



## 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    | 230...600 V - 15...10 %                                             |
| Motor power kW               | 37 kW 230 V<br>75 kW 400 V<br>75 kW 440 V<br>90 kW 500 V            |
| Factory setting current      | 124 A                                                               |
| Power dissipation in W       | 82 W for standard applications                                      |
| Utilisation category         | AC-53A                                                              |
| Type of start                | Start with torque control (current limited to 3.5 In)               |
| IcL starter rating           | 140 A connection in the motor supply line for standard applications |
| IP degree of protection      | IP00                                                                |

## 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              | Thermal protection motor                                                                                                                                                         |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                    |                                                                                                                  |
|--------------------|------------------------------------------------------------------------------------------------------------------|
|                    | Phase failure line<br>Thermal protection starter                                                                 |
| Marking            | CE                                                                                                               |
| Type of cooling    | Forced convection                                                                                                |
| Operating position | Vertical +/- 10 degree                                                                                           |
| Height             | 14.02 in (356 mm)                                                                                                |
| Width              | 5.91 in (150 mm)                                                                                                 |
| Depth              | 9.04 in (229.5 mm)                                                                                               |
| Product weight     | 39.68 lb(US) (18 kg)                                                                                             |
| Power range        | 30...50 kW at 200...240 V 3 phases<br>55...100 kW at 380...440 V 3 phases<br>55...100 kW at 480...500 V 3 phases |
| Motor starter type | Soft starter                                                                                                     |

## 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 gn 13...200 Hz EN/IEC 60068-2-6<br>1.5 mm 2...13 Hz EN/IEC 60068-2-6                                                                                                                                                                                                                                                                             |
| shock resistance                      | 15 gn 11 ms EN/IEC 60068-2-27                                                                                                                                                                                                                                                                                                                      |
| noise level                           | 56 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<br>> 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<br>> 3280.84...< 6561.68 ft (> 1000...< 2000 m) with current derating of 2.2 % per additional 100 m                                                                                                                                                                                                        |

## Offer Sustainability

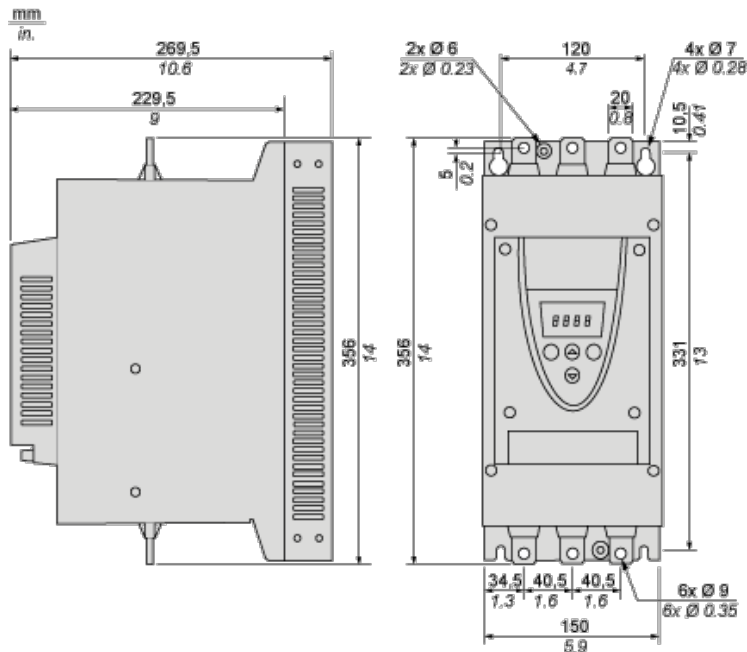
|                                                                                                                                  |                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Green Premium product                                                                                                            | Green Premium product                                                                                                            |
| Compliant - since 0938 - Schneider Electric declaration of conformity                                                            | Compliant - since 0938 - Schneider Electric declaration of conformity                                                            |
| Reference not containing SVHC above the threshold                                                                                | Reference not containing SVHC above the threshold                                                                                |
| Available                                                                                                                        | Available                                                                                                                        |
| Available                                                                                                                        | Available                                                                                                                        |
| WARNING: This product can expose you to chemicals including:                                                                     | 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. | Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. |
| Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm.                  | Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm.                  |
| For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>                                    | For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>                                    |

## Contractual warranty

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

## Frame Size C

### Dimensions



### Precautions

#### Standards

The Alstair 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 Alstair 22 soft starter inside a cabinet type 12 or IP54.

