

# ATS48C14Q

soft starter for asynchronous motor - ATS48 - 131  
A - 230..415 V - 30..110 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| [Us] rated supply voltage    | 230...415 V (- 15...10 %)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Motor power kW               | 55 kW at 230 V (connection to the motor delta terminals) for severe applications<br>55 kW at 400 V (connection in the motor supply line) for severe applications<br>75 kW at 230 V (connection to the motor delta terminals) for standard applications<br>75 kW at 400 V (connection in the motor supply line) for standard applications<br>90 kW at 400 V (connection to the motor delta terminals) for severe applications<br>110 kW at 400 V (connection to the motor delta terminals) for standard applications<br>30 kW at 230 V (connection in the motor supply line) for severe applications<br>37 kW at 230 V (connection in the motor supply line) for standard applications |
| Power dissipation in W       | For severe applications 306 W<br>For standard applications 391 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Utilisation category         | AC-53A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Type of start                | Start with torque control (current limited to 5 In)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| IcL starter rating           | 110 A (connection in the motor supply line) for severe applications<br>191 A (connection to the motor delta terminals) for severe applications<br>242 A (connection to the motor delta terminals) for standard applications<br>140 A (connection in the motor supply line) for standard applications                                                                                                                                                                                                                                                                                                                                                                                  |
| IP degree of protection      | IP00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Complementary

|                              |                                                          |
|------------------------------|----------------------------------------------------------|
| Assembly style               | With heat sink                                           |
| Function available           | External bypass (optional)                               |
| Supply voltage limits        | 195...456 V                                              |
| Supply frequency             | 50...60 Hz (- 5...5 %)                                   |
| Network frequency            | 47.5...63 Hz                                             |
| Device connection            | In the motor supply line<br>To the motor delta terminals |
| Factory setting current      | 131 A                                                    |
| [Uc] control circuit voltage | 220 - 15 % to 415 + 10 %, 50/60 Hz                       |
| Control circuit consumption  | 30 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 |
| Output absolute accuracy precision | +/- 5 %                                                                                                                                                                                                             |
| Minimum switching current          | Relay outputs 10 mA at 6 V DC                                                                                                                                                                                       |
| 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, L/R = 20 ms<br>Relay outputs 1.8 A at 30 V DC inductive load, cos phi = 0.5, L/R = 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) state 0 < 5 V and <= 2 mA, state 1 > 11 V and >= 5 mA                                                                                                                          |
| Supply inrush current              | Adjustable 0.4...1.3 Icl                                                                                                                                                                                            |
| Analogue output type               | (AO) current output 0-20 mA or 4-20 mA <= 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                                                                                                                                                                                             |
| Installed device                   | 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                             | 340 mm                                                                                                                                                                                                              |
| Width                              | 200 mm                                                                                                                                                                                                              |
| Depth                              | 265 mm                                                                                                                                                                                                              |
| Product weight                     | 12.4 kg                                                                                                                                                                                                             |
| Power range                        | 30...50 kW at 200...240 V 3 phases<br>55...100 kW at 380...440 V 3 phases<br>55...100 kW at 200...240 V 3 phases<br>110...220 kW at 380...440 V 3 phases                                                            |
| Motor starter type                 | Soft starter                                                                                                                                                                                                        |

## Environment

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic compatibility | Conducted and radiated emissions conforming to IEC 60947-4-2 level A<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>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>Voltage/Current impulse conforming to IEC 61000-4-5 level 3 |
| Standards                     | EN/IEC 60947-4-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Product certifications        | CCC<br>CSA<br>TCF<br>UL<br>NOM 117<br>DNV<br>C-Tick<br>SEPRO<br>GOST                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 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                           | 50 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 | -10...40 °C without derating<br>> 40...60 °C with current derating of 2 % per °C                  |
| 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 |

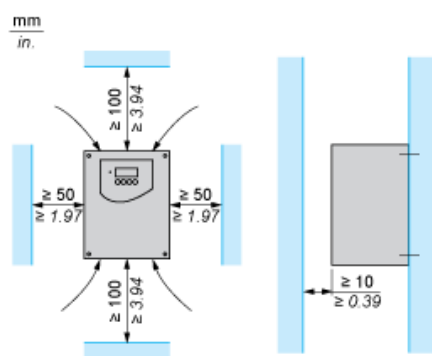
### Contractual warranty

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

Dimensions

- (1) Right View
- (2) Front View

## Clearance



Our Proposal: Circuit Breaker + Contactor + Soft starter for Motor Power from 30 to 75 kW and 230 to 400 VAC

| Motor power (kW) | ICU (kA) | Breaker                                                                                        | Contactor (*)                                                                                   | Instantaneous auxiliary contact | Motor Starter                                                                                     |
|------------------|----------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------|
| 30 kW for 230 V  | 85       | <br>LV430830  | <br>LC1D115P7  | -                               | <br>ATS48C14Q  |
| 37 kW for 230 V  | 85       | <br>LV430830  | <br>LC1D150P7  | -                               | <br>ATS48C14Q  |
| 55 kW for 400 V  | 36       | <br>LV430830  | <br>LC1D115P7  | -                               | <br>ATS48C14Q  |
| 75 kW for 400 V  | 36       | <br>LV430830 | <br>LC1D150P7 | -                               | <br>ATS48C14Q |

Non contractual pictures.

| Motor power kW  | Coil voltage VDC | 24 | 48 | 110 | 125 | 220 | 230 | Other          |
|-----------------|------------------|----|----|-----|-----|-----|-----|----------------|
| 30 kW for 230 V | LC1D115 ..       | BD | ED | -   | -   | -   | -   | Complete Offer |
| 55 kW for 400 V | LC1D115 ..       | BD | ED | -   | -   | -   | -   | Complete Offer |
| 37 kW for 230 V | LC1D150 ..       | BD | ED | -   | -   | -   | -   | Complete Offer |
| 75 kW for 400 V | LC1D150 ..       | BD | ED | -   | -   | -   | -   | Complete Offer |

(\*) You can select the contactor proposed or variants. Please consider examples hereafter or follow the link to the complete offer.

| Motor power kW  | Coil voltage VAC 40...400 Hz | 24 | 48 | 110 | 115 | 120 | 220 | 230 | 240 | 400 | Other          |
|-----------------|------------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----------------|
| 37 kW for 230 V | LC1D150 ..                   | B7 | E7 | F7  | FE7 | -   | M7  | P7  | -   | V7  | Complete Offer |
| 75 kW for 400 V | LC1D150 ..                   | B7 | E7 | F7  | FE7 | -   | M7  | P7  | -   | V7  | Complete Offer |
| 55 kW for 400 V | LC1D115 ..                   | B7 | E7 | F7  | FE7 | -   | M7  | P7  | -   | V7  | Complete Offer |

(\*\*) You can select the breaker proposed or variants. Please consider examples hereafter or follow the link to the complete offer.

| Motor power<br>kW        | ICU (F | Breaker with capacity level<br>F | ICU (H | Breaker with capacity level<br>H | ICU (N | Breaker with capacity level<br>N | Other          |
|--------------------------|--------|----------------------------------|--------|----------------------------------|--------|----------------------------------|----------------|
| 30 to 37 kW for<br>230 V | 85     | LV430830                         | 100    | LV430834                         | 90     | LV430832                         | Complete Offer |
| 55 to 75 kW for<br>400 V | 36     | LV430830                         | 70     | LV430834                         | 50     | LV430832                         | Complete Offer |