



### 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    | 230...600 V - 15...10 %  |
| Motor power kW               | 15 kW 400 V<br>7.5 kW 230 V<br>15 kW 440 V<br>18.5 kW 500 V        |
| Factory setting current      | 27 A   |
| Power dissipation in W       | 44 W for standard applications                                     |
| Utilisation category         | AC-53A   |
| Type of start                | Start with torque control (current limited to 3.5 In)              |
| IcL starter rating           | 32 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        | 195...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 | 230 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<br>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<br>5 A 30 V DC resistive 1 relay outputs<br>2 A 250 V AC inductive 0.4 20 ms relay outputs<br>2 A 30 V DC inductive 7 ms relay outputs    |
| Discrete input number       | 3  |
| Discrete input type         | Logic LI1, LI2, LI3 5 mA 4.3 kOhm  |
| Discrete input voltage      | 24 V <= 30 V   |
| Discrete input logic        | Positive logic LI1, LI2, LI3 < 5 V and <= 2 mA > 11 V >= 5 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             | Phase failure line<br>Thermal protection starter<br>Thermal protection motor   |
| Marking                     | CE   |
| Type of cooling             | Forced convection  |
| Operating position          | Vertical +/- 10 degree   |
| Height                      | 265 mm   |
| Width                       | 130 mm   |
| Depth                       | 169 mm   |
| Product weight              | 7 kg   |

## Environment

|                                       |  |
|---------------------------------------|--|
| Electromagnetic compatibility         | Conducted and radiated emissions level A IEC 60947-4-2<br>Damped oscillating waves level 3 IEC 61000-4-12<br>Electrostatic discharge level 3 IEC 61000-4-2<br>Immunity to electrical transients level 4 IEC 61000-4-4<br>Immunity to radiated radio-electrical interference level 3 IEC 61000-4-3<br>Voltage/Current impulse level 3 IEC 61000-4-5 |
| Standards                             | EN/IEC 60947-4-2   |
| Product certifications                | CCC<br>CSA<br>C-Tick<br>GOST<br>UL   |
| Vibration resistance                  | 1.5 mm 2...13 Hz EN/IEC 60068-2-6<br>1 gn 13...200 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 | -10...40 °C without derating<br>> 40...< 60 °C with current derating 2.2 % per °C  |
| Ambient air temperature for storage   | -25...70 °C  |
| Operating altitude                    | <= 1000 m without derating<br>> 1000...< 2000 m with current derating of 2.2 % per additional 100 m  |

## Offer Sustainability

|                          |   |
|--------------------------|---|
| Sustainable offer status | Green Premium product   |
| RoHS (date code: YYWW)   | Compliant - since 0938 - Schneider Electric declaration of conformity |

 Schneider Electric declaration of conformity

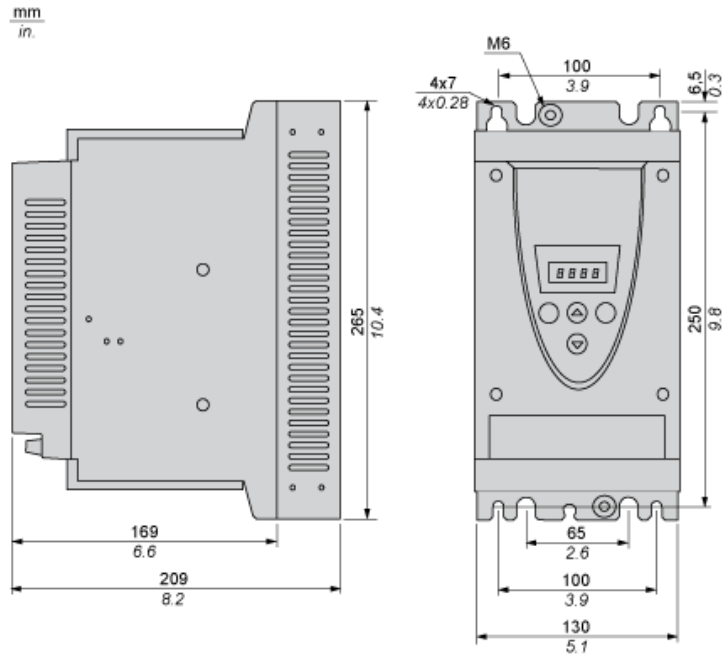
|                                  |  |
|----------------------------------|--|
| REACH                            | Reference not containing SVHC above the threshold<br>Reference not containing SVHC above the threshold |
| Product environmental profile    | Available  |
| Product end of life instructions | Available  |

