Product data sheet Characteristics

ATS22D62Q

soft starter for asynchronous motor, Altistart 22, control 230V, 230 to 440V, 15 to 30kW





Main	
Range of product	Altistart 22
Product or component type	Soft starter
Product destination	Asynchronous motors
Product specific application	Pumps and fans
Component name	ATS22
Network number of phases	3 phases
[Us] rated supply voltage	230440 V - 1510 %
Motor power kW	15 KW 230 V 30 KW 400 V 30 kW 440 V
Factory setting current	57 A
Power dissipation in W	59 W for standard applications
Utilisation category	AC-53A
Type of start	Start with torque control (current limited to 3.5 ln)
IcL starter rating	62 A for connection in the motor supply line for standard applications
IP degree of protection	IP20

Complementary

Complementary		
Assembly style	With heat sink	
Function available	Internal bypass	
Supply voltage limits	195484 V	
Supply frequency	5060 Hz - 1010 %	
Network frequency	4566 Hz	
Device connection	To the motor delta terminals In the motor supply line	
[Uc] control circuit voltage	230 V - 1510 % 50/60 Hz	
Control circuit consumption	20 W	
Discrete output number	2	
Discrete output type	Relay outputs R1 230 V running, alarm, trip, stopped, not stopped, starting, ready C/O Relay outputs R2 230 V running, alarm, trip, stopped, not stopped, starting, ready C/O	
Minimum switching current	100 mA at 12 V DC (relay outputs)	
Maximum switching current	5 A 250 V AC resistive 1 relay outputs 5 A 30 V DC resistive 1 relay outputs 2 A 250 V AC inductive 0.4 20 ms relay outputs 2 A 30 V DC inductive 7 ms relay outputs	
Discrete input number	3	
Discrete input type	(LI1, LI2, LI3) logic, 5 mA 4.3 kOhm	
Discrete input voltage	24 V <= 30 V	
Discrete input logic	Positive logic LI1, LI2, LI3 at State 0: < 5 V and <= 2 mA at State 1: > 11 V, >= 5 mA	
Output current	0.41 lcl adjustable	
PTC probe input	750 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 Thermal protection: motor Thermal protection: starter	
Marking	CE	
Type of cooling	Forced convection	
Operating position	Vertical +/- 10 degree	
Height	295 mm	
Width	145 mm	
Depth	207 mm	
Product weight	12 kg	
Motor power range AC-3	1525 KW at 200240 V 3 phases 3050 kW at 380440 V 3 phases	
Motor starter type	Soft starter	

Environment

Electromagnetic compatibility	Conducted and radiated emissions level A conforming to IEC 60947-4-2 Damped oscillating waves level 3 conforming to IEC 61000-4-12 Electrostatic discharge level 3 conforming to IEC 61000-4-2 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	
Standards	EN/IEC 60947-4-2	
Product certifications	C-Tick CCC UL CSA GOST	
Vibration resistance	1 gn (f= 13200 Hz) conforming to EN/IEC 60068-2-6 1.5 mm (f= 213 Hz) conforming to EN/IEC 60068-2-6	
Shock resistance	15 gn for 11 ms conforming to EN/IEC 60068-2-27	
Noise level	45 dB	
Pollution degree	Level 2 conforming to IEC 60664-1	
Relative humidity	095 % without condensation or dripping water conforming to EN/IEC 60068-2-3	
Ambient air temperature for operation	-10…40 °C (without derating) 40…60 °C (with current derating 2.2 % per °C)	
Ambient air temperature for storage	-2570 °C	
Operating altitude	<= 1000 m without derating > 1000< 2000 m with current derating of 2.2 % per additional 100 m	

Packing Units

J	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	31.0 cm
Package 1 Width	23.5 cm
Package 1 Length	36.0 cm
Package 1 Weight	8.262 kg
Unit Type of Package 2	P06
Number of Units in Package 2	6
Package 2 Height	73.5 cm
Package 2 Width	80.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	64.0 kg

Offer Sustainability		
Sustainable offer status	Green Premium product	
REACh Regulation	REACh Declaration	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
Mercury free	Yes	
China RoHS Regulation	China RoHS Declaration	
RoHS exemption information	₫ Yes	
Circularity Profile	Provide the Information	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
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	

Contractual warranty

Warranty

18 months

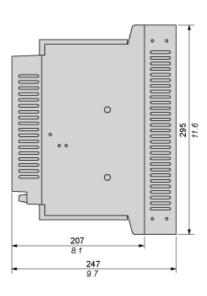
Product data sheet Dimensions Drawings

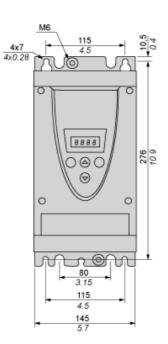
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Frame Size B

Dimensions

mm in.





