



## 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
Phase	3 phases
[Us] rated supply voltage	208...600 V - 15...10 %
Motor power hp	15 hp 230 V 30 hp 460 V 40 hp 575 V
Factory setting current	40 A
Power dissipation in W	48 W for standard applications
Utilisation category	AC-53A
Type of start	Start with torque control (current limited to 3.5 In)
IcL starter rating	47 A connection in the motor supply line for standard applications
IP degree of protection	IP20

## Complementary

Assembly style	With heat sink
Function available	Internal bypass
Supply voltage limits	177...660 V
Supply frequency	50...60 Hz - 10...10 %
Network frequency	45...66 Hz
Device connection	In the motor supply line
[Uc] control circuit voltage	110 V -15...10 % 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 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	Logic LI1, LI2, LI3 5 mA 20 kOhm
Discrete input voltage	110 V <= 121 V
Discrete input logic	Positive logic LI1, LI2, LI3 < 20 V and <= 15 mA > 79 V <= 2 mA
Output current	0.4...1 Icl 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	Thermal protection motor Phase failure line

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	Thermal protection starter
Marking	CE
Type of cooling	Forced convection
Operating position	Vertical +/- 10 degree
Height	10.43 in (265 mm)
Width	5.12 in (130 mm)
Depth	6.65 in (169 mm)
Product weight	15.43 lb(US) (7 kg)

## Environment

electromagnetic compatibility	Conducted and radiated emissions level A IEC 60947-4-2 Damped oscillating waves level 3 IEC 61000-4-12 Electrostatic discharge level 3 IEC 61000-4-2 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
standards	EN/IEC 60947-4-2
product certifications	CCC CSA C-Tick GOST UL
vibration resistance	1 gn 13...200 Hz EN/IEC 60068-2-6 1.5 mm 2...13 Hz EN/IEC 60068-2-6
shock resistance	15 gn 11 ms EN/IEC 60068-2-27
noise level	45 dB
pollution degree	Level 2 IEC 60664-1
relative humidity	0...95 % without condensation or dripping water EN/IEC 60068-2-3
ambient air temperature for operation	14...104 °F (-10...40 °C) without derating > 104...< 140 °F (> 40...< 60 °C) with current derating 2.2 % per °C
ambient air temperature for storage	-13...158 °F (-25...70 °C)
operating altitude	<= 3280.84 ft (1000 m) without derating > 3280.84...< 6561.68 ft (> 1000...< 2000 m) with current derating of 2.2 % per additional 100 m

## Offer Sustainability

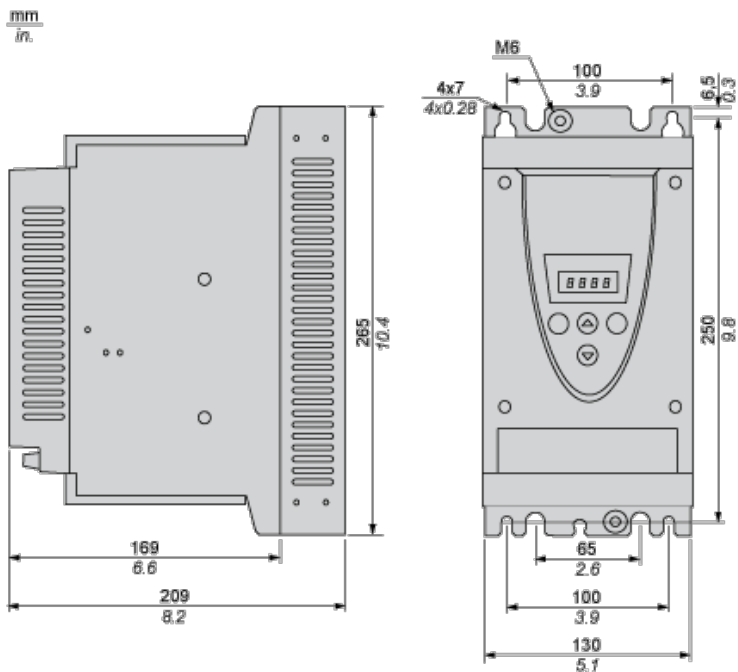
Green Premium product	Green Premium product
Compliant - since 0939 - Schneider Electric declaration of conformity	Compliant - since 0939 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available