Contractual warranty

|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

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

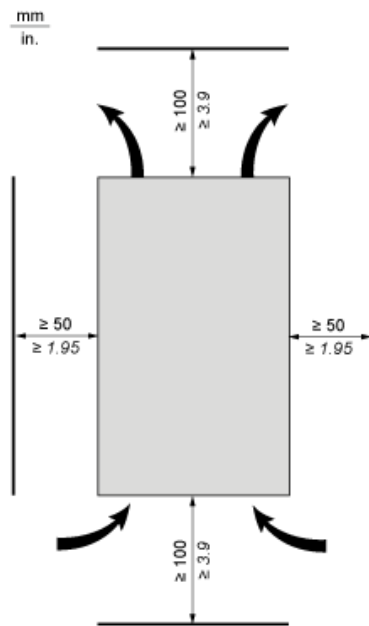
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

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:

- Mount the Altistart 22 Soft Starter within  $\pm 10^\circ$  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.
- 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 affect the top soft starter.

Mounting

Connection Between the Fan and the Altistart 22 Soft Starter



- 1 Altistart 22 Soft Starter
- 2 Fan

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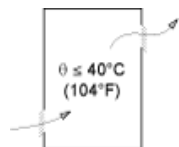
Wall mounted or Floor-standing Enclosure with IP 23 Degree of protection

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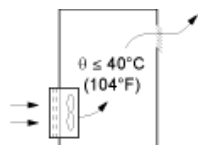
Introduction

