

Soft starter, Altistart 480, 590A, 208 to 690V AC, control supply 110 to 230V AC

ATS480C59Y

Product availability: Stock - Normally stocked in distribution facility

Main

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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 AC-53A	
Ue power supply voltage	208690 V - 1510 %	
power supply frequency	5060 Hz - 2020 %	
[le] rated operational current	Normal duty 590.0 A 104 °F (40 °C))	
rated current in heavy duty	480.0 A at 104 °F (40 °C) heavy duty	
IP Degree of Protection	IP00	
Motor power kW	160.0 kW 230 V in the motor supply line normal duty 132.0 kW 230 V in the motor supply line heavy duty 315.0 kW 400 V in the motor supply line normal duty 250.0 kW 400 V in the motor supply line heavy duty 355.0 kW 440 V in the motor supply line normal duty 250.0 kW 440 V in the motor supply line heavy duty 400.0 kW 500 V in the motor supply line normal duty 315.0 kW 500 V in the motor supply line heavy duty 400.0 kW 525 V in the motor supply line normal duty 315.0 kW 525 V in the motor supply line heavy duty 560.0 kW 660 V in the motor supply line heavy duty 560.0 kW 660 V in the motor supply line heavy duty 560.0 kW 690 V in the motor supply line heavy duty 560.0 kW 690 V in the motor supply line heavy duty 560.0 kW 690 V in the motor supply line heavy duty 500.0 kW 690 V in the motor delta terminals heavy duty 400.0 kW 400 V to the motor delta terminals normal duty	
Maximum Horse Power Rating	150.0 hp 208 V heavy duty 200.0 hp 230 V normal duty 400.0 hp 460 V normal duty 350.0 hp 460 V heavy duty 500.0 hp 575 V normal duty 400.0 hp 575 V heavy duty	
Option card	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 Communication module PROFINET	

Complementary

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

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	0.125 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 %	
[In] Rated current pwr loss specifctn	590.0 A	
Power loss static current independent	25.0 W	
Power loss per device current dependent	1711.0 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 IEC 61131-2 RUN discrete input level 1 PLC IEC 61131-2 DI3 discrete input level 1 PLC IEC 61131-2 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 Relay outputs R1B 1 NO Relay outputs RIC NO/NC programmable	
Minimum switching current	100 mA 12 V DC relay outputs	

Maximum awitahing augrant	Deleverate to 0.4.050 V AO	
Maximum switching current	Relay outputs 2 A 250 V AC	
	Relay outputs 2 A 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 IEC 65A-68	
Analogue input number	1	
Analogue input type	AI1/PTC PTC/Pt 100 temperature probe	
	PTC2 PTC/Pt 100 temperature probe	
	PTC3 PTC/Pt 100 temperature probe	
Analagua autout musikan		
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	
	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	26.4 in (670.0 mm)	
Width	15.7 in (400.0 mm)	
Depth	12.4 in (314.0 mm)	
Net Weight	113.3 lb(US) (51.4 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	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 IEC 60068-2-3	
Ambient air temperature for	104140 °F (4060 °C) (with current derating of 2 % per °C)	
operation	5104 °F (-1540 °C) (without derating)	
Ambient Air Temperature for	-13158 °F (-2570 °C)	
Storage		
Operating altitude	<= 3280.84 ft (1000 m) without derating	
	> 3280.8413123.36 ft (> 10004000 m) with current derating 1 % per 100 m	
Maximum deflection under	1.5 mm at 213 Hz	
vibratory load (during operation)	1.0 mm at 2 10 m2	
Maximum deflection under	1.75 mm at 29 Hz	
vibratory load (during storage)	1.75 mm at 29 m2	
Maximum deflection under	1.75 mm at 29 Hz	
vibratory load (during transport)		
Maximum acceleration under	10 m/s ² at 13200 Hz	
vibrational stress (during		
operation)		
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	
	1011/10 40011.200112	
Maximum acceleration under	150 m/s² at 11 ms	
shock impact (during operation)	100 11/10 (00 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1	
Maximum acceleration under	100 m/s² at 11 ms	
shock load (during storage)	100 III/5" at 11 III5	
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Maximum acceleration under	100 m/s² at 11 ms	
shock load (during transport)		

Ordering and shipping details

Category	US1CP1G22588
Discount Schedule	CP1G
GTIN	3606481089151
Returnability	Yes
Country of origin	CN

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	21.7 in (55.0 cm)
Package 1 Width	20.9 in (53.0 cm)
Package 1 Length	31.9 in (81.0 cm)
Package weight(Lbs)	135.6 lb(US) (61.5 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	
Carbon footprint (kg CO2 eq, Total Life cycle)	41494
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	4a414825-09af-4572-9f8d-eb756d062409
REACh Regulation	REACh Declaration
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

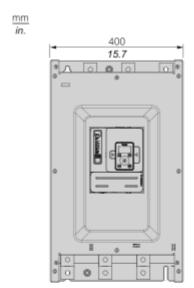
Use Again

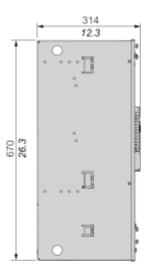
○ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