### **⚠ DANGER**

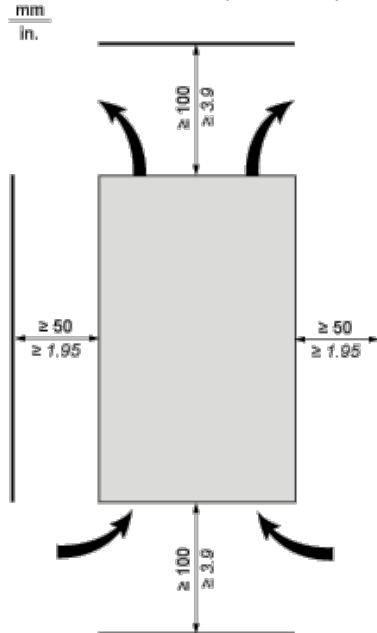
#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

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

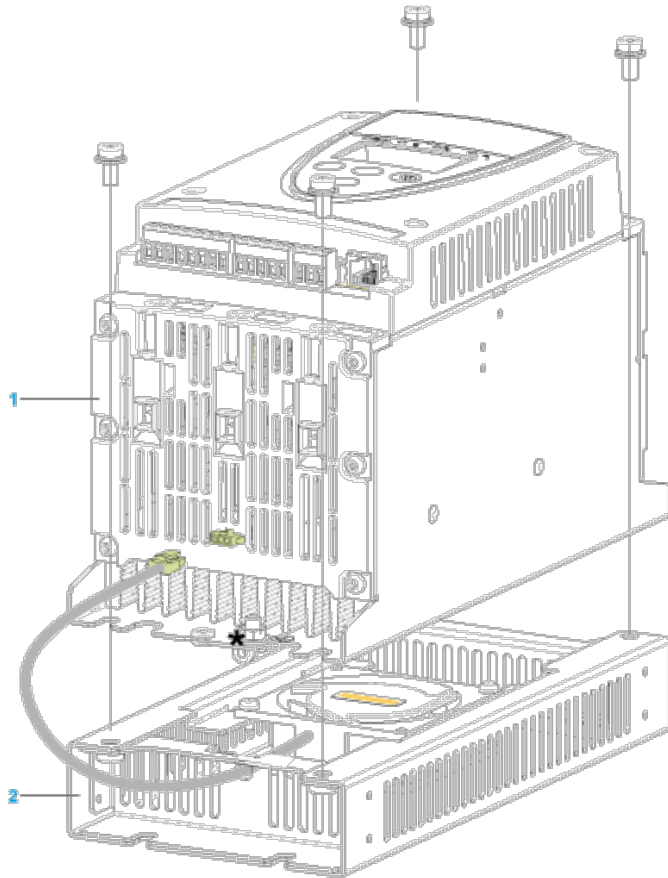
To avoid the soft starter to overheat, respect the following recommendations:

- Mount the Alstair 22 Soft Starter within  $\pm 10^\circ$  of vertical.
- Do not locate the Alstair 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



