## Product data sheet Characteristics

# ATS01N212RT

soft starter for asynchronous motor - ATS01 - 12 A - 460..480 V



| Main                         |   |
|------------------------------|---|
| Range of Product             | Altistart 01  |
| Product or Component<br>Type | Soft starter  |
| Product destination          | Asynchronous motors   |
| Product Specific Application | Simple machine  |
| Device short name            | ATS01   |
| Phase                        | 3 phase   |
| [Us] rated supply voltage    | 460480 V - 1010 %   |
| Maximum Horse Power Rating   | 7.5 hp, 3 phase 460480 V  |
| IcL starter rating           | 12 A  |
| Utilisation category         | AC-53B EN/IEC 60947-4-2   |
| Current consumption          | 60 A at nominal load  |
| Type of start                | Start with voltage ramp   |
| Power dissipation in W       | 4 W at full load and at end of starting<br>124 W in transient state |

#### Complementary

| Complementary                |   |
|------------------------------|---|
| Assembly style               | With heat sink  |
| Function Available           | Integrated bypass   |
| Supply voltage limits        | 414528 V  |
| Supply frequency             | 5060 Hz - 55 %  |
| Network Frequency            | 47.563 Hz   |
| Output voltage               | <= power supply voltage   |
| [Uc] control circuit voltage | Built into the starter  |
| Starting time                | Adjustable from 1 to 10 s   |
| Deceleration time symb       | Adjustable from 1 to 10 s   |
| Starting torque              | 3080 % 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       | 2440 V  |
| Discrete input logic         | Positive LI1, LI2, BOOST < 5 V <= 0.2 mA > 13 V, >= 0.5 mA  |
| Discrete output current      | 2 A DC-13<br>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 630 V) open collector logic  |
| Minimum switching current    | 10 mA 6 V DC relay outputs  |
| Maximum switching current    | Relay outputs 2 A 250 V AC cos phi = 0.5 20 ms inductive<br>Relay outputs 2 A 30 V DC cos phi = 0.5 20 ms inductive |
| Display type                 | LED Green)starter powered up     LED Yellow)nominal voltage reached   |
| Tightening torque            | 16.8222.13 Lbf.ln (1.92.5 N.m)<br>4.43 lbf.in (0.5 N.m)   |

| Electrical connection | 4 mm screw clamp terminal - rigid 1 110 mm² AWG 8 power circuit Screw connector - rigid 1 0.52.5 mm² AWG 14 control circuit 4 mm screw clamp terminal - rigid 2 16 mm² AWG 10 power circuit Screw connector - rigid 2 0.51 mm² AWG 17 control circuit Screw connector - flexible with cable end 1 0.51.5 mm² AWG 16 control circuit 4 mm screw clamp terminal - flexible without cable end 1 1.510 mm² AWG 8 power circuit Screw connector - flexible without cable end 1 0.52.5 mm² AWG 14 control circuit 4 mm screw clamp terminal - flexible with cable end 2 16 mm² AWG 10 power circuit 4 mm screw clamp terminal - flexible without cable end 2 1.56 mm² AWG 10 power circuit Screw connector - flexible without cable end 2 0.51.5 mm² AWG 16 control |
|-----------------------|---|
|                       | circuit   |
| 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)  |
| Net Weight            | 0.93 lb(US) (0.42 kg)   |
| Compatibility code    | ATS01N2   |

## 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                | UL   |
|                                       | B44.1-96/ASME A17.5 for starter wired to the motor delta terminal                          |
|                                       | CSA  |
|                                       | CCC  |
|                                       | C-tick   |
|                                       | GOST   |
| IP Degree of Protection               | IP20   |
| Pollution degree                      | 2 EN/IEC 60947-4-2   |
| Vibration resistance                  | 1 gn 13150 Hz)EN/IEC 60068-2-6   |
|                                       | 1.5 mm peak to peak 313 Hz)EN/IEC 60068-2-6  |
| Shock resistance                      | 15 gn 11 ms EN/IEC 60068-2-27  |
| Relative humidity                     | 595 % without condensation or dripping water EN/IEC 60068-2-3                              |
| Ambient air temperature for operation | 14104 °F (-1040 °C) without derating)  |
| ,                                     | 104122 °F (4050 °C) with current derating of 2 % per °C)                                   |
| Ambient air temperature for storage   | -13158 °F (-2570 °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

| 22392 - ATSU01/ATS01 LOW HP SOFT STARTERS |
|---|
| l11                                       |
| 3389110667271                             |
| 1   |
| 17.95 oz (509 g)                          |
| Yes                                       |
| DE  |
|   |

## Packing Units

| <u> </u>                     |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Package 1 Height             | 2.17 in (5.5 cm)       |
| Package 1 width              | 5.98 in (15.2 cm)      |
| Package 1 Length             | 6.89 in (17.5 cm)      |
| Unit Type of Package 2       | S03                    |
| Number of Units in Package 2 | 14                     |
| Package 2 Weight             | 17.55 lb(US) (7.96 kg) |
| Package 2 Height             | 11.81 in (30 cm)       |
| Package 2 width              | 11.81 in (30 cm)       |
| Package 2 Length             | 15.75 in (40 cm)       |
|                              |                        |

#### 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) EPEU RoHS  Declaration   |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| RoHS exemption information | ₫Yes  |
| China RoHS Regulation      | China RoHS Declaration  |
| 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.  |

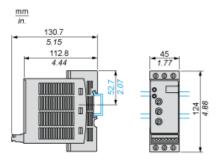
#### Contractual warranty

| Contraction Warranty |           |
|----------------------|-----------|
| Warranty             | 18 months |

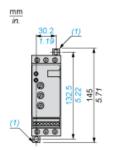
# **ATS01N212RT**

#### **Dimensions**

## Mounting on Symetrical (35 mm) Rail



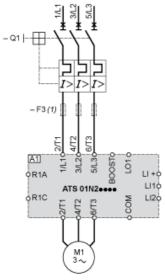
## Screw Fixing



(1) Retractable fixings

# **ATS01N212RT**

## **Example of Manual Control**



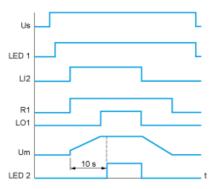
A1: Soft start/soft stop unit (1) For type 2 coordination Q1: Motor circuit-breaker F3: 3 fast-acting fuses

## Product data sheet **Technical Description**

# ATS01N212RT

#### **Function Diagram**

#### 2-wire Control with Deceleration



Us: Power supply voltage

LED Green LED

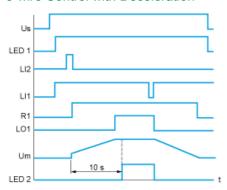
LI2: Logic input

R1: Relay output LO1:Logic output

LED Yellow LED

2:

#### 3-wire Control with Deceleration



Us: Power supply voltage LED Green LED

1:

LI2, Logic inputs

R1: Relay output LO1:Logic output Um: Motor voltage

LED Yellow LED