



Main

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|------------------------------|--|
| 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 | 208...600 V - 15...10 % |
| Motor power hp | 20 hp 460 V 25 hp 575 V 10 hp 230 V 7.5 hp 208 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 | 177...660 V |
| Supply frequency | 50...60 Hz - 10...10 % |
| Network frequency | 45...66 Hz |
| Device connection | In the motor supply line |
| 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 | Phase failure line Thermal protection starter 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 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 UL GOST C-Tick CSA |
| Vibration resistance | 1.5 mm 2...13 Hz EN/IEC 60068-2-6 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 | <= 95 % without condensation or dripping water 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 | -25...70 °C |
| Operating altitude | <= 1000 m without derating > 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 0939 - Schneider Electric declaration of conformity |

 [Schneider Electric declaration of conformity](#)

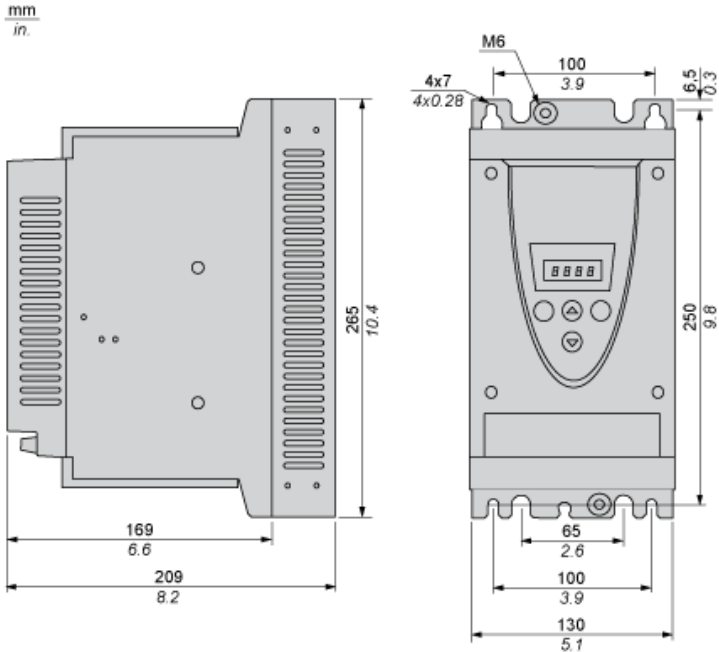
| | |
|----------------------------------|--|
| REACH | Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold |
| Product environmental profile | Available  Product environmental |
| Product end of life instructions | Available  End of life manual |

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

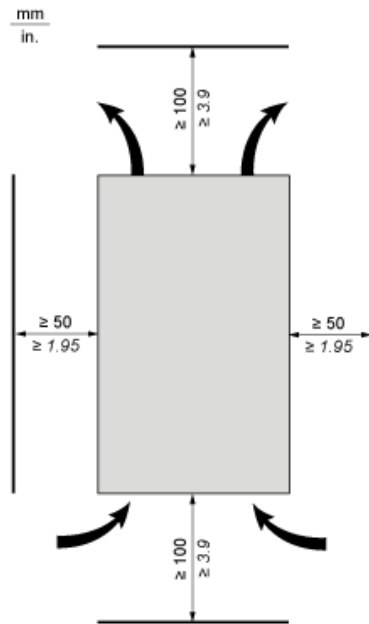
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

