

# 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<br>Single phase                                                                                                                     |
| [Us] rated supply voltage    | 110...480 V (- 10...10 %)                                                                                                                    |
| Motor power kW               | 3 kW at 400 V 3 phases<br>0.75 kW at 230 V 3 phases<br>0.75 kW at 230 V single phase<br>1.1 kW at 230 V 3 phases<br>2.2 kW at 400 V 3 phases |
| Motor power hp               | 1 hp at 230 V 3 phases<br>2 hp at 460 V 3 phases<br>3 hp at 460 V 3 phases<br>0.5 hp at 210 V 3 phases<br>1.5 hp at 230 V 3 phases           |
| IcL starter rating           | 6 A                                                                                                                                          |
| Utilisation category         | AC-53B conforming to EN/IEC 60947-4-2                                                                                                        |
| Current consumption          | 30 A at nominal load                                                                                                                         |
| Type of start                | Start with voltage ramp                                                                                                                      |
| Power dissipation in W       | 1 W at full load and at end of starting<br>31 W in transient state                                                                           |

## Complementary

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Assembly style           | With heat sink                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Function available       | Integrated bypass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Supply voltage limits    | 99...528 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Supply frequency         | 50...60 Hz (- 5...5 %)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Network frequency limits | 47.5...63 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Output voltage           | <= power supply voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Control circuit voltage  | 110 V +/- 10 % AC, 30 mA<br>24 V +/- 10 % AC/DC, 25 mA<br>240 V +/- 10 % AC, 65 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Starting time            | 1 s/100 start(s) per hour<br>5 s/20 start(s) per hour<br>Adjustable from 1 to 5 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Starting torque          | 30...80 % of starting torque of motor connected directly on the line supply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Discrete output current  | 2 A DC-13<br>3 A AC-15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Tightening torque        | 0.8 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Electrical connection    | 1 conductor(s) rigid cable, connection via cage type connector 2.5 mm²/AWG 14 for control circuit<br>1 conductor(s) rigid cable, connection via cage type connector 2.5 mm²/AWG 14 for power circuit<br>2 conductor(s) rigid cable, connection via cage type connector 1 mm²/AWG 17 for control circuit<br>2 conductor(s) rigid cable, connection via cage type connector 1 mm²/AWG 17 for power circuit<br>1 conductor(s) flexible cablewith cable end, connection via cage type connector 2.5 mm²/AWG 14 for control circuit<br>1 conductor(s) flexible cablewith cable end, connection via cage type connector 2.5 mm²/AWG 14 for power circuit<br>1 conductor(s) flexible cablewithout cable end, connection via cage type connector 2.5 mm²/AWG 14 for control circuit |

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|                    | 1 conductor(s) flexible cablewithout cable end, connection via cage type connector<br>2.5 mm <sup>2</sup> /AWG 14 for power circuit<br>2 conductor(s) flexible cablewith cable end, connection via cage type connector 0.75 mm <sup>2</sup> /AWG 18 for control circuit<br>2 conductor(s) flexible cablewith cable end, connection via cage type connector 0.75 mm <sup>2</sup> /AWG 18 for power circuit<br>2 conductor(s) flexible cablewithout cable end, connection via cage type connector 1 mm <sup>2</sup> /AWG 17 for control circuit<br>2 conductor(s) flexible cablewithout cable end, connection via cage type connector 1 mm <sup>2</sup> /AWG 17 for power circuit |
| Marking            | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Operating position | Vertical +/- 10 degree                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Height             | 100 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Width              | 23 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Depth              | 100 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Product weight     | 0.16 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Electromagnetic compatibility         | Conducted and radiated emissions conforming to CISPR 11 level B<br>Conducted and radiated emissions conforming to IEC 60947-4-2 level B<br>Damped oscillating waves conforming to IEC 61000-4-12 level 3<br>Electrostatic discharge conforming to IEC 61000-4-2 level 3<br>EMC immunity conforming to EN 50082-1<br>EMC immunity conforming to EN 50082-2<br>Harmonics conforming to IEC 1000-3-2<br>Harmonics conforming to IEC 1000-3-4<br>Immunity to conducted interference caused by radio-electrical fields conforming to IEC 61000-4-6 level 3<br>Immunity to electrical transients conforming to IEC 61000-4-4 level 4<br>Immunity to radiated radio-electrical interference conforming to IEC 61000-4-3 level 3<br>Micro-cuts and voltage fluctuation conforming to IEC 61000-4-11<br>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<br>CCC<br>CSA<br>C-Tick<br>GOST<br>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<br>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<br>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<br>> 1000 m with current derating of 2.2 % per additional 100 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |