

# Soft starters Altistart 01

for asynchronous motors

Catalog

October 2014



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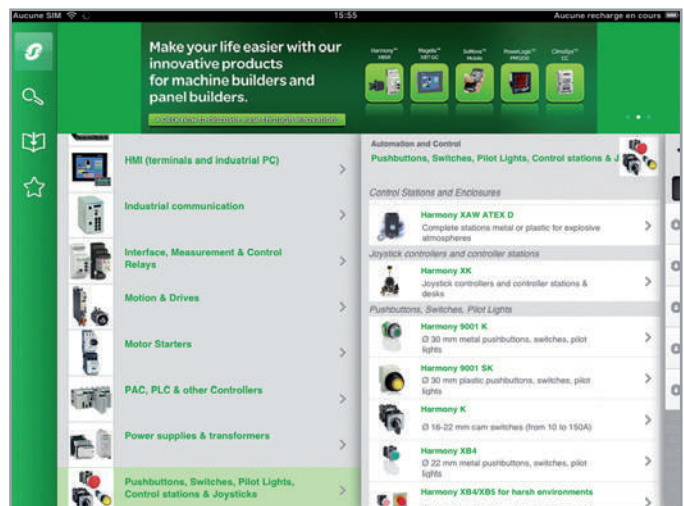
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## Soft starters for asynchronous motors

## Applications



|  |  |  |  |                         |  |
|--|--|--|--|-------------------------|--|
| <b>Power range for 50...60 Hz line supply (kW/HP)</b><br>(connection to the motor power supply line) |  | <b>0.37...11/0.5...15</b>                        |  | <b>0.75...15/1...20</b> |  |
| Single-phase 110...230 V (kW)  |  | 0.37...2.2                                       |  | –                       |  |
| Three-phase 200...240 V (kW/HP)  |  | –  |  | 0.75...7.5/1...10       |  |
| Three-phase 200...480 V (kW/HP)  |  | 0.37...11/0.5...15                               |  | –                       |  |
| Three-phase 208...600 V (kW/HP)  |  | –  |  | –                       |  |
| Three-phase 208...690 V (kW/HP)  |  | –  |  | –                       |  |
| Three-phase 230...415 V (kW)   |  | –  |  | –                       |  |
| Three-phase 230...440 V (kW)   |  | –  |  | –                       |  |
| Three-phase 380...415 V (kW)   |  | –  |  | 1.5...15                |  |
| Three-phase 440...480 V (HP)   |  | –  |  | 2...20                  |  |
| <b>Drive</b>   |  | <b>1</b>   |  | <b>2</b>                |  |
| Number of controlled phases  |  | –  |  | –                       |  |
| Type of control  |  | –  |  | –                       |  |
| Operating cycle  |  | –  |  | –                       |  |
| <b>Functions</b>   |  | Integrated                                       |  |                         |  |
| Bypass   |  | –  |  |                         |  |
| Number of I/Os   |  | –  |  |                         |  |
| Analog inputs  |  | –  |  |                         |  |
| Logic inputs   |  | –  |  |                         |  |
| Analog outputs   |  | –  |  |                         |  |
| Logic outputs  |  | –  |  |                         |  |
| Relay outputs  |  | –  |  |                         |  |
| <b>Communication</b>   |  | –  |  |                         |  |
| Integrated   |  | –  |  |                         |  |
| Available as an option   |  | –  |  |                         |  |
| <b>Standards and certifications</b>  |  | IEC/EN 60947-4-2<br>CE, UL, CSA, C-Tick, and CCC |  |                         |  |
| <b>References</b>  |  | <b>ATS01N1●●●●</b>                               |  | <b>ATS01N2●●●●</b>      |  |
| <b>Pages</b>   |  | 1/6  |  |                         |  |

