Specifications



Soft starter, Altistart 480, 170A, 208 to 690V AC, control supply 110 to 230V AC

ATS480C17Y

EAN Code: 3606481089090

Main

mann		
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: 170.0 A (at <40 °C)	
rated current in heavy duty	140.0 A at 40 °C for heavy duty	
Torque control	True	
IP degree of protection	IP00	
Motor power kW	45.0 kW at 230 V in the motor supply line normal duty 37.0 kW at 230 V in the motor supply line heavy duty 90.0 kW at 400 V in the motor supply line normal duty 75.0 kW at 400 V in the motor supply line heavy duty 90.0 kW at 440 V in the motor supply line heavy duty 110.0 kW at 500 V in the motor supply line normal duty 90.0 kW at 500 V in the motor supply line normal duty 90.0 kW at 500 V in the motor supply line heavy duty 110.0 kW at 525 V in the motor supply line heavy duty 110.0 kW at 525 V in the motor supply line heavy duty 132.0 kW at 660 V in the motor supply line heavy duty 110.0 kW at 660 V in the motor supply line heavy duty 160.0 kW at 690 V in the motor supply line heavy duty 160.0 kW at 230 V to the motor supply line heavy duty 132.0 kW at 230 V to the motor delta terminals normal duty 132.0 kW at 400 V to the motor delta terminals normal duty	
Motor power hp	50.0 hp at 208 V normal duty 40.0 hp at 208 V heavy duty 60.0 hp at 230 V normal duty 50.0 hp at 230 V heavy duty 125.0 hp at 460 V normal duty 100.0 hp at 460 V heavy duty 150.0 hp at 575 V normal duty 125.0 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	

Complementary

<u> </u>		
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	0.09 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	170.0 A	
Power loss static current independent	25.0 W	
Power loss per device current dependent	459.0 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 Relay outputs	
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	340.0 mm	
Width	200.0 mm	
Depth	272.0 mm	
Product weight	12.4 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 operation)	Class 3C3 according to IEC 60721-3-3 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 operation	4060 °C (with current derating of 2 % per °C) -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 vibratory load (during storage)	15 m/s² at 200500 Hz 10 m/s² at 9200 Hz	
Maximum acceleration under vibratory load (during transport)	15 m/s² at 200500 Hz 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	43.0 cm
Package 1 Width	32.0 cm
Package 1 Length	45.5 cm
Package 1 Weight	14.367 kg
Unit Type of Package 2	S06
Number of Units in Package 2	2
Package 2 Height	75.0 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	41.8 kg

Logistical informations

Country of origin

ID

Contractual warranty

Warranty

18 months

Lenvironmental Data

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 \geq

${ \ensuremath{ \bigtriangledown \bigtriangledown}}$ Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	12270
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	235fade3-9149-48f1-bcbb-f7f8456807da
REACh Regulation	REACh Declaration
China RoHS Regulation	China RoHS declaration

Use Again

\heartsuit Repack and remanufacture	
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Take-back	No

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/Al1, PTC2, PTC3 : PTC or PT100 connection

DQ1, DQ2, DQ+ : Digital outputs

Mounting and Clearance

Mounting Position

<u>mm</u> in.

