

# ATS48C41Q

soft starter for asynchronous motor - ATS48 -  
388 A - 230..415 V - 90..315 KW



## Main

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product             | Altistart 48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product or component type    | Soft starter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product destination          | Asynchronous motors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product specific application | Heavy duty industry and pumps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Device short name            | ATS48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Power supply voltage         | 230...415 V - 15...10 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Motor power kW               | 90 KW at 230 V connection in the motor supply line for severe applications<br>110 KW at 230 V connection in the motor supply line for standard applications<br>160 KW at 230 V connection to the motor delta terminals for severe applications<br>160 KW at 400 V connection in the motor supply line for severe applications<br>220 KW at 230 V connection to the motor delta terminals for standard applications<br>220 KW at 400 V connection in the motor supply line for standard applications<br>250 KW at 400 V connection to the motor delta terminals for severe applications<br>315 kW at 400 V connection to the motor delta terminals for standard applications |
| Power dissipation in W       | 1017 W for severe applications<br>1339 W for standard applications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Utilisation category         | AC-53A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Type of start                | Start with torque control (current limited to 5 In)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Icl nominal current          | 410 A for connection in the motor supply line for severe applications<br>410 A for connection in the motor supply line for standard applications<br>710 A for connection to the motor delta terminals for severe applications<br>710 A for connection to the motor delta terminals for standard applications                                                                                                                                                                                                                                                                                                                                                                |
| IP degree of protection      | IP00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Complementary

|                               |                                                                                                                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Assembly style                | With heat sink                                                                                                                                                                                                      |
| Function available            | External bypass (optional)                                                                                                                                                                                          |
| Power supply voltage limits   | 195...456 V                                                                                                                                                                                                         |
| Power supply frequency        | 50...60 Hz - 5...5 %                                                                                                                                                                                                |
| Power supply frequency limits | 47.5...63 Hz                                                                                                                                                                                                        |
| Device connection             | In the motor supply line<br>To the motor delta terminals                                                                                                                                                            |
| Factory setting current       | 388 A                                                                                                                                                                                                               |
| [Uc] control circuit voltage  | 220 - 15 % to 415 + 10 %, 50/60 Hz                                                                                                                                                                                  |
| Control circuit consumption   | 80 W                                                                                                                                                                                                                |
| Discrete output number        | 2                                                                                                                                                                                                                   |
| Discrete output type          | (LO1) logic output 0 V common configurable<br>(LO2) logic output 0 V common configurable<br>(R1) relay outputs fault relay NO<br>(R2) relay outputs end of starting relay NO<br>(R3) relay outputs motor powered NO |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                                    |                                                                                                                                                                            |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output absolute accuracy precision | +/- 5 %                                                                                                                                                                    |
| Minimum switching current          | 10 mA at 6 V DC for relay outputs                                                                                                                                          |
| Maximum switching current          | Logic output 0.2 A at 30 V DC<br>Relay outputs 1.8 A at 230 V AC inductive load, cos phi = 0.5 20 ms<br>Relay outputs 1.8 A at 30 V DC inductive load, cos phi = 0.5 20 ms |
| Discrete input number              | 5                                                                                                                                                                          |
| Discrete input type                | PTC, 750 Ohm at 25 °C<br>(Stop, Run, LI3, LI4) logic, <= 8 mA 4300 Ohm                                                                                                     |
| Discrete input voltage             | 24 V <= 30 V                                                                                                                                                               |
| Discrete input logic               | Positive logic Stop, Run, LI3, LI4 at State 0: < 5 V and <= 2 mA at State 1: > 11 V, >= 5 mA                                                                               |
| Starting current                   | 0.4...1.3 I <sub>cl</sub> adjustable                                                                                                                                       |
| Analogue output type               | Current output AO: 0-20 mA or 4-20 mA, impedance <500 Ohm                                                                                                                  |
| Communication port protocol        | Modbus                                                                                                                                                                     |
| Connector type                     | 1 RJ45                                                                                                                                                                     |
| Communication data link            | Serial                                                                                                                                                                     |
| Physical interface                 | RS485 multidrop                                                                                                                                                            |
| Transmission rate                  | 4800, 9600 or 19200 bps                                                                                                                                                    |
| Max nodes number                   | 31                                                                                                                                                                         |
| Protection type                    | Phase failure: line<br>Thermal protection: motor<br>Thermal protection: starter                                                                                            |
| Marking                            | CE                                                                                                                                                                         |
| Type of cooling                    | Forced convection                                                                                                                                                          |
| Operating position                 | Vertical +/- 10 degree                                                                                                                                                     |
| Height                             | 670 mm                                                                                                                                                                     |
| Width                              | 400 mm                                                                                                                                                                     |
| Depth                              | 300 mm                                                                                                                                                                     |
| Net weight                         | 51.4 kg                                                                                                                                                                    |
| Motor power range AC-3             | 55...100 kW at 200...240 V 3 phases<br>110...220 kW at 380...440 V 3 phases<br>110...220 kW at 200...240 V 3 phases<br>250...500 kW at 380...440 V 3 phases                |
| Motor starter type                 | Soft starter                                                                                                                                                               |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic compatibility         | Conducted and radiated emissions level A conforming to IEC 60947-4-2<br>Damped oscillating waves level 3 conforming to IEC 61000-4-12<br>Electrostatic discharge level 3 conforming to IEC 61000-4-2<br>Immunity to electrical transients level 4 conforming to IEC 61000-4-4<br>Immunity to radiated radio-electrical interference level 3 conforming to IEC 61000-4-3<br>Voltage/current impulse level 3 conforming to IEC 61000-4-5 |
| Standards                             | EN/IEC 60947-4-2                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Product certifications                | DNV<br>C-Tick<br>CSA<br>NOM 117<br>TCF<br>UL<br>SEPRO<br>GOST<br>CCC                                                                                                                                                                                                                                                                                                                                                                   |
| Vibration resistance                  | 1 gn (f= 13...200 Hz) conforming to EN/IEC 60068-2-6<br>1.5 mm (f= 2...13 Hz) conforming to EN/IEC 60068-2-6                                                                                                                                                                                                                                                                                                                           |
| Shock resistance                      | 15 gn for 11 ms conforming to EN/IEC 60068-2-27                                                                                                                                                                                                                                                                                                                                                                                        |
| Noise level                           | 55 dB                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Pollution degree                      | Level 3 conforming to IEC 60664-1                                                                                                                                                                                                                                                                                                                                                                                                      |
| Relative humidity                     | 0...95 % without condensation or dripping water conforming to EN/IEC 60068-2-3                                                                                                                                                                                                                                                                                                                                                         |
| Ambient air temperature for operation | 40...60 °C (with current derating of 2 % per °C)<br>-10...40 °C (without derating)                                                                                                                                                                                                                                                                                                                                                     |
| Ambient air temperature for storage   | -25...70 °C                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Operating altitude                    | <= 1000 m without derating<br>> 1000...2000 m with current derating of 2.2 % per additional 100 m                                                                                                                                                                                                                                                                                                                                      |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 54.5 kg |
| Package 1 Height             | 39 cm   |
| Package 1 width              | 58 cm   |
| Package 1 Length             | 78.5 cm |

