



## Main

Commercial Status	Commercialised
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 Single phase
Power supply voltage	110...480 V (- 10...10 %)
Motor power kW	1.5 kW at 230 V 3 phases 1.1 kW at 230 V single phase 4 kW at 400 V 3 phases
Motor power hp	5 hp at 460 V 3 phases 2 hp at 230 V 3 phases 1 hp at 210 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	46 W in transient state 1 W at full load and at end of starting

## Complementary

Assembly style	With heat sink
Function available	Integrated bypass
Power supply voltage limits	99...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	240 V +/- 10 % AC, 80 mA 24 V +/- 10 % AC/DC, 30 mA 110 V +/- 10 % AC, 35 mA
Starting time	Adjustable from 1 to 5 s 5 s/20 start(s) per hour 1 s/100 start(s) per hour
Starting torque	30...80 % of starting torque of motor connected directly on the line supply
Discrete output current	3 A AC-15 2 A DC-13
Tightening torque	0.5 N.m 1.9...2.5 N.m

Electrical connection	<p>2 conductor(s) flexible cablewithout cable end, connection via screw connector 0.5...1.5 mm<sup>2</sup>/AWG 16 for control circuit</p> <p>2 conductor(s) flexible cablewithout cable end, connection via 4 mm screw clamp terminal 1.5...6 mm<sup>2</sup>/AWG 10 for power circuit</p> <p>2 conductor(s) flexible cablewith cable end, connection via 4 mm screw clamp terminal 1...6 mm<sup>2</sup>/AWG 10 for power circuit</p> <p>1 conductor(s) flexible cablewithout cable end, connection via screw connector 0.5...2.5 mm<sup>2</sup>/AWG 14 for control circuit</p> <p>1 conductor(s) flexible cablewithout cable end, connection via 4 mm screw clamp terminal 1.5...10 mm<sup>2</sup>/AWG 8 for power circuit</p> <p>1 conductor(s) flexible cablewith cable end, connection via screw connector 0.5...1.5 mm<sup>2</sup>/AWG 16 for control circuit</p> <p>2 conductor(s) rigid cable, connection via screw connector 0.5...1 mm<sup>2</sup>/AWG 17 for control circuit</p> <p>2 conductor(s) rigid cable, connection via 4 mm screw clamp terminal 1...6 mm<sup>2</sup>/AWG 10 for power circuit</p> <p>1 conductor(s) rigid cable, connection via screw connector 0.5...2.5 mm<sup>2</sup>/AWG 14 for control circuit</p> <p>1 conductor(s) rigid cable, connection via 4 mm screw clamp terminal 1...10 mm<sup>2</sup>/AWG 8 for power circuit</p>
Marking	CE
Operating position	Vertical +/- 10 degree
Height	124 mm
Width	45 mm
Depth	131 mm
Product weight	0.28 kg

## Environment

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