

Soft starter, Altistart 480, 17A, 208 to 690V AC, control supply 110 to 230V AC

ATS480D17Y

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	
Network number of phases	3 phases	
Utilisation category	AC-3A AC-53A	
Ue power supply voltage	208690 V - 1510 %	
power supply frequency	5060 Hz - 2020 %	
[le] rated operational current	Normal duty: 17.0 A (at <40 °C)	
rated current in heavy duty	12.0 A at 40 °C for heavy duty	
IP degree of protection	IP20	
Motor power kW	4.0 kW at 230 V in the motor supply line normal duty 2.2 kW at 230 V in the motor supply line heavy duty 7.5 kW at 400 V in the motor supply line normal duty 5.5 kW at 400 V in the motor supply line heavy duty 7.5 kW at 440 V in the motor supply line normal duty 5.5 kW at 440 V in the motor supply line normal duty 9.0 kW at 500 V in the motor supply line heavy duty 9.0 kW at 500 V in the motor supply line heavy duty 7.5 kW at 500 V in the motor supply line heavy duty 7.5 kW at 525 V in the motor supply line heavy duty 11.0 kW at 660 V in the motor supply line normal duty 9.0 kW at 660 V in the motor supply line heavy duty 15.0 kW at 690 V in the motor supply line heavy duty 15.0 kW at 230 V to the motor delta terminals normal duty 7.5 kW at 230 V to the motor delta terminals heavy duty 15.0 kW at 400 V to the motor delta terminals heavy duty	
Motor power hp	3.0 hp at 208 V normal duty 2.0 hp at 208 V heavy duty 5.0 hp at 230 V normal duty 3.0 hp at 230 V heavy duty 10.0 hp at 460 V normal duty 7.5 hp at 460 V heavy duty 15.0 hp at 575 V normal duty 10.0 hp at 575 V heavy duty	
Option card	Communication module for Profibus DP V1 Communication module for Modbus TCP/EtherNet/IP Communication module for CANopen daisy chain Communication module for CANopen Sub-D Communication module for CANopen open style Communication module for PROFINET	

Complementary

Complementary		
Device connection	In the motor supply line To the motor delta terminals	
[Us] control circuit voltage	110230 V AC 50/60 Hz - 1510 %	
Apparent power	0.06 kVA	
Integrated motor overload protection	True	
motor thermal protection class	Class 10E	
Protection type	Phase failure: line Integrated thermal protection: motor Thermal protection: starter Current overload: motor Underload: motor Excessive starting time, locked rotor: motor Motor phase loss: motor Line supply phase loss: line Line supply phase loss: motor Thermal protection: motor	
current limiting %In (5 x le maximum)	150700 %	
Rated current pwr loss specification	17.0 A	
Power loss static current independent	25.0 W	
Power loss per device current dependent	38.0 W	
Standards	IEC 60947-4-2 UL 60947-4-2 IEC 60664-1	
Product certifications	CE cULus CCC UKCA RCM EAC DNV ABS BV CCS	
Marking	CE CCC UKCA EAC RCM CULus	
[Uc] control circuit voltage	24 V DC	
Discrete input number	4	
Discrete input type	(STOP) logic inputs, 3500 Ohm (RUN) logic inputs, 3500 Ohm (DI3) programmable as logic input, 3500 Ohm (DI4) programmable as logic input, 3500 Ohm	
Input compatibility	STOP: discrete input level 1 PLC conforming to IEC 61131-2 RUN: discrete input level 1 PLC conforming to IEC 61131-2 DI3: discrete input level 1 PLC conforming to IEC 61131-2 DI4: discrete input level 1 PLC conforming to IEC 61131-2	
Discrete input logic	Programmable digital input at State 0: < 5 V	
Relay output number	3	
Relay output type	Relay outputs R1A 1 NO Relay outputs R1B 1 NO Relay outputs RIC NO/NC programmable	
Minimum switching current	100 mA at 12 V DC for relay outputs	

