ENGLISH

Getting started with Altistart 48

NHA9428200

❶ Download the ATS48 User manual

- You must have detailed information to be able to carry out the installation and commissioning.
- Information below is designed to use for simple applications with 2-wire control mode, freewheel stop and no by-pass.
- If you need more information, or for other applications, see the ATS48 User manual (1494409) 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 soft starter. 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 soft starter, 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.
- Before performing work on the soft starter:
  - 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.
- Install and close all covers before applying voltage.

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 out of the use of this material.

❷ Verify the delivery of the soft starter

- Remove Altistart 48 from the packaging and verify that it has not been damaged

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

⚠⚠ DANGER

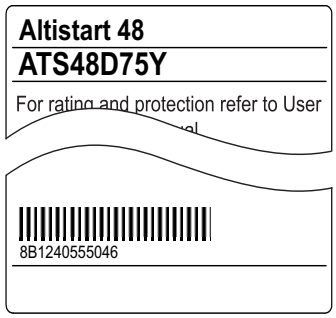
HAZARD OF ELECTRIC SHOCK OR UNANTICIPATED EQUIPMENT OPERATION

Do not use damaged products or accesssories.

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 catalog number printed on the label is the same as that on the purchase order.
- Write the soft starter model part number: ATS48 _____ and Serial Number:_____



❸ Verify the supply mains

- Verify that the supply mains is compatible with the power part supply range of the soft starter.
- Supply mains voltage _____ Volts Soft starter power part supply range _____ Volts
- Auxiliary supply _____ Volts Soft starter control part supply range _____ Volts

❹ Mount the soft starter vertically

- For a surrounding air temperature up to 40 °C (104°F).

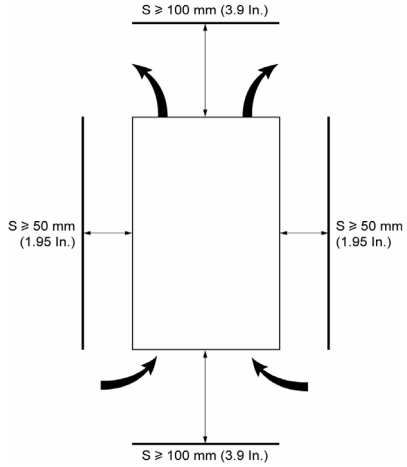
⚠⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION AND ARC FLASH

ATS48 soft starters are open devices and must be mounted in a suitable enclosure.

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

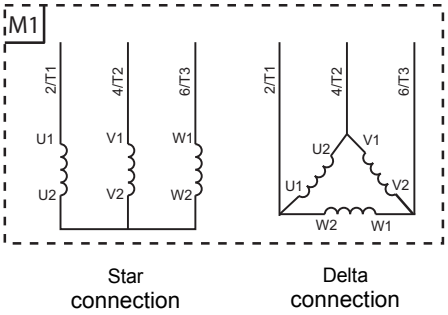
For other thermal conditions, see ATS48 user manual (1494409) on www.schneider-electric.com.