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

Ventilation Grilles

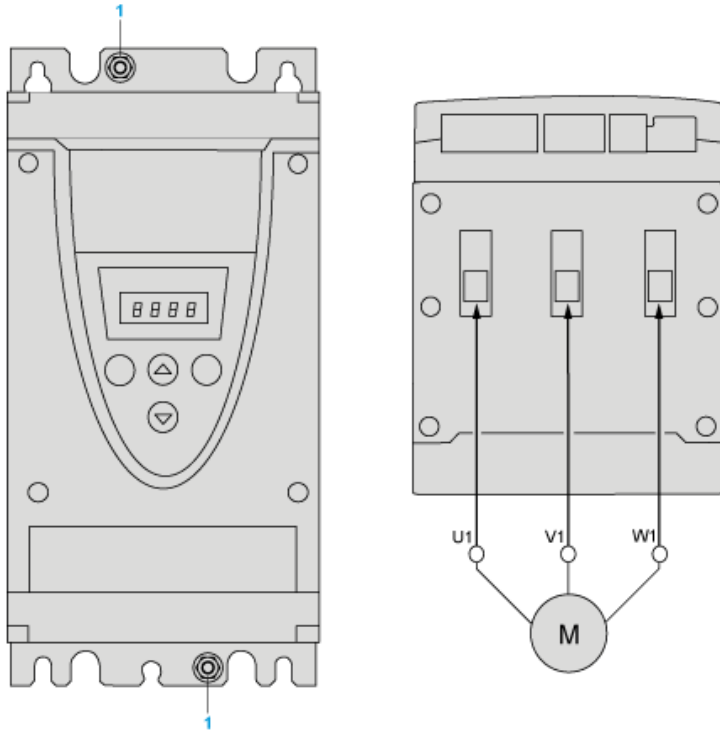


Forced Ventilation Unit



## 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.     |

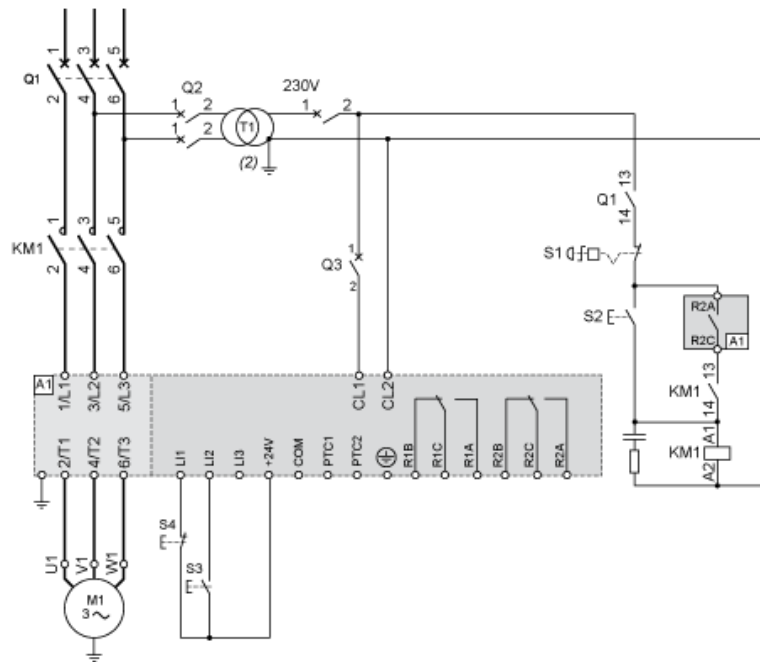
### Power connections, minimum required wiring section

| IEC cable<br>mm <sup>2</sup> (Cu 70°C/158°F) (1) | UL cable<br>AWG (Cu 75°C/167°F) (1) |
|--|-------------------------------------|
| 6  | 8                                   |