## Controlled starting and deceleration of simple and complex machines



|   |   |                   |
|---|---|-------------------|
| 4...400/3...500   | 3...900   | 3...900/3...1,200 |
| –   |   |                   |
| –   |   |                   |
| –   |   |                   |
| 4...400/3...500   | –   |                   |
| –   |   | 3...900/3...1,200 |
| –   | 3...630   | –                 |
| 4...355   | –   |                   |
| –   |   |                   |
| –   |   |                   |
| 3   |   |                   |
| Configurable voltage ramp                                       | TCS (Torque Control System)   |                   |
| Standard  | Standard and severe   |                   |
| Integrated  | Available as an option  |                   |
| 1 PTC probe   |   |                   |
| 3   | 4   |                   |
| –   | 1   |                   |
| –   | 2   |                   |
| 2 (CO)  | 3   |                   |
| Modbus  |   |                   |
| –   | Fipio, PROFIBUS DP, DeviceNet, Modbus TCP   |                   |
| IEC/EN 60947-4-2, EMC class A<br>CE, UL, CSA, C-Tick, GOST, CCC | IEC/EN 60947-4-2, EMC class A and B<br>CE, UL, CSA, DNV, C-Tick, GOST, CCC, NOM, SEPRO, and TCF |                   |
| <b>ATS22●●●●</b>  | <b>ATS48●●●Q</b>  | <b>ATS48●●●Y</b>  |
| Please refer to the Altistart 22 catalog.                       | Please refer to the Altistart 48 catalog.   |                   |

# Soft starters for asynchronous motors

## Altistart 01

1

PF 140052A



ATS01N1●●●

### Presentation

The Altistart 01 soft starter operates either as a torque limiter on starting, or as a soft start/soft stop unit for asynchronous motors.

Using the Altistart 01 starter enhances the starting performance of asynchronous motors by allowing them to start gradually, smoothly, and in a controlled manner. It helps to prevent mechanical shocks, which cause wear and tear, and subsequent maintenance work and production downtime.

The Altistart U01 limits the starting torque and current peaks on starting on machines that do not require a high starting torque.

It is designed for the following simple applications:

- conveyors
- conveyor belts
- pumps
- fans
- compressors
- automatic doors and gates
- small cranes
- belt-driven machinery, etc.

The Altistart 01 is compact, easy to install, and can be mounted side-by-side. It complies with standards IEC/EN 60947-4-2, and carries UL, CSA, C-Tick, and CCC certifications, and CE marking.

The Altistart 01 soft start/soft stop unit offer comprises 3 ranges:

#### ■ ATS01N1●●● soft starters

- These control one phase of the motor power supply (single-phase or three-phase) to limit the starting torque.
- They feature an internal bypass relay.
- Motor power ratings range from 0.37 kW to 11 kW.
- Motor supply voltages range from 110 V to 480 V, 50/60 Hz. An external power supply is required for controlling the starter.

A contactor is always required to shut off power to the motor.

#### ■ ATS01N2●●● soft start/soft stop units

- These control two phases of the motor power supply to limit the starting current and for deceleration.
- They feature an internal bypass relay.
- Motor power ratings range from 0.75 kW to 15 kW.
- The motor supply voltages are as follows: 230 V, 400 V, and 480 V, 50/60 Hz.

The use of a line contactor is not necessary on machines where electrical isolation is not required.

#### ■ ATS01N2●●● soft start/soft stop units

See page 2/2.

PF 140051A



ATS01N2●●●

### Description

■ Altistart 01 soft starters (ATS01N1●●●) are equipped with:

- a potentiometer 1 for setting the starting time
- a potentiometer 2 for adjusting the starting voltage threshold according to the motor load
- 2 inputs 3:
  - 1 x 24 V  $\overline{\text{---}}$  input or 1 x 110...240 V  $\sim$  input for powering the control part that controls the motor

■ Altistart 01 soft start/soft stop units (ATS01N2●●●) are equipped with:

- a potentiometer 6 for setting the starting time
- a potentiometer 8 for setting the deceleration time
- a potentiometer 7 for adjusting the starting voltage threshold according to the motor load
- 1 green LED 4 to indicate that the unit is powered up
- 1 yellow LED 5 to indicate that the motor is powered at nominal voltage, if it is connected to the starter
- a connector 9 for:
  - 2 logic inputs for Run/Stop commands
  - 1 logic input for the BOOST function
  - 1 logic output to indicate the end of starting
  - 1 relay output to indicate the motor has reached a standstill at the end of the deceleration stage

# Soft starters for asynchronous motors

## Altistart 01

### Description (continued)

#### Equivalence table for contact references

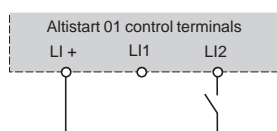
| Functions                    | ATS01N2●●LU/QN/RT            |
|------------------------------|------------------------------|
| Relay outputs                | R1A<br>R1C                   |
| External power supply 0 V    | C0M                          |
| Stop command                 | LI1                          |
| Run command                  | LI2                          |
| Control section power supply | LI + (+ 24 V positive logic) |
| BOOST                        | BOOST                        |
| End of starting              | LO1                          |
| 115 V external power supply  | –                            |

### Functions

#### ■ 2-wire control

The run and stop commands are controlled by a single logic input. State 1 of logic input LI2 controls starting and state 0 controls stopping.

