

TECHNICAL ASSISTANCE

Our staff is ready to support you and answer any questions.
Monday through Friday, 8:00 a.m. to 5:00 p.m. (EST) at 800-238-5000.

WARRANTY STATEMENT

Thomas & Betts Power Solutions, LLC, A Member of the ABB Group ("Seller") warrants that your Joslyn surge protective device (the "Product"), shall meet applicable industry standards and specifications and be free from defects in materials and/or workmanship. Should any failure of the Product to conform to this warranty appear within the standard warranty period, Seller shall either repair or replace the defective Product, or part thereof, upon return to Seller's manufacturing facility in Richmond, Virginia with transportation charges prepaid. The applicable warranty period as outlined herein.

Seller shall have no liability under this warranty for any problems or defects directly or indirectly caused by misuse of the Product, alteration of the Product (including removal of any warning labels), accidents, or improper installation, application, operation, or repair of the Product.

THIS WARRANTY REPRESENTS THE ENTIRE WARRANTY OF SELLER. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ORAL OR WRITTEN, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED.

The liability of Seller under this warranty is expressly limited to the replacement or repair of the defective part thereof, at Seller's sole option.

IN NO EVENT SHALL SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND OR CHARACTER, NOR SHALL SELLER'S LIABILITY EVER EXCEED THE PURCHASE PRICE PAID FOR SUCH DEFECTIVE PRODUCT.

This warranty is not transferable and may only be enforced by the sole purchaser. Claims under this warranty must be submitted to Seller within thirty (30) days of discovery of any of Seller's product defect.

WARRANTY PERIOD

SURGITRON® III 3 Years from original date of purchase



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SURGITRON® III

Joslyn

Type 1 or 2 SPD* AC Surge Protective Device

Installation, Operation and Maintenance Manual

PN: 750-0105-001 REV B00

SURGITRON® III -49 Series:

1260-49, 1260-49-TNS	120V, Single-Phase, 2-Wire + Ground
1260-49-C	120V, Single-Phase, 2-Wire + Ground
1261-49, 1261-49-TNS, 1261-49-TT	230-240V, Single-Phase, 2-Wire + Ground
1261-49-C	230-240V, Single-Phase, 2-Wire + Ground
1265-49	120/240V, Split-Phase, 3-Wire + Ground
1265-49-C	120/240V, Split-Phase, 3-Wire + Ground
1265-49-CF	120/240V, Split-Phase, 3-Wire + Ground
1450-49	230-240V, 3-Phase, 3-Wire + Ground, Delta
1451-49	480V, 3-Phase, 3-Wire + Ground, Delta
1452-49	120-240HL, 3-Phase, 4-Wire + Ground, Hi-Leg Delta
1455-49	120-208V, 3-Phase, 4-Wire + Ground
1456-49	277-480V, 3-Phase, 4-Wire + Ground
1457-49	277-480V, 3-Phase, 4-Wire + Ground

*Type 2 SPD models with "-CAN" suffix in Canada only



INTRODUCTION

The -49 Type 2 Surge Protective Device (SPD) is designed for protection of downstream distribution equipment and wiring as well as most sensitive electrical and electronic loads from the effects of overvoltage transients that might be produced from lightning, induction, load or power factor capacitor switching. Multiple LEDs indicate the functional status of the protection elements within the suppressor.

Important Safety Instructions

Do not HIPOT the Surgitron III series units or the electrical system to which the Surgitron III series unit is connected without disconnecting the Surgitron III series unit's conductors including phases, neutral and ground.

All work must be performed by qualified electrical personnel. The electrical system must be properly grounded in accordance with applicable codes for this suppressor to work correctly. Refer to Table 1 for SPD Type, kAIC rating, and breaker requirement.

Installation

Refer to Table 1 to see if an upstream overcurrent protection device is required. The suppressor must be installed on the load side of the main service disconnect. The unit must be installed in parallel to the electrical distribution system. Careful consideration should be made in selecting the knockout location because excess lead length and sharp bends in the wire drastically decrease the effectiveness of the SPD. For this reason choose a knockout location that minimizes lead length and sharp bends. The SPD may also be mounted by it's metal bracket within the equipment enclosure.

