Specifications





# Soft starter, Altistart 480, 32A, 208 to 690V AC, control supply 110 to 230V AC

ATS480D32Y

Product availability: Stock - Normally stocked in distribution facility

#### Price\*: 960.99 USD

## Main

| Range of Product               | Altivar Soft Starter ATS480   |
|--------------------------------|---|
| Product or Component Type      | Soft starter  |
| Product destination            | Asynchronous motors   |
| Product Specific Application   | Process and infrastructures   |
| Device short name              | ATS480  |
| Phase                          | 3 phase   |
| Utilisation category           | AC-3A<br>AC-53A   |
| Ue power supply voltage        | 208690 V - 1510 %   |
| power supply frequency         | 5060 Hz - 2020 %  |
| [le] rated operational current | Normal duty 32.0 A 104.0000000000 °F (40 °C))   |
| rated current in heavy duty    | 22.0 A at 104.000000000 °F (40 °C) heavy duty   |
| Torque control                 | True  |
| IP Degree of Protection        | IP20  |
| Motor power kW                 | <ul> <li>7.5 kW 230 V in the motor supply line normal duty</li> <li>5.5 kW 230 V in the motor supply line heavy duty</li> <li>15.0 kW 400 V in the motor supply line normal duty</li> <li>11.0 kW 400 V in the motor supply line heavy duty</li> <li>15.0 kW 440 V in the motor supply line normal duty</li> <li>11.0 kW 440 V in the motor supply line heavy duty</li> <li>18.5 kW 500 V in the motor supply line heavy duty</li> <li>18.5 kW 500 V in the motor supply line heavy duty</li> <li>18.5 kW 525 V in the motor supply line heavy duty</li> <li>18.5 kW 525 V in the motor supply line heavy duty</li> <li>11.0 kW 525 V in the motor supply line heavy duty</li> <li>12.0 kW 660 V in the motor supply line heavy duty</li> <li>22.0 kW 660 V in the motor supply line heavy duty</li> <li>23.0 kW 690 V in the motor supply line heavy duty</li> <li>24.0 kW 690 V in the motor supply line heavy duty</li> <li>25.0 kW 690 V in the motor supply line heavy duty</li> <li>26.0 kW 230 V to the motor delta terminals normal duty</li> <li>27.0 kW 230 V to the motor delta terminals normal duty</li> <li>27.0 kW 400 V to the motor delta terminals normal duty</li> </ul> |
| Maximum Horse Power Rating     | 7.5 hp 208 V normal duty<br>5.0 hp 208 V heavy duty<br>10.0 hp 230 V normal duty<br>7.5 hp 230 V heavy duty<br>20.0 hp 460 V normal duty<br>15.0 hp 460 V heavy duty<br>25.0 hp 575 V normal duty   |

Price is "List Price" and may be subject to a trade discount - check with your local distributor or retailer for actual price.

Communication module Profibus DP V1 Communication module Modbus TCP/EtherNet/IP Communication module CANopen daisy chain Communication module CANopen Sub-D Communication module CANopen open style

## Complementary

| Device connection                          | In the motor supply line<br>To the motor delta terminals   |
|--|--|
| [Us] control circuit voltage               | 110230 V AC 50/60 Hz - 1510 %  |
| Apparent power                             | 0.09 kVA   |
| Integrated motor overload protection       | True   |
| motor thermal protection class             | Class 10E  |
| Protection type                            | Phase failure line<br>Integrated thermal protection motor<br>Thermal protection starter<br>Current overload motor<br>Underload motor<br>Excessive starting time, locked rotor motor<br>Motor phase loss motor<br>Line supply phase loss line<br>Line supply phase loss motor<br>Thermal protection motor |
| current limiting %In (5 x le<br>maximum)   | 150700 %   |
| [In] Rated current pwr loss<br>specifctn   | 32.0 A   |
| Power loss static current<br>independent   | 25.0 W   |
| Power loss per device current<br>dependent | 84.0 W   |
| Standards                                  | IEC 60947-4-2<br>UL 60947-4-2<br>IEC 60664-1   |
| Product Certifications                     | CE<br>cULus<br>CCC<br>UKCA<br>RCM<br>EAC<br>DNV<br>ABS<br>BV<br>CCS  |
| marking                                    | CE<br>CCC<br>UKCA<br>EAC<br>RCM<br>CULus   |
| [Uc] control circuit voltage               | 24 V DC  |
| Discrete input number                      | 4  |
| Discrete input type                        | STOP) logic inputs, 3500 Ohm<br>RUN) logic inputs, 3500 Ohm<br>DI3) programmable as logic input, 3500 Ohm<br>DI4) programmable as logic input, 3500 Ohm  |
| Input compatibility                        | STOP discrete input level 1 PLC IEC 61131-2<br>RUN discrete input level 1 PLC IEC 61131-2<br>DI3 discrete input level 1 PLC IEC 61131-2<br>DI4 discrete input level 1 PLC IEC 61131-2  |
| Discrete input logic                       | Programmable digital input < 5 V   |
| Relay output number                        | 3  |

