



Main

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| Range of product | Altestart 01 |
| Product or component type | Soft starter |
| Product destination | Asynchronous motors |
| Product specific application | Simple machine |
| Device short name | ATS01 |
| Network number of phases | 3 phases |
| [Us] rated supply voltage | 380...415 V - 10...10 % |
| Motor power kW | 4 kW, 3 phases at 380...415 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 | 4 W at full load and at end of starting 94 W in transient state |

Complementary

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| Assembly style | With heat sink |
| Function available | Integrated bypass |
| Supply voltage limits | 342...456 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 5 s / 20 10 s / 10 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 at State 0: < 5 V and <= 0.2 mA at State 1: > 13 V, >= 0.5 mA |

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

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| Discrete output current | 2 A DC-13 3 A AC-15 |
| Discrete output type | Open collector logic LO1 end of starting signal Relay outputs R1A, R1C NO |
| Discrete output voltage | 24 V (voltage limits: 6...30 V) open collector logic |
| Minimum switching current | 10 mA at 6 V DC for relay outputs |
| Maximum switching current | Relay outputs: 2 A at 250 V AC $\cos \phi = 0.5$ and L/R = 20 ms inductive load Relay outputs: 2 A at 30 V DC $\cos \phi = 0.5$ and L/R = 20 ms inductive load |
| Display type | 1 LED (green) for starter powered up 1 LED (yellow) for nominal voltage reached |
| Tightening torque | 0.5 N.m 1.9...2.5 N.m |
| Electrical connection | 4 mm screw clamp terminal - rigid 1 1...10 mm ² AWG 8 power circuit Screw connector - rigid 1 0.5...2.5 mm ² AWG 14 control circuit 4 mm screw clamp terminal - rigid 2 1...6 mm ² AWG 10 power circuit Screw connector - rigid 2 0.5...1 mm ² AWG 17 control circuit Screw connector - flexible with cable end 1 0.5...1.5 mm ² AWG 16 control circuit 4 mm screw clamp terminal - flexible without cable end 1 1.5...10 mm ² AWG 8 power circuit Screw connector - flexible without cable end 1 0.5...2.5 mm ² AWG 14 control circuit 4 mm screw clamp terminal - flexible with cable end 2 1...6 mm ² AWG 10 power circuit 4 mm screw clamp terminal - flexible without cable end 2 1.5...6 mm ² AWG 10 power circuit Screw connector - flexible without cable end 2 0.5...1.5 mm ² AWG 16 control circuit |
| Marking | CE |
| Operating position | Vertical +/- 10 degree |
| Height | 124 mm |
| Width | 45 mm |
| Depth | 131 mm |
| Net weight | 0.42 kg |
| Compatibility code | ATS01N2 |
| Motor power range AC-3 | 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 Conducted and radiated emissions level B conforming to IEC 60947-4-2 Damped oscillating waves level 3 conforming to IEC 61000-4-12 Electrostatic discharge level 3 conforming to IEC 61000-4-2 EMC immunity conforming to EN 50082-1 EMC immunity conforming to EN 50082-2 Harmonics conforming to IEC 1000-3-2 Harmonics conforming to IEC 1000-3-4 Immunity to conducted interference caused by radio-electrical fields level 3 conforming to IEC 61000-4-6 Immunity to electrical transients level 4 conforming to IEC 61000-4-4 Immunity to radiated radio-electrical interference level 3 conforming to IEC 61000-4-3 Micro-cuts and voltage fluctuation conforming to IEC 61000-4-11 Voltage/current impulse level 3 conforming to IEC 61000-4-5 |
| Standards | EN/IEC 60947-4-2 |
| Product certifications | GOST B44.1-96/ASME A17.5 for starter wired to the motor delta terminal CCC CSA C-Tick 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 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) 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 > 1000 m with current derating of 2.2 % per additional 100 m |
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Offer Sustainability

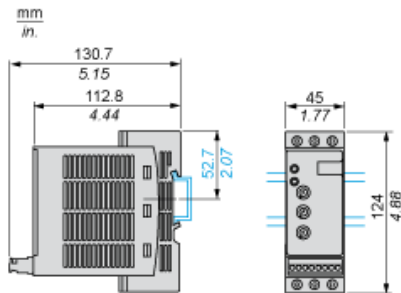
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| REACH Regulation | REACH Declaration |
| REACH free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Toxic heavy metal free | Yes |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| 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 |

Contractual warranty

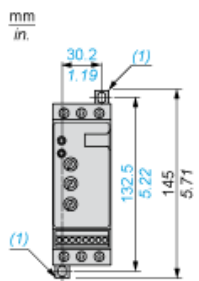
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| Warranty | 18 months |
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Dimensions

Mounting on Symetrical (35 mm) Rail

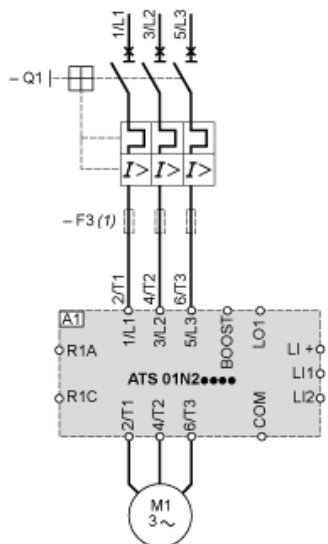


Screw Fixing



(1) Retractable fixings

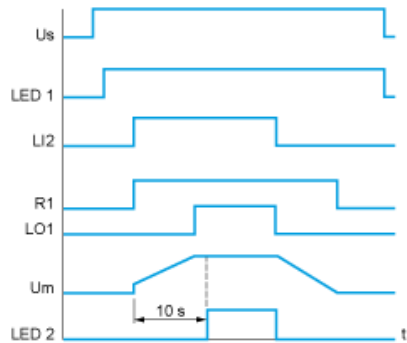
Example of Manual Control



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

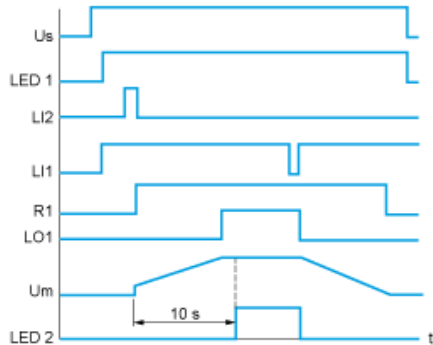
Function Diagram

2-wire Control with Deceleration



Us : Power supply voltage
LED 1 : Green LED
LI2 : Logic input
R1 : Relay output
LO1 : Logic output
LED 2 : Yellow LED

3-wire Control with Deceleration



Us : Power supply voltage
LED 1 : Green LED
LI2, LI1 : Logic inputs
R1 : Relay output
LO1 : Logic output
Um : Motor voltage
LED 2 : Yellow LED