Installation guide Galeos Series 6

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Thank you for choosing Armada!
Please save the following instructions.

Warning

PLEASE READ ALL INFORMATION CONTAINED IN THIS MANUAL PRIOR TO INSTALLATION. THE PROCEDURES DETAILED HEREIN ARE NOT INTENDED TO SUPERSEDE LOCAL AND NATIONAL ELECTRICAL CODES. CHECK ALL APPLICABLE ELECTRICAL CODES TO ENSURE COMPLIANCE. IN ALL INSTANCES, LOCAL AND NATIONAL ELECTRICAL CODE REQUIREMENTS ARE TO BE FOLLOWED.

Armada Galeos Series 6 provides protection from damaging transient voltage surges and spikes. Proper installation is imperative to maximize the effectiveness and overall performance of this device.

IMPORTANT: this device DO NOT PROTECT against any sustained over-voltage and any direct lightning strike.

⚠ This device must be installed by a qualified licensed electrician or technician. The electrician should follow the steps outlined in this manual to insure proper installation.

This manual provides instructions for installing the Armada Galeos Series 6 Surge Protective Device (SPD). Armada Galeos Series 6 can be mounted two way:

- The preferred way is to mount the SPD directly to the outside of the electrical panel equipment using the nipple on the body of the SPD.
- It can also be installed against a panel/wall using installer supplied hardware. The latter method requires the use of additional conduit and hardware (not provided).

Armada Galeos Series 6 is listed in UL 1449 4th edition. This product is suitable for installation on electrical distribution.

⚠ During installation into an electrical system, Armada Galeos Series 6 must NOT be energized until the electrical system is installed, inspected and tested. All conductors must be connected and functional.

FAILURE TO FOLLOW THE GUIDELINES IN THIS MANUAL CAN LEAD TO ABNORMALLY HIGH VOLTAGE BEING APPLIED TO THE SPD. THIS MAY CAUSE THE ARMADA GALEOS SERIES 6 UNIT TO BECOME INOPERATIVE. THE WARRANTY DOES NOT COVER AN INCORRECTLY INSTALLED DEVICE.

⚠ Do not high potential test the electrical system with the SPD connected. Failure to disconnect the SPD during elevated voltage testing will result in damage to the suppression components and/or other electronic components (see Safety Information).

Notice

Safety instructions

This section provides pertinent safety information that must be considered before installing the SPD.
Do not install this device during an Electrical storm. This device is rated NEMA 4X, suitable for indoor and outdoor applications. The installer must seal the conduit nipple against the panel using watertight fittings (not supplied) to ensure a watertight connection.

Operation

Armada Surge Protection normally requires no maintenance.
However, in the event of a Power abnormality or a malfunction, the operational status may change and may require action. If un-installation or replacement is necessary, the product have to be removed by an electrician or another qualified professional.

If the SPD breaker trips (disconnects) when energized, try first to reset it. If the breaker trips again in the following moments, the device must be replaced. After any breaker trip always inspect the Armada product: if there is black soot on the 2” nipple do not reconnect the breaker and proceed to replace the device.

This device is designed to disconnect itself at the end of its useful life. Power will maintain to the load; however, the load will then be unprotected.
Follow the manufacturer’s instructions for replacing the device.

Requirements

Armada Galeos Series 6 is a Type 2 SPD. A Certified Type 2 SPD for Canada is defined by UL® as a “Permanently connected SPDs intended for installation on the load side of the service equipment overcurrent device; including SPDs located at the branch panel and Molded Case SPDs”.

It is suitable for use upstream or downstream of the service disconnect.

You need to accomplish the following:

- Meet all National and Local Electrical Codes.
- Confirm System voltage to SPD voltage (120V SPD will fail instantly on 240V, 277V, etc.).
- Mount SPD as close to panel or equipment as possible to keep leads short. (long leads hurt performance). For all wiring connection use the torque table 1.1
- Important: Use Wire AWG range of 10 to 6 AWG
- Ensure leads are as short and straight as possible, including neutral and ground. Use a breaker position that is close to the SPD and the panel’s neutral and ground.
- Use breaker size 30A 3P.
- Make sure system is grounded under 100 Ohm and clear of faults before energizing SPD (inadvertent system problem may fail SPD).
- Never Hi-Pot test any SPD (this will prematurely fail SPD).
- Always make sure that the Armada’s 2” nipple is at all time correctly fixed to the electric panel to which it is connected.