## Contractual warranty

Warranty period	18 months
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## Frame Size A

### Dimensions



## 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.

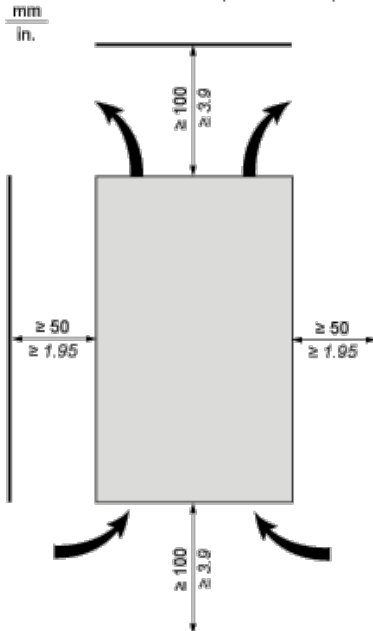
### ⚠ DANGER

#### 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

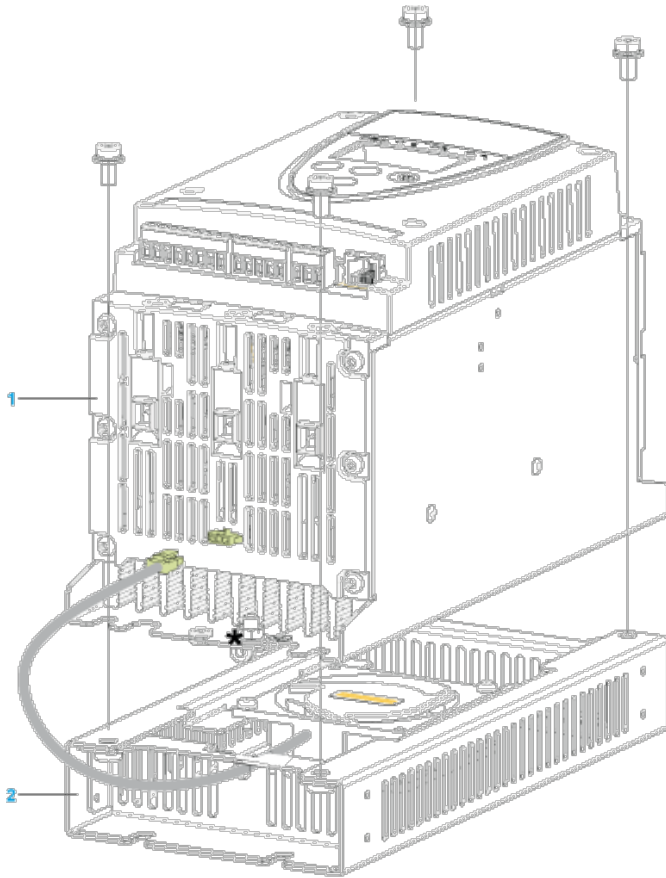
To avoid the soft starter to overheat, respect the following recommendations:

- 1 Mount the Altistart 22 Soft Starter within  $\pm 10^\circ$  of vertical.
- 1 Do not locate the Altistart 22 Soft Starter near heat radiating elements.
- 1 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.