#### ATS01N2●●LU/QN/RT



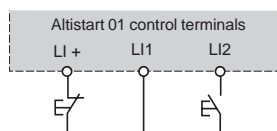
Wiring diagram for 2-wire control

#### ■ 3-wire control

The run and stop commands are controlled by 2 different logic inputs.

Stopping is achieved when logic input LI1 opens (state 0).

The pulse on input LI2 is stored until input LI1 opens.



Wiring diagram for 3-wire control

#### ■ Starting time

Controlling the starting time means that the time of the voltage ramp applied to the motor can be adjusted to obtain a gradual starting time, dependent on the motor load.

#### ■ Voltage boost function via logic input

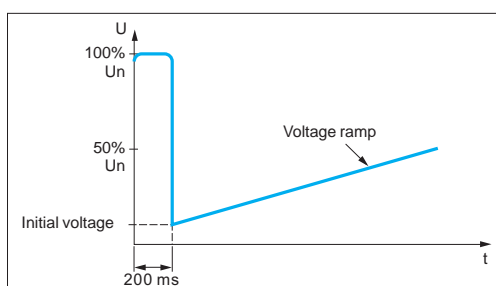
Activating the BOOST logic input enables the function for supplying a starting overtorque capable of overcoming any mechanical friction.

When the input is at state 1, the function is active (input connected to the + 24 V) and the starter applies a fixed voltage to the motor for a limited time before starting.

#### ■ End of starting

□ Application function via logic output LO1

ATS01N206●● to ATS01N232●● soft start/soft stop units are equipped with an open collector logic output LO, which indicates the end of starting when the motor has reached nominal speed.



Application of a voltage boost equal to 100% of the nominal motor voltage



# Soft starters for asynchronous motors

## Altistart 01

1

DF504014



ATS01N103FT

DF504015



ATS01N212QN

### Soft starters for 0.37 to 11 kW motors

| Motor  |       |             |       |       |       | Starter            |   |               |                 |  |
|--|-------|-------------|-------|-------|-------|--------------------|---|---------------|-----------------|--|
| Motor power (1)  |       |             |       |       |       | Nominal<br>current | Dimensions<br>W x D x H                   | Reference (2) | Weight          |  |
| Single-phase   |       | Three-phase |       |       |       |                    |   |               |                 |  |
| 230 V  | 110 V | 230 V       | 230 V | 400 V | 460 V |                    |   |               |                 |  |
| kW   | HP    | kW          | HP    | kW    | HP    | A                  | mm/<br>in.                                |               | kg/<br>lb       |  |
| Single-phase 110...230 V or three-phase 110...480 V supply voltage, 50/60 Hz |       |             |       |       |       |                    |   |               |                 |  |
| 0.37   | —     | 0.37        | 0.5   | 1.1   | 0.5   | 3                  | 22.5 x 100.4 x 100/<br>0.89 x 3.95 x 3.94 | ATS01N103FT   | 0.160/<br>0.353 |  |
|  | —     | 0.55        | —     | —     | 1.5   |                    |   |               |                 |  |
| 0.75   | 0.5   | 0.75        | 1     | 2.2   | 2     | 6                  | 22.5 x 100.4 x 100/<br>0.89 x 3.95 x 3.94 | ATS01N106FT   | 0.160/<br>0.353 |  |
|  | —     | 1.1         | 1.5   | 3     | 3     |                    |   |               |                 |  |
| 1.1  | 1     | 1.5         | 2     | 4     | 5     | 9                  | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88   | ATS01N109FT   | 0.280/<br>0.617 |  |
| 1.5  | 1.5   | 2.2         | 3     | 5.5   | 7.5   | 12                 | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88   | ATS01N112FT   | 0.280/<br>0.617 |  |
| 2.2  | 2     | 3           | 5     | 7.5   | 10    | 25                 | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88   | ATS01N125FT   | 0.350/<br>0.772 |  |
|  | 3     | 4           | 7.5   | 9     | 15    |                    |   |               |                 |  |
|  |       | 5.5         |       | 11    |       |                    |   |               |                 |  |