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



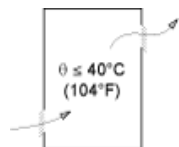
- 1 Altistart 22 Soft Starter
- 2 Fan

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

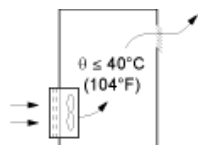
Introduction

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

Ventilation Grilles

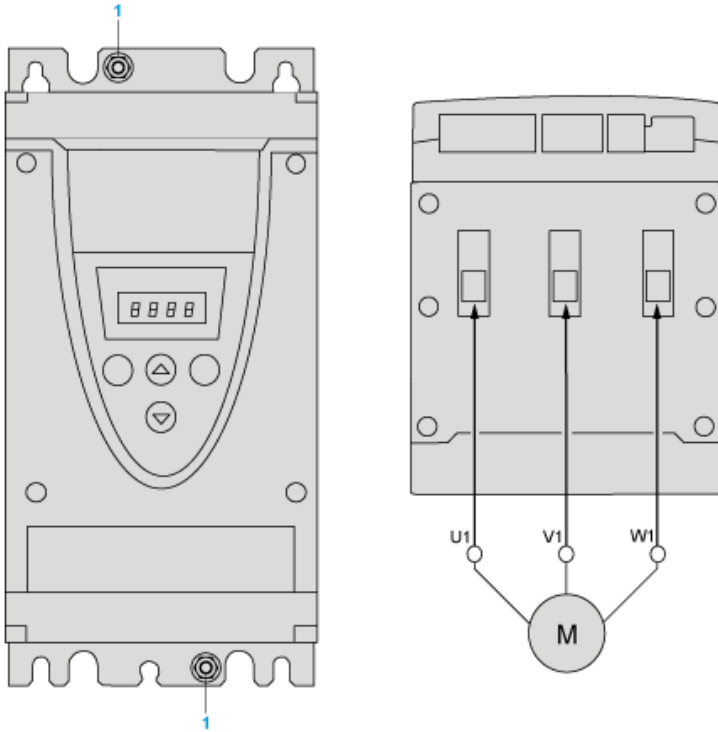


Forced Ventilation Unit



Power Terminal

Cage Style



1 Ground connection

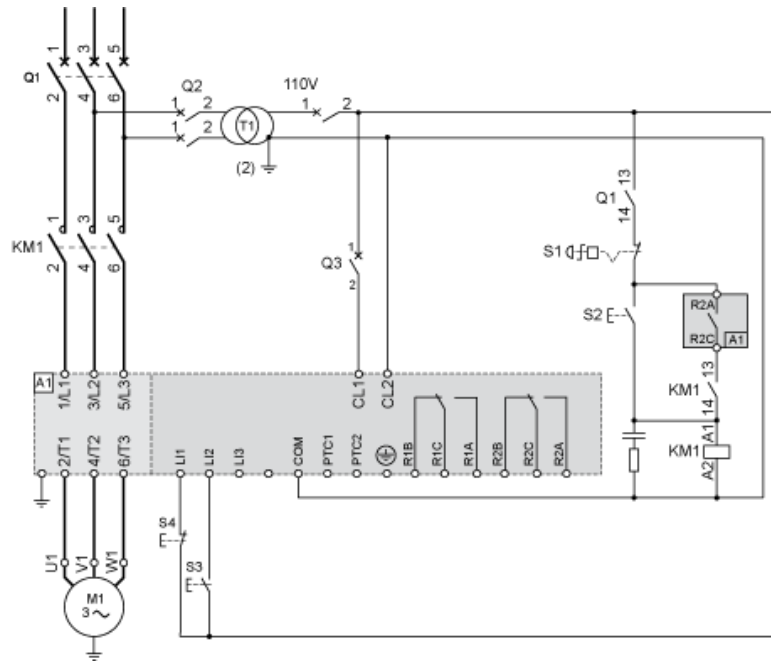
Power connections, minimum and maximum wiring capabilities, tightening torque

| | | | 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. | |

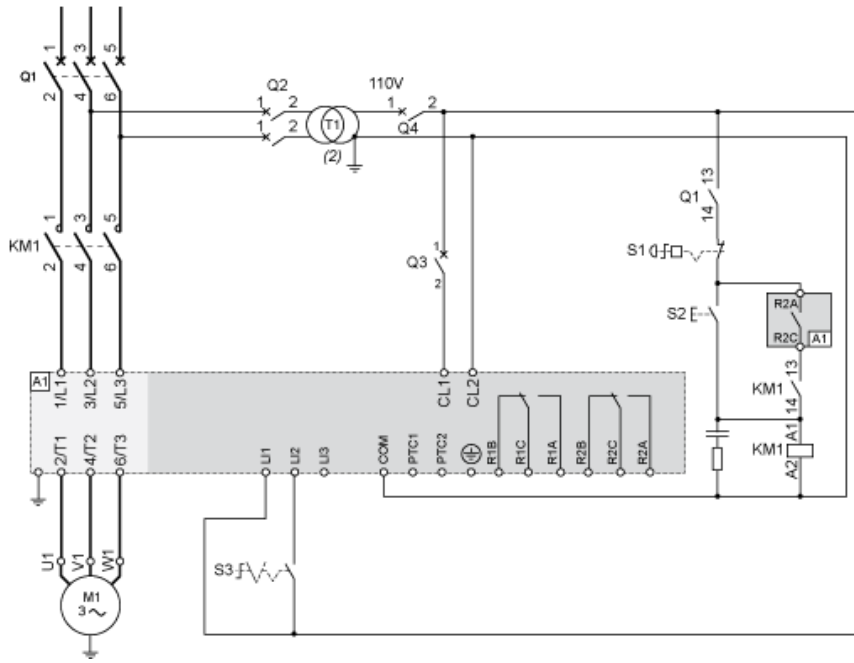
Power connections, minimum required wiring section