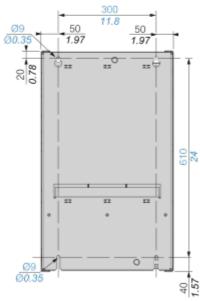
Dimensions Drawings

Dimensions

Front, Side and Rear View

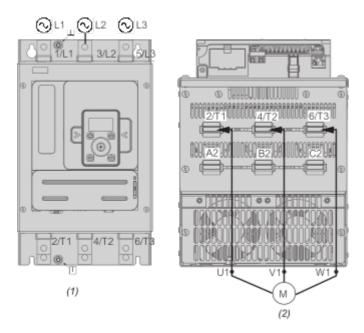






Connections and Schema

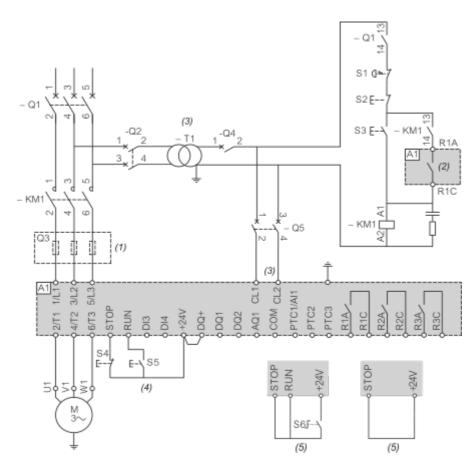
Power Connections



(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

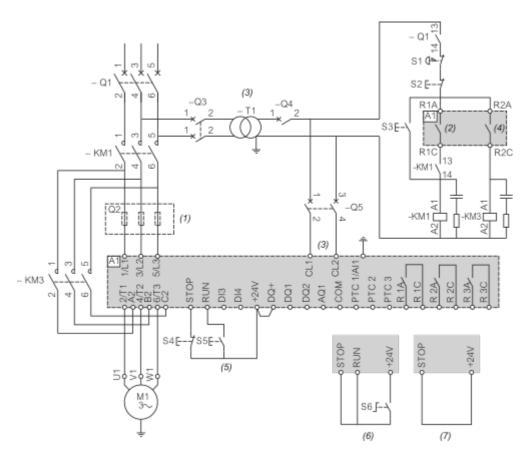
Connection in line, with line contactor, no bypass, type 1 or 2 coordination, non-reversing, 2-wire or 3-wire control



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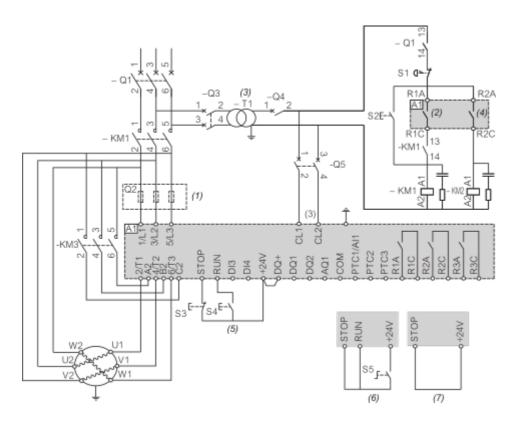
Connection in line, with line and bypass contactor, freewheel or controlled stop, type 1 or 2 coordination, non reversing, 2-wire or 3-wire



- (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

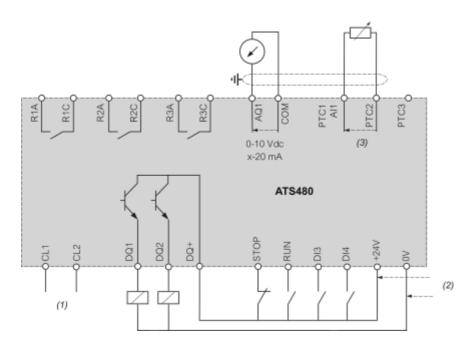
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Connection inside the delta, with line and bypass contactor, type 1 and 2 coordination, non reversing, 2 wire or 3 wire



- (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

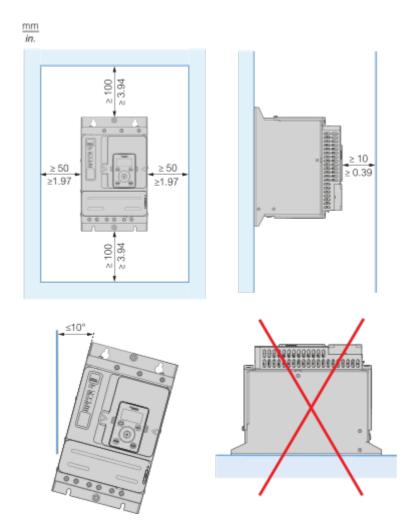
AQ1: Analogue output

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

DQ1, DQ2, DQ+ : Digital outputs

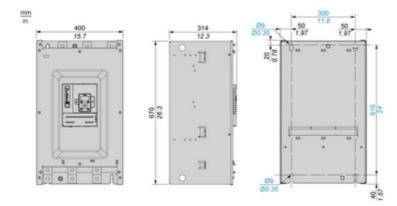
Mounting and Clearance

Mounting Position



Technical Illustration

Dimensions



Technical Illustration

Wiring diagram

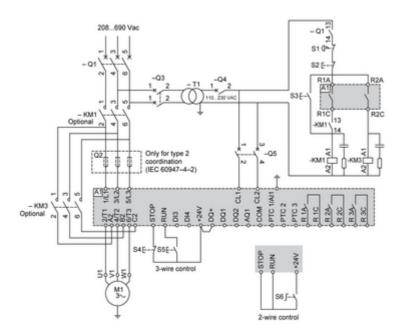


Image of product / Alternate images

Alternative







