Product data sheet
Characteristics

ATS01N106FT
soft starter for asynchronous motor - ATS01 - 6 A - 110..480V - 0.75..3 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	2.2 kW at 400 V 3 phases 1.1 kW at 230 V 3 phases 0.75 kW at 230 V single phase 0.75 kW at 230 V 3 phases 3 kW at 400 V 3 phases
Motor power hp	1.5 hp at 230 V 3 phases 0.5 hp at 210 V 3 phases 3 hp at 460 V 3 phases 2 hp at 460 V 3 phases 1 hp at 230 V 3 phases
Icl nominal current	6 A
Utilisation category	AC-53B conforming to EN/IEC 60947-4-2
Current at nominal load	30 A at nominal load
Type of start	Start with voltage ramp
Power dissipation in W	31 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, 65 mA 24 V +/- 10 % AC/DC, 25 mA 110 V +/- 10 % AC, 30 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	0.8 N.m

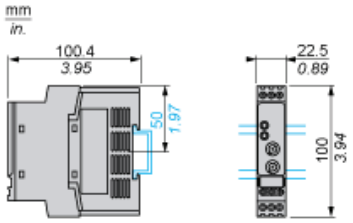
Electrical connection	2 conductor(s) flexible cable without cable end, connection via cage type connector 1 mm² / AWG 17 for power circuit 2 conductor(s) flexible cable without cable end, connection via cage type connector 1 mm² / AWG 17 for control circuit 2 conductor(s) flexible cable with cable end, connection via cage type connector 0.75 mm² / AWG 18 for power circuit 2 conductor(s) flexible cable with cable end, connection via cage type connector 0.75 mm² / AWG 18 for control circuit 1 conductor(s) flexible cable without cable end, connection via cage type connector 2.5 mm² / AWG 14 for power circuit 1 conductor(s) flexible cable without cable end, connection via cage type connector 2.5 mm² / AWG 14 for control circuit 1 conductor(s) flexible cable with cable end, connection via cage type connector 2.5 mm² / AWG 14 for power circuit 1 conductor(s) flexible cable with cable end, connection via cage type connector 2.5 mm² / AWG 14 for control circuit 2 conductor(s) rigid cable, connection via cage type connector 1 mm² / AWG 17 for power circuit 2 conductor(s) rigid cable, connection via cage type connector 1 mm² / AWG 17 for control circuit 1 conductor(s) rigid cable, connection via cage type connector 2.5 mm² / AWG 14 for power circuit 1 conductor(s) rigid cable, connection via cage type connector 2.5 mm² / AWG 14 for control circuit
Marking	CE
Operating position	Vertical +/- 10 degree
Height	100 mm
Width	23 mm
Depth	100 mm
Product weight	0.16 kg

Environment

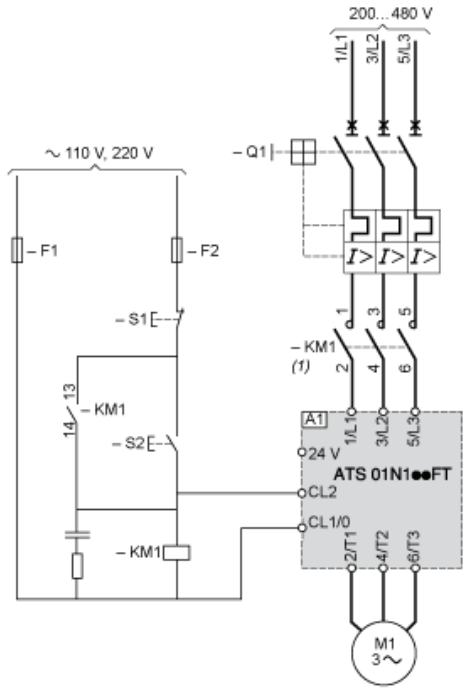
Electromagnetic compatibility	Voltage/Current impulse conforming to IEC 61000-4-5 level 3 Micro-cuts and voltage fluctuation conforming to IEC 61000-4-11 Immunity to radiated radio-electrical interference conforming to IEC 61000-4-3 level 3 Immunity to electrical transients conforming to IEC 61000-4-4 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 or Asymetrical Rail with Adaptor RHZ 66

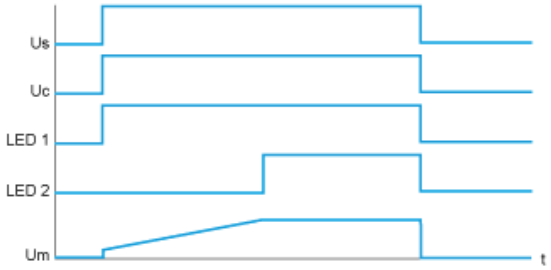


Example of 3-phase Power Supply Connection



(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 1 : Green LED
LED 2 : Yellow LED
Um : Motor voltage