

ATS01N112FT

soft starter for asynchronous motor - ATS01 -
12 A - 110..480V - 1.5..5.5 KW



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 Single phase |
| Power supply voltage | 110...480 V (- 10...10 %) |
| Motor power kW | 5.5 kW at 400 V 3 phases 2.2 kW at 230 V 3 phases 1.5 kW at 230 V single phase |
| Motor power hp | 7.5 hp at 460 V 3 phases 1.5 hp at 210 V 3 phases 3 hp at 230 V 3 phases |
| Icl nominal current | 12 A |
| Utilisation category | AC-53B conforming to EN/IEC 60947-4-2 |
| Current at nominal load | 60 A at nominal load |
| Type of start | Start with voltage ramp |
| Power dissipation in W | 61 W in transient state 1 W at full load and at end of starting |

Complementary

| | |
|-------------------------------|---------------------------------------------------------------------------------------|
| Assembly style | With heat sink |
| Function available | Integrated bypass |
| Power supply voltage limits | 99...528 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 | 240 V +/- 10 % AC, 80 mA 24 V +/- 10 % AC/DC, 30 mA 110 V +/- 10 % AC, 35 mA |
| Starting time | Adjustable from 1 to 5 s 5 s / 20 start(s) per hour 1 s / 100 start(s) per hour |
| Starting torque | 30...80 % of starting torque of motor connected directly on the line supply |
| Discrete output current | 3 A AC-15 2 A DC-13 |
| Tightening torque | 0.5 N.m 1.9...2.5 N.m |

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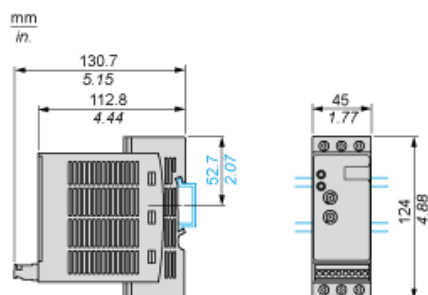
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| Electrical connection | 2 conductor(s) flexible cable without cable end, connection via screw connector 0.5...1.5 mm ² / AWG 16 for control circuit 2 conductor(s) flexible cable without cable end, connection via 4 mm screw clamp terminal 1.5...6 mm ² / AWG 10 for power circuit 2 conductor(s) flexible cable with cable end, connection via 4 mm screw clamp terminal 1...6 mm ² / AWG 10 for power circuit 1 conductor(s) flexible cable without cable end, connection via screw connector 0.5...2.5 mm ² / AWG 14 for control circuit 1 conductor(s) flexible cable without cable end, connection via 4 mm screw clamp terminal 1.5...10 mm ² / AWG 8 for power circuit 1 conductor(s) flexible cable with cable end, connection via screw connector 0.5...1.5 mm ² / AWG 16 for control circuit 2 conductor(s) rigid cable, connection via screw connector 0.5...1 mm ² / AWG 17 for control circuit 2 conductor(s) rigid cable, connection via 4 mm screw clamp terminal 1...6 mm ² / AWG 10 for power circuit 1 conductor(s) rigid cable, connection via screw connector 0.5...2.5 mm ² / AWG 14 for control circuit 1 conductor(s) rigid cable, connection via 4 mm screw clamp terminal 1...10 mm ² / AWG 8 for power circuit |
| Marking | CE |
| Operating position | Vertical +/- 10 degree |
| Height | 124 mm |
| Width | 45 mm |
| Depth | 131 mm |
| Product weight | 0.28 kg |

Environment

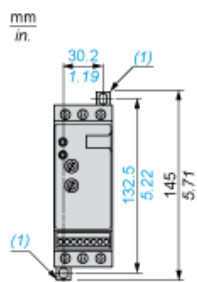
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| Electromagnetic compatibility | Voltage/Current impulse conforming to IEC 61000-4-5 level 3 Micro-cuts and voltage fluctuation conforming to IEC 61000-4-11 Immunity to radiated radio-electrical interference conforming to IEC 61000-4-3 level 3 Immunity to electrical transients conforming to IEC 61000-4-4 level 4 Immunity to conducted interference caused by radio-electrical fields conforming to IEC 61000-4-6 level 3 Harmonics conforming to IEC 1000-3-4 Harmonics conforming to IEC 1000-3-2 EMC immunity conforming to EN 50082-2 EMC immunity conforming to EN 50082-1 Electrostatic discharge conforming to IEC 61000-4-2 level 3 Damped oscillating waves conforming to IEC 61000-4-12 level 3 Conducted and radiated emissions conforming to IEC 60947-4-2 level B Conducted and radiated emissions conforming to CISPR 11 level B |
| Standards | EN/IEC 60947-4-2 |
| Product certifications | B44.1-96/ASME A17.5 for starter wired to the motor delta terminal CCC CSA C-Tick GOST UL |
| IP degree of protection | IP20 |
| Pollution degree | 2 conforming to EN/IEC 60947-4-2 |
| Vibration resistance | 1.5 mm peak to peak (f = 3...13 Hz) conforming to EN/IEC 60068-2-6 1 gn (f = 13...150 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 | 40...50 °C with current derating of 2 % per °C -10...40 °C without derating |
| Ambient air temperature for storage | -25...70 °C conforming to EN/IEC 60947-4-2 |
| Operating altitude | > 1000 m with current derating of 2.2 % per additional 100 m <= 1000 m without derating |

Dimensions

Mounting on Symetrical (35 mm) Rail

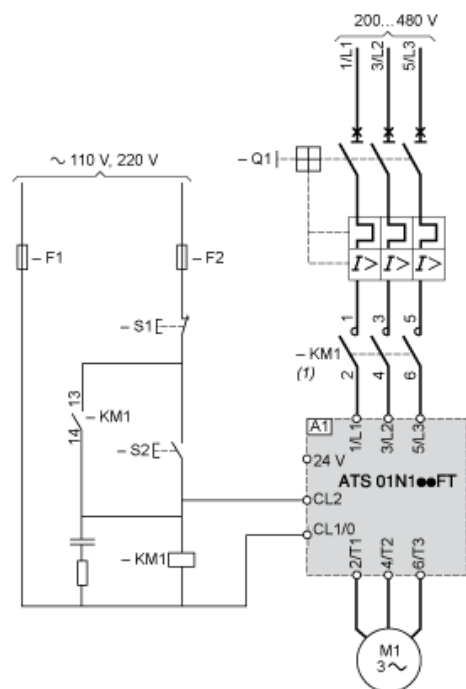


Screw Fixing



(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

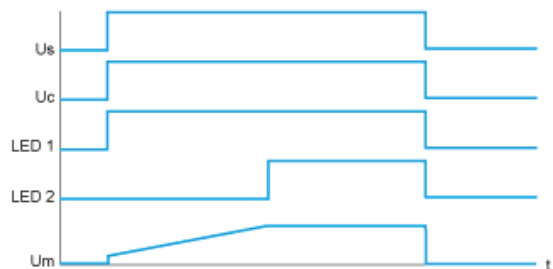
F1, F2 : Control protection fuses

S1, S2 :

Pushbuttons

S2 :

Function Diagram



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