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Precautions

Standards

The Altistart 22 soft starter is compliant with pollution Degree 2 as defined in NEMA ICS1-1 or IEC 60664-1. For environment pollution degree 3, install the Altistart 22 soft starter inside a cabinet type 12 or IP54.

A DANGER

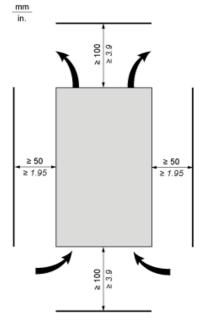
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

ATS22 soft starters are open devices and must be mounted in a suitable enclosure.

Failure to follow these instructions will result in death or serious injury.

Air Circulation

Leave sufficient free space to help the air required for cooling purposes to circulate from the bottom to the top of the unit.



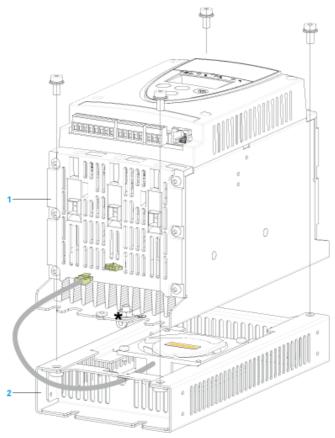
Overheating

To avoid the soft starter to overheat, respect the following recommendations:

- Mount the Altistart 22 Soft Starter within ± 10° of vertical.
- Do not locate the Altistart 22 Soft Starter near heat radiating elements.
- Electrical current through the Altistart 22 Soft Starter will result in heat losses that must be dissipated into the ambient air immediately surrounding the soft starter. To help prevent a thermal fault, provide sufficient enclosure cooling and/or ventilation to limit the ambient temperature around the soft starter.
- If several soft starters are installed in a control panel, arrange them in a row. Do not stack soft starters. Heat generated from the bottom soft starter can adversely affect the ambient temperature around the top soft starter.

Mounting

Connection Between the Fan and the Altistart 22 Soft Starter



- 1 Altistart 22 Soft Starter
- 2 Fan

Wall mounted or Floor-standing Enclosure with IP 23 Degree of protection

Introduction

To help proper air circulation in the soft starter, grilles and forced ventilation can be installed.

Ventilation Grilles



Forced Ventilation Unit

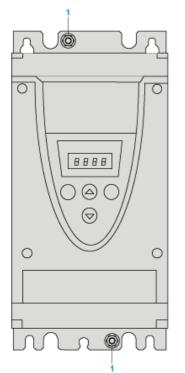


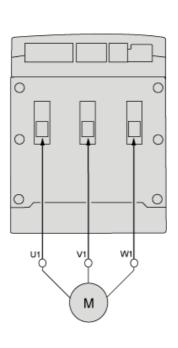
Product data sheet Connections and Schema

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Power Terminal

Cage Style





1 Ground connection

Power connections, minimum and maximum wiring capabilities, tightening torque

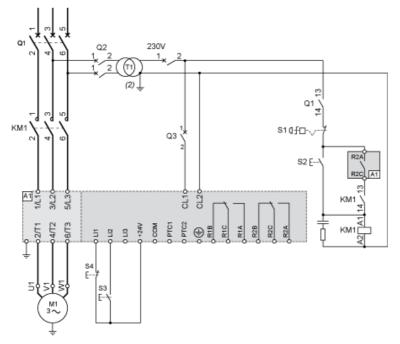
			IEC cable	UL cable
Power supply and output to motor	Size/gauge	min	4 mm (a)	10 AWG (a)
max	50 mm	1/0 AWG		
Tightening torque	min	8 N.m	70 lb.in	
max	8 N.m	70 lb.in		-
Strip length		15 mm	0.6 in.	

