

1 Introduction

This document guides the customer to realize a basic installation, wiring and functional debugging. If you need more information, please refer to instructions sheets and ATV310 user manual ([EAV94277](#)) on www.schneider-electric.com.

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Only appropriately trained persons who are familiar with and understand the contents of this manual and all other pertinent product documentation and who have received safety training to recognize and avoid hazards involved are authorized to work on and with this drive system. Installation, adjustment, repair and maintenance must be performed by qualified personnel.
- The system integrator is responsible for compliance with all local and national electrical code requirements as well as all other applicable regulations with respect to grounding of all equipment.
- Many components of the product, including the printed circuit boards, operate with mains voltage. Do not touch. Use only electrically insulated tools.
- Do not touch unshielded components or terminals with voltage present.
- Motors can generate voltage when the shaft is rotated. Prior to performing any type of work on the drive system, block the motor shaft to prevent rotation.
- AC voltage can couple voltage to unused conductors in the motor cable. Insulate both ends of unused conductors of the motor cable.
- Do not short across the DC bus terminals or the DC bus capacitors or the braking resistor terminals.
- Before performing work on the drive system:
 - Disconnect all power, including external control power that may be present.
 - Place a Do Not Turn On label on all power switches.
 - Lock all power switches in the open position.
 - Wait 15 minutes to allow the DC bus capacitors to discharge. The DC bus LED is not an indicator of the absence of DC bus voltage that can exceed 800 Vdc. Measure the voltage on the DC bus between the DC bus terminals (PA/+, PC/-) using a properly rated voltmeter to verify that the voltage is <42 Vdc
 - If the DC bus capacitors do not discharge properly, contact your local Schneider Electric representative. Do not repair or operate the product.
- Install and close all covers before applying voltage.

Failure to follow these instructions will result in death or serious injury.

2 Verify the delivery of the drive

Remove ATV310 from the packaging and verify that it has not been damaged.

Damaged products or accessories may cause electric shock or unanticipated equipment operation.

DANGER

ELECTRIC SHOCK OR UNANTICIPATED EQUIPMENT OPERATION

Do not use damaged products or accessories.

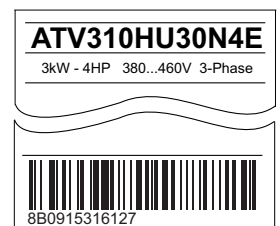
Failure to follow these instructions will result in death or serious injury.

Contact your local Schneider Electric sales office if you detect any damage whatsoever.

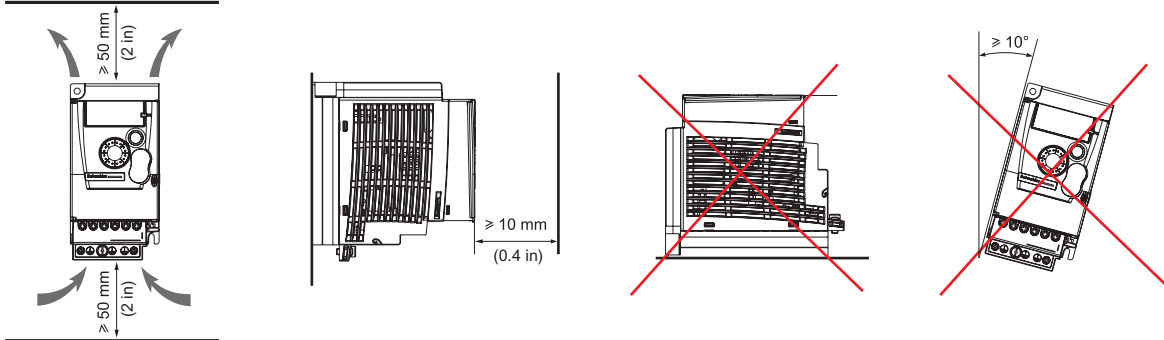
Check that the drive catalog number printed on the label matches the delivery note and corresponding purchase order.

Write the drive Model catalog number: _____

and Serial Number: _____



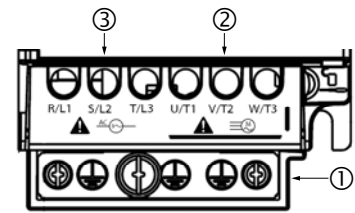
3 Mount the drive vertically



See user manual (EAV94277) on www.schneider-electric.com for other thermal conditions.

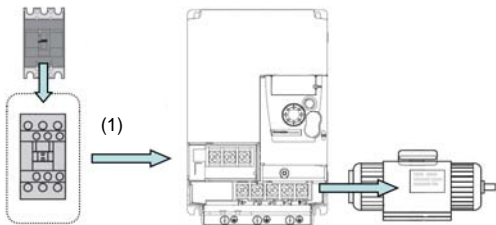
4 Connect the drive: Power

- Wire the drive to the ground. The grounding screws are shown ①
- Wire the drive to the motor. The motor terminals are shown in ②
- Wire the drive to the main power supply, the power supply terminals are shown ③



