

ATS01N109FT

soft starter for asynchronous motor, Altistart 01,
ATS01, 9A, 110 to 480V, 1.1 to 4kW



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
Phase	1 phase
[Us] rated supply voltage	110...480 V - 10...10 %
Motor power kW	4 KW, 3 phase 400 V 1.5 KW, 3 phase 230 V 1.1 kW, 1 phase 230 V
Maximum Horse Power Rating	1 Hp, 3 phase 210 V 2 Hp, 3 phase 230 V 5 hp, 3 phase 460 V
IcL starter rating	9 A
Utilisation category	AC-53B EN/IEC 60947-4-2
Current consumption	45 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 46 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 % 35 mA 24 V AC/DC +/- 10 % 30 mA 240 V AC +/- 10 % 80 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	4.43 Lbf.in (0.5 N.m) 16.82...22.13 lbf.in (1.9...2.5 N.m)
Electrical connection	4 mm screw clamp terminal - rigid 1 1...10 mm ² AWG 8 power circuit Screw connector - rigid 1 0.5...2.5 mm ² AWG 14 control circuit 4 mm screw clamp terminal - rigid 2 1...6 mm ² AWG 10 power circuit Screw connector - rigid 2 0.5...1 mm ² AWG 17 control circuit Screw connector - flexible with cable end 1 0.5...1.5 mm ² AWG 16 control circuit 4 mm screw clamp terminal - flexible without cable end 1 1.5...10 mm ² AWG 8 power circuit Screw connector - flexible without cable end 1 0.5...2.5 mm ² AWG 14 control circuit 4 mm screw clamp terminal - flexible with cable end 2 1...6 mm ² AWG 10 power circuit 4 mm screw clamp terminal - flexible without cable end 2 1.5...6 mm ² AWG 10 power circuit Screw connector - flexible without cable end 2 0.5...1.5 mm ² AWG 16 control circuit

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.

Marking	CE
Operating position	Vertical +/- 10 degree
Height	4.88 in (124 mm)
Width	1.77 in (45 mm)
Depth	5.16 in (131 mm)
Product Weight	0.62 lb(US) (0.28 kg)
Compatibility code	ATS01N1
Motor power range AC-3	1.1...2 KW 200...240 V 1 phase 2.2...3 KW 200...240 V 3 phase 4...6 kW 380...440 V 3 phase
Motor starter type	Soft starter

Environment

Electromagnetic compatibility	Conducted and radiated emissions level B CISPR 11 Conducted and radiated emissions level B IEC 60947-4-2 Damped oscillating waves level 3 IEC 61000-4-12 Electrostatic discharge level 3 IEC 61000-4-2 EMC immunity EN 50082-1 EMC immunity EN 50082-2 Harmonics IEC 1000-3-2 Harmonics IEC 1000-3-4 Immunity to conducted interference caused by radio-electrical fields level 3 IEC 61000-4-6 Immunity to electrical transients level 4 IEC 61000-4-4 Immunity to radiated radio-electrical interference level 3 IEC 61000-4-3 Micro-cuts and voltage fluctuation IEC 61000-4-11 Voltage/current impulse level 3 IEC 61000-4-5
Standards	EN/IEC 60947-4-2
Product Certifications	C-tick B44.1-96/ASME A17.5 for starter wired to the motor delta terminal GOST CSA CCC UL
IP Degree of Protection	IP20
Pollution degree	2 EN/IEC 60947-4-2
Vibration resistance	1 gn 13...150 Hz)EN/IEC 60068-2-6 1.5 mm peak to peak 3...13 Hz)EN/IEC 60068-2-6
Shock resistance	15 gn 11 ms EN/IEC 60068-2-27
Relative humidity	5...95 % without condensation or dripping water EN/IEC 60068-2-3
Ambient air temperature for operation	14...104 °F (-10...40 °C) without derating) 104...122 °F (40...50 °C) with current derating of 2 % per °C)
Ambient air temperature for storage	-13...158 °F (-25...70 °C) EN/IEC 60947-4-2
Operating altitude	<= 3280.84 ft (1000 m) without derating > 3280.84 ft (1000 m) with current derating of 2.2 % per additional 100 m

Ordering and shipping details

Category	22392-ATSU01/ATS01 LOW HP SOFT STARTERS
Discount Schedule	I11
GTIN	3389110667158
Returnability	Yes
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.17 in (5.500 cm)
Package 1 Width	6.69 in (17.000 cm)
Package 1 Length	6.10 in (15.500 cm)
Package 1 Weight	12.13 oz (344.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	14

Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	11.85 lb(US) (5.377 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	112
Package 3 Height	29.53 in (75.000 cm)
Package 3 Width	23.62 in (60.000 cm)
Package 3 Length	31.50 in (80.000 cm)
Package 3 Weight	124.83 lb(US) (56.620 kg)

Offer Sustainability

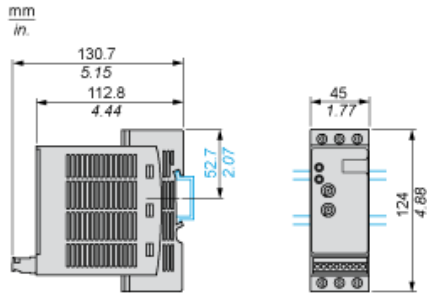
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACH Regulation	REACH Declaration
REACH 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
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Contractual warranty

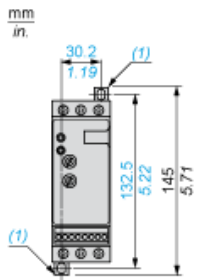
Warranty	18 months
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Dimensions

Mounting on Symetrical (35 mm) Rail

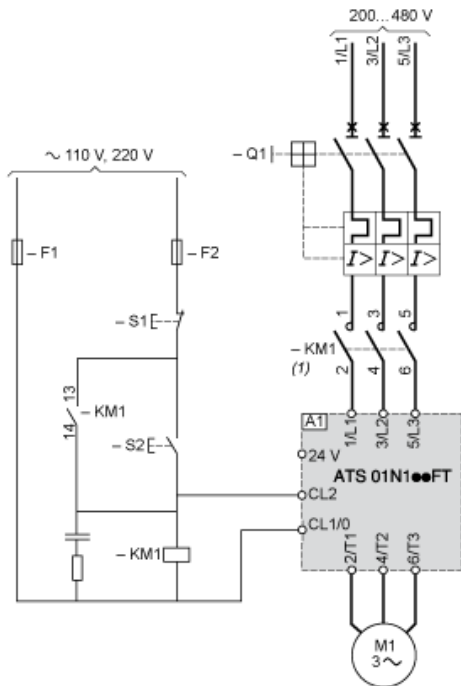


Screw Fixing



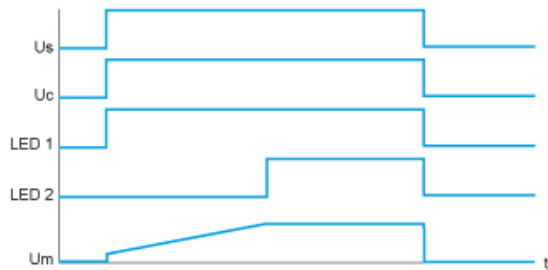
(1) Retractable fixings

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