



## Main

|                              |  |
|------------------------------|--|
| Range of product             | Altistart 01   |
| Product or component type    | Soft starter   |
| Product destination          | Asynchronous motors  |
| Product specific application | Simple machine   |
| Component name               | ATS01  |
| Network number of phases     | 3 phases   |
| Power supply voltage         | 460...480 V (- 10...10 %)  |
| Motor power hp               | 5 hp at 460...480 V 3 phases                                       |
| Icl nominal current          | 9 A  |
| Utilisation category         | AC-53B conforming to EN/IEC 60947-4-2                              |
| Current at nominal load      | 45 A at nominal load   |
| Type of start                | Start with voltage ramp  |
| Power dissipation in W       | 94 W in transient state<br>4 W at full load and at end of starting |

## Complementary

|                               |   |
|-------------------------------|---|
| Assembly style                | With heat sink  |
| Function available            | Integrated bypass   |
| Power supply voltage limits   | 414...528 V   |
| Power supply frequency        | 50...60 Hz (- 5...5 %)  |
| Power supply frequency limits | 47.5...63 Hz  |
| Output voltage                | <= power supply voltage   |
| Control circuit voltage       | Built into the starter  |
| Starting time                 | Adjustable from 1 to 10 s<br>5 s/20 start(s) per hour<br>10 s/10 start(s) per hour<br>1 s/100 start(s) per hour                             |
| 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           | (LI1, LI2, BOOST)stop, run and boost on start-up functions logic <= 8 mA 27 kOhm  |
| Discrete input voltage        | 24...40 V   |
| Discrete input logic          | (LI1, LI2, BOOST)positive state 0 < 5 V and < 0.2 mA state 1 > 13 V and > 0.5 mA  |
| Discrete output current       | 3 A AC-15<br>2 A DC-13  |
| Discrete output type          | (R1A, R1C)relay outputs NO<br>(LO1)Open collector logic end of starting signal  |
| Discrete output voltage       | 24 V (6...30 V)open collector logic   |
| Minimum switching current     | Relay outputs 10 mA 6 V DC  |
| Maximum switching current     | Relay outputs 2 A 30 V DC inductive load, cos phi = 0.5 L/R = 20 ms<br>Relay outputs 2 A 250 V AC inductive load, cos phi = 0.5 L/R = 20 ms |
| Display type                  | 1 LED (yellow) for nominal voltage reached<br>1 LED (green) for starter powered up  |
| Tightening torque             | 0.5 N.m<br>1.9...2.5 N.m  |

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|                       |  |
|-----------------------|--|
| Electrical connection | 2 conductor(s)flexible cable without cable end, connection via screw connector 0.5...1.5 mm <sup>2</sup> /AWG 16 for control circuit<br>2 conductor(s)flexible cable without cable end, connection via 4 mm screw clamp terminal 1.5...6 mm <sup>2</sup> /AWG 10 for power circuit<br>2 conductor(s)flexible cable with cable end, connection via 4 mm screw clamp terminal 1...6 mm <sup>2</sup> /AWG 10 for power circuit<br>1 conductor(s)flexible cable without cable end, connection via screw connector 0.5...2.5 mm <sup>2</sup> /AWG 14 for control circuit<br>1 conductor(s)flexible cable without cable end, connection via 4 mm screw clamp terminal 1.5...10 mm <sup>2</sup> /AWG 8 for power circuit<br>1 conductor(s)flexible cable with cable end, connection via screw connector 0.5...1.5 mm <sup>2</sup> /AWG 16 for control circuit<br>2 conductor(s)rigid cable , connection via screw connector 0.5...1 mm <sup>2</sup> /AWG 17 for control circuit<br>2 conductor(s)rigid cable , connection via 4 mm screw clamp terminal 1...6 mm <sup>2</sup> /AWG 10 for power circuit<br>1 conductor(s)rigid cable , connection via screw connector 0.5...2.5 mm <sup>2</sup> /AWG 14 for control circuit<br>1 conductor(s)rigid cable , connection via 4 mm screw clamp terminal 1...10 mm <sup>2</sup> /AWG 8 for power circuit |
| Marking               | CE   |
| Operating position    | Vertical +/- 10 degree   |
| Height                | 124 mm   |
| Width                 | 45 mm  |
| Depth                 | 131 mm   |
| Product weight        | 0.42 kg  |

## Environment

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