ENGLISH

Quick Start Guide - ATV12

S1A5614601

⚠⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Read and understand this quick start guide before performing any procedure with this drive.
- The user is responsible for compliance with all international and national electrical code requirements with respect to grounding of all equipment.
- Many parts of this drive, including the printed circuit boards, operate at the line voltage. DO NOT TOUCH. Use only electrically insulated tools.
- DO NOT touch unshielded components or terminal strip screw connections with voltage present.
- DO NOT short across terminals PA/+ and PC/- or across the DC bus capacitors.
- Before servicing the drive:
  - Disconnect all power, including external control power that may be present.
  - Place a "DO NOT TURN ON" label on all power disconnects.
  - Lock all power disconnects in the open position.
  - WAIT 15 MINUTES to allow the DC bus capacitors to discharge.
  - Measure the voltage of the DC bus between the PA/+ and PC/- terminals to ensure that the voltage is less than 42 Vdc.
  - If the DC bus capacitors do not discharge completely, contact your local Schneider Electric representative. Do not repair or operate the drive
- Install and close all covers before applying power or starting and stopping the drive.

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

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this product.

Information below is designed to use **single drive** connected to **single motor with a motor cable length less than 50 meters (164 ft).**
In any other case, consult the ATV12 user manual on www.schneider-electric.com.
Check your cables before connecting the drive with motor (length, power, shielded or unshielded). Motor cable length is _____(< 50 meters, 164 ft)

❶ Check the delivery of the drive

- Remove ATV12 from the packaging and check that it has not been damaged.

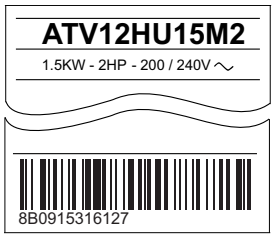
⚠ WARNING

DAMAGED DRIVE EQUIPMENT

Do not operate or install any drive or drive accessory that appears damaged.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

- Check that the drive reference printed on the label is the same as that on the delivery note corresponding to the purchase order.



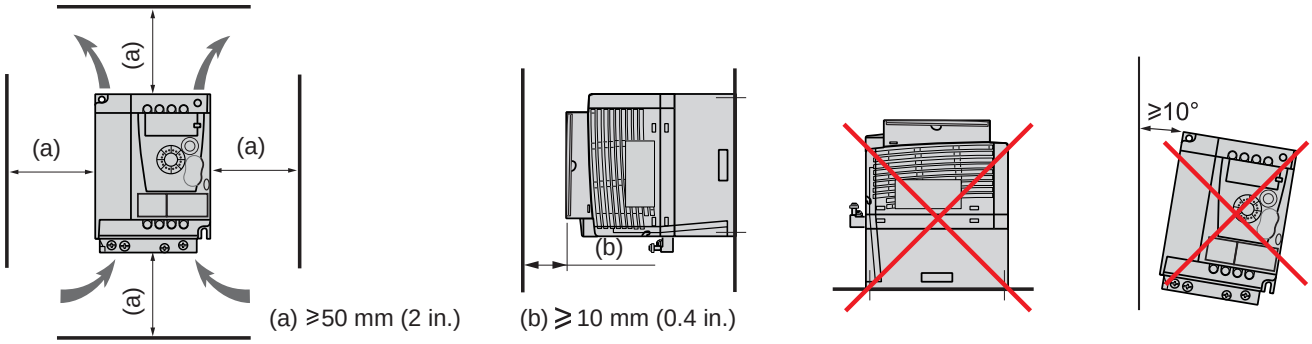
Write the drive Model Reference: _____ _____and Serial Number: _____

❷ Check the line voltage compatibility

- Check that the **line voltage** is compatible with the supply range of the drive.
  Line voltage _____ Volts Drive voltage range _____ Volts
  Drive range: ATV12•••• F1 = 100 ... 120 V single phase / ATV12•••• M2=200 ... 240 V single phase / ATV12•••• M3 = 200 ... 240 V three-phase.

❸ Mount the drive vertically

For a surrounding air temperature up to 50 °C (122 °F)

