

**Type: 1120**



Double pole combined circuit breaker and ON/OFF switch with rocker actuation. Specially suited to single-phase applications. Snap-in front panel mounting. Thermal positively trip free mechanism ensures reliable overcurrent protection and safe physical isolation of the load circuit. Attractively styled, with rocker illumination optional. The status of the switching contacts is shown by the position of the rocker actuator. For high volume requirements customer-specific designs can be offered for the front bezel and the rocker.

It meets the requirements of the CBE standard EN 60934 (IEC 60934): S type, TO.

Meets the requirements regarding fire resistance of EN 60335-1 : 2007-02 Safety of household and similar electrical appliances.

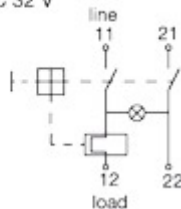
Minimum ordering quantities apply!

**Dimensions**



**Internal connection diagrams**

single pole connection  
AC 240 V, DC 32 V



**Voltage rating:**

- AC 240 V
- DC 32 V
- DC 50 V (only double pole)

**Current ratings:**

from 3A to 16A

**Number of poles:**

double pole

**Mounting method:**

flange

**Terminal design:**

blade terminals

**Actuation:**

rocker

**Auxiliary contacts:**

without auxiliary contacts

**Water splash protection:**

with water splash protection  
without water splash protection

**Illumination:**

with illumination  
without illumination

**Typical life:**

20,000 operations at  $I_N$ , inductive

**Interrupting capacity  $I_{cn}$ :**

AC 240 V: 200 A, 1 and 2 pole  
DC 50 V: 200 A, 2 pole  
DC 32 V: 200 A, 1 and 2 pole

**Approvals:**

VDE, UL, CSA, CCC

## Description

Double pole combined circuit breaker and ON/OFF switch with rocker actuation. Specially suited to single-phase applications. Snap-in front panel mounting. Thermal positively trip free mechanism ensures reliable overcurrent protection and safe physical isolation of the load circuit. Attractively styled, with rocker illumination optional. The status of the switching contacts is shown by the position of the rocker actuator. For high volume requirements customer-specific designs can be offered for the front bezel and the rocker. It meets the requirements of the CBE standard EN 60934 (IEC 60934): S type, TO. Meets the requirements regarding fire resistance of EN 60335-1 : 2007-02 Safety of household and similar electrical appliances.

Minimum ordering quantities apply!

## Typical applications

Electrical motors, household appliances, office equipment, garden and hobby tools, power supplies, charging rectifiers, cable extension reels, multiple socket outlets.

## Variants/Options

| Type No.                                  |                                                              |
|-------------------------------------------|--------------------------------------------------------------|
| 1120                                      | thermal circuit breaker                                      |
| <b>Configuration</b>                      |                                                              |
| <b>F</b>                                  | snap-in panel mounting                                       |
| <b>Size of frame</b>                      |                                                              |
| <b>1</b>                                  | panel thickness 1 - 2.5 mm (without water splash protection) |
| <b>2</b>                                  | panel thickness 1 - 2 mm (with water splash protection)      |
| <b>Number of poles</b>                    |                                                              |
| <b>0</b>                                  | double pole without protection                               |
| <b>5</b>                                  | double pole, one pole thermally protected                    |
| <b>Design</b>                             |                                                              |
| <b>0</b>                                  | standard                                                     |
| <b>1</b>                                  | with water splash protection                                 |
| <b>Terminal design</b>                    |                                                              |
| <b>P1</b>                                 | blade terminals 6.3x0.8                                      |
| <b>P2</b>                                 | blade terminals 6.3x0.8, 90° angled                          |
| <b>Characteristic curve</b>               |                                                              |
| <b>Q0</b>                                 | without                                                      |
| <b>T1</b>                                 | thermal                                                      |
| <b>Actuator style</b>                     |                                                              |
| <b>U</b>                                  | rocker (momentary switch)                                    |
| <b>W</b>                                  | rocker (latching switch)                                     |
| <b>Actuator colour</b>                    |                                                              |
| <b>A</b>                                  | black opaque                                                 |
| <b>B</b>                                  | white opaque                                                 |
| <b>E</b>                                  | blue opaque                                                  |
| <b>C</b>                                  | red translucent                                              |
| <b>D</b>                                  | green translucent                                            |
| <b>F</b>                                  | blue translucent                                             |
|                                           | other colours upon request                                   |
| <b>Actuator markings</b>                  |                                                              |
| <b>00</b>                                 | "I" and "O" moulded in                                       |
| <b>Illumination</b>                       |                                                              |
| <b>0</b>                                  | without illumination                                         |
| <b>B</b>                                  | filament bulb                                                |
| <b>Illumination voltage range</b>         |                                                              |
| <b>0</b>                                  | without illumination                                         |
| <b>3</b>                                  | AC 90 V - 140 V                                              |
| <b>4</b>                                  | AC 185 V - 275 V                                             |
|                                           | DC illumination upon request                                 |
| <b>Current ratings</b>                    |                                                              |
|                                           | 3, 4, 5, 6, 8, 10, 12, 14, 16 A                              |
| 1120 - F 1 5 0 - P1 T1 - W B 00 00 - 10 A | ordering example                                             |



1120-..