1. Disconnect all power supplying the electrical panel.
2. Remove the panel screws and cover. Retain these parts for re-installation.
3. Either remove a knockout 0.5 inches (13mm) or install provided metal bracket.
4. Remove lock washer from the SPDs threaded nipple. Carefully feed the wires through to avoid cutting wire insulation. Slide lock washer over the wires to anchor the threaded nipple. Rotate the SPD so that the function status LED indicators can be easily viewed. Tighten the lock washer to secure the SPD.
5. Locate the neutral bar inside the electrical panel and 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 in the wire.
6. Locate the ground bar inside the electrical panel. Connect the green/yellow wire to the ground bar and tighten the terminal to the torque specified on the 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.
7. Black or brown wires should be connected to either the breaker or the bus of the panel, as long as the short circuit current rating does not exceed 65 or 100kAIC (see Table 1 for specific model ratings). On the 1452 protector connect the orange wire to phase B (the high leg). If you would like to be able to turn the unit off, then you may consider connecting it to a breaker (# of positions determined by the # 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.
8. Re-install panel cover.

Operation

1. Apply power to the panel. If the electrical and grounding wirings are done correctly, the green function status LED will illuminate. If the LED is not on, remove the power and review all of the previous installation procedures.
2. If after a known heavy lightning strike has occurred and the LED is off, reset the breaker if it is tied to a breaker. If the function LED lights come back on then the protector is fine. If the light is still out, or you can not reset the breaker, the protector must be replaced. This unit contains no user serviceable parts.

TABLE 1

Model	SPD Type	kAIC Rating	Upstream Breaker
1260-49	1, 2*	100	NB
1260-49-C	1, 2*	100	NB
1261-49	2	100	30A BR
1261-49-C	2	100	30A BR
1265-49	1, 2*	100	NB
1265-49-C	1, 2*	100	NB
1265-49-CF	2	100	30A BR
1450-49	1, 2*	100	NB
1451-49	2	65	20A BR
1452-49	2	65	20A BR
1455-49	1, 2*	100	NB
1456-49	2	65	20A BR
1457-49	2	65	20A BR

*Type 2 SPD models with "-CAN" suffix in Canada only

Series Options: -R (Dry Relay Contacts), -RB (Dry Relay with Mounting Bracket), -CF (UL 1283 listed filter).

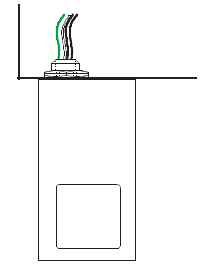
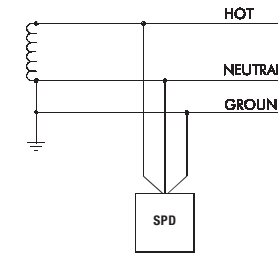


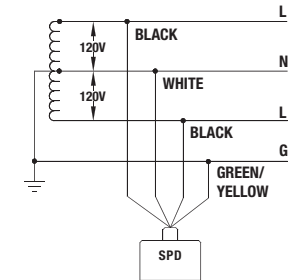
Illustration of protector mounted through a panel knockout.



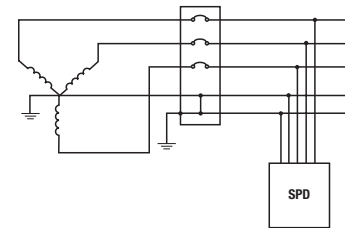
CAUTION: Do not assume the circuit is de-energized! Remove power before performing any maintenance to the device.



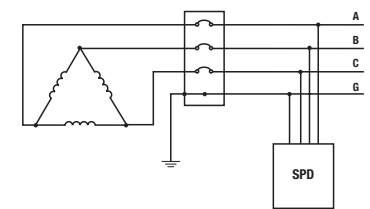
1260, 1261-49



1265-49



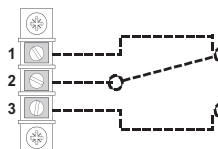
1452, 1455, 1456, 1457-49



1450, 1451-49

CONNECTING THE REMOTE CONTACTS TO AN ALARM (-R or -RB options only)

For "Fail-safe" form A monitoring, connect the alarm leads to terminals 2 and 3. Terminals 2 and 3 will be closed during normal (Power ON) operation and the protector is functioning properly. If the protector should fail contacts 2 and 3 will open and contacts 1 and 2 will close. Relay contacts are rated at 5A at 250Vac or 30Vdc maximum, 50mVA minimum.



Relay contacts shown in the relaxed position (protector alarm or loss of power).

Note:

Maximum torque on terminals is 10 in-lbs.