ATSU01N212LT

Main

Range of product	Altistart U01 and TeSys U
Product or component type	Soft starter
Product destination	Asynchronous motors
Product specific application	Simple machine
Device short name	ATSU01
Phase	3 phases
[Us] rated supply voltage	200...480 V - 10...10 %
Motor power kW	2.2 kW 3 phases 230 V 5.5 kW 3 phases 400 V 3 kW 3 phases 230 V
Motor power hp	3 hp 3 phases 230 V 7.5 hp 3 phases 460 V
IcL starter rating	12 A
Utilisation category	AC-53B EN/IEC 60947-4-2
Current consumption	65 mA
Type of start	Start with voltage ramp
Power dissipation in W	1.5 W at full load and at end of starting 121.5 W in transient state

Complementary

Assembly style	With heat sink
Function available	Integrated bypass
Supply voltage limits	180...528 V
Supply frequency	50...60 Hz - 5...5 %
Network frequency	47.5...63 Hz
Output voltage	<= power supply voltage
[Uc] control circuit voltage	24 V DC +/- 10 %
Starting time	Adjustable from 1 to 10 s 1 s 100 10 s 10 5 s 20
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	Logic LI1, LI2, BOOST stop, run and boost on start-up functions <= 8 mA 27 kOhm
Discrete input voltage	24...40 V
Input output isolation	Galvanic between power and control
Discrete input logic	Positive LI1, LI2, BOOST < 5 V and <= 0.2 mA > 13 V >= 0.5 mA
Discrete output current	2 A DC-13 3 A AC-15
Discrete output type	Open collector logic LO1 end of starting signal Relay outputs R1A, R1C NO
Discrete output voltage	24 V 6...30 V open collector logic
Minimum switching current	10 mA 6 V DC relay outputs
Maximum switching current	2 A 30 V DC inductive cos phi = 0.5 20 ms relay outputs 2 A 250 V AC AC-15 inductive cos phi = 0.5 20 ms relay outputs
Maximum switching voltage	440 V relay outputs
Display type	1 LED green starter powered up 1 LED yellow nominal voltage reached
Tightening torque	4.42 lbf.in (0.5 N.m) 16.81...22.12 lbf.in (1.9...2.5 N.m)
Electrical connection	4 mm screw clamp terminal rigid 1 1...10 mm² AWG 8 power circuit Screw connector rigid 1 0.5...2.5 mm² AWG 14 control circuit

	4 mm screw clamp terminal rigid 2 1...6 mm² AWG 10 power circuit
	Screw connector rigid 2 0.5...1 mm² AWG 17 control circuit
	Screw connector flexible with cable end 1 0.5...1.5 mm² AWG 16 control circuit
	4 mm screw clamp terminal flexible without cable end 1 1.5...10 mm² AWG 8 power circuit
	Screw connector flexible without cable end 1 0.5...2.5 mm² AWG 14 control circuit
	4 mm screw clamp terminal flexible with cable end 2 1...6 mm² AWG 10 power circuit
	4 mm screw clamp terminal flexible without cable end 2 1.5...6 mm² AWG 10 power circuit
	Screw connector flexible without cable end 2 0.5...1.5 mm² AWG 16 control circuit
Marking	CE
Operating position	Vertical +/- 10 degree
Height	9.21 in (234 mm)
Width	1.77 in (45 mm)
Depth	5.91 in (150 mm)
Product weight	0.75 lb(US) (0.34 kg)
Power range	2.2...3 kW at 200...240 V 3 phases
	4...6 kW at 380...440 V 3 phases
Motor starter type	Soft starter

Environment

electromagnetic compatibility	EMC immunity EN 50082-1
	Damped oscillating waves level 3 IEC 61000-4-12
	Electrostatic discharge level 3 IEC 61000-4-2
	Immunity to electrical transients level 4 IEC 61000-4-4
	Immunity to radiated radio-electrical interference level 3 IEC 61000-4-3
	Voltage/current impulse level 3 IEC 61000-4-5
	Conducted and radiated emissions level B CISPR 11
	Conducted and radiated emissions level B IEC 60947-4-2
	EMC immunity EN 50082-2
	Harmonics IEC 1000-3-2
	Harmonics IEC 1000-3-4
	Conducted and radiated emissions level 3 IEC 61000-4-6
	Immunity to conducted interference caused by radio-electrical fields IEC 61000-4-11
standards	EN/IEC 60947-4-2
product certifications	CCC
	CSA
	C-Tick
	UL
IP degree of protection	IP20
pollution degree	2 EN/IEC 60947-4-2
vibration resistance	1.5 mm peak to peak 3...13 Hz EN/IEC 60068-2-6
	1 gn 13...150 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

Offer Sustainability

| WARNING: This product can expose you to chemicals including:	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.	Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.
Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm.	Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm.
For more information go to www.p65warnings.ca.gov	For more information go to www.p65warnings.ca.gov

Contractual warranty
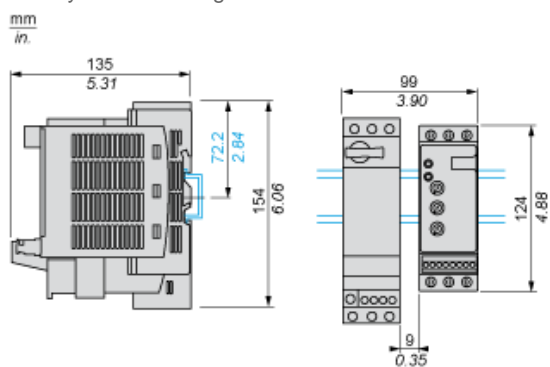
Warranty period	18 months

Dimensions

With TeSys U Combination (Non Reversing Power Base)

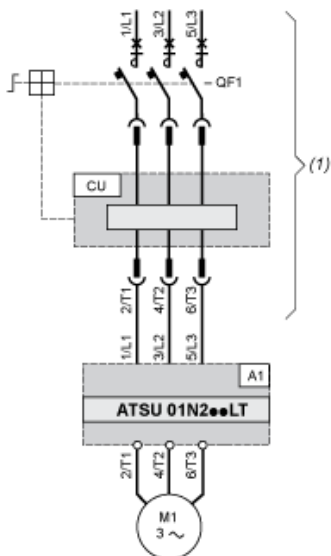Mounting on symetrical (35 mm) rail with power connector between ATS and TeSys U.