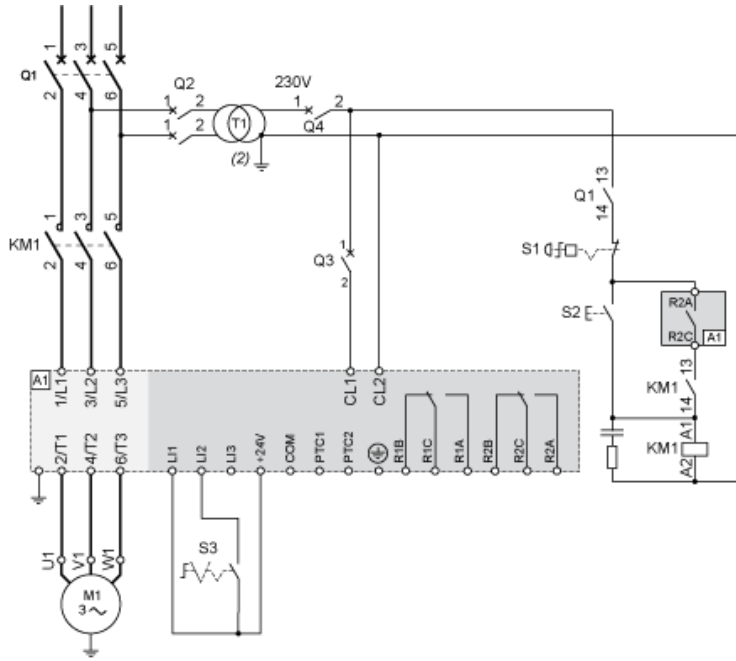


230 Vac control, logic Inputs (LI) 24 Vdc, 3-wire control

With Line Contactor, Freewheel or Controlled Stop

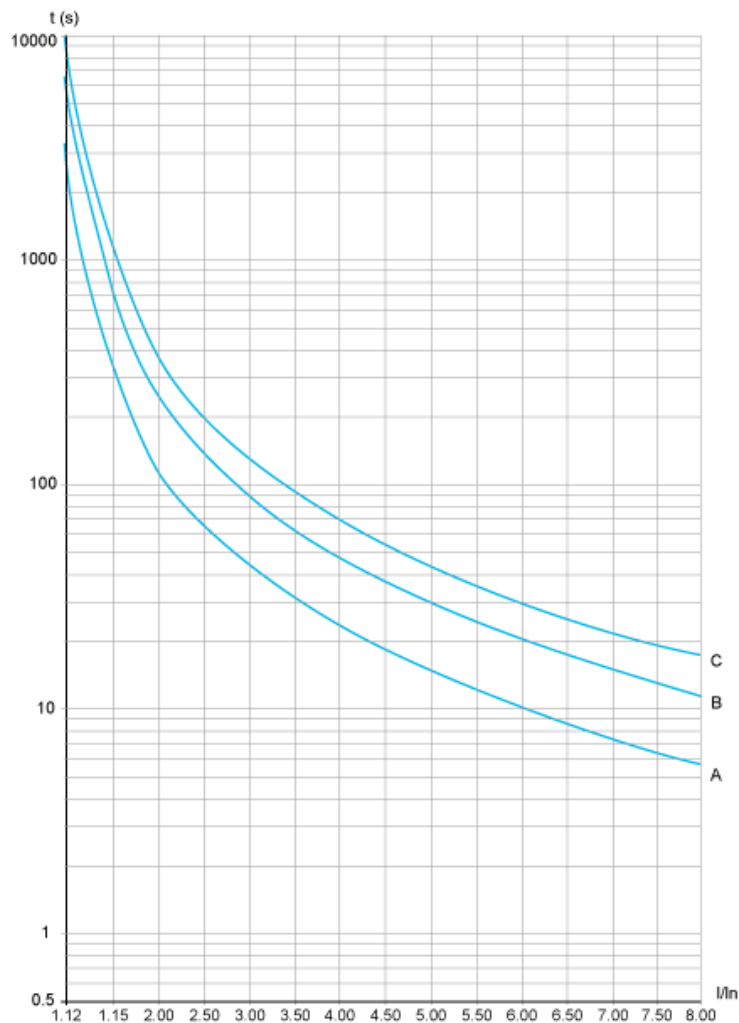


230 Vac control, logic Inputs (LI) 24 Vdc, 2-wire control, freewheel stop



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)

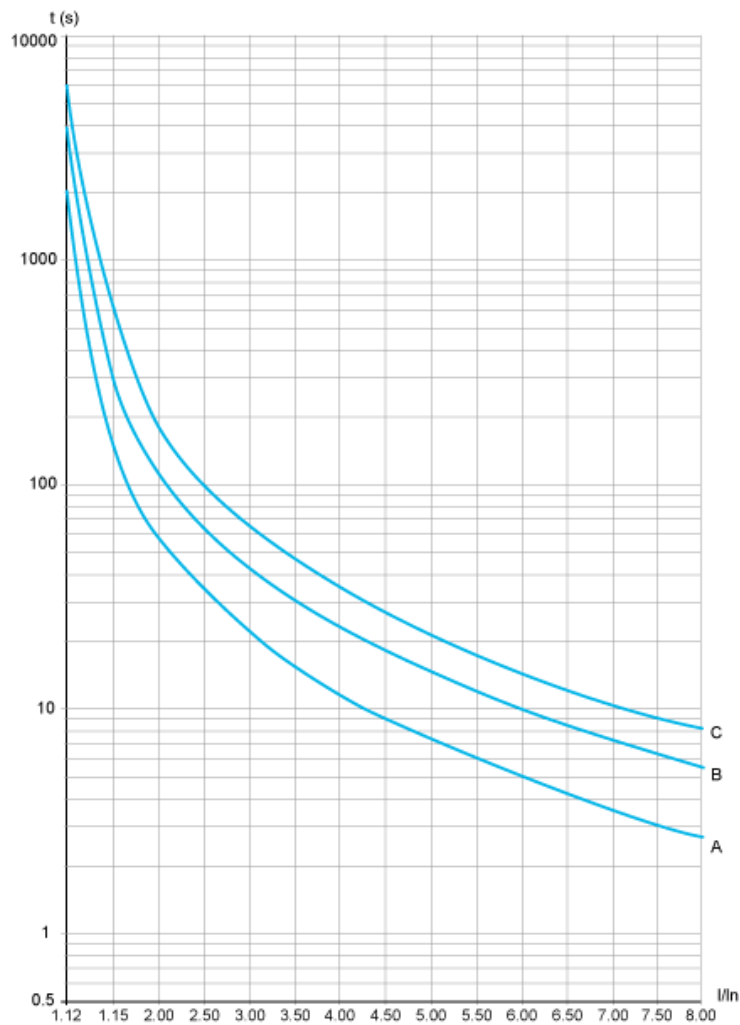
|        |
|--------|
| 3.5 In |
| 63 s   |

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 $I_n$ |
| 16 s      |

Trip time for a Severe Application (Class 20)

|           |
|-----------|
| 3.5 $I_n$ |
| 32 s      |

Trip time for a Severe Application (Class 30)

|        |
|--------|
| 3.5 In |
| 48 s   |