



## Main

|                              |                                                                    |
|------------------------------|--------------------------------------------------------------------|
| Range of product             | Altistart 01                                                       |
| Product or component type    | Soft starter                                                       |
| Product destination          | Asynchronous motors                                                |
| Product specific application | Simple machine                                                     |
| Device short name            | ATS01                                                              |
| Phase                        | 3 phase                                                            |
| [Us] rated supply voltage    | 200...240 V - 10...10 %                                            |
| Motor power kW               | 1.5 kW, 3 phase 200...240 V                                        |
| Maximum Horse Power Rating   | 2 hp, 3 phase 200...240 V                                          |
| ICL starter rating           | 9 A                                                                |
| Utilisation category         | AC-53B EN/IEC 60947-4-2                                            |
| Current consumption          | 45 A at nominal load                                               |
| Type of start                | Start with voltage ramp                                            |
| Power dissipation in W       | 4 W at full load and at end of starting<br>94 W in transient state |

## Complementary

|                              |                                                                                                                     |
|------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Assembly style               | With heat sink                                                                                                      |
| Function available           | Integrated bypass                                                                                                   |
| Supply voltage limits        | 180...264 V                                                                                                         |
| Supply frequency             | 50...60 Hz - 5...5 %                                                                                                |
| Network frequency            | 47.5...63 Hz                                                                                                        |
| Output voltage               | <= power supply voltage                                                                                             |
| [Uc] control circuit voltage | Built into the starter                                                                                              |
| Starting time                | 1 s / 100<br>5 s / 20<br>10 s / 10<br>Adjustable from 1 to 10 s                                                     |
| Deceleration time symb       | Adjustable from 1 to 10 s                                                                                           |
| Starting torque              | 30...80 % of starting torque of motor connected directly on the line supply                                         |
| Discrete input type          | Logic LI1, LI2, BOOST) stop, run and boost on start-up functions <= 8 mA 27 kOhm                                    |
| Discrete input voltage       | 24...40 V                                                                                                           |
| Discrete input logic         | Positive LI1, LI2, BOOST < 5 V <= 0.2 mA > 13 V, >= 0.5 mA                                                          |
| Discrete output current      | 2 A DC-13<br>3 A AC-15                                                                                              |
| Discrete output type         | Open collector logic LO1 end of starting signal<br>Relay outputs R1A, R1C NO                                        |
| Discrete output voltage      | 24 V 6...30 V) open collector logic                                                                                 |
| Minimum switching current    | 10 mA 6 V DC relay outputs                                                                                          |
| Maximum switching current    | Relay outputs 2 A 250 V AC cos phi = 0.5 20 ms inductive<br>Relay outputs 2 A 30 V DC cos phi = 0.5 20 ms inductive |
| Display type                 | 1 LED Green)starter powered up<br>1 LED Yellow)nominal voltage reached                                              |
| Tightening torque            | 16.82...22.13 Lbf.in (1.9...2.5 N.m)<br>4.43 lbf.in (0.5 N.m)                                                       |

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical connection  | 4 mm screw clamp terminal - rigid 1 1...10 mm <sup>2</sup> AWG 8 power circuit<br>Screw connector - rigid 1 0.5...2.5 mm <sup>2</sup> AWG 14 control circuit<br>4 mm screw clamp terminal - rigid 2 1...6 mm <sup>2</sup> AWG 10 power circuit<br>Screw connector - rigid 2 0.5...1 mm <sup>2</sup> AWG 17 control circuit<br>Screw connector - flexible with cable end 1 0.5...1.5 mm <sup>2</sup> AWG 16 control circuit<br>4 mm screw clamp terminal - flexible without cable end 1 1.5...10 mm <sup>2</sup> AWG 8 power circuit<br>Screw connector - flexible without cable end 1 0.5...2.5 mm <sup>2</sup> AWG 14 control circuit<br>4 mm screw clamp terminal - flexible with cable end 2 1...6 mm <sup>2</sup> AWG 10 power circuit<br>4 mm screw clamp terminal - flexible without cable end 2 1.5...6 mm <sup>2</sup> AWG 10 power circuit<br>Screw connector - flexible without cable end 2 0.5...1.5 mm <sup>2</sup> AWG 16 control circuit |
| Marking                | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Operating position     | Vertical +/- 10 degree                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Height                 | 4.88 in (124 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Maximum Width          | 1.77 in (45 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Depth                  | 5.16 in (131 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Net Weight             | 0.93 lb(US) (0.42 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Compatibility code     | ATS01N2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Motor power range AC-3 | 1.1...2 kW 200...240 V 3 phase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Motor starter type     | Soft starter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic compatibility         | Conducted and radiated emissions level B CISPR 11<br>Conducted and radiated emissions level B IEC 60947-4-2<br>Damped oscillating waves level 3 IEC 61000-4-12<br>Electrostatic discharge level 3 IEC 61000-4-2<br>EMC immunity EN 50082-1<br>EMC immunity EN 50082-2<br>Harmonics IEC 1000-3-2<br>Harmonics IEC 1000-3-4<br>Immunity to conducted interference caused by radio-electrical fields level 3 IEC 61000-4-6<br>Immunity to electrical transients level 4 IEC 61000-4-4<br>Immunity to radiated radio-electrical interference level 3 IEC 61000-4-3<br>Micro-cuts and voltage fluctuation IEC 61000-4-11<br>Voltage/current impulse level 3 IEC 61000-4-5 |
| Standards                             | EN/IEC 60947-4-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Product certifications                | GOST<br>CSA<br>C-tick<br>UL<br>B44.1-96/ASME A17.5 for starter wired to the motor delta terminal<br>CCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| IP degree of protection               | IP20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Pollution degree                      | 2 EN/IEC 60947-4-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Vibration resistance                  | 1 gn 13...150 Hz)EN/IEC 60068-2-6<br>1.5 mm peak to peak 3...13 Hz)EN/IEC 60068-2-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Shock resistance                      | 15 gn 11 ms EN/IEC 60068-2-27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Relative humidity                     | 5...95 % without condensation or dripping water EN/IEC 60068-2-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Ambient air temperature for operation | -10...40 °C (without derating)<br>104...122 °F (40...50 °C) with current derating of 2 % per °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Ambient air temperature for storage   | -13...158 °F (-25...70 °C) EN/IEC 60947-4-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating altitude                    | <= 1000 m without derating<br>> 3280.84 ft (1000 m) with current derating of 2.2 % per additional 100 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Ordering and shipping details