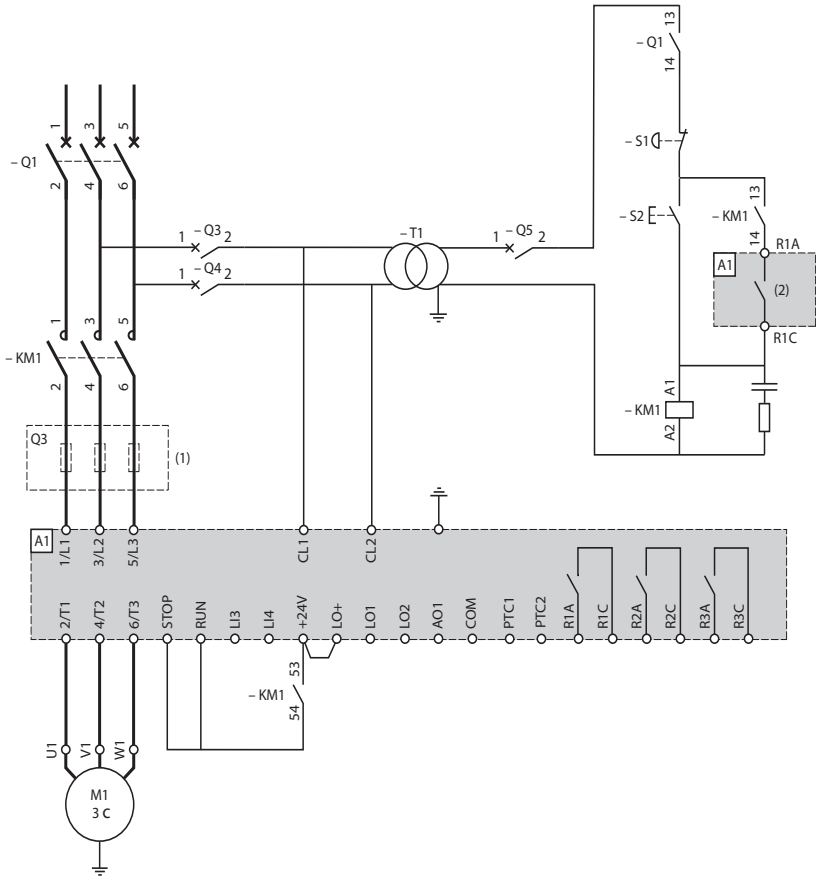


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❺ Wire the soft starter

- Wire the soft starter to the ground.
- Wire the motor (2/T1 - 4/T2 - 6/T3), ensuring that its coupling corresponds to the supply mains voltage
- Wire the supply mains (1/L1 - 3/L2 - 5/L3)
- Wire the control (CL1 - CL2)





(1) Installation of fast-acting fuses for type 2 coordination (conforming to IEC 60 947-4-2)
(2) Assignment of relay R1: isolating relay (r1I).
Beware of the operating limits of the contact, for example when connecting to high rating contactors.
(3) Insert a transformer if the supply voltage is different to that permitted by the ATS 48 control.

Note: - For other wiring diagrams, see ATS48 User manual (1494409) on www.schneider-electric.com.
- For additional information in order to size the protective and control devices, refer to the catalog on www.schneider-electric.com.

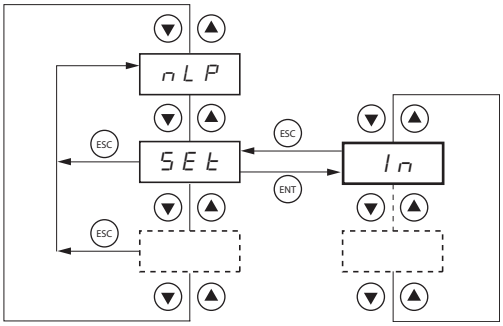
NOTICE
RISK OF DAMAGE TO THE SOFT STARTER
• Check the power supply on CL1 - CL2: ATS48●●●Q must be 220 - 415 VAC ATS48●●●Y must be 110 - 230 VAC
Failure to follow these instructions can result in equipment damage

❻ Power up the control part

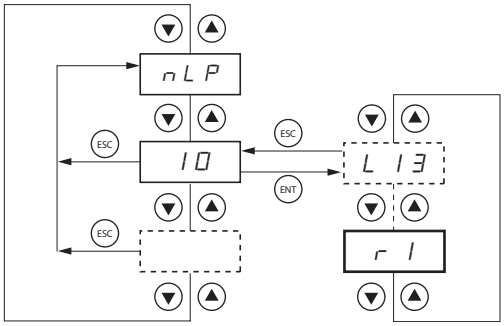
Power up without the power part and without giving the run command.
- Check that S2 is open.
- Switch on: Q1, then Q3, then Q4.
- The starter displays: nLP (to indicate that the power is switched off).

❼ Adjust settings

- Adjust In nominal motor current
  (See Nominal Motor Current on Motor Nameplate)



- Set R1 to r1



❽ Power up the power part and start the motor

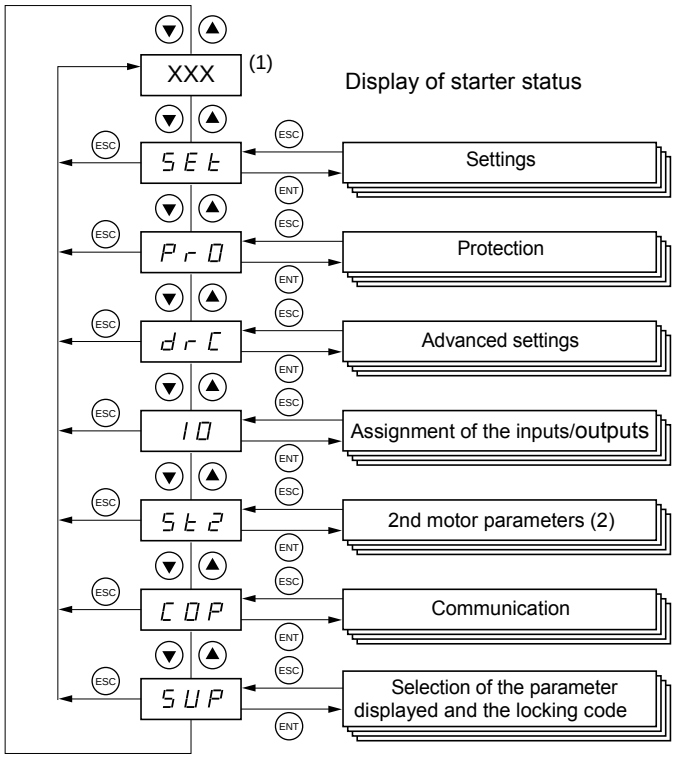
- Switch on Q5.
- The soft starter displays: rdY (to indicate that the soft starter is powered-up and ready).
- Close S2.