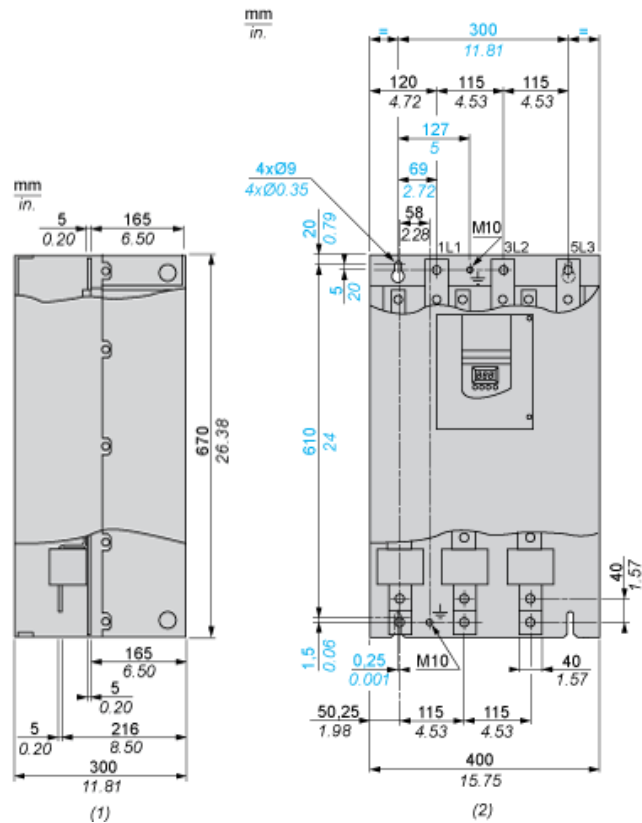
## Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                              |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                      |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

## Contractual warranty

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

Dimensions



(1) Right View  
(2) Front View

---

Clearance

---