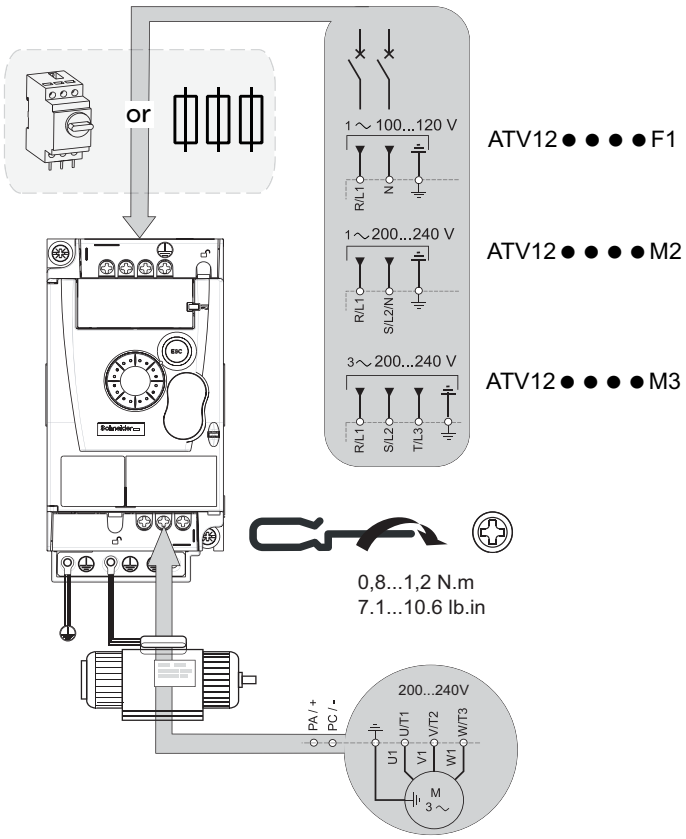


(a) ≥50 mm (2 in.) (b) ≥ 10 mm (0.4 in.)

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

❹ Connect the drive: Power

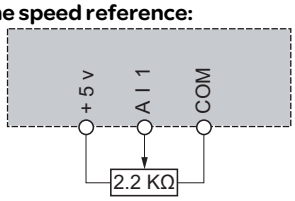
- Wire the drive to the ground.
- Check circuit breaker rating or fuse rating.
- Check that the motor voltage is compatible with the drive voltage.
  Motor voltage _____Volts.
- Wire the drive to the motor.
- Wire the drive to the line supply.



❺ Connect the drive: Control choice

5.1 [REMOTE configuration] (Control by **external** reference)

- **Wire the speed reference:**

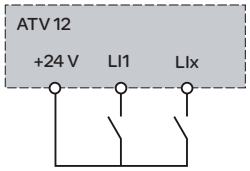


Do: ❻+❼+❽+91

- **Wire the command:**

Control command 2-wire:
Parameter tCC = 2C

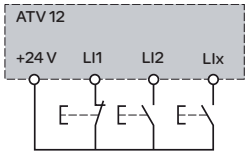
LI1: forward
LIx: reverse



Do: ❻+❼+❽+91

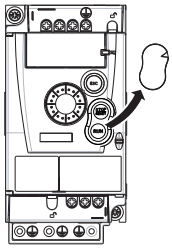
Control command 3-wire:
Parameter tCC = 3C

LI1: stop
LI2: forward
LIx: reverse



Do: ❻+❼+❽+91

5.2 [LOCAL configuration] (control by **internal** reference).



Do: ❻+❼+❽+92

❻ Apply power to the drive

- Check that used Logic Inputs are not active (see Li1, Li2, Lix).
- Apply power to the drive.
- Drive displays bFr at first power up.
- On next start-ups, drive displays rdY .

❼ Set motor parameters

- See on the motor Nameplate to set the following parameters.

Menu	Code	Description	Factory setting	Customer setting
CONF > FULL > drC - [Motor control menu]	bFr	[Standard motor frequency]: Standard motor frequency (Hz)	50.0	
	nPr	[Rated motor power]: Nominal motor power on motor nameplate	drive rating	
	nCr	[Rated motor current]: Nominal motor current on motor nameplate (A)	drive rating	

❽ Set basic parameters

Menu	Code	Description	Factory setting	Customer setting
CONF [CONFIGURATION]	ACC	[Acceleration]: Acceleration time (s)	3.0	
	dEC	[Deceleration]: Deceleration time (s)	3.0	
	LSP	[Low speed]: Motor frequency at minimum reference (Hz)	0.0	
	HSP	[High speed]: Motor frequency at maximum reference (Hz)	50.0	

9 Set control choice

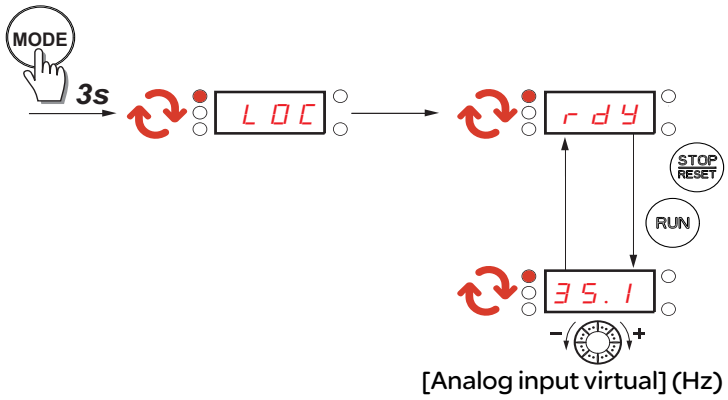
Menu	Code	Description	**5.1** [REMOTE configuration]	**5.2** [LOCAL configuration]	Customer Setting
CONF > FULL > CTL- [Control menu]	Fr1	[Reference channel1]: Reference control	AI1	AIU1	
CONF > FULL > I_O- [Input Output menu]	tCC	[Type of control]: Command control	2C: 2-wire control 3C: 3-wire control	–	

