any Equipment which (i) has been improperly repaired or altered; (ii) has been subjected to misuse, negligence or accident; (iii) has been used in a manner contrary to ABB's instructions; (iv) is comprised of materials provided by or a design specified by Purchaser; or (v) has failed as a result of ordinary wear and tear. Equipment supplied by ABB but manufactured by others is warranted only to the extent of the manufacturer's warranty, and only the remedies, if any, provided by the manufacturer will be allowed. Software Warranty and Remedies. ABB warrants that, except as specified below, the Software will, when properly installed, execute in accordance with ABB's published specification. If a nonconformity to the foregoing warranty is discovered during the period ending one (1) year after the date of shipment and written notice of such nonconformity is provided to ABB promptly after such discovery and within that period, including a description of the nonconformity and complete information about the manner of its discovery, ABB shall correct the nonconformity by, at its option, either (i) modifying or making available to the Purchaser instructions for modifying the Software; or (ii) making available at ABB's facility necessary corrected or replacement programs. ABB shall have no obligation with respect to any nonconformities resulting from (i) unauthorized modification of the Software or (ii) Purchaser-supplied software or interfacing. ABB does not warrant that the functions contained in the software will operate in combinations which may be selected for use by the Purchaser, or that the software products are free from errors in the nature of what is commonly categorized by the computer industry as "bugs."

Limitations and exclusions

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY AND PERFORMANCE, WHETHER WRITTEN, ORAL OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USAGE OF TRADE ARE HEREBY DISCLAIMED. THE REMEDIES STATED HEREIN CONSTITUTE PURCHASER'S EXCLUSIVE REMEDIES AND ABB'S ENTIRE LIABILITY FOR ANY BREACH OF WARRANTY.

Electrical connections

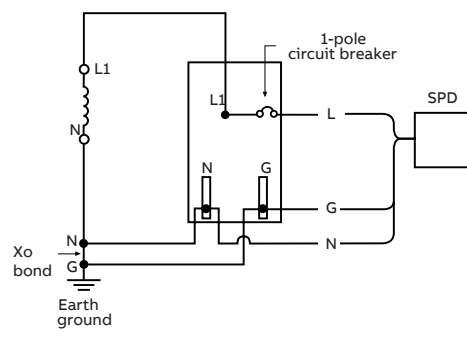


Figure 1: 1-phase, 2-wire

OVRHT3D501201P
OVRHT3D502401P
OVRHT3D502771P
OVRHT3D504801P

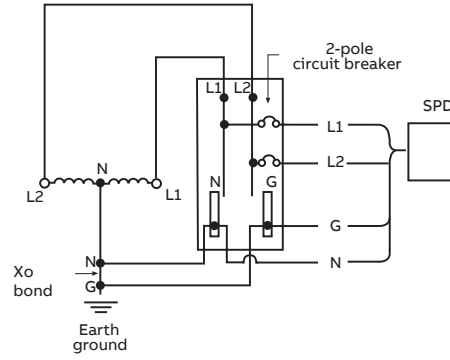


Figure 2: 2-phase, 3-wire

OVRHT3D501202S
OVRHT3D502402S

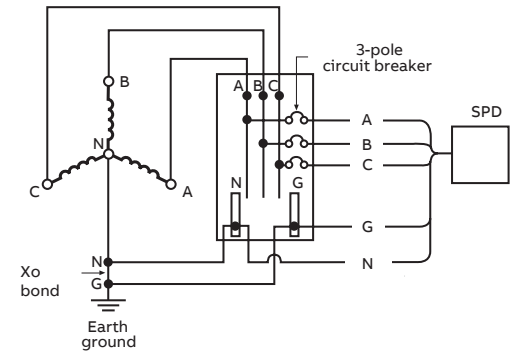


Figure 3: 3-phase Wye, 4-wire

OVRHT3D501203Y
OVRHT3D502203Y
OVRHT3D502303Y
OVRHT3D502403Y
OVRHT3D502773Y
OVRHT3D503473Y

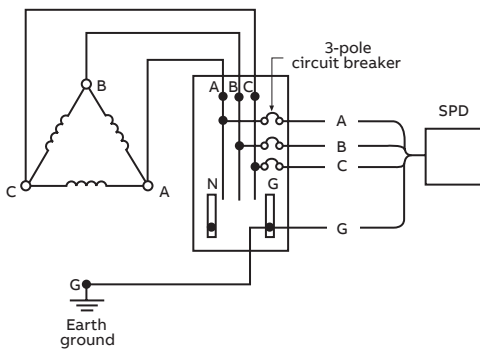


Figure 4: 3-phase Delta, 3-wire

OVRHT3D502403D
OVRHT3D503803D
OVRHT3D504003D
OVRHT3D504153D
OVRHT3D504803D
OVRHT3D506003D

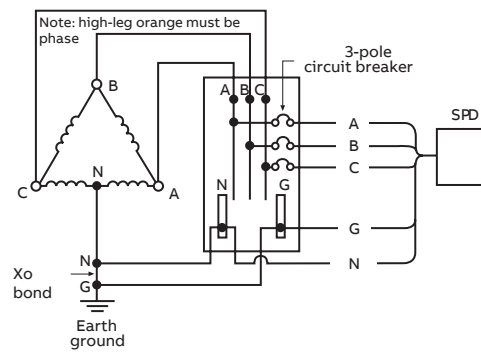
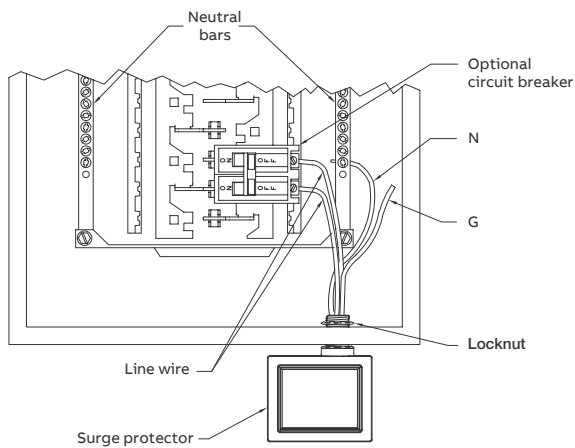


Figure 5: 3-phase High-Leg Delta, 4-wire

OVRHT3D502403H



OVRHT3D mounting