- 1 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



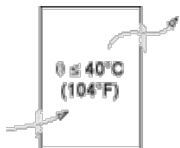
- 1 Altistart 22 Soft Starter
- 2 Fan

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

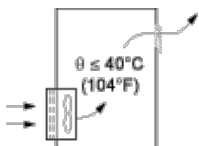
### Introduction

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

### Ventilation Grilles

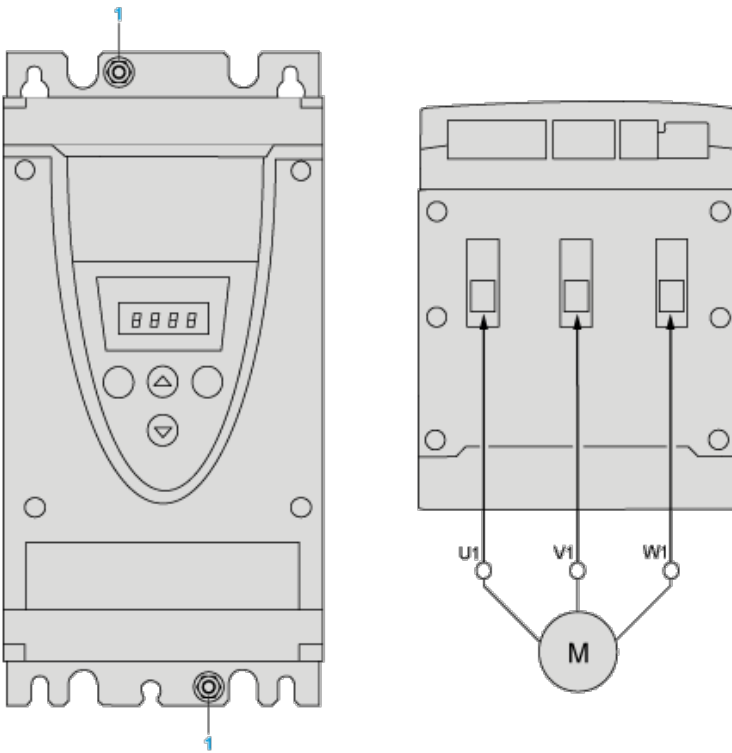


### Forced Ventilation Unit



## Power Terminal

### Cage Style



1 Ground connection

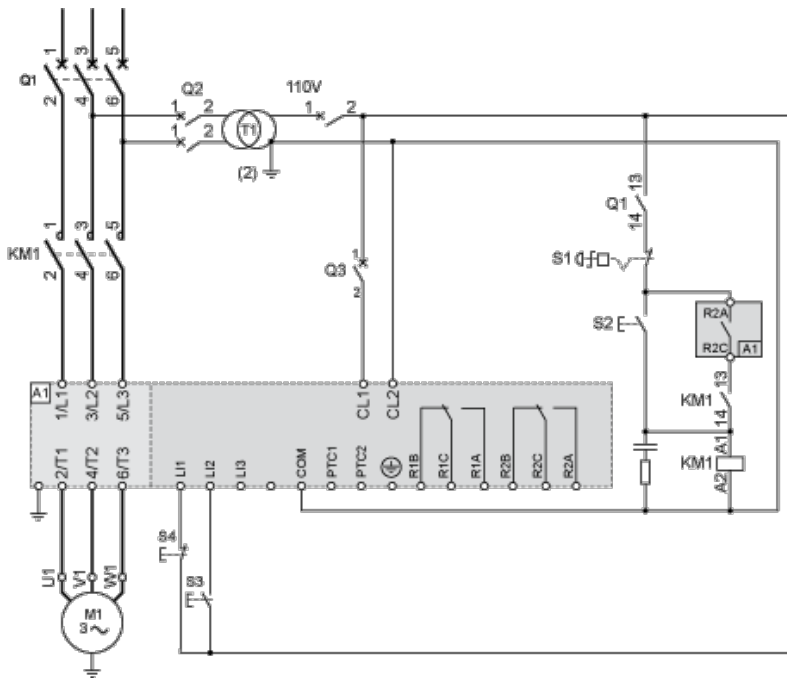
**Power connections, minimum and maximum wiring capabilities, tightening torque**

		IEC cable		UL cable
Power supply and output to motor	Size/gauge	min	2.5 mm	12 AWG
		max	16 mm	4 AWG
	Tightening torque	min	3 N.m	26.25 lb.in
		max	3 N.m	26.25 lb.in
	Strip length		10 mm	0.4 in.

