



## 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	380...415 V (- 10...10 %)
Motor power kW	4 kW at 380...415 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 4 W at full load and at end of starting

## Complementary

Assembly style	With heat sink
Function available	Integrated bypass
Power supply voltage limits	342...456 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 5 s / 20 start(s) per hour 10 s / 10 start(s) per hour 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 2 A DC-13
Discrete output type	(R1A, R1C) relay outputs NO (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 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 1 LED (green) for starter powered up
Tightening torque	0.5 N.m 1.9...2.5 N.m

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Electrical connection	<p>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</p> <p>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</p> <p>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</p> <p>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</p> <p>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</p> <p>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</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	0.42 kg

## Environment

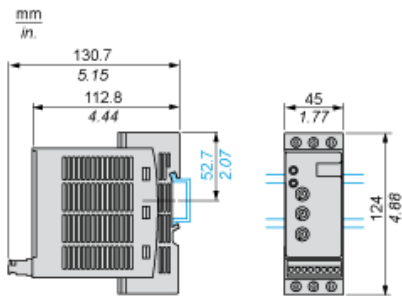
Electromagnetic compatibility	<p>Voltage/Current impulse conforming to IEC 61000-4-5 level 3</p> <p>Micro-cuts and voltage fluctuation conforming to IEC 61000-4-11</p> <p>Immunity to radiated radio-electrical interference conforming to IEC 61000-4-3 level 3</p> <p>Immunity to electrical transients conforming 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>

## Contractual warranty

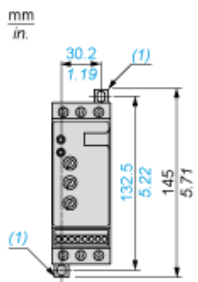
Period	18 months
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Dimensions

Mounting on Symetrical (35 mm) Rail

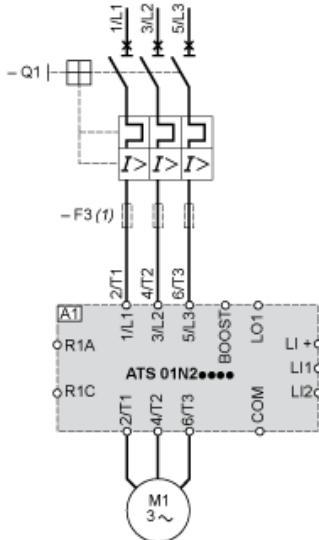


Screw Fixing



(1) Retractable fixings

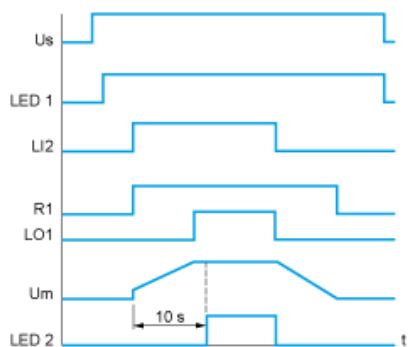
## Example of Manual Control



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

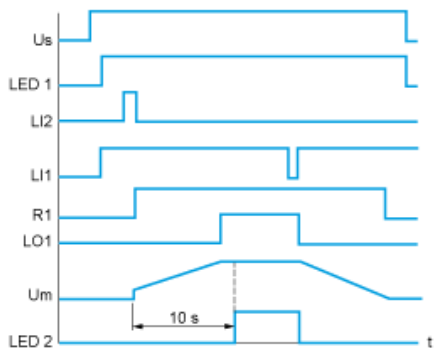
Function Diagram

2-wire Control with Deceleration



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

3-wire Control with Deceleration



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