

# Product datasheet

Specifications



## soft starter for asynchronous motor - ATS01 - 6 A - 110..480V - 0.75..3 KW

ATS01N106FT

### Main

Range of product	Altistart 01
Product or component type	Soft starter
Product destination	Asynchronous motors
Product specific application	Simple machine
Device short name	ATS01
Network number of phases	1 phase
[Us] rated supply voltage	110...480 V - 10...10 %
Motor power kW	3 kW, 3 phases at 400 V 0.75 kW, 3 phases at 230 V 1.1 kW, 3 phases at 230 V 2.2 kW, 3 phases at 400 V 0.75 kW, 1 phase at 230 V
Motor power hp	1 hp, 3 phases at 230 V 2 hp, 3 phases at 460 V 3 hp, 3 phases at 460 V 0.5 hp, 3 phases at 210 V 1.5 hp, 3 phases at 230 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	1 W at full load and at end of starting 31 W in transient state

### Complementary

Assembly style	With heat sink
Function available	Integrated bypass
Supply voltage limits	99...528 V
Supply frequency	50...60 Hz - 5...5 %
Network frequency	47.5...63 Hz
Output voltage	<= power supply voltage
[Uc] control circuit voltage	110 V AC +/- 10 % at 30 mA 24 V AC/DC +/- 10 % at 25 mA 240 V AC +/- 10 % at 65 mA
Starting time	1 s / 100 5 s / 20

Adjustable from 1 to 5 s

<b>Starting torque</b>	30...80 % of starting torque of motor connected directly on the line supply
<b>Discrete output current</b>	2 A DC-13 3 A AC-15
<b>Tightening torque</b>	0.8 N.m
<b>Electrical connection</b>	Cage type connector - rigid 1 2.5 mm <sup>2</sup> AWG 14 control circuit Cage type connector - rigid 1 2.5 mm <sup>2</sup> AWG 14 power circuit Cage type connector - rigid 2 1 mm <sup>2</sup> AWG 17 control circuit Cage type connector - rigid 2 1 mm <sup>2</sup> AWG 17 power circuit Cage type connector - flexible with cable end 1 2.5 mm <sup>2</sup> AWG 14 control circuit Cage type connector - flexible with cable end 1 2.5 mm <sup>2</sup> AWG 14 power circuit Cage type connector - flexible without cable end 1 2.5 mm <sup>2</sup> AWG 14 control circuit Cage type connector - flexible without cable end 1 2.5 mm <sup>2</sup> AWG 14 power circuit Cage type connector - flexible with cable end 2 0.75 mm <sup>2</sup> AWG 18 control circuit Cage type connector - flexible with cable end 2 0.75 mm <sup>2</sup> AWG 18 power circuit Cage type connector - flexible without cable end 2 1 mm <sup>2</sup> AWG 17 control circuit Cage type connector - flexible without cable end 2 1 mm <sup>2</sup> AWG 17 power circuit
<b>Marking</b>	CE
<b>Operating position</b>	Vertical +/- 10 degree
<b>Height</b>	100 mm
<b>Width</b>	23 mm
<b>Depth</b>	100 mm
<b>Net weight</b>	0.16 kg
<b>Compatibility code</b>	ATS01N1
<b>Motor power range AC-3</b>	0.55...1 kW at 200...240 V 3 phases 1.1...2 kW at 380...440 V 3 phases 0.55...1 kW at 200...240 V 1 phase 1.1...2 kW at 200...240 V 3 phases 2.2...3 kW at 380...440 V 3 phases
<b>Motor starter type</b>	Soft starter

## Environment

<b>Electromagnetic compatibility</b>	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
<b>Standards</b>	EN/IEC 60947-4-2
<b>Product certifications</b>	C-Tick CCC CSA B44.1-96/ASME A17.5 for starter wired to the motor delta terminal UL GOST
<b>IP degree of protection</b>	IP20
<b>Pollution degree</b>	2 conforming to EN/IEC 60947-4-2
<b>Vibration resistance</b>	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
<b>Shock resistance</b>	15 gn for 11 ms conforming to EN/IEC 60068-2-27
<b>Relative humidity</b>	5...95 % without condensation or dripping water conforming to EN/IEC 60068-2-3
<b>Ambient air temperature for operation</b>	-10...40 °C (without derating) 40...50 °C (with current derating of 2 % per °C)
<b>Ambient air temperature for storage</b>	-25...70 °C conforming to EN/IEC 60947-4-2
<b>Operating altitude</b>	<= 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 Height	2.5 cm
Package 1 Width	10.3 cm
Package 1 Length	10.5 cm
Package 1 Weight	178.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	36
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	6.715 kg

## 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
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	Yes
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

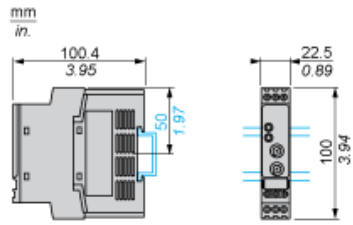
## Contractual warranty

Warranty	18 months
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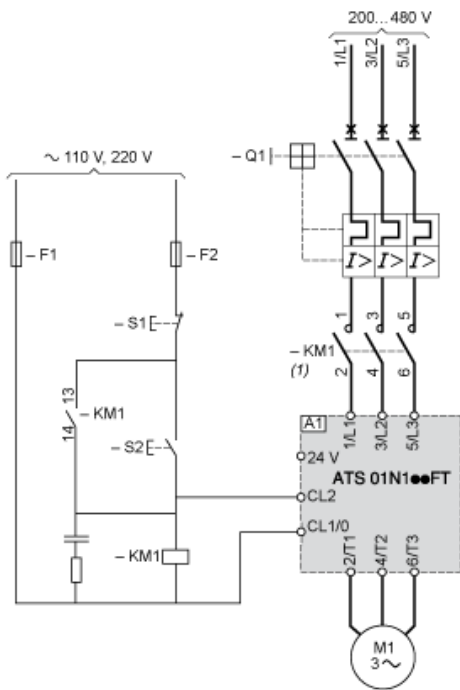
**Dimensions**

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**Mounting on Symetrical (35 mm) Rail or Asymetrical Rail with Adaptor RHZ 66**



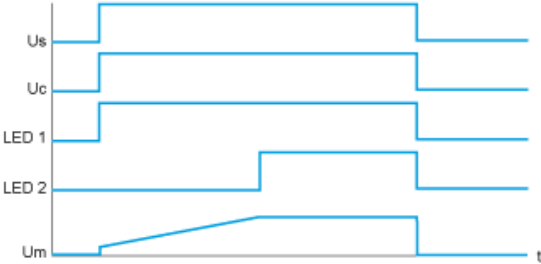
**Example of 3-phase Power Supply Connection**



- (1) A line contactor must be used in the sequence.
- A1 : Soft starter
- Q1 : Motor circuit-breaker
- KM1 : Contactors
- F1, F2 : Control protection fuses
- S1, S2 : Pushbuttons

**Function Diagram**

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- Us :** Power supply voltage
- Uc :** Control supply voltage
- LED 1 :** Green LED
- LED 2 :** Yellow LED
- Um :** Motor voltage

**Recommended replacement(s)**