5. Installation

5.1 Wall mount

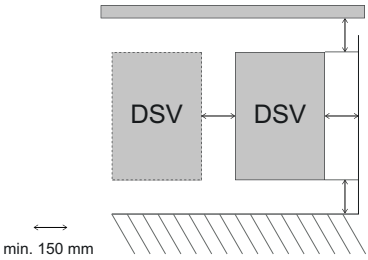
5.1.1 Important considerations for installation

DSV is a device that allows for different types of installation. Before proceeding, check:

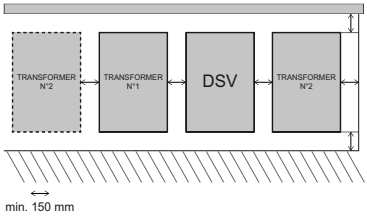
- if the fans are equipped with asynchronous motors that are voltage adjustable, meaning high speed
- if the maximum rated load current is less than or equal to the rated current of the selected DSV model

5.1.2 Guarantee cooling

DSV312, DSV316



DSV327, DSV334, DSV348



***NOTICE**: leave a free area between the device, the autotransformer, and the walls or between devices in series.*

***NOTICE**: over temperature. In the case of vertical installation of multiple controllers, always measure the air temperature to which the highest controller is subjected.*

5.1.3 Outdoor installation

The controller can withstand temperatures below zero only if it is powered. Avoid exposure to direct sunlight.

***NOTICE**: temperature changes. Defective operation. Store the controller at room temperature before installation to avoid condensation.*

5.1.4 Installation in farms

***NOTICE**: ammonia vapors. Avoid installing the controller in the stable. Install it in a separate room.*

5.1.5 Warnings

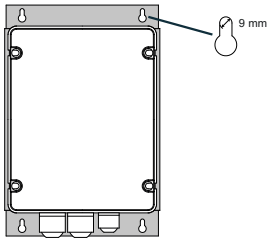
CAUTION! Heavy object. Handle with care. See "Physical properties" on page 84 for the weight of the controller and the autotransformers.

***NOTICE**: secure the device closed to prevent screws from falling and remaining inside. Always close the unused holes with the plugs. Install the controller vertically with the cable clamps at the bottom.*

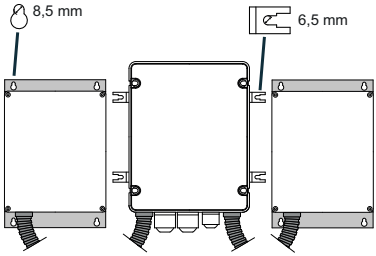
5.1.6 Secure the device to the wall

1. Insert the cable clamps or plugs.
2. Drill holes at the areas shown in the image.
3. Mount the mounting brackets
4. Secure the appliance using four screws (not supplied) suited to the wall thickness.

DSV312, DSV316



DSV327, DSV334,DSV348



5.2 Electrical installation

Operation reserved for an electrician. Has substantial knowledge in the electrical field. Can understand wiring diagrams and work on live electrical panels, shunt boxes and control devices.

5.2.1 Warnings

WARNING! Live parts. Electric shock. If you have to work on the powered controller, always do it in the presence of a second person. Block remote controls and any power switches.

5.2.2 Ground

WARNING! Electrocution. Do not power the controller if it is not grounded.

***NOTICE**: if a circuit breaker is installed on the power supply, use a device with a threshold over 60 mA and with a short delay to prevent inopportune power outages*

5.2.3 Protection for short-circuits on load

To protect the controller power modules from severe short-circuits or overloads, it is imperative to use semiconductor protection fuses with a suitable I2t < 610 A2s @ 400 V ac value fitted upstream of the controller.

For additional protection, a circuit breaker with a B-curve can be used, mounted upstream of the controller.

The installer must install these protections.

Model	Rated current (A)	Circuit breaker (A)	Fuses		
			Current (A)	Format	I2t semiconductor max (A 2s)
DSV312	12	16	20	10 x 38	140
DSV316	16	20	25	10 x 38	245
DSV327	27	32	40	14 x 51	493
DSV334	34	40	50	NHO	470
DSV348	48	63	60	NHO	630

***Note**: to use as protection for the power semiconductors used in DSVXXX, the fuse must have a melting integral I2t < 610 A2s.*

5.2.4 Power cables separate from signal cables

Install the power cables (power and load) separately from the signal cables (analog inputs and digital On/Off inputs/outputs) and keep the maximum distance possible between the cables.

In case of intersection, install with a 90° angle.

5.2.5 Connecting loads and by-passes

The controller allows you to connect three-phase loads without having to connect the neutral. This simplifies installation and allows for a load triangle configuration. Prepare a by-pass switch in order to operate the load even in the event of partializer failure (emergency by-pass).

5.2.6 Warnings for connection and by-pass use

Match phases to avoid destructive short circuits and keep the motor running.

Before powering the load to the maximum voltage, disconnect the power supply to the controller, therefore:

- use a three-position manual shunt as a switching device
- if you use the automatic switch using contactors, ensure a delay of at least two seconds between turning off the controller and turning on the load.