| Relay output type           | Relay outputs R1A 1 NO<br>Relay outputs R1B 1 NO<br>Relay outputs RIC NO/NC programmable  |
|-----------------------------|---|
| Minimum switching current   | 100 mA 12 V DC relay outputs  |
| Maximum switching current   | Relay outputs 2 A 250 V AC<br>Relay outputs 2 A 30 V DC   |
| Discrete output number      | 2   |
| Discrete output type        | DQ1) programmable digital output <= 30 V<br>DQ2) programmable digital output <= 30 V  |
| Output compatibility        | Open collector level 1 PLC IEC 65A-68   |
| Analogue input number       | 1   |
| Analogue input type         | Al1/PTC PTC/Pt 100 temperature probe<br>PTC2 PTC/Pt 100 temperature probe<br>PTC3 PTC/Pt 100 temperature probe  |
| Analogue output number      | 1   |
| Analogue output type        | Current output AQ1 020 mA or 010 V 500 Ohm  |
| Communication Port Protocol | Modbus serial   |
| Connector Type              | 1 RJ45  |
| Communication data link     | Serial  |
| Physical interface          | 2-wire RS 485   |
| Transmission Rate           | 1200256000 bit/s  |
| Transmission frame          | RTU   |
| Data format                 | 8 bits, configurable odd, even or no parity   |
| Type of polarization        | No impedance Modbus serial  |
| Number of addresses         | 0227 Modbus serial  |
| Method of access            | Slave Modbus serial   |
| Function Available          | External bypass control<br>Pre-heating<br>Smoke extraction<br>Multi-motor cascade<br>Second motor set<br>User management<br>Ports and services hardening<br>Security event logging<br>Cybersecure firmware update<br>Single direction |
| Display screen available    | True  |
| Operating position          | Vertical +/- 10 degree  |
| Height                      | 10.8 in (275.0 mm)  |
| Width                       | 6.3 in (160.0 mm)   |
| Depth                       | 8.0 in (203.0 mm)   |
| Net Weight                  | 10.8 lb(US) (4.9 kg)  |

## Environment

| Electromagnetic compatibility | Conducted and radiated emissions level A IEC 60947-4-2                   |
|-------------------------------|--|
|                               | Conducted and radiated emissions with bypass level B IEC 60947-4-2       |
|                               | Damped oscillating waves level 3 IEC 61000-4-12                          |
|                               | Electrostatic discharge level 3 IEC 61000-4-11                           |
|                               | Immunity to electrical transients level 4 IEC 61000-4-4                  |
|                               | Immunity to radiated radio-electrical interference level 3 IEC 61000-4-3 |
|                               | Voltage/current impulse level 3 IEC 61000-4-5                            |

| Pollution degree   | Level 3   |
|--|---|
| [Uimp] rated impulse withstand voltage                                 | 6 KV  |
| [Ui] Rated Insulation Voltage  | 690 V   |
| Environmental class (during operation)                                 | Class 3C3 according to IEC 60721-3-3<br>Class 3S2 according to IEC 60721-3-3  |
| Relative humidity  | 095 % without condensation or dripping water IEC 60068-2-3  |
| Ambient air temperature for operation                                  | 104.000000000140.0000000000 °F (4060 °C) with current derating of 2 % per<br>°C)<br>5.000000000104.0000000000 °F (-1540 °C) without derating) |
| Ambient Air Temperature for<br>Storage                                 | -13.000000000158.000000000 °F (-2570 °C)  |
| Operating altitude   | <= 3280.84 ft (1000 m) without derating<br>> 3280.8413123.36 ft (> 10004000 m) with current derating 1 % per 100 m                            |
| Maximum deflection under<br>vibratory load (during operation)          | 1.5 mm at 213 Hz  |
| Maximum deflection under<br>vibratory load (during storage)            | 1.75 mm at 29 Hz  |
| Maximum deflection under vibratory load (during transport)             | 1.75 mm at 29 Hz  |
| Maximum acceleration under<br>vibrational stress (during<br>operation) | 10 m/s² at 13200 Hz   |
| Maximum acceleration under<br>vibratory load (during storage)          | 15 m/s² at 200500 Hz<br>10 m/s² at 9200 Hz  |
| Maximum acceleration under<br>vibratory load (during transport)        | 15 m/s² at 200500 Hz<br>10 m/s² at 9200 Hz  |
| Maximum acceleration under shock impact (during operation)             | 150 m/s² at 11 ms   |
| Maximum acceleration under shock load (during storage)                 | 100 m/s² at 11 ms   |
| Maximum acceleration under shock load (during transport)               | 100 m/s² at 11 ms   |