Maximum switching current	Relay outputs 2 A at 250 V AC Relay outputs 2 A at 30 V DC	
Discrete output number	2	
Discrete output type	(DQ1) programmable digital output <= 30 V (DQ2) programmable digital output <= 30 V	
Output compatibility	Open collector level 1 PLC conforming to IEC 65A-68	
Analogue input number	1	
Analogue input type	Al1/PTC PTC/Pt 100 temperature probe PTC2 PTC/Pt 100 temperature probe PTC3 PTC/Pt 100 temperature probe	
Analogue output number	1	
Analogue output type	Current output AQ1: 020 mA or 010 V, impedance <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 for Modbus serial	
Number of addresses	0227 for Modbus serial	
Method of access	Slave Modbus serial	
Function available	External bypass control Pre-heating Smoke extraction Multi-motor cascade Second motor set User management Ports and services hardening Security event logging Cybersecure firmware update Single direction	
Display screen available	True	
Operating position	Vertical +/- 10 degree	
Height	275.0 mm	
Width	160.0 mm	
Depth	203.0 mm	
Net weight	4.9 kg	

Environment

Electromagnetic compatibility	Conducted and radiated emissions level A conforming to IEC 60947-4-2 Conducted and radiated emissions with bypass level B conforming to IEC 60947-4-2 Damped oscillating waves level 3 conforming to IEC 61000-4-12 Electrostatic discharge level 3 conforming to IEC 61000-4-11 Immunity to electrical transients level 4 conforming to IEC 61000-4-4 Immunity to radiated radio-electrical interference level 3 conforming to IEC 61000-4-3 Voltage/current impulse level 3 conforming to IEC 61000-4-5	
Pollution degree	Level 3	
[Uimp] rated impulse withstand voltage	6 kV	
[Ui] rated insulation voltage	690 V	

Environmental class (during	Class 3C3 according to IEC 60721-3-3	
operation)	Class 3S2 according to IEC 60721-3-3	
Relative humidity	095 % without condensation or dripping water conforming to IEC 60068-2-3	
Ambient air temperature for 4060 °C (with current derating of 2 % per °C)		
operation	-1540 °C (without derating)	
Ambient air temperature for storage	-2570 °C	
Operating altitude	<= 1000 m without derating	
	> 10004000 m with current derating 1 % per 100 m	
Maximum deflection under vibratory load (during operation)	1.5 mm at 213 Hz	
Maximum deflection under 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 vibrational stress (during operation)	10 m/s² at 13200 Hz	
Maximum acceleration under	15 m/s² at 200500 Hz	
vibratory load (during storage)	10 m/s² at 9200 Hz	
Maximum acceleration under	15 m/s² at 200500 Hz	
vibratory load (during transport)	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	

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	29.700 cm
Package 1 Width	27.000 cm
Package 1 Length	36.500 cm
Package 1 Weight	6.150 kg
Unit Type of Package 2	S06
Number of Units in Package 2	8
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	62.800 kg



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

☑ Environmental footprint	
Total lifecycle Carbon footprint	2115
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	411029a0-6a52-4ec9-8a30-b0c07e93ba50
REACh Regulation	REACh Declaration

Use Again

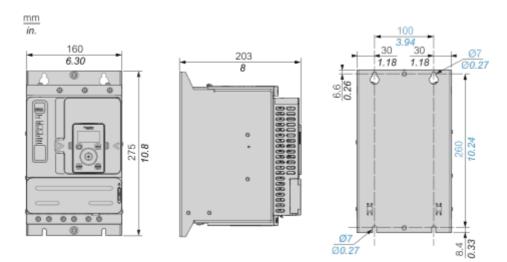
○ Repack and remanufacture	
End of life manual availability	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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Dimensions Drawings

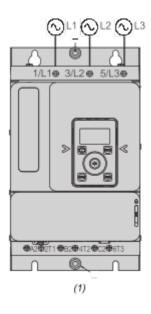
Dimensions

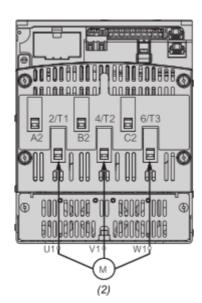
Front, Side and Rear View



Connections and Schema

Power Connections

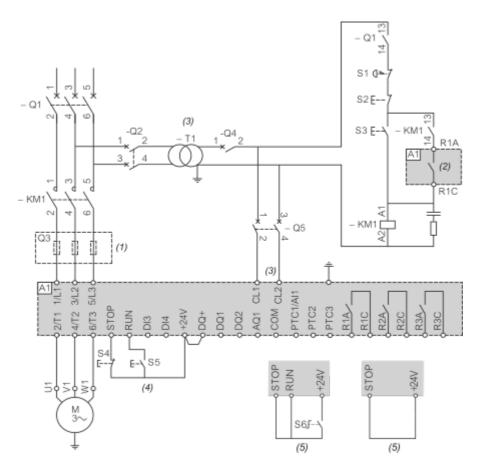




(1): Mains side(2): Motor side

1/L1, 3/L2, 5/L3 : Mains supply inputs 2/T1, 4/T2, 6/T3 : Outputs to motor A2, B2, C2 : Soft starter bypass