|                       |                                           |
|-----------------------|-------------------------------------------|
| Category              | 22392 - ATSU01/ATS01 LOW HP SOFT STARTERS |
| Discount Schedule     | I11                                       |
| GTIN                  | 00785901676027                            |
| Nbr. of units in pkg. | 1                                         |
| Package weight(Lbs)   | 1.13 lb(US) (0.51 kg)                     |

|                   |    |
|-------------------|----|
| Returnability     | No |
| Country of origin | DE |

## Packing Units

|                              |                       |
|------------------------------|-----------------------|
| Unit Type of Package 1       | PCE                   |
| Package 1 Height             | 2.17 in (5.5 cm)      |
| Package 1 width              | 5.91 in (15 cm)       |
| Package 1 Length             | 6.77 in (17.2 cm)     |
| Unit Type of Package 2       | S03                   |
| Number of Units in Package 2 | 14                    |
| Package 2 Weight             | 17.86 lb(US) (8.1 kg) |
| Package 2 Height             | 11.81 in (30 cm)      |
| Package 2 width              | 11.81 in (30 cm)      |
| Package 2 Length             | 15.75 in (40 cm)      |

## Offer Sustainability

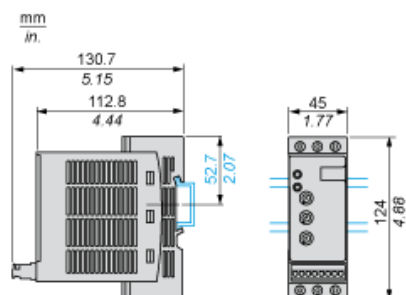
|                            |                                                                                                                                                                                                                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                                                           |
| REACH free of SVHC         | Yes                                                                                                                                                                                                                                                                                         |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                                                                                                                                                                                              |
| Toxic heavy metal free     | Yes                                                                                                                                                                                                                                                                                         |
| Mercury free               | Yes                                                                                                                                                                                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                                                                                                                                                                                      |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                                                                                                                                                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.                                                                                                                                                                |

## Contractual warranty

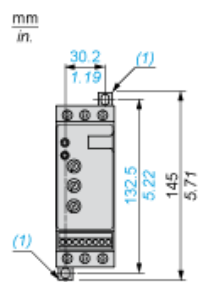
|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

## Dimensions

### Mounting on Symetrical (35 mm) Rail

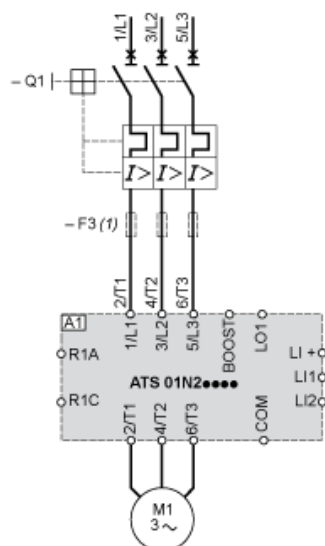


### Screw Fixing



(1) Retractable fixings

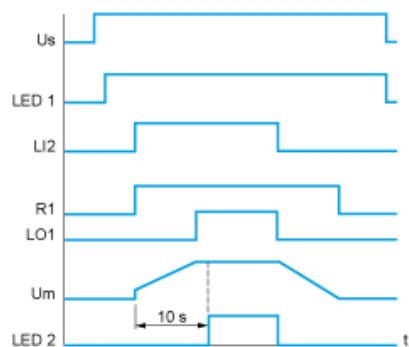
## Example of Manual Control



- A1 : Soft start/soft stop unit
- (1) For type 2 coordination
- Q1 : Motor circuit-breaker
- F3 : 3 fast-acting fuses

## Function Diagram

### 2-wire Control with Deceleration



Us : Power supply voltage

LED Green LED

1 :

LI2 : Logic input

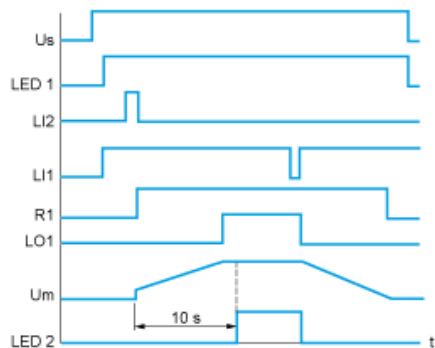
R1 : Relay output

LO1 : Logic output

LED Yellow LED

2 :

### 3-wire Control with Deceleration



Us : Power supply voltage

LED Green LED

1 :

LI2, Logic inputs

LI1 :

R1 : Relay output

LO1 : Logic output

Um : Motor voltage

LED Yellow LED

2 :