$\frac{mm}{in.}$
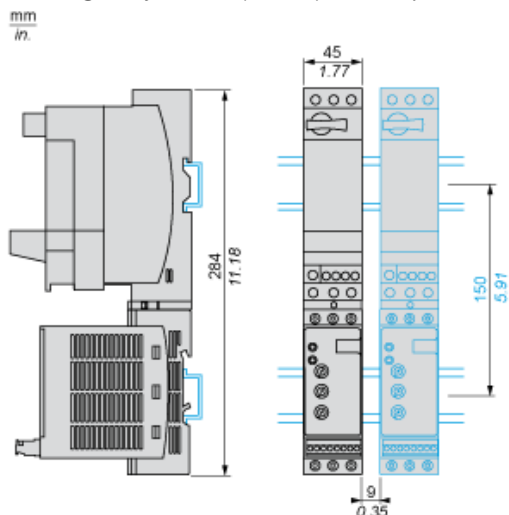
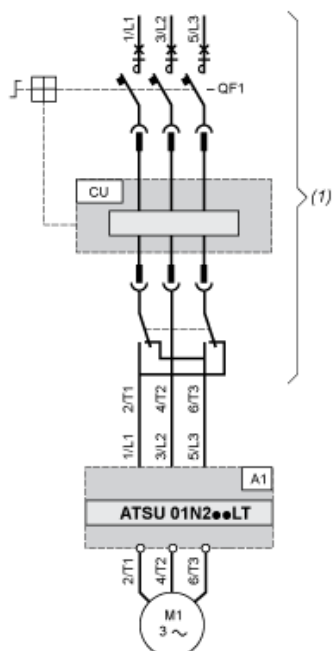### With TeSys U Combination (Non Reversing or Reversing Power Base)

Side by side mounting

$\frac{mm}{in.}$

Power Wiring

(1) TeSys U

A1 : Soft start/soft stop unit

QF1 : TeSys U controller-starter

CU : TeSys U control unit

With Reversing Unit
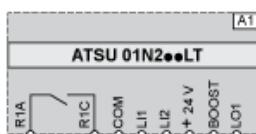
Schneider Electric

(1) TeSys U with reversing unit

A1 : Soft start/soft stop unit

QF1 : TeSys U controller-starter

CU : TeSys U control unit

Control Wiring

A1 : Soft start/soft stop unit

R1A, Relay output NO
R1C :

COM : Commun

LI1, Logic inputs (stop and run functions)
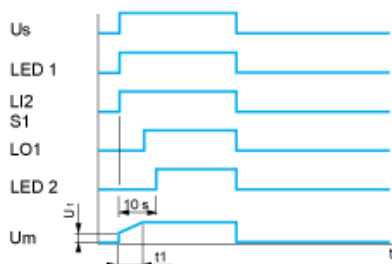**LI2 :**

BOOST : Logic input (boost on start-up function)

LO1 : Logic output

Functional Diagram Automatic 2-wire Control

Without Deceleration

Us : Power supply voltage

LED 1 : Green LED

LI2 : Logic input

S1 : Pushbutton
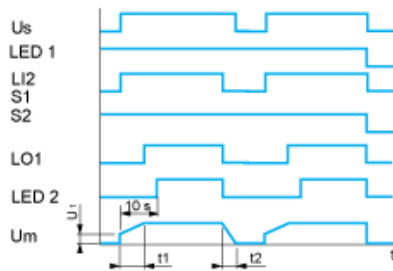
LED 2 : Yellow LED

Um : Motor voltage

t1 : Acceleration time can be controlled by a potentiometer

U1 : Starting time can be controlled by a potentiometer

With and without Deceleration

Us : Power supply voltage

LED 1 : Green LED

LI2 : Logic input

S1, S2 : Pushbuttons

LO1 : Logic output

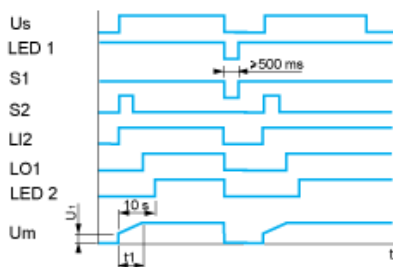**LED 2 :** Yellow LED

Um : Motor voltage

t1 : Acceleration time can be controlled by a potentiometer

t2 : Deceleration time can be controlled by a potentiometer

U1 : Starting time can be controlled by a potentiometer

Functional Diagram Automatic 3-wire Control

Without Deceleration

Us : Power supply voltage

LED 1 : Green LED

S1, S2 : Pushbuttons

LI2 : Logic input

LO1 : Logic output

LED 2 : Yellow LED

Um : Motor voltage

t1 : Acceleration time can be controlled by a potentiometer

U1 : Starting time can be controlled by a potentiometer

With Deceleration

Us : Power supply voltage

LED 1 : Green LED

S1, S2 : Pushbuttons

LI1, LI2 : Logic inputs

LO1 : Logic output

LED 2 : Yellow LED

Um : Motor voltage

t1 : Acceleration time can be controlled by a potentiometer