Power connections, minimum required wiring section

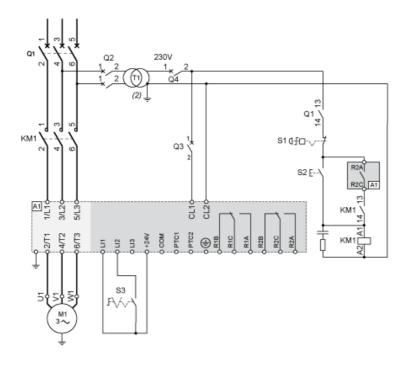
IEC cable	UL cable
mm² (Cu 70°C/158°F) (1)	AWG (Cu 75°C/167°F) (1)
16	4

230 Vac control, logic Inputs (LI) 24 Vdc, 3-wire control

With Line Contactor, Freewheel or Controlled Stop



230 Vac control, logic Inputs (LI) 24 Vdc, 2-wire control, freewheel stop

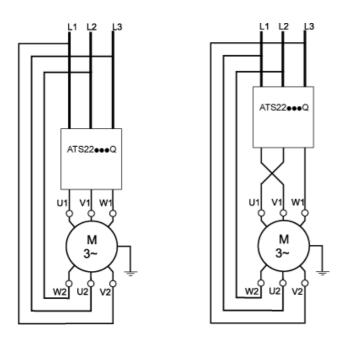


Connection in the motor delta winding in series with each winding

Wiring

ATS22 soft starters connected to motors with the delta connections can be inserted in series in the motor windings.

The following wiring requieres particular attention. It is documented in the Altistart 22 Soft start - soft stop unit user manual. Please contact Schneider Electric commercial organisation for further informations.



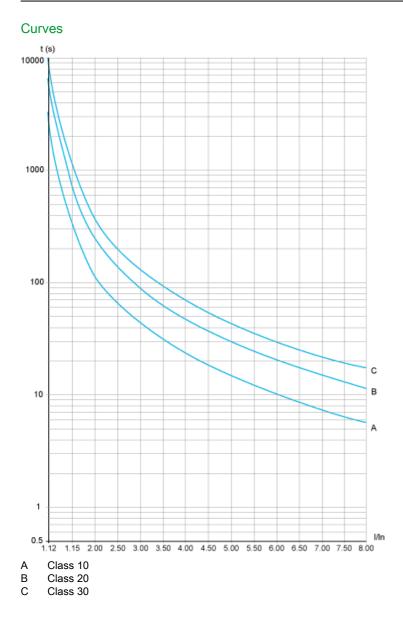
Example

A 400 V - 110 kW motor with a line current of 195 A (nominal current for the delta connection). The current in each winding is equal to 195/1.5 or 130 A. The rating is determined by selecting the soft starter with a permanent nominal current (ICL) just above this current.

Product data sheet Performance Curves

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Motor Thermal Protection - Cold Curves



Trip time for a Standard Application (Class 10)

3.5 ln	
32 s	

Trip time for a Severe Application (Class 20)

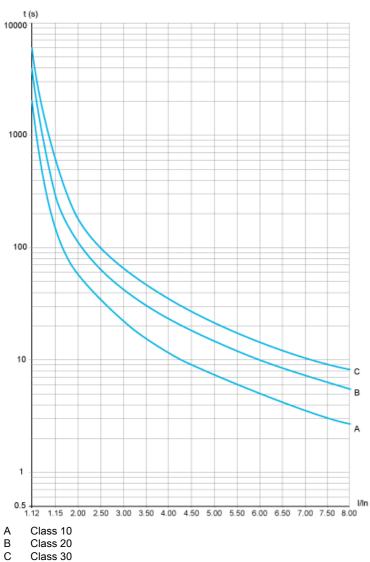
3.5 ln	
63 s	

Trip time for a Severe Application (Class 30)

3.5 ln	
95 s	

Motor Thermal Protection - Warm Curves

Curves



Class 30

Trip time for a Standard Application (Class 10)

3.5 ln	
16 s	

Trip time for a Severe Application (Class 20)

3.5 ln	
32 s	

Trip time for a Severe Application (Class 30)

3.5 ln	
48 s	