# Product datasheet

Specifications

## Altistart 01, Soft starter for asynchronous motor - ATS01 - 12 A - 110..480V - 1.5..5.5 KW

ATS01N112FT

## Main

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|---|---|
| **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** | 2.2 kW, 3 phases at 230 V<br>5.5 kW, 3 phases at 400 V<br>1.5 kW, 1 phase at 230 V |
| **Motor Power Hp** | 3 hp, 3 phases at 230 V<br>1.5 hp, 3 phases at 210 V<br>7.5 hp, 3 phases at 460 V |
| **Icl Starter Rating** | 12 A |
| **Utilisation Category** | AC-53B conforming to EN/IEC 60947-4-2 |
| **Current Consumption** | 60 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>61 W in transient state |

## Complementary

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|---|---|
| **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 |
| **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 |

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| **Tightening Torque** | 1.9…2.5 N.m<br>0.5 N.m |
| **Electrical Connection** | 4 mm screw clamp terminal - rigid 1 1...10 mm² AWG 8 power circuit<br>Screw connector - rigid without cable end 1 0.5...2.5 mm² AWG 14 control circuit<br>4 mm screw clamp terminal - rigid 2 1...6 mm² AWG 10 power circuit<br>Screw connector - rigid 2 0.5...1 mm² AWG 17 control circuit<br>Screw connector - flexible with cable end 1 0.5...1.5 mm² AWG 16 control circuit<br>4 mm screw clamp terminal - flexible without cable end 1 1.5...10 mm² AWG 8 power circuit<br>Screw connector - flexible without cable end 1 0.5...2.5 mm² AWG 14 control circuit<br>4 mm screw clamp terminal - flexible with cable end 2 1...6 mm² AWG 10 power circuit<br>4 mm screw clamp terminal - flexible without cable end 2 1.5...6 mm² AWG 10 power circuit<br>Screw connector - flexible without cable end 2 0.5...1.5 mm² 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

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|---|---|
| **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 level 3 conforming to EN 50082-1<br>EMC immunity level B conforming to EN 50082-2<br>Harmonics level 3 conforming to IEC 1000-3-2<br>Harmonics level 3 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>CCC<br>UL<br>CSA<br>GOST |
| **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 |

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|---|---|
| **Operating Altitude** | <= 1000 m without derating<br>> 1000 m with current derating of 2.2 % per additional 100 m |

## Packing Units

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|---|---|
| **Unit Type Of Package 1** | PCE |
| **Number Of Units In Package 1** | 1 |
| **Package 1 Height** | 5.200 cm |
| **Package 1 Width** | 15.500 cm |
| **Package 1 Length** | 17.500 cm |
| **Package 1 Weight** | 343.000 g |
| **Unit Type Of Package 2** | S03 |
| **Number Of Units In Package 2** | 14 |
| **Package 2 Height** | 30.000 cm |
| **Package 2 Width** | 30.000 cm |
| **Package 2 Length** | 40.000 cm |
| **Package 2 Weight** | 5.353 kg |
| **Unit Type Of Package 3** | P06 |
| **Number Of Units In Package 3** | 112 |
| **Package 3 Height** | 75.000 cm |
| **Package 3 Width** | 60.000 cm |
| **Package 3 Length** | 80.000 cm |
| **Package 3 Weight** | 53.940 kg |

## Contractual warranty

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

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-$CO_2$ products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

## Well-being performance

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|---|---|
| Reach Free Of Svhc | |
| Toxic Heavy Metal Free | |
| Mercury Free | |
| Rohs Exemption Information | Yes |

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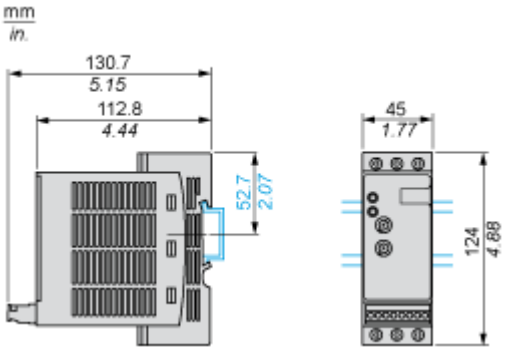
|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Pro-active compliance (Product out of EU RoHS legal scope)<br>EU RoHS Declaration |
| **China Rohs Regulation** | China RoHS declaration |
| **Weee** | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

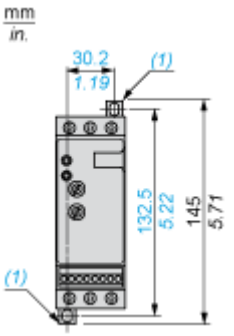
Dimensions Drawings

## Dimensions

### Mounting on Symetrical (35 mm) Rail



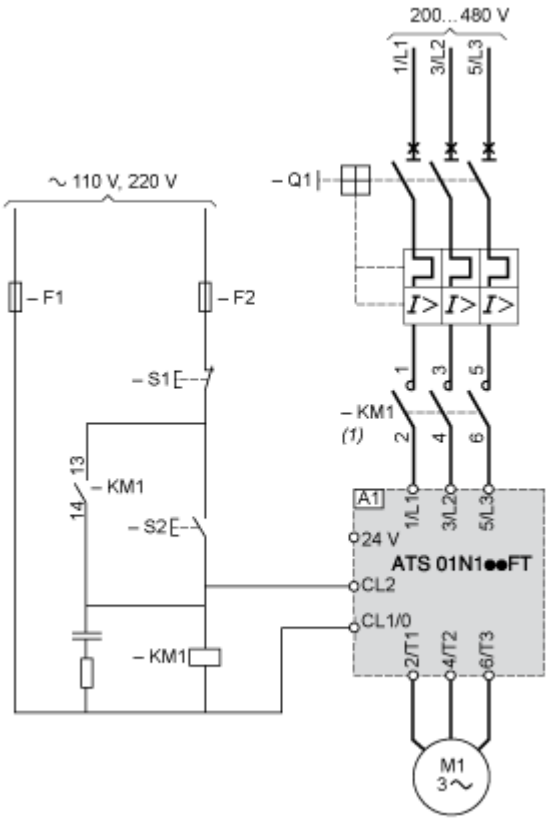

### Screw Fixing




(1) Retractable fixings

## Connections and Schema

### Example of 3-phase Power Supply Connection




(1) A line contactor must be used in the sequence.

A1 : Soft starter

Q1 : Motor circuit-breaker

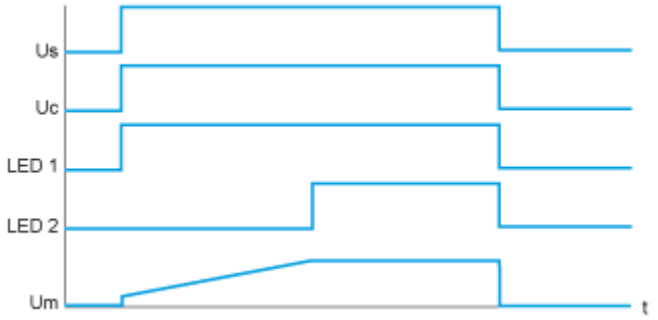
KM1 : Contactors

F1, F2 : Control protection fuses

S1, S2 : Pushbuttons

Technical Description

## Function Diagram




Us : Power supply voltage

Uc : Control supply voltage

LED 1 : Green LED

LED 2 : Yellow LED

Um : Motor voltage