### Accessories

| Description                              | For use with starter        | Reference | Weight kg/<br>lb |
|--|-----------------------------|-----------|------------------|
| Adapter for mounting on<br>C-DZ5 MB rail | ATS01N103FT,<br>ATS01N106FT | RHZ66     | 0.005/<br>0.011  |

### Soft start/soft stop units for 0.75 to 15 kW motors (3)

| Motor  |       | Starter         |   |               |                 |
|--|-------|-----------------|---|---------------|-----------------|
| Motor power (1)                                  |       | Nominal current | Dimensions W x D x H                    | Reference (2) | Weight          |
| kW   | HP    | A               | mm/<br>in.                              |               | kg/<br>lb       |
| Three-phase supply voltage: 200...240 V 50/60 Hz |       |                 |   |               |                 |
| 0.75/1.1   | 1/1.5 | 6               | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N206LU   | 0.420/<br>0.926 |
| 1.5  | 2     | 9               | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N209LU   | 0.420/<br>0.926 |
| 2.2/3  | 3/–   | 12              | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N212LU   | 0.420/<br>0.926 |
| 4/5.5  | 5/7.5 | 22              | 45 x 130.7 x 154/<br>1.77 x 5.15 x 6.06 | ATS01N222LU   | 0.560/<br>1.235 |
| 7.5  | 10    | 32              | 45 x 130.7 x 154/<br>1.77 x 5.15 x 6.06 | ATS01N232LU   | 0.560/<br>1.235 |
| Three-phase supply voltage: 380...415 V 50/60 Hz |       |                 |   |               |                 |
| 1.5/2.2/3  | –     | 6               | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N206QN   | 0.420/<br>0.926 |
| 4  | –     | 9               | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N209QN   | 0.420/<br>0.926 |
| 5.5  | –     | 12              | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N212QN   | 0.420/<br>0.926 |
| 7.5/11   | –     | 22              | 45 x 130.7 x 154/<br>1.77 x 5.15 x 6.06 | ATS01N222QN   | 0.560/<br>1.235 |
| 15   | –     | 32              | 45 x 130.7 x 154/<br>1.77 x 5.15 x 6.06 | ATS01N232QN   | 0.560/<br>1.235 |
| Three-phase supply voltage: 440...480 V 50/60 Hz |       |                 |   |               |                 |
| –  | 2/3   | 6               | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N206RT   | 0.420/<br>0.926 |
| –  | 5     | 9               | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N209RT   | 0.420/<br>0.926 |
| –  | 7.5   | 12              | 45 x 130.7 x 124/<br>1.77 x 5.15 x 4.88 | ATS01N212RT   | 0.420/<br>0.926 |
| –  | 10/15 | 22              | 45 x 130.7 x 154/<br>1.77 x 5.15 x 6.06 | ATS01N222RT   | 0.560/<br>1.235 |
| –  | 20    | 32              | 45 x 130.7 x 154/<br>1.77 x 5.15 x 6.06 | ATS01N232RT   | 0.560/<br>1.235 |

(1) Standard motor power ratings, HP power ratings indicated according to standard UL 508.

(2) For motor thermal protection, use a GVME thermal-magnetic motor circuit breaker (see combinations page 1/7).

(3) Control power supply built into the starter.