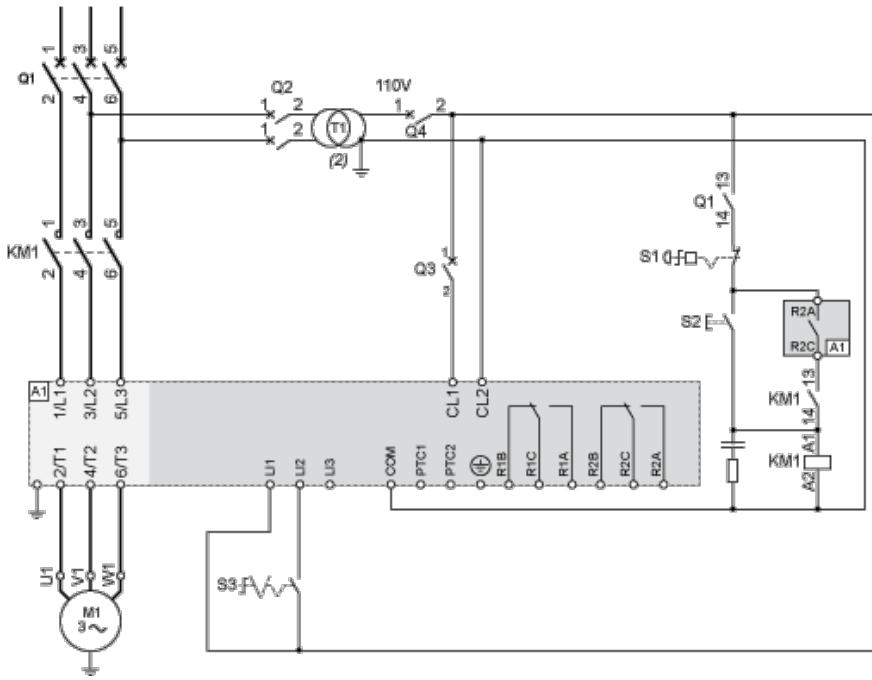
**Power connections, minimum required wiring section**

IEC cable mm <sup>2</sup> (Cu 70°C/158°F) (1)	UL cable AWG (Cu 75°C/167°F) (1)
10	6