- Wire size and circuit breaker selection according to the drive

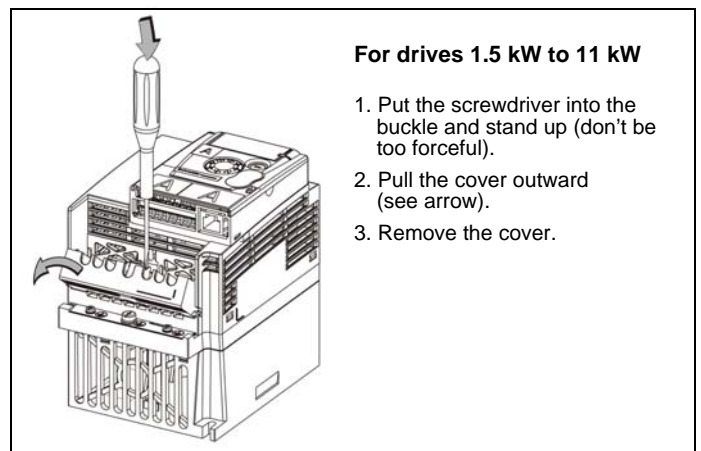
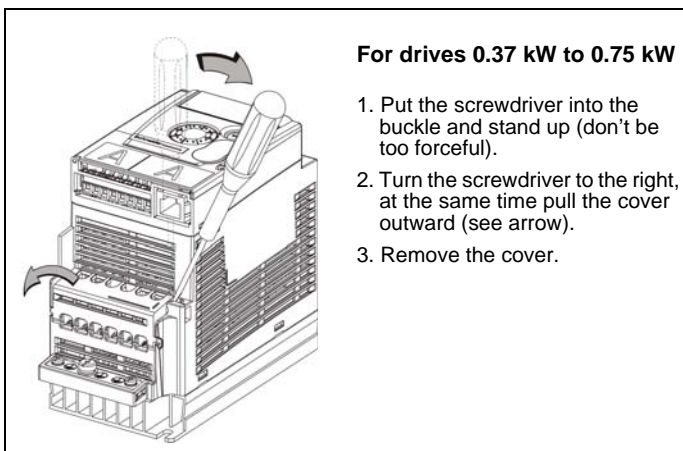
circuit-breaker



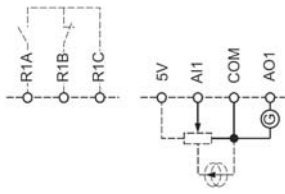
(1) TeSys contactor may be chosen if needed.

Drive	Circuit-breaker	Contactor	Rated current	Wire size	Tightening torque
ATV310H037N4●	GV2ME07C	LC1-D09●●●●N	2.5 A	2.5 mm ² (14 AWG)	0.8 - 1.0 N·m (7 to 8.8 lb.in)
ATV310H075N4●	GV2ME08C	LC1-D09●●●●N	4 A		
ATV310HU15N4●	GV2ME14C	LC1-D09●●●●N	10 A		
ATV310HU22N4●	GV2ME14C	LC1-D09●●●●N	10 A		
ATV310HU30N4●	GV2ME16C	LC1-D09●●●●N	14 A	4 mm ² (12 AWG)	1.2 - 1.4 N·m (10.6 - 12.4 lb.in)
ATV310HU40N4●	GV2ME16C	LC1-D09●●●●N	14 A		
ATV310HU55N4●	GV2ME22C	LC1-D09●●●●N	25 A	10 mm ² (6 AWG)	2.2 - 2.4 N·m (19.5 - 21.2 lb.in)
ATV310HU75N4●	GV2ME32C	LC1-D18●●●●N	32 A		
ATV310HD11N4●	NCS100S340MA	LC1-D25●●●●●N	40 A		

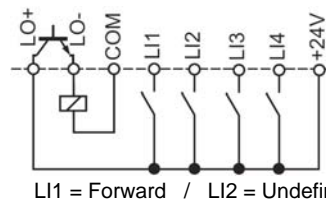
- Power terminal cover opening method



5 Connect the drive: Control choice



Factory setting channel:
Controlled by terminal **401 = 1**



Logic input type is positive logic:

203 = 00

Control type is 2-wire control:

201 = 00

Macro setting:

100 = 00

LI1 = Forward / LI2 = Undefined

6 Apply power to the drive

- Check that used Logic Inputs are not active.
- Apply power to the drive.
- Drive displays (see On next start-ups)

7 Set motor parameters

- Refer to the motor Nameplate for the following parameters settings.

Menu	Code	Description	Factory setting	Customer setting
C o n F → F u L L → - 3 0 0 - [Motor control menu]	3 0 1	[Standard motor frequency]: Standard motor frequency (Hz)	5 0 . 0	
	3 0 2	[Rated mot. power]: Nominal motor power on motor nameplate	drive rating	
	3 0 5	[Rated mot. current]: Nominal motor current on motor nameplate (A)	drive rating	
C o n F → 6 0 0 → - 6 0 4 - [Motor thermal protection menu]	6 0 4	[Motor thermal current]: Nominal motor current on motor nameplate (A)	drive rating	

8 Set basic parameters

Menu	Code	Description	Factory setting	Customer setting
5 0 0 → 5 0 1 - [Ramp menu]	5 0 1 . 0	[Acceleration]: Acceleration time (s)	3 . 0	
	5 0 1 . 1	[Deceleration]: Deceleration time (s)	3 . 0	
5 0 0 → 5 1 2 - [Speed Limit menu]	5 1 2 . 0	[Low speed]: Motor frequency at minimum reference (Hz)	0 . 0	
	5 1 2 . 2	[High speed]: Motor frequency at maximum reference (Hz)	5 0 . 0	

9 Start the motor

Menu Structure