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

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

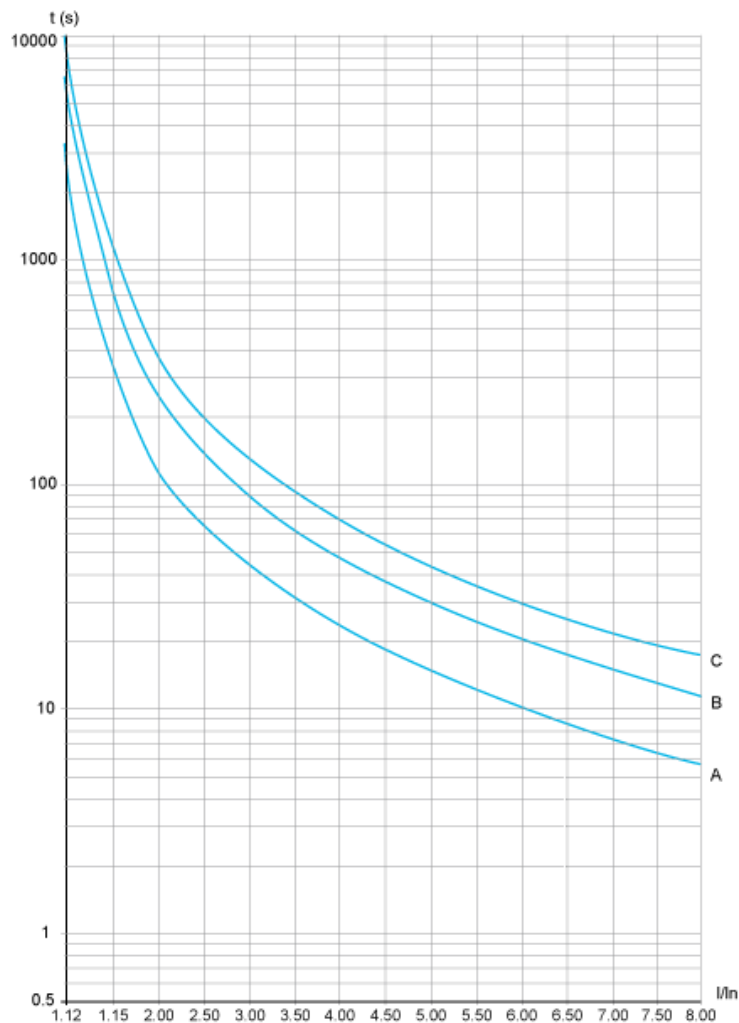


110 Vac control, Logic Inputs (LI) 110 Vac, 2-wire control, freewheelstop



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)

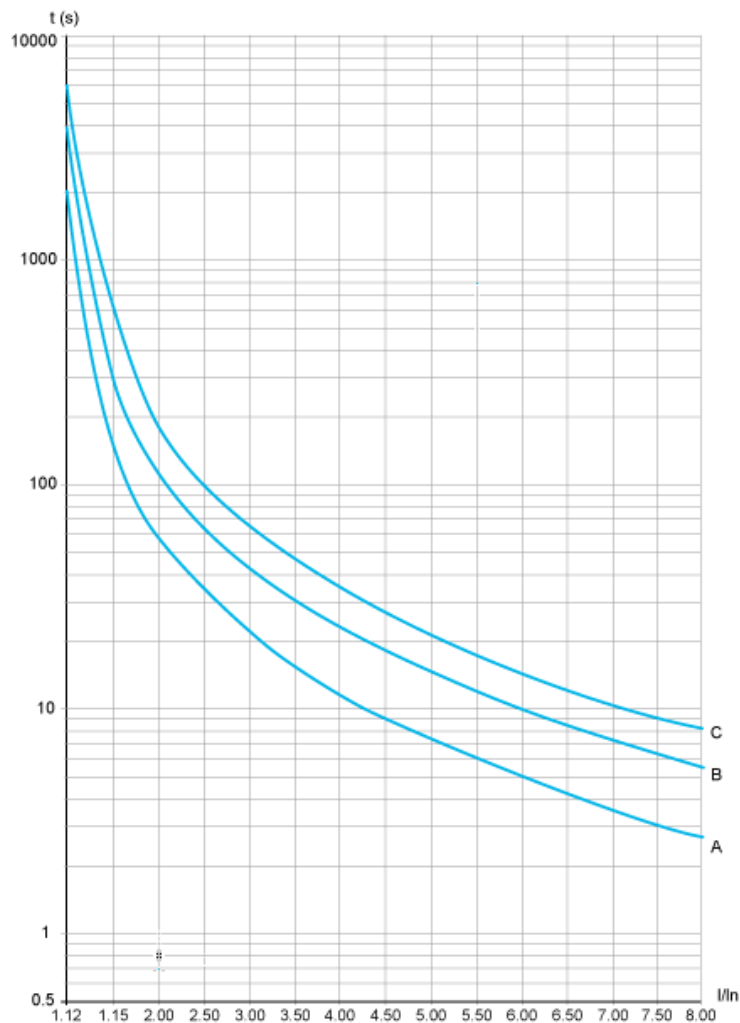
| |
|--------|
| 3.5 In |
| 63 s |

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 |