# Soft starters for asynchronous motors

Altistart 01

400 V power supply, type 1 coordination

| Compatible components according to IEC 60947-4-1 and IEC 60947-4-2  |      |                     |                 |        |                     |  |                       |        |                  |                           |
|---|------|---------------------|-----------------|--------|---------------------|--|-----------------------|--------|------------------|---------------------------|
| Combine either circuit breaker (light green columns), contactor, and starter, or switch/fuse (dark green columns), contactor, and starter |      |                     |                 |        |                     |  |                       |        |                  |                           |
| Motor   |      | Starter<br>Class 10 | Circuit breaker | Rating | Contactor           | Switch or<br>disconnect<br>switch<br>(base unit) | aM fuses<br>Reference | Rating | I <sup>2</sup> t | Thermal<br>overload relay |
| kW  | A    |                     |                 |        |                     |  |                       |        |                  |                           |
| M1  |      | A1                  | Q1              |        | KM1, KM2, KM3       | Q2   |                       |        |                  | F4                        |
| 0.37  | 0.98 | ATS01N103FT         | GV2ME05         | 1      | LC1K06 or<br>LC1D09 | LS1D2531   | DF2CA02               | 2      | 265              | LR2K0306<br>LRD05         |
| 0.55  | 1.5  | ATS01N103FT         | GV2ME06         | 1.6    | LC1K06 or<br>LC1D09 | LS1D2531   | DF2CA02               | 2      | 265              | LR2K0307<br>LRD06         |
| 0.75  | 2    | ATS01N103FT         | GV2ME07         | 2.5    | LC1K06 or<br>LC1D09 | LS1D2531   | DF2CA02               | 2      | 265              | LR2K0308<br>LRD07         |
| 1.1   | 2.5  | ATS01N103FT         | GV2ME08         | 4      | LC1K06 or<br>LC1D09 | LS1D2531   | DF2CA04               | 4      | 265              | LR2K0308<br>LRD08         |
|   |      | ATS01N206QN         | GV2ME08         | 4      | LC1K06 or<br>LC1D09 | LS1D2531   | DF2CA04               | 4      | 265              | LR2K0308<br>LRD08         |
| 1.5   | 3.5  | ATS01N106FT         | GV2ME08         | 4      | LC1K06 or<br>LC1D09 | LS1D2531   | DF2CA06               | 6      | 265              | LR2K0310<br>LRD08         |
|   |      | ATS01N206QN         | GV2ME08         | 4      | LC1K06 or<br>LC1D09 | LS1D2531   | DF2CA06               | 6      | 265              | LR2K0310<br>LRD08         |
| 2.2   | 5    | ATS01N106FT         | GV2ME10         | 6.3    | LC1K06 or<br>LC1D09 | LS1D2531   | DF2CA08               | 8      | 265              | LR2K0312<br>LRD10         |
|   |      | ATS01N206QN         | GV2ME10         | 6.3    | LC1K09 or<br>LC1D09 | LS1D2531   | DF2CA08               | 8      | 265              | LR2K0312<br>LRD10         |
| 3   | 6.5  | ATS01N106FT         | GV2ME14         | 9      | LC1K09 or<br>LC1D09 | LS1D2531   | DF2CA12               | 12     | 265              | LR2K0314<br>LRD12         |
|   |      | ATS01N206QN         | GV2ME14         | 9      | LC1K09 or<br>LC1D09 | LS1D2531   | DF2CA12               | 12     | 265              | LR2K0314<br>LRD12         |
| 4   | 8.4  | ATS01N109FT         | GV2ME14         | 9      | LC1K09 or<br>LC1D09 | LS1D2531   | DF2CA12               | 12     | 610              | LR2K0316<br>LRD14         |
|   |      | ATS01N209QN         | GV2ME14         | 9      | LC1K09 or<br>LC1D09 | LS1D2531   | DF2CA12               | 12     | 610              | LR2K0316<br>LRD14         |
| 5.5   | 11   | ATS01N112FT         | GV2ME16         | 13     | LC1K12 or<br>LC1D12 | LS1D2531   | DF2CA16               | 16     | 610              | LR2K0321<br>LRD16         |
|   |      | ATS01N212QN         | GV2ME16         | 13     | LC1K12 or<br>LC1D12 | LS1D2531   | DF2CA16               | 16     | 610              | LR2K0321<br>LRD16         |
| 7.5   | 14.8 | ATS01N125FT         | GV2ME20         | 17     | LC1D18              | LS1D2531   | DF2CA20               | 20     | 6050             | LRD21                     |
|   |      | ATS01N222QN         | GV2ME20         | 17     | LC1D18              | LS1D2531   | DF2CA20               | 20     | 6050             | LRD21                     |
| 9   | 18.1 | ATS01N125FT         | GV2ME21         | 21     | LC1D25              | LS1D2531   | DF2CA25               | 25     | 6050             | LRD21                     |
|   |      | ATS01N222QN         | GV2ME21         | 21     | LC1D25              | LS1D2531   | DF2CA25               | 25     | 6050             | LRD21                     |
| 11  | 21   | ATS01N125FT         | GV2ME22         | 23     | LC1D25              | LS1D2531   | DF2CA25               | 25     | 6050             | LRD22                     |
|   |      | ATS01N222QN         | GV2ME22         | 23     | LC1D25              | LS1D2531   | DF2CA25               | 25     | 6050             | LRD22                     |
| 15  | 28.5 | ATS01N232QN         | GV2ME32         | 32     | LC1D32              | GK1EM  | DF2EA40               | 40     | 7200             | LRD3353                   |