**110 Vac control, Logic Inputs (LI) 110 Vac, 3-wire control**

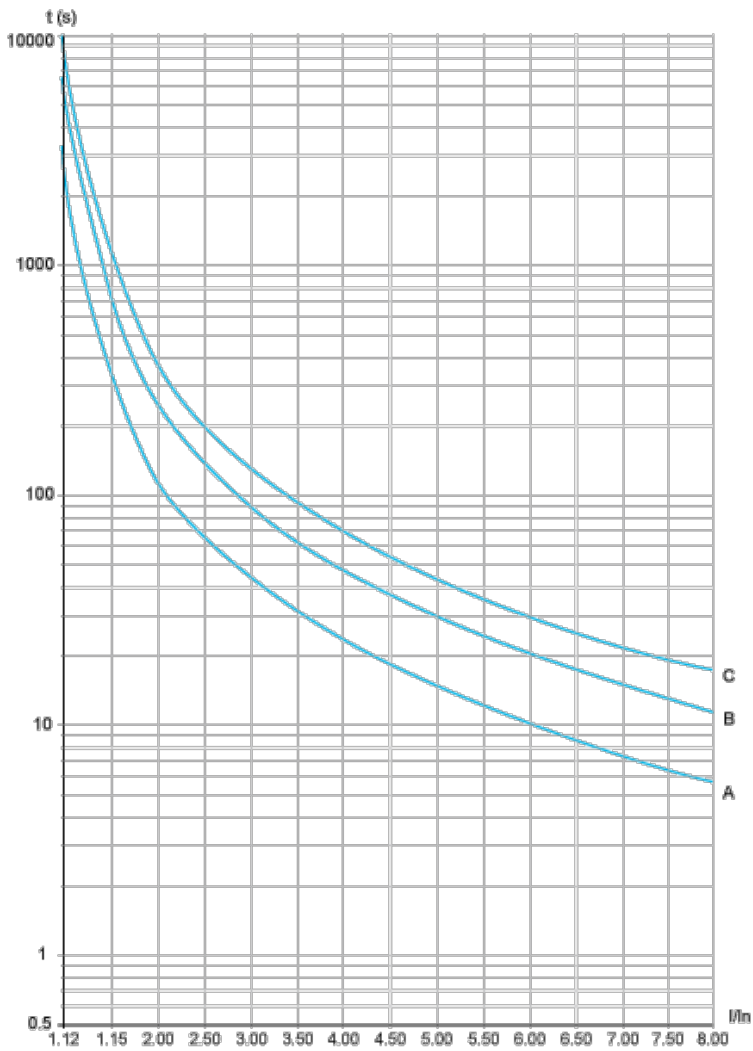


110 Vac control, Logic Inputs (LI) 110 Vac, 2-wire control, freewheelstop



### Motor Thermal Protection - Cold Curves

Curves



- A Class 10
- B Class 20
- C Class 30

**Trip time for a Standard Application (Class 10)**

3.5 In  
32 s

**Trip time for a Severe Application (Class 20)**

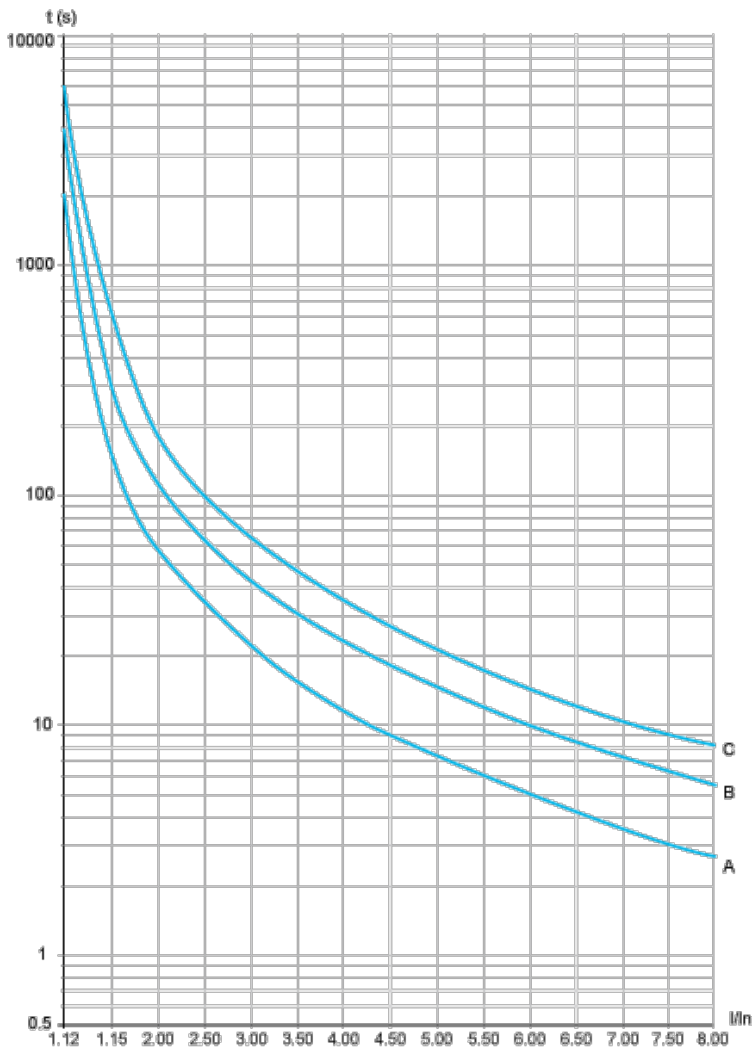
3.5 In  
63 s

**Trip time for a Severe Application (Class 30)**

3.5 In  
95 s

**Motor Thermal Protection - Warm Curves**

Curves



- A Class 10
- B Class 20
- C Class 30

**Trip time for a Standard Application (Class 10)**

3.5 In  
16 s

**Trip time for a Severe Application (Class 20)**

3.5 In  
32 s

**Trip time for a Severe Application (Class 30)**

3.5 In  
48 s