



## Main

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	3 kW, 3 phases at 380...415 V 1.5 kW, 3 phases at 380...415 V 2.2 kW, 3 phases at 380...415 V
IcL starter rating	6 A
Utilisation category	AC-53B conforming to EN/IEC 60947-4-2
Current consumption	30 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 64 W in transient state

## Complementary

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

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

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
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	1.9...2.5 N.m 0.5 N.m
Electrical connection	4 mm screw clamp terminal - rigid 1 1...10 mm <sup>2</sup> AWG 8 power circuit Screw connector - rigid 1 0.5...2.5 mm <sup>2</sup> AWG 14 control circuit 4 mm screw clamp terminal - rigid 2 1...6 mm <sup>2</sup> AWG 10 power circuit Screw connector - rigid 2 0.5...1 mm <sup>2</sup> AWG 17 control circuit Screw connector - flexible with cable end 1 0.5...1.5 mm <sup>2</sup> AWG 16 control circuit 4 mm screw clamp terminal - flexible without cable end 1 1.5...10 mm <sup>2</sup> AWG 8 power circuit Screw connector - flexible without cable end 1 0.5...2.5 mm <sup>2</sup> AWG 14 control circuit 4 mm screw clamp terminal - flexible with cable end 2 1...6 mm <sup>2</sup> AWG 10 power circuit 4 mm screw clamp terminal - flexible without cable end 2 1.5...6 mm <sup>2</sup> AWG 10 power circuit Screw connector - flexible without cable end 2 0.5...1.5 mm <sup>2</sup> AWG 16 control circuit
Marking	CE
Operating position	Vertical +/- 10 degree
Height	124 mm
Width	45 mm
Depth	131 mm
Product weight	0.42 kg
Compatibility code	ATS01N2
Motor power range AC-3	1.1...2 kW at 380...440 V 3 phases 2.2...3 kW at 380...440 V 3 phases
Motor starter type	Soft starter

## Environment

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	UL B44.1-96/ASME A17.5 for starter wired to the motor delta terminal CSA GOST C-Tick CCC
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 derating) 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
Operating altitude	<= 1000 m without derating > 1000 m with current derating of 2.2 % per additional 100 m

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	535 g
Package 1 Height	5.5 cm
Package 1 width	15.2 cm
Package 1 Length	17.5 cm
Unit Type of Package 2	P06
Number of Units in Package 2	112
Package 2 Weight	74.124 kg
Package 2 Height	77 cm
Package 2 width	60 cm
Package 2 Length	80 cm
Unit Type of Package 3	S03
Number of Units in Package 3	14
Package 3 Weight	7.936 kg
Package 3 Height	30 cm
Package 3 width	30 cm
Package 3 Length	40 cm

## Offer Sustainability

REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

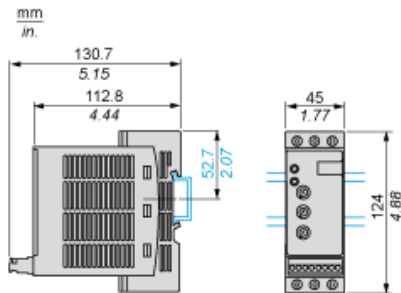
Warranty	18 months
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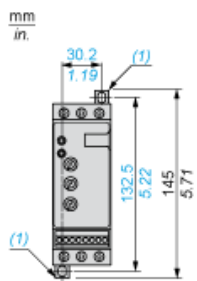
Dimensions

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Mounting on Symetrical (35 mm) Rail

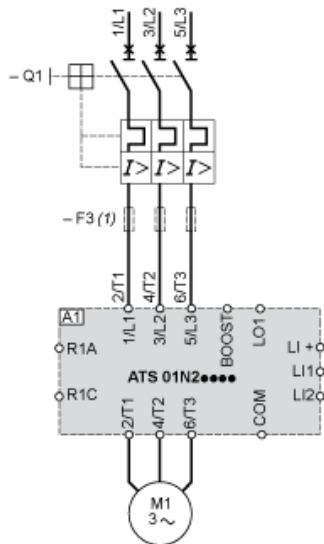


Screw Fixing



(1) Retractable fixings

Example of Manual Control



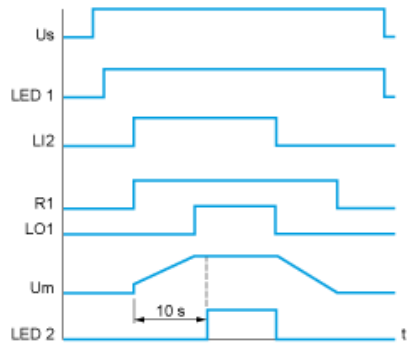
- A1 : Soft start/soft stop unit
- (1) For type 2 coordination
- Q1 : Motor circuit-breaker
- F3 : 3 fast-acting fuses

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Function Diagram

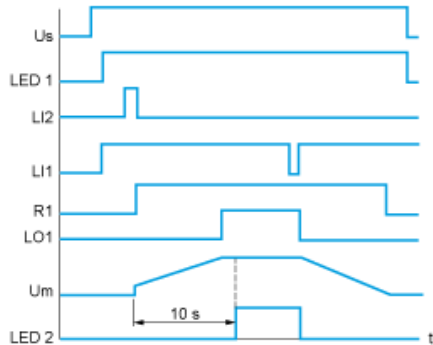
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2-wire Control with Deceleration



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