Torque Table for field wiring 1.1

Connection	Wiring size	Torque
For Ground Terminal	**6 AWG**	**26,55 lbf-in or 3.5 Nm**
	10 to 8 AWG	**17,70 lbf-in or 2.3 Nm**
Neutral Terminal - Line Side	**6 AWG**	**120 lbf-in or 13,56 Nm**
	8 AWG	**40 lbf-in or 4,52 Nm**
	10 AWG	**35 lbf-in or 3,95 Nm**
For Line Terminal – Line Side	**8 to 10 AWG**	**40 lbf-in or 4,52 Nm**
	6 AWG	**120 lbf-in or 13,56 Nm**

Steps

WARNING: DO NOT MODIFY THE SPD ENCLOSURE, IT WILL DAMAGE THE SPD AND ENDANGER PEOPLE AND EQUIPMENT

1. Use voltmeter to check voltages and ensure correct SPD. See Data Sheet for specifications and wire-outs.
2. Determine Mounting location.
3. Remove power from panel/source. Confirm panel or source is deenergized.
4. Identify breaker location and SPD location inside the panel.
5. Mount SPD: (check connection diagram)
   - Remove an appropriately sized knockout from electrical panel.
   - Mount the SPD enclosure by the bracket to the wall as close as possible to the electrical panel.
   - Open the SPD enclosure
   - Remove the plastic cover of the SPD terminal blocks
   - Insert wiring between SPD unit and electrical panel.
   - Connect conductors (Lines, Neutral, Ground) from the electrical panel to the line side of the SPD terminal blocks keeping the wires as short and straight as possible (the size will be determined by the local electrical code).
   - Confirm torque for each terminal block with the torque table 1.1
   - (see the wiring diagram bellow)
   - Replace the plastic covers of both terminal blocks (Lines & Neutral)
   - Be sure enclosure is properly fastened with all three enclosure cover screws, with a torque wrench to obtain 30 inch - lbs for each screw.

6. Label or identify conductors as appropriate (neutral: white, ground: green, energized: red or black).
7. Make sure system is bonded per National Electrical Code® and is clear of hazards or faults before energizing (N-G bonding not per NEC® will fail SPDs)
   This is the number one cause for SPD failures.
8. Energize SPD and confirm the breaker stays on.
9. Register your product online at **armadasurge.com** or contact us via email at **register@armadasurge.com** for full support and for our Lifetime Warranty coverage (25 years).

WARNING

- Do not remove the Swing Panel screws from inside the SPD
- Do not modify the wiring of the armada load unit
- **Armada is a one port SPDs with no load current rating and it must not be installed as two port devices**

Maintenance

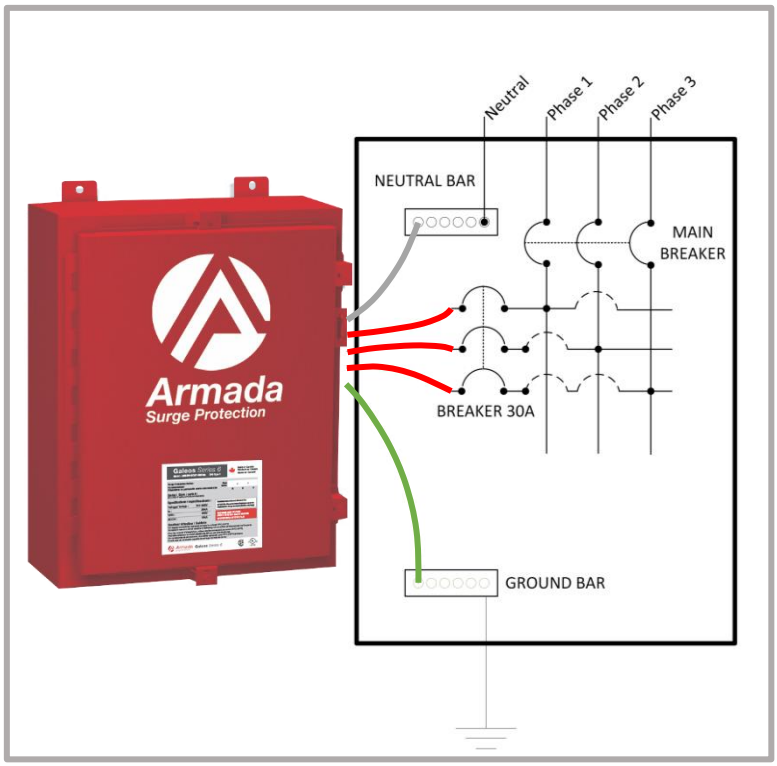
Once installed, the Galeos protector does not need any particular maintenance. However, it is important to check if the circuit breaker on the electrical panel to which the surge protector is connected is still engaged. If the circuit breaker is no longer engaged, and cannot be re-engaged, the surge protector must be changed.

- **This unit do not have maintenance parts**

CAUTION ! - ATTENTION !

PLEASE VERIFY THAT ALL POWER CIRCUITS ARE DEENERGIZED BEFORE MAKING CONNECTIONS.
All electrical connections should be performed by a qualified (licensed) electrician or technician.
All wiring must comply with the National Electrical Code (NEC®) and applicable local codes.

Wiring Diagram



Wiring Diagram internal