## Ordering and shipping details

| Category          | US1CP1G22588  |
|-------------------|---------------|
| Discount Schedule | CP1G          |
| GTIN              | 3606481089014 |
| Returnability     | Yes           |
| Country of origin | US            |

## **Packing Units**

| V                            |                          |
|------------------------------|--------------------------|
| Unit Type of Package 1       | PCE                      |
| Number of Units in Package 1 | 1                        |
| Package 1 Height             | 11.811 in (30.000 cm)    |
| Package 1 Width              | 10.630 in (27.000 cm)    |
| Package 1 Length             | 14.567 in (37.000 cm)    |
| Package 1 Weight             | 13.697 lb(US) (6.213 kg) |
| Unit Type of Package 2       | S06                      |
| Number of Units in Package 2 | 8                        |
| Package 2 Height             | 29.528 in (75.000 cm)    |
| Package 2 Width              | 23.622 in (60.000 cm)    |

Package 2 Length

31.496 in (80.000 cm)

Package 2 Weight

143.080 lb(US) (64.900 kg)

## Sustainability Screen Premium

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Yes

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

#### **Resource performance**

Upgraded Components Available

#### Well-being performance

Mercury Free

Rohs Exemption Information

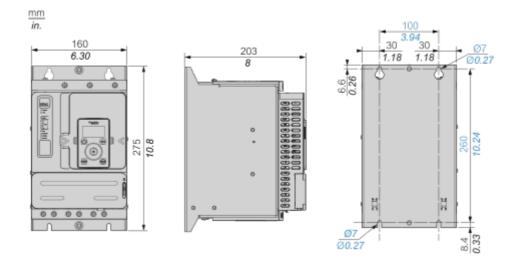
## **Certifications & Standards**

| Reach Regulation            | REACh Declaration   |
|-----------------------------|---|
| Eu Rohs Directive           | Pro-active compliance (Product out of EU RoHS legal scope)  |
| China Rohs Regulation       | China RoHS declaration  |
| Environmental Disclosure    | Product Environmental Profile   |
|                             |   |
| Weee                        | The product must be disposed on European Union markets following specific waste<br>collection and never end up in rubbish bins. |
| Weee<br>Circularity Profile |   |

**Dimensions Drawings** 

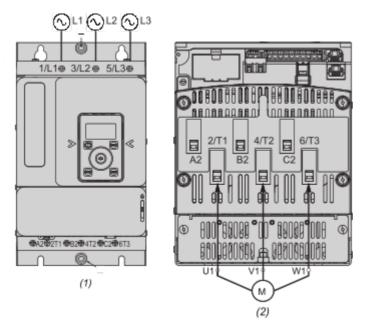
#### Dimensions

#### Front, Side and Rear View



Connections and Schema

#### **Power Connections**

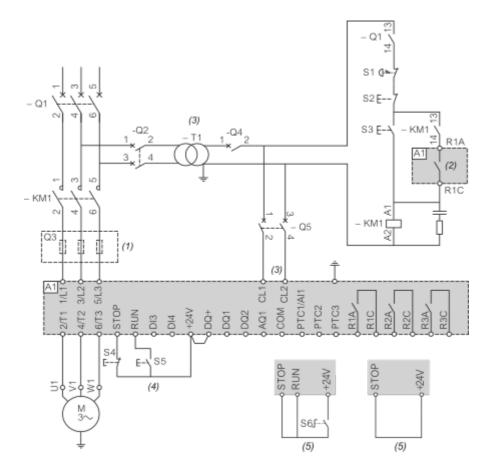


(1) : Mains side

(2) : Motor side

1/L1, 3/L2, 5/L3 : Mains supply inputs 2/T1, 4/T2, 6/T3 : Outputs to motor

A2, B2, C2 : Soft starter bypass



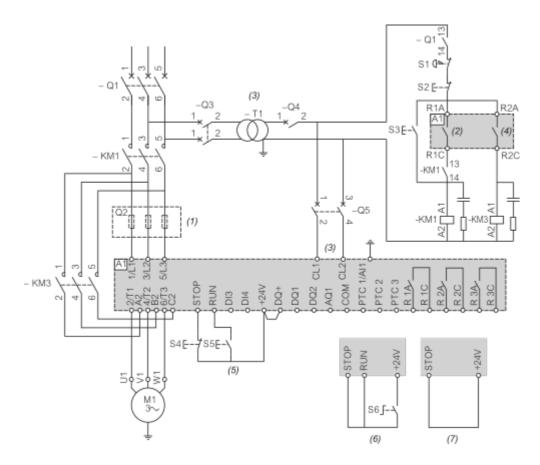
Connection in line, with line contactor, no bypass, type 1 or 2 coordination, non - reversing, 2-wire or 3-wire control

(1) : Installation of additional fast-acting fuses to upgrade to type 2 coordination according to IEC 60947-4-2.