without water splash protection

with water splash protection

## Technical data

|                                        |                                                                                                      |
|----------------------------------------|------------------------------------------------------------------------------------------------------|
| Voltage rating                         | AC 240 V; DC 32 V<br>DC 50 V (only double pole)                                                      |
| Current ratings                        | 3...16 A                                                                                             |
| Typical life                           | 20,000 operations at $I_N$ , inductive                                                               |
| Ambient temperature                    | -20 °C...+60 °C                                                                                      |
| Insulation co-ordination (IEC 60664-1) | 2,5 kV/2<br>reinforced insulation in operating area                                                  |
| Dielectric strength                    |                                                                                                      |
| operating area                         | test voltage AC 3,000 V                                                                              |
| terminal area                          | test voltage AC 1,500 V                                                                              |
| pole/pole                              | test voltage AC 1,500 V                                                                              |
| Insulation resistance                  | > 100 MΩ (DC 500 V)                                                                                  |
| Switching capacity $I_{cn}$            | AC 240 V: 200 A, 1 and 2 pole<br>DC 50 V: 200 A, 2 pole<br>DC 32 V: 200 A, 1 and 2 pole              |
| Switching capacity (UL 1077)           | AC 277 V: 3,500 A, 1 and 2 pole<br>DC 50 V: 2,000 A, 2 pole<br>DC 32 V: 2,000 A, 1 and 2 pole        |
| Degree of protection (IEC 60529)       | operating area IP40<br>with water splash protection IP66<br>terminal area IP00                       |
| Vibration                              | 8 g (57-500 Hz), ± 0,61 mm (10-57 Hz)<br>test to IEC 60068-2-6, test Fc,<br>10 frequency cycles/axis |
| Shock                                  | 20 g (11 ms)<br>test to IEC 60068-2-27, test Ea                                                      |
| Corrosion                              | 48 hrs in 5% salt mist,<br>test to IEC 60068-2-11, test Ka                                           |
| Humidity                               | 96 hrs in 95% RH,<br>test to IEC 60068-2-3, test Cab                                                 |
| Mass                                   | approx. 20 g                                                                                         |

## Illumination voltage/power consumption

| operating voltage | filament/neon |
|-------------------|---------------|
| AC 115 V          | < 1,5 mA      |
| AC 230 V          | < 1,5 mA      |

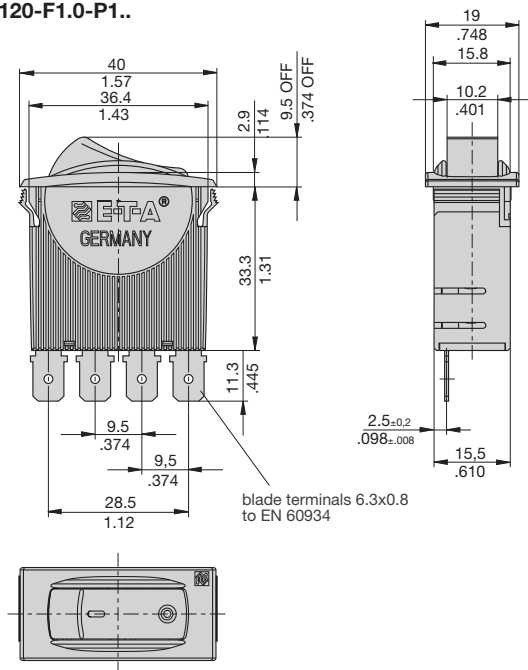
## Approvals

| Authority      | Voltage ratings              | Current ratings                        |
|----------------|------------------------------|----------------------------------------|
| VDE (EN 60934) | AC 240 V, DC 32 V<br>DC 50 V | 3...16 A 1 + 2 pole<br>3...16 A 2 pole |
| UL, CSA, CCC   | AC 277 V, DC 32 V<br>DC 50 V | 3...16 A 1 + 2 pole<br>3...16 A 2 pole |

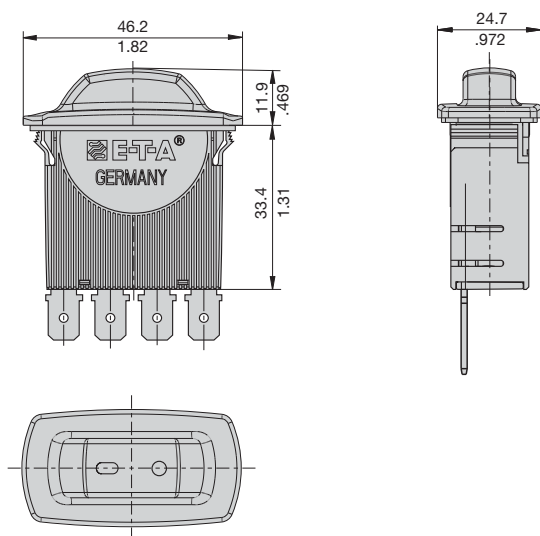
# ETA® Thermal Circuit Breaker 1120

## Dimensions single pole

1120-F1.0-P1..

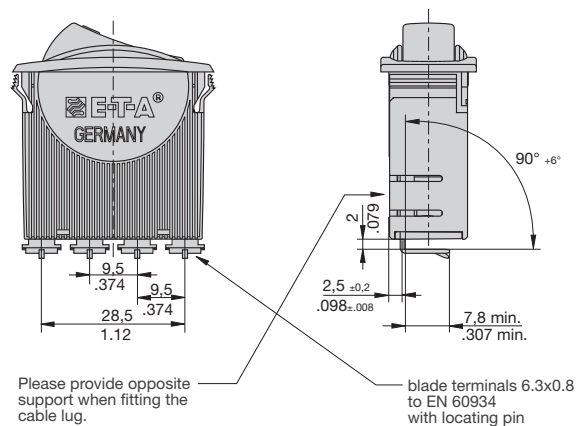


1120-F2.1-P1..



