

Product data sheet

Characteristics

ATS01N103FT

Altistart 01, Soft starter for asynchronous motor
 - ATS01 - 3 A - 110..480V - 0.55..1.1 KW



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	0.37 kW, 3 phases at 230 V 0.55 kW, 3 phases at 230 V 1.1 kW, 3 phases at 400 V 0.37 kW, 1 phase at 230 V
Motor power hp	0.5 Hp, 3 phases at 230 V 0.5 Hp, 3 phases at 460 V 1.5 hp, 3 phases at 460 V
IcL starter rating	3 A
Utilisation category	AC-53B conforming to EN/IEC 60947-4-2
Current consumption	15 A at nominal load
Type of start	Start with voltage ramp
Power dissipation in W	19 W in transient state 4 W at full load and at end of starting

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
Starting torque	30...80 % of starting torque of motor connected directly on the line supply
Discrete output current	2 A DC-13 3 A AC-15
Tightening torque	0.8 N.m

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Electrical connection	Cage type connector - rigid 1 2.5 mm ² AWG 14 control circuit Cage type connector - rigid 1 2.5 mm ² AWG 14 power circuit Cage type connector - rigid 2 1 mm ² AWG 17 control circuit Cage type connector - rigid 2 1 mm ² AWG 17 power circuit Cage type connector - flexible with cable end 1 2.5 mm ² AWG 14 control circuit Cage type connector - flexible with cable end 1 2.5 mm ² AWG 14 power circuit Cage type connector - flexible without cable end 1 2.5 mm ² AWG 14 control circuit Cage type connector - flexible without cable end 1 2.5 mm ² AWG 14 power circuit Cage type connector - flexible with cable end 2 0.75 mm ² AWG 18 control circuit Cage type connector - flexible with cable end 2 0.75 mm ² AWG 18 power circuit Cage type connector - flexible without cable end 2 1 mm ² AWG 17 control circuit Cage type connector - flexible without cable end 2 1 mm ² AWG 17 power circuit
Marking	CE
Operating position	Vertical +/- 10 degree
Height	100 mm
Width	23 mm
Depth	100 mm
Net weight	0.16 kg
Compatibility code	ATS01N1
Motor power range AC-3	0...0.5 KW at 200...240 V 1 phase 0...0.5 KW at 200...240 V 3 phases 0.55...1 KW at 200...240 V 3 phases 1.1...2 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	CSA[RETURN]GOST[RETURN]C-Tick[RETURN]UL[RETURN]CCC[RETURN]B44.1-96/ASME A17.5 for starter wired to the motor delta terminal
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 Height	2.5 cm
Package 1 Width	10.3 cm
Package 1 Length	10.5 cm
Package 1 Weight	175.0 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	6.491 kg

Offer Sustainability

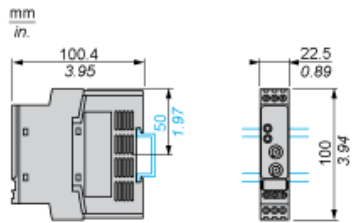
RECh Regulation	RECh Declaration
RECh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

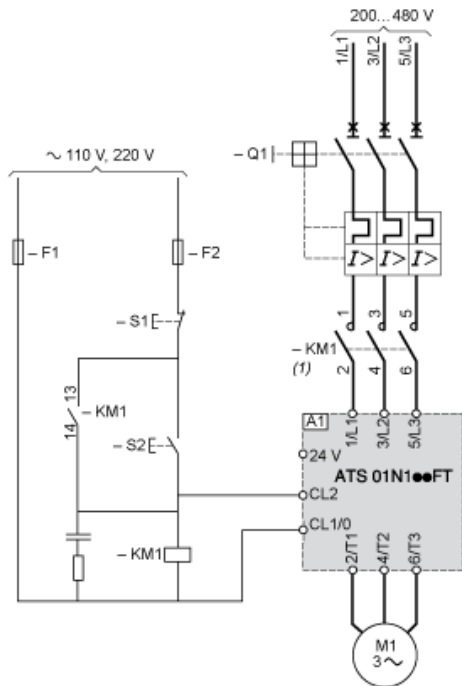
Warranty	18 months
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Dimensions

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

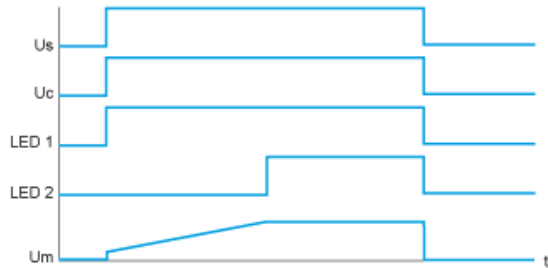


Example of 3-phase Power Supply Connection



- (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



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