# 2 - Altistart U01 soft starters and TeSys U starter controllers

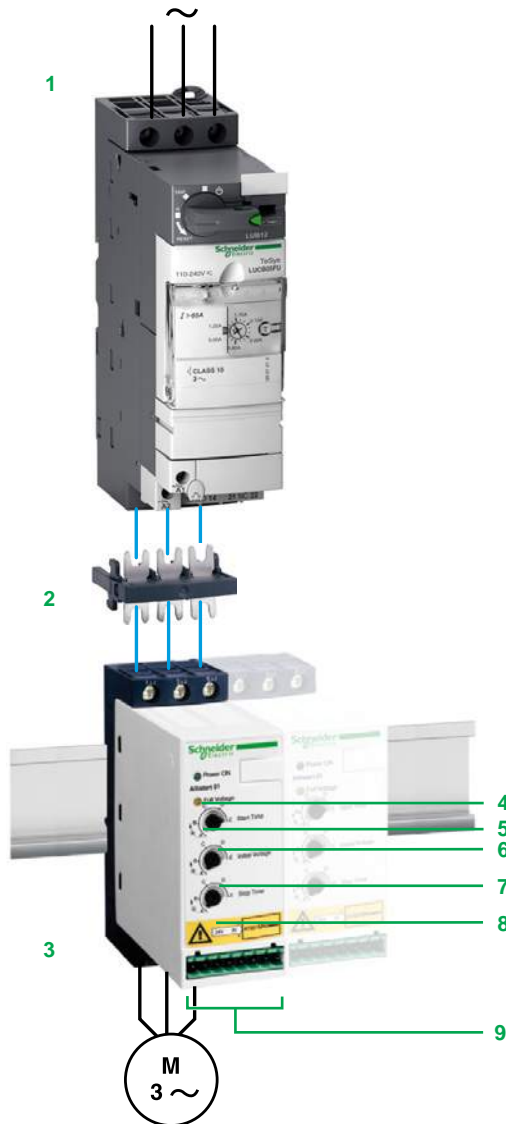
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# Soft starters for asynchronous motors

## Altistart U01 and TeSys U

PF514367



### Presentation

The Altistart U01 is a soft start/soft stop unit for asynchronous motors. It is designed primarily for combinations with **TeSys U** starter-controllers.

When used in combination with a **TeSys U 1** controller by means of a connector **2**, the Altistart U01 **3** is a power option that provides the “soft start/soft stop” function. The result is a unique, innovative motor starter.

Using the Altistart U01 starter enhances the starting performance of asynchronous motors by allowing them to start gradually, smoothly, and in a controlled manner. It helps to prevent mechanical shocks, which cause wear and tear, and subsequently limits the amount of maintenance work and production downtime. The Altistart U01 limits the starting torque and current peaks on starting on machines that do not require a high starting torque.

The Altistart U01 is designed for the following simple applications:

- conveyors
- conveyor belts
- pumps
- fans
- compressors
- automatic doors and gates
- small cranes
- belt-driven machinery

The Altistart U01 is compact and easy to install. It complies with standards IEC/EN 60947-4-2, and carries UL, CSA, C-Tick, and CCC certifications, and CE marking.

### ■ ATSU01N2●●LT soft start/soft stop units

- These control two phases of the motor power supply to limit the starting current and for deceleration.
  - They feature an internal bypass relay.
  - Motor power ratings range from 0.75 kW to 15 kW.
  - Motor supply voltages range from 200 V to 480 V, 50/60 Hz.
- An external power supply is required for controlling the starter.

### Description

- Altistart U01 soft start/soft stop units are equipped with:
  - a potentiometer for setting the starting time **6**
  - a potentiometer for setting the deceleration time **8**
  - a potentiometer for adjusting the starting voltage threshold according to the motor load **7**
  - 1 green LED **4** to indicate that the unit is powered up
  - 1 yellow LED **5** to indicate that the motor is powered at nominal voltage, if it is connected to the starter
  - a connector **9** for:
    - 2 logic inputs for Run/Stop commands
    - 1 logic input for the BOOST function
    - 1 logic output to indicate the end of starting
    - 1 relay output to indicate that an error has been detected on the starter power supply or that the motor has reached a standstill at the end of the deceleration stage

# Soft starters for asynchronous motors

Altistart U01 and TeSys U

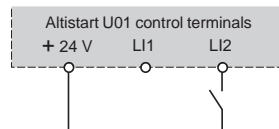
## Description of a TeSys U starter-controller

Please refer to the "TeSys U starters - open version" catalog.