Factory settings

The Altistart 48 is factory-set for the most common operating conditions. If the factory configuration is not suitable for your application, refer to User manual (1494409) on www.schneider-electric.com. Here is the list of writable parameters in an “easy start up” mode.

Menu	Code	Description	Factory setting	Customer setting
SEt Settings	In	Nominal motor current	According to the soft starter rating	
	ILt	Limiting current	400 % of In	
	ACC	Acceleration ramp time	15 s	
	t90	Initial starting torque	20 % of nominal torque	
	Sty	Selection of the type of stop	-F- (Freewheel)	
	uln	Line voltage	ATS48●●●Q range: 400 Vac ATS48●●●Y range: 460 Vac	
	tHP	Motor thermal protection	10 (IEC class 10)	

Accessing menus

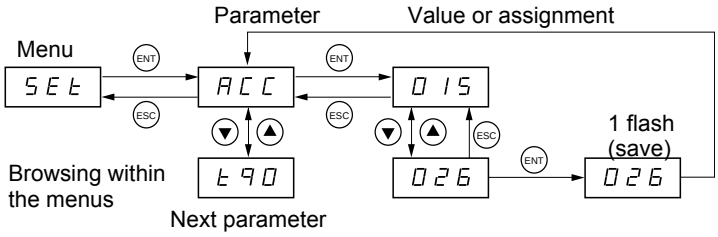


(1) Management of the displayed value "XXX" is given in the table below.
(2) Menu St2. is only visible if the "second set of motor parameters" function is configured.

Accessing parameters

Store, save the displayed choice: (ENT)
The display flashes when a value is stored.

Example:



Display of soft starter status

The displayed value "XXX" follows the following rules:

Value displayed	Condition
Error code	Soft starter in operating state «fault»
nLP rdY	Soft starter without run command and: • Power not supplied • Power supplied
tbS	Starting time delay not elapsed
HEA	Motor heating in progress
Monitoring parameter selected by the user (SUP menu). Factory setting: motor current	Soft starter with run command
brL	Soft starter braking
Stb	Waiting for a command (RUN or STOP) in cascade mode

When current limiting is applied to the soft starter, the displayed value "XXX" flashes.
It is still possible to modify the parameters even if an error occurs on the soft starter.

Troubleshooting

Error displayed	Probable cause	Procedure, remedy
FrF (1)	**Supply mains frequency, out of tolerance** This error can be configured in the Advanced settings menu drC, parameter FrC.	• Check the Supply mains. • Check that the configuration of the FrC parameter is compatible with the Supply mains used (generating set for example).
PHF (2)	**Loss of a Supply mains phase**	• Check the Supply mains, the frequency stability, the connection to the starter and any devices located between the Supply mains and the starter (contactor, fuses, circuit-breaker, etc.). • If bypass contactor. is used, check the mechanism (wear, mechanical play, lubrication, blockages...)
	Loss of a motor phase If the motor current falls below an adjustable threshold PHL in one phase for 0.5 s or in the three phases for 0.2 s. This error can be configured in the Protection menu Pro, parameter PHL.	• Check the motor connection (T1, T2, T3 terminal) and any isolating devices located between the starter and the motor (contactors, circuit-breakers, etc.). • Check the motor state. • Check that the configuration of the PHL parameter is compatible with the motor used.
uSF	**Power supply error on a run command**	• Check the power supply circuit and voltage.

(1) The FrF detection is done only at the first power ON of the power part supply.
(2) For next Power ON of the power part supply, bad frequency will also generate a desynchronization error PHF.

Refer to the user manual (1494409) for comprehensive troubleshooting information.