



### 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  |
| Network number of phases     | 1 phase  |
| [Us] rated supply voltage    | 110...480 V - 10...10 %  |
| Motor power kW               | 4 kW, 3 phases at 400 V<br>1.5 kW, 3 phases at 230 V<br>1.1 kW, 1 phase at 230 V |
| Motor power hp               | 1 hp, 3 phases at 210 V<br>2 hp, 3 phases at 230 V<br>5 hp, 3 phases at 460 V    |
| IcL starter rating           | 9 A  |
| Utilisation category         | AC-53B conforming to EN/IEC 60947-4-2  |
| Current consumption          | 45 A at nominal load   |
| Type of start                | Start with voltage ramp  |
| Power dissipation in W       | 1 W at full load and at end of starting<br>46 W in transient state               |

### Complementary

|                              |  |
|------------------------------|--|
| Assembly style               | With heat sink   |
| Function available           | Integrated bypass  |
| Supply voltage limits        | 99...528 V   |
| Supply frequency             | 50...60 Hz - 5...5 %   |
| Network frequency            | 47.5...63 Hz   |
| Output voltage               | <= power supply voltage  |
| [Uc] control circuit voltage | 110 V AC +/- 10 % at 35 mA<br>24 V AC/DC +/- 10 % at 30 mA<br>240 V AC +/- 10 % at 80 mA |
| Starting time                | 1 s / 100<br>5 s / 20<br>Adjustable from 1 to 5 s  |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                         |  |
|-------------------------|--|
| Starting torque         | 30...80 % of starting torque of motor connected directly on the line supply  |
| Discrete output current | 2 A DC-13<br>3 A AC-15   |
| Tightening torque       | 0.5 N.m<br>1.9...2.5 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                  | 124 mm   |
| Width                   | 45 mm  |
| Depth                   | 131 mm   |
| Net weight              | 0.28 kg  |
| Compatibility code      | ATS01N1  |
| Motor power range AC-3  | 1.1...2 kW at 200...240 V 1 phase<br>2.2...3 kW at 200...240 V 3 phases<br>4...6 kW at 380...440 V 3 phases  |
| Motor starter type      | Soft starter   |

## Environment

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

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 343 g    |
| Package 1 Height             | 5.5 cm   |
| Package 1 width              | 15.5 cm  |
| Package 1 Length             | 17 cm    |
| Unit Type of Package 2       | S03      |
| Number of Units in Package 2 | 14       |
| Package 2 Weight             | 5.364 kg |
| Package 2 Height             | 30 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |
| Unit Type of Package 3       | P06      |
| Number of Units in Package 3 | 112      |
| Package 3 Weight             | 56.62 kg |
| Package 3 Height             | 80 cm    |
| Package 3 width              | 80 cm    |
| Package 3 Length             | 60 cm    |

## Offer Sustainability

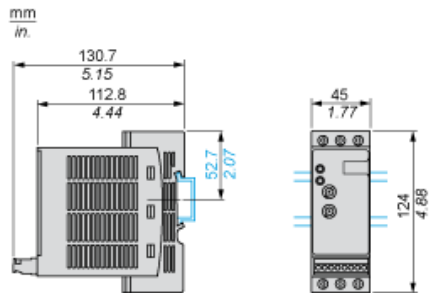
|                            |   |
|----------------------------|---|
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| REACH free of SVHC         | Yes   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</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

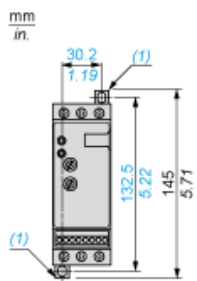
|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Dimensions

Mounting on Symetrical (35 mm) Rail

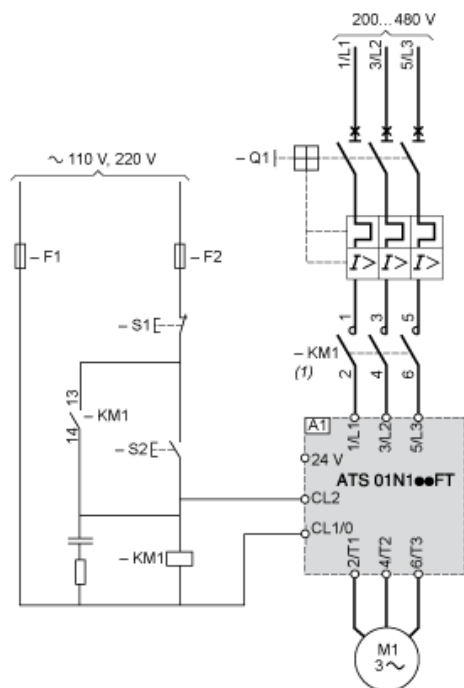


Screw Fixing



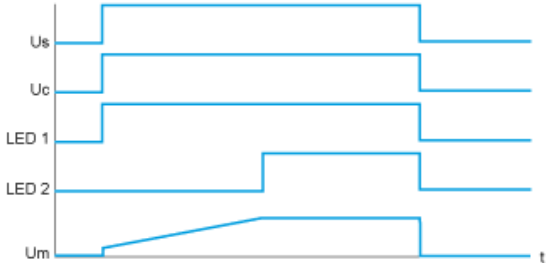
(1) Retractable fixings

Example of 3-phase Power Supply Connection



- (1) A line contactor must be used in the sequence.  
A1 : Soft starter  
Q1 : Motor circuit-breaker  
KM1 : Contactors  
F1, F2 : Control protection fuses  
S1, S2 : Pushbuttons

Function Diagram



- Us : Power supply voltage
- Uc : Control supply voltage
- LED 1 : Green LED
- LED 2 : Yellow LED
- Um : Motor voltage