## ATSU01N2●●LT soft start unit functions

### ■ 2-wire control

The run and stop commands are controlled by a single logic input. State 1 of logic input LI2 controls starting and state 0 controls stopping.



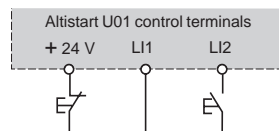
Wiring diagram for 2-wire control

### ■ 3-wire control

The run and stop commands are controlled by 2 different logic inputs.

Stopping is achieved when logic input LI1 opens (state 0).

The pulse on input LI2 is stored until input LI1 opens.



Wiring diagram for 3-wire control

### ■ Starting time:

Controlling the starting time means that the time of the voltage ramp applied to the motor can be adjusted to obtain a gradual starting time, dependent on the motor load.

### ■ Voltage boost function via logic input

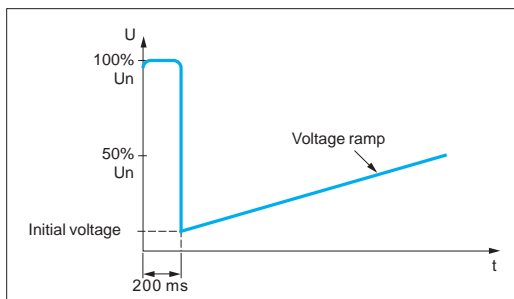
Activating the BOOST logic input enables the function for supplying a starting overtorque capable of overcoming any mechanical friction.

When the input is at state 1, the function is active (input connected to the + 24 V) and the starter applies a fixed voltage to the motor for a limited time before starting.

### ■ End of starting

□ Application function for logic output LO1

ATSU01N2●●LT soft start/soft stop units are equipped with an open collector logic output LO, which indicates the end of starting when the motor has reached nominal speed.



Application of a voltage boost equal to 100% of the nominal motor voltage

# Soft starters for asynchronous motors

Altistart U01 and TeSys U

2



ATSU01N222LT

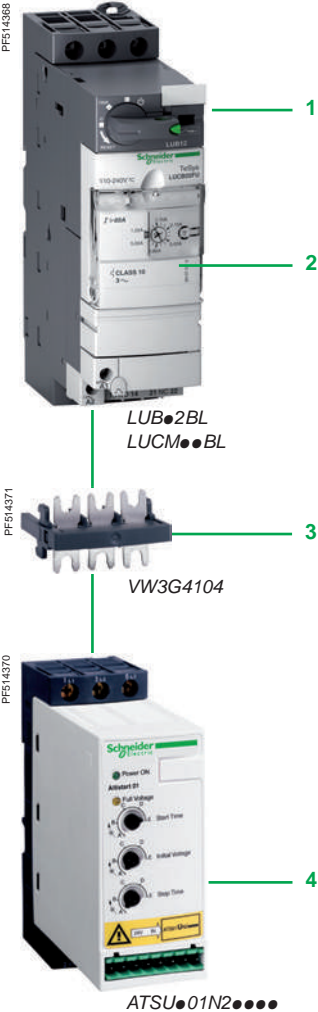
| Soft start/soft stop units for 0.75 to 15 kW motors (can be combined with TeSys U starter) |       |       |       |                 |                                     |              |             |
|--|-------|-------|-------|-----------------|-------------------------------------|--------------|-------------|
| Motor  |       |       |       | Starter         |                                     |              |             |
| Motor power (1)  |       |       |       | Nominal current | Dimensions W x D x H                | Reference    | Weight      |
| 230 V  | 230 V | 400 V | 460 V |                 |                                     |              |             |
| kW   | HP    | kW    | HP    | A               | mm/in.                              |              | kg/lb       |
| Three-phase supply voltage: 200...480 V 50/60 Hz   |       |       |       |                 |                                     |              |             |
| 0.75   | 1     | 1.5   | 2     | 6               | 45 x 130.7 x 124/1.77 x 5.15 x 4.88 | ATSU01N206LT | 0.340/0.750 |
| 1.1  | 1.5   | 2.2   | 3     |                 |                                     |              |             |
|  |       | 3     |       |                 |                                     |              |             |
| 1.5  | 2     | —     | 5     | 9               | 45 x 130.7 x 124/1.77 x 5.15 x 4.88 | ATSU01N209LT | 0.340/0.750 |
| —  | —     | 4     | —     |                 |                                     |              |             |
| 2.2  | 3     | 5.5   | 7.5   | 12              | 45 x 130.7 x 124/1.77 x 5.15 x 4.88 | ATSU01N212LT | 0.340/0.750 |
| 3  | —     | —     | —     |                 |                                     |              |             |
| 4  | 5     | 7.5   | 10    | 22              | 45 x 130.7 x 124/1.77 x 5.15 x 4.88 | ATSU01N222LT | 0.490/1.080 |
| 5.5  | 7.5   | 11    | 15    |                 |                                     |              |             |
| 7.5  | 10    | 15    | 20    | 32              | 45 x 130.7 x 124/1.77 x 5.15 x 4.88 | ATSU01N232LT | 0.490/1.080 |