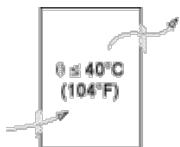
- 1 Altistart 22 Soft Starter
- 2 Fan

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

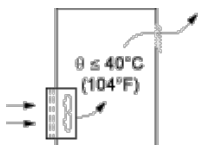
### Introduction

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

### Ventilation Grilles

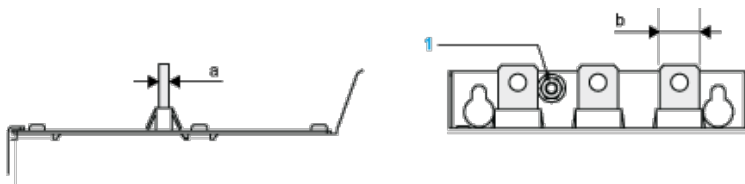


### Forced Ventilation Unit



## Power Terminal

### Bar Style



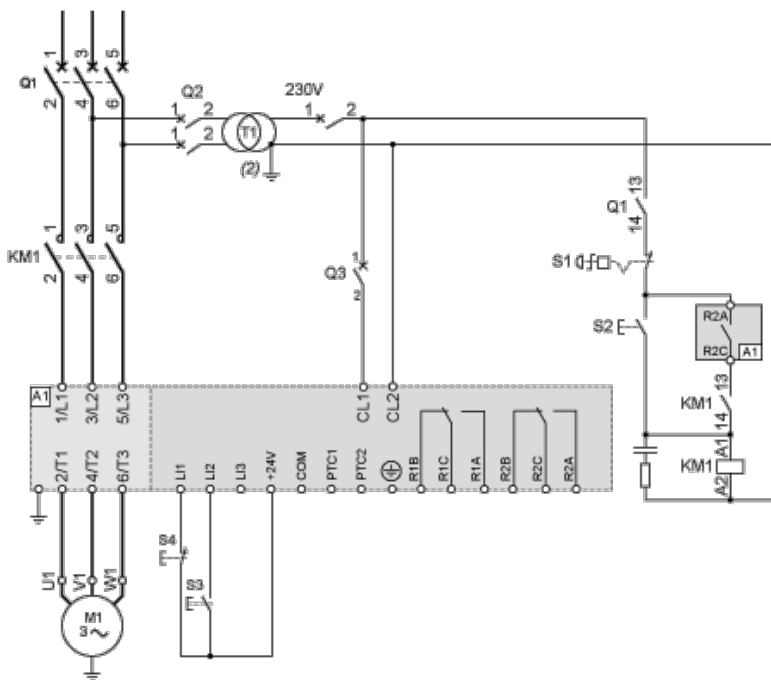
|                                  |                            |                   |                       |
|----------------------------------|----------------------------|-------------------|-----------------------|
| Power supply and output to motor | Bar                        | b                 | 20 mm (0.79 in)       |
|                                  |                            | a                 | 5 mm (0.2 in)         |
|                                  |                            | Bolt              | M8 (0.31 in)          |
|                                  | Cable and protective cover | Size              | 95 mm <sup>2</sup>    |
|                                  |                            | Gauge             | 250 MCM               |
|                                  |                            | Protective cover  | LA9F702               |
|                                  |                            | Tightening torque | 18 N.m<br>157.5 lb.in |

#### Power connections, minimum required wiring section

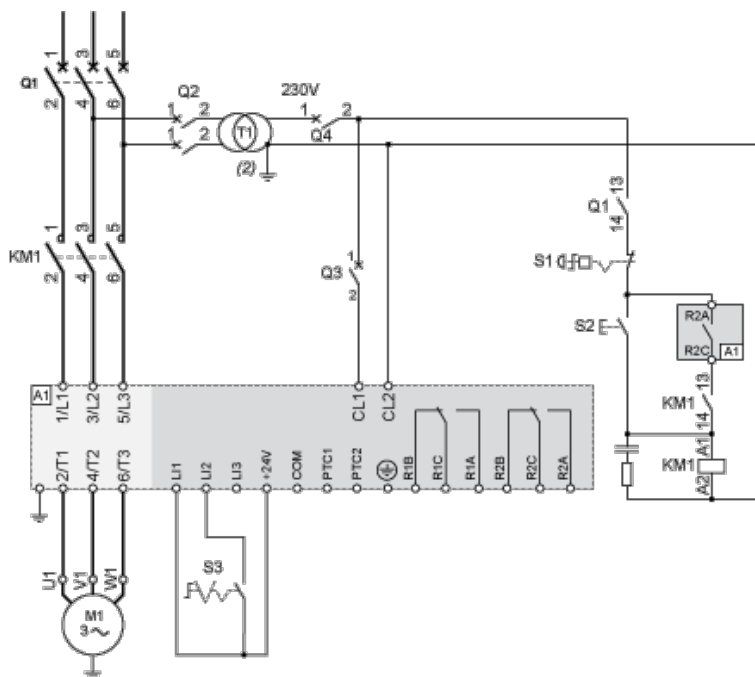
| IEC cable<br>mm <sup>2</sup> (Cu 70°C/158°F) (1) | UL cable<br>AWG (Cu 75°C/167°F) (1) |
|--------------------------------------------------|-------------------------------------|
| 50                                               | 2/0                                 |