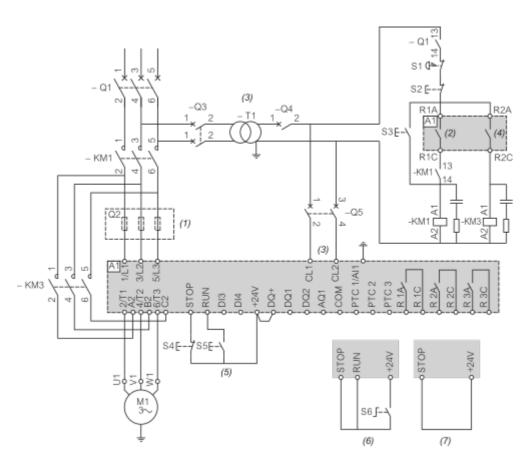
Connection in line, with line contactor, no bypass, type 1 or 2 coordination, non-reversing, 2-wire or 3-wire control



- (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).

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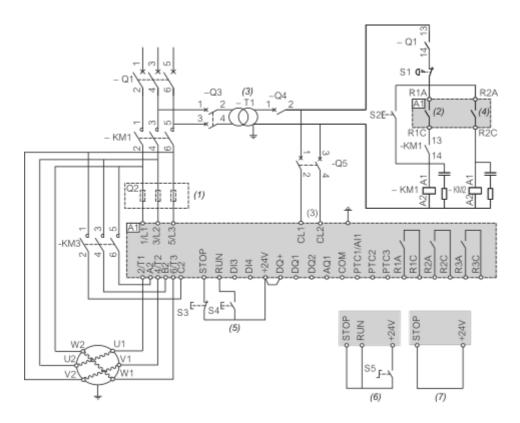
Connection in line, with line and bypass contactor, freewheel or controlled stop, type 1 or 2 coordination, non reversing, 2-wire or 3-wire



- (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

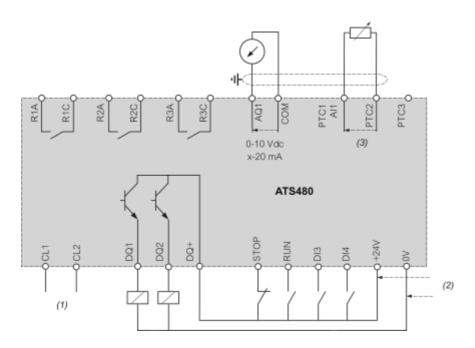
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Connection inside the delta, with line and bypass contactor, type 1 and 2 coordination, non reversing, 2 wire or 3 wire



- (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

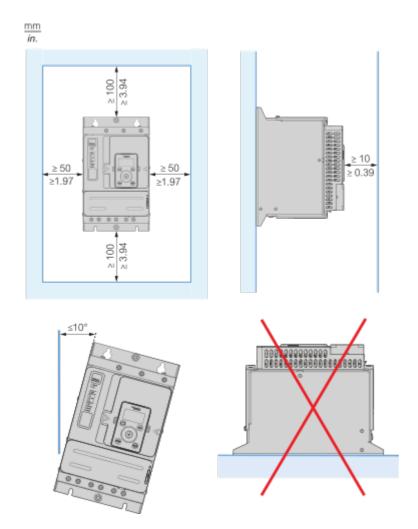
AQ1 : Analogue output

PTC1/AI1, PTC2, PTC3: PTC or PT100 connection

DQ1, DQ2, DQ+ : Digital outputs

Mounting and Clearance

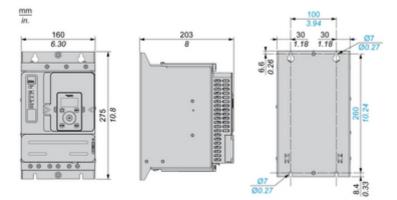
Mounting Position



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Technical Illustration

Dimensions



Product datasheet

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Image of product / Alternate images

Alternative





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