| Accessory  |                      |           |              |
|--|----------------------|-----------|--------------|
| Description                                      | For use with starter | Reference | Weight kg/lb |
| Power connector between ATSU01N2●●LT and TeSys U | ATSU01N2●●LT         | VW3G4104  | 0.020/0.044  |

(1) Standard motor power ratings, HP power ratings indicated according to standard UL508.

# Soft starters for asynchronous motors

## Altistart U01 and TeSys U



### TeSys U starter and soft start unit combinations

Numerous possibilities for combinations and options are offered. Please refer to the “TeSys U starters - open version” catalog.

| Motor power |       |       | Soft start unit | TeSys U    |                             |
|-------------|-------|-------|-----------------|------------|-----------------------------|
| Voltage     |       |       |                 | Power base | Control unit <sup>(1)</sup> |
| 230 V       | 400 V | 460 V |                 |            |                             |
| kW/HP       | kW    | HP    |                 |            |                             |
| 0.75/1      | 1.5   | 2     | ATSU01N206LT    | LUB12      | LUC●05BL                    |
| 1.1/1.5     | 2.2/3 | 3     | ATSU01N206LT    | LUB12      | LUC●12BL                    |
| 1.5/2       | –     | –     | ATSU01N209LT    | LUB12      | LUC●12BL                    |
| –           | 4     | 5     | ATSU01N209LT    | LUB12      | LUC●12BL                    |
| 2.2/3       | –     | –     | ATSU01N212LT    | LUB12      | LUC●12BL                    |
| 3/–         | 5.5   | 7.5   | ATSU01N212LT    | LUB32      | LUC●18BL                    |
| 4/5         | 7.5   | 10    | ATSU01N222LT    | LUB32      | LUC●18BL                    |
| 5.5/7.5     | 11    | 15    | ATSU01N222LT    | LUB32      | LUC●32BL                    |
| 7.5/10      | 15    | 20    | ATSU01N232LT    | LUB32      | LUC●32BL                    |

- Example of combining a motor-starter with:
- 1 power base for non-reversing DOL starting (LUB●2BL)
  - 2 control unit (LUCM●●BL)
  - 3 power connector (VW3G4104)
  - 4 Altistart U01 (ATSU01N2●●●●LT) soft start/soft stop unit

(1) Depending on the configuration required for the TeSys U starter, replace the ● with A for standard, B for advanced, and M for multifunction.



3

A

|              |     |
|--------------|-----|
| ATS01N103FT  | 1/6 |
| ATS01N106FT  | 1/6 |
| ATS01N109FT  | 1/6 |
| ATS01N112FT  | 1/6 |
| ATS01N125FT  | 1/6 |
| ATS01N206LU  | 1/6 |
| ATS01N206QN  | 1/6 |
| ATS01N206RT  | 1/6 |
| ATS01N209LU  | 1/6 |
| ATS01N209QN  | 1/6 |
| ATS01N209RT  | 1/6 |
| ATS01N212LU  | 1/6 |
| ATS01N212QN  | 1/6 |
| ATS01N212RT  | 1/6 |
| ATS01N222LU  | 1/6 |
| ATS01N222QN  | 1/6 |
| ATS01N222RT  | 1/6 |
| ATS01N232LU  | 1/6 |
| ATS01N232QN  | 1/6 |
| ATS01N232RT  | 1/6 |
| ATSU01N206LT | 2/4 |
| ATSU01N209LT | 2/4 |
| ATSU01N212LT | 2/4 |
| ATSU01N222LT | 2/4 |
| ATSU01N232LT | 2/4 |

R

|       |     |
|-------|-----|
| RHZ66 | 1/6 |
|-------|-----|

V

|          |     |
|----------|-----|
| VW3G4104 | 2/4 |
|----------|-----|









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