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

With Line Contactor, Freewheel or Controlled Stop

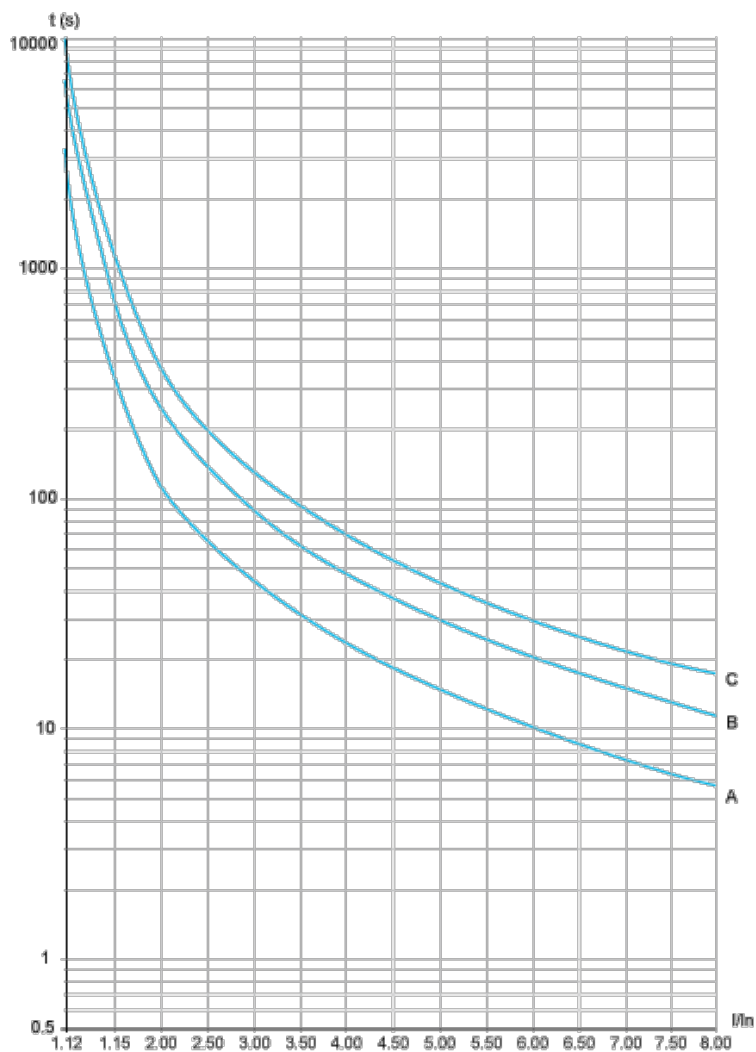


### 230 Vac control, logic Inputs (LI) 24 Vdc, 2-wire control, freewheel stop



## 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

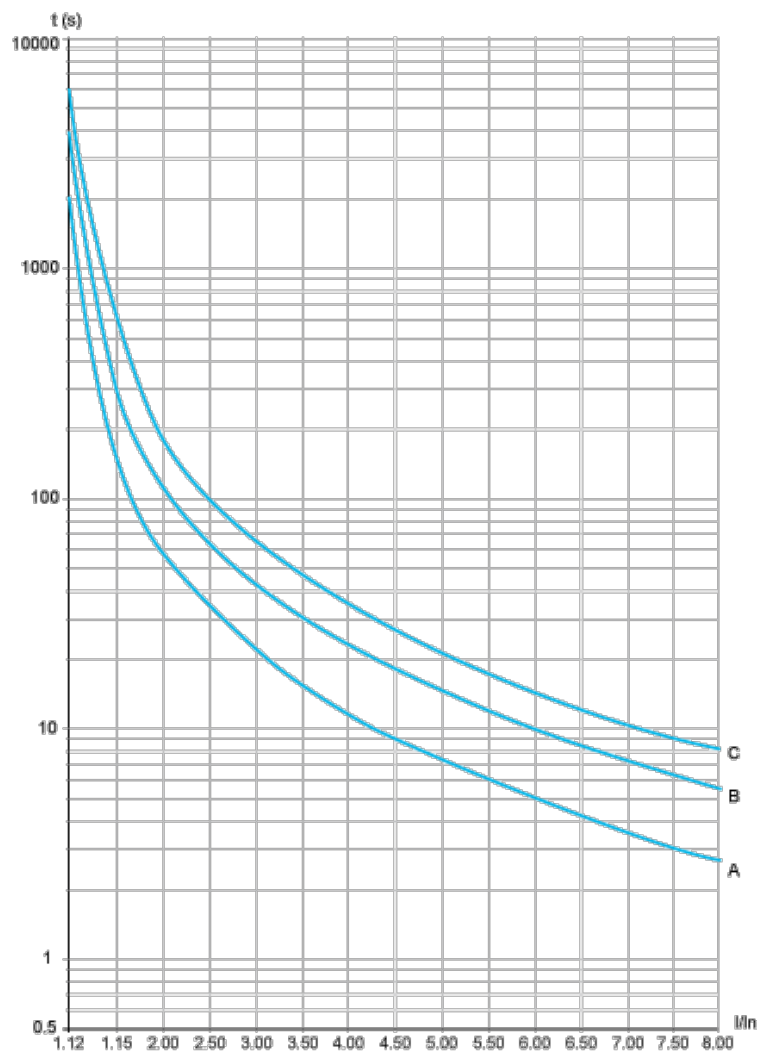
Trip time for a Severe Application (Class 30)

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 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 |
|------|

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9