9.1 [REMOTE configuration] (configuration factory setting)

Parameters factory settings:
Fr1 = AI1
tCC = 2C

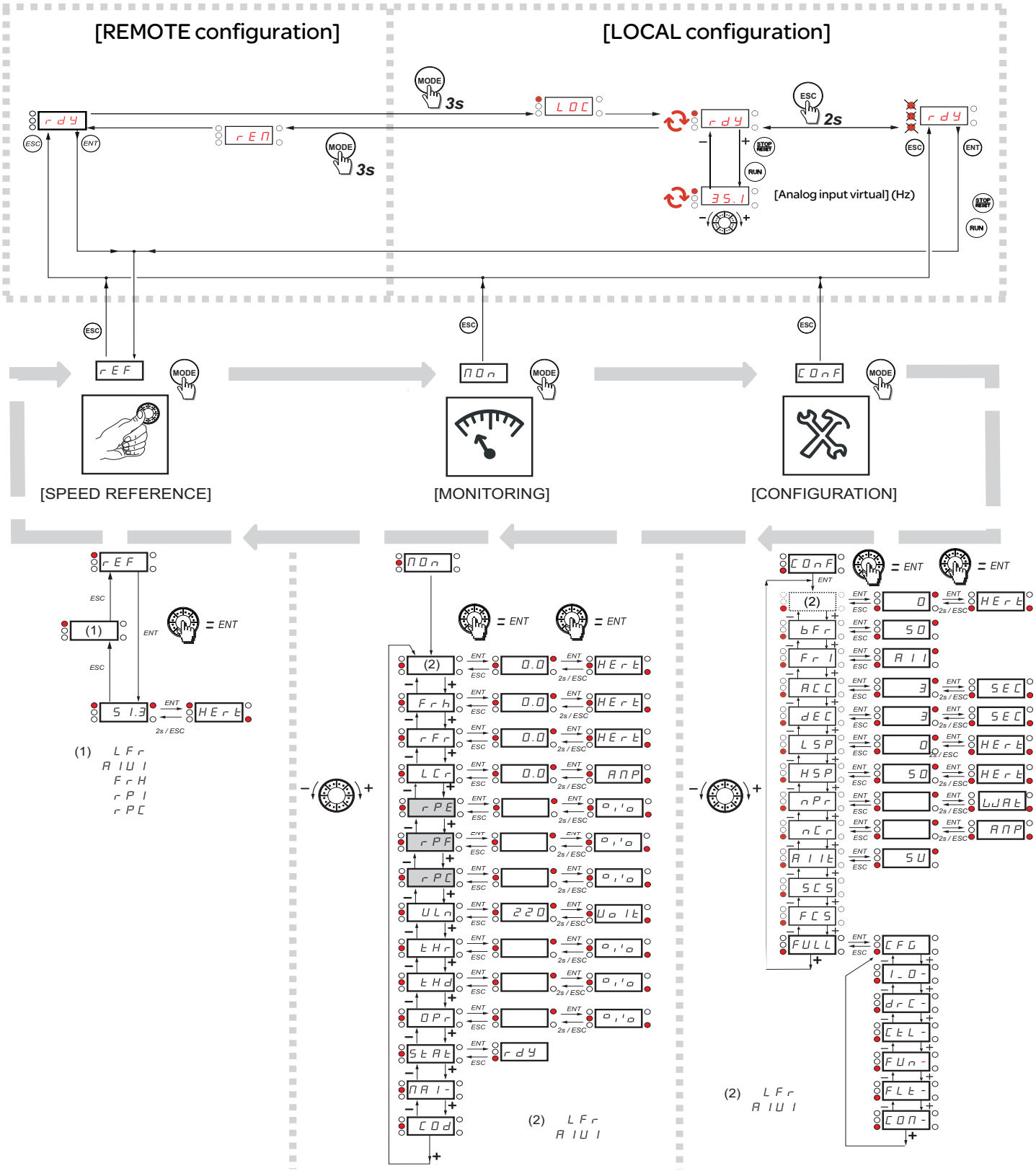
9.2 [LOCAL configuration]

Parameters factory settings:
Fr1 = AIU1



10 Start the motor

Menus structure



Refer to the user manual for comprehensive menu description.

A dash appears after menu codes to differentiate them from parameter codes.
Example: [Motor control menu] (drC-), bFr parameter.