Product datasheet
Characteristics

ATS01N222QN
soft starter for asynchronous motor - ATS01 - 22 A - 380..415V - 7.5..11 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	3 phases
[Us] rated supply voltage	380...415 V (- 10...10 %)
Motor power kW	11 kW at 380...415 V 3 phases 7.5 kW at 380...415 V 3 phases
IcL starter rating	22 A
Utilisation category	AC-53B conforming to EN/IEC 60947-4-2
Current consumption	110 A at nominal load
Type of start	Start with voltage ramp
Power dissipation in W	124.5 W in transient state 4.5 W at full load and at end of starting

Complementary

Assembly style	With heat sink
Function available	Integrated bypass
Supply voltage limits	342...456 V
Supply frequency	50...60 Hz (- 5...5 %)
Network frequency	47.5...63 Hz
Output voltage	<= power supply voltage
Control circuit voltage	Built into the starter
Starting time	Adjustable from 1 to 10 s 1 s / 100 start(s) per hour 10 s / 10 start(s) per hour 5 s / 20 start(s) per hour
Deceleration time symb	Adjustable from 1 to 10 s
Starting torque	30...80 % of starting torque of motor connected directly on the line supply
Discrete input type	(LI1, LI2, BOOST) stop, run and boost on startup functions logic <= 8 mA 27 kOhm
Discrete input voltage	24...40 V
Discrete input logic	(LI1, LI2, BOOST) positive state 0 < 5 V and < 0.2 mA, state 1 > 13 V and > 0.5 mA
Discrete output current	2 A DC-13 3 A AC-15
Discrete output type	(LO1) open collector logic end of starting signal (R1A, R1C) relay outputs NO
Discrete output voltage	24 V (6...30 V) open collector logic
Minimum switching current	Relay outputs 10 mA 6 V DC
Maximum switching current	Relay outputs 2 A 250 V AC inductive load, cos phi = 0.5 L/R = 20 ms Relay outputs 2 A 30 V DC inductive load, cos phi = 0.5 L/R = 20 ms
Display type	1 LED (green) for starter powered up 1 LED (yellow) for nominal voltage reached
Tightening torque	0.5 N.m 1.9...2.5 N.m
Electrical connection	1 conductor(s) rigid cable, connection via 4 mm screw clamp terminal 1...10 mm²/ AWG 8 for power circuit 1 conductor(s) rigid cable, connection via screw connector 0.5...2.5 mm² / AWG 14 for control circuit 2 conductor(s) rigid cable, connection via 4 mm screw clamp terminal 1...6 mm²/ AWG 10 for power circuit 2 conductor(s) rigid cable, connection via screw connector 0.5...1 mm² / AWG 17 for

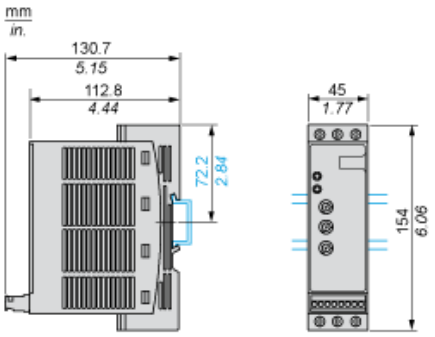
	control circuit 1 conductor(s) flexible cable with cable end, connection via screw connector 0.5...1.5 mm² / AWG 16 for control circuit 1 conductor(s) flexible cable without cable end, connection via 4 mm screw clamp terminal 1.5...10 mm² / AWG 8 for power circuit 1 conductor(s) flexible cable without cable end, connection via screw connector 0.5...2.5 mm² / AWG 14 for control circuit 2 conductor(s) flexible cable with cable end, connection via 4 mm screw clamp terminal 1...6 mm² / AWG 10 for power circuit 2 conductor(s) flexible cable without cable end, connection via 4 mm screw clamp terminal 1.5...6 mm² / AWG 10 for power circuit 2 conductor(s) flexible cable without cable end, connection via screw connector 0.5...1.5 mm² / AWG 16 for control circuit
Marking	CE
Operating position	Vertical +/- 10 degree
Height	154 mm
Width	45 mm
Depth	131 mm
Product weight	0.56 kg

Environment

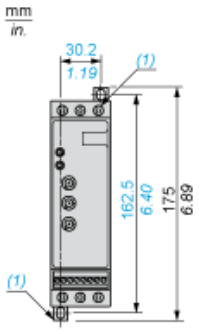
electromagnetic compatibility	Conducted and radiated emissions conforming to CISPR 11 level B Conducted and radiated emissions conforming to IEC 60947-4-2 level B Damped oscillating waves conforming to IEC 61000-4-12 level 3 Electrostatic discharge conforming to IEC 61000-4-2 level 3 EMC immunity conforming 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 conforming to IEC 61000-4-6 level 3 Immunity to electrical transients conforming to IEC 61000-4-4 level 4 Immunity to radiated radio-electrical interference conforming to IEC 61000-4-3 level 3 Micro-cuts and voltage fluctuation conforming to IEC 61000-4-11 Voltage/current impulse conforming to IEC 61000-4-5 level 3
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	-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

Dimensions

Mounting on Symetrical (35 mm) Rail

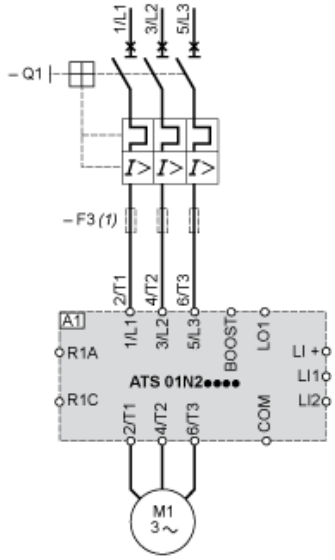


Screw Fixing



(1) Retractable fixings

Example of Manual Control



A1 : Soft start/soft stop unit

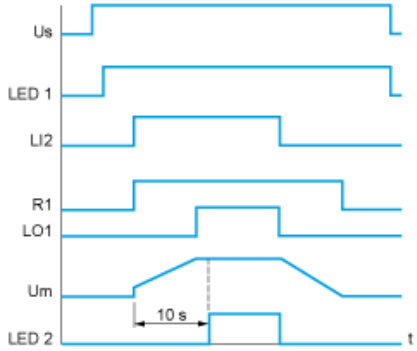
(1) For type 2 coordination

Q1 : Motor circuit-breaker

F3 : 3 fast-acting fuses

Function Diagram

2-wire Control with Deceleration



Us : Power supply voltage

LED 1 : Green LED

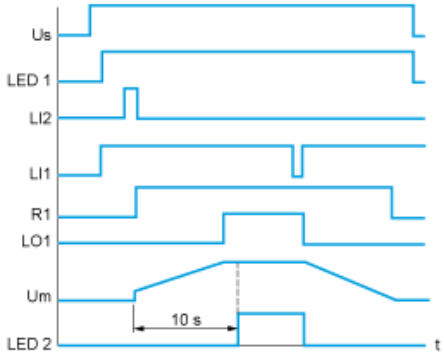
LI2 : Logic input

R1 : Relay output

LO1 : Logic output

LED 2 : Yellow LED

3-wire Control with Deceleration



Us : Power supply voltage

LED 1 : Green LED

LI2, LI1 : Logic inputs

R1 : Relay output

LO1 : Logic output

Um : Motor voltage

LED 2 : Yellow LED