(2) : Take into account the electrical characteristics of the relays (Control Terminal Characteristics).

- (3) : The transformer must supply 110...230 VAC +10% 15%, 50/60Hz.
- (4) : RUN and STOP Management (3-wire control).
- (5) : RUN and STOP Management (2-wire control).

Connection in line, with line and bypass contactor, freewheel or controlled stop, type 1 or 2 coordination, non reversing, 2-wire or 3-wire



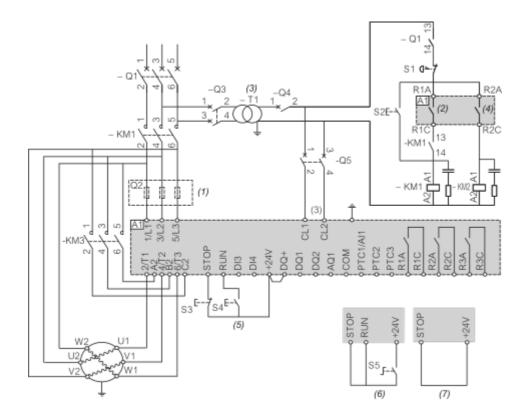
(1) : Installation of additional fast-acting fuses to upgrade to type 2 coordination according to IEC 60947-4-2.

(2) : Take into account the electrical characteristics of the relays (Control Terminal Characteristics).

(3) : The transformer must supply 110...230 VAC +10% - 15%, 50/60Hz.

(4) : Take into account the electrical characteristics of the relays, especially when connecting to high rating contactor (Control Terminal Characteristics).

- (5) : RUN and STOP Management (3-wire control).
- (6) : RUN and STOP Management (2-wire control).
- (7) : PC or PLC control



Connection inside the delta, with line and bypass contactor, type 1 and 2 coordination, non reversing, 2 wire or 3 wire

(1) : Installation of additional fast-acting fuses to upgrade to type 2 coordination according to IEC 60947-4-2.

(2) : Take into account the electrical characteristics of the relays (Control Terminal Characteristics).

(3) : The transformer must supply 110...230 VAC +10% - 15%, 50/60Hz.

(4) : Take into account the electrical characteristics of the relays, especially when connecting to high rating contactor

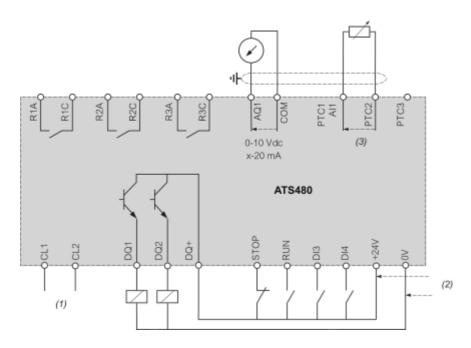
(Control Terminal Characteristics).

(5) : RUN and STOP Management (3-wire control).

(6) : RUN and STOP Management (2-wire control).

(7) : PC or PLC control

#### Control block wiring diagram



- (1) : Control power supply 110-230 VAC
- (2) : External supply 24 VDC
- (3): 2 Wires PTC/PT100
- R1A, R1C, R3A, R3C : Sequence relay
- R2A, R2C : End of start STOP, RUN, DI3, DI4 : Digital inputs
- AQ1 : Analogue output
- PTC1/AI1, PTC2, PTC3 : PTC or PT100 connection
- DQ1, DQ2, DQ+ : Digital outputs

#### Mounting and Clearance

#### **Mounting Position**

mm in.

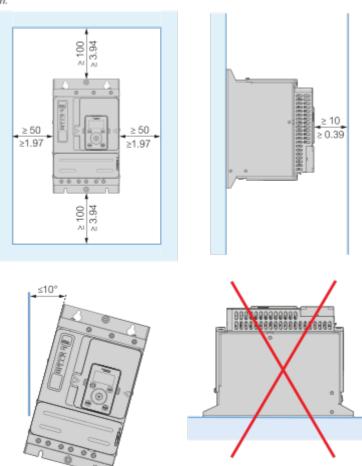


Image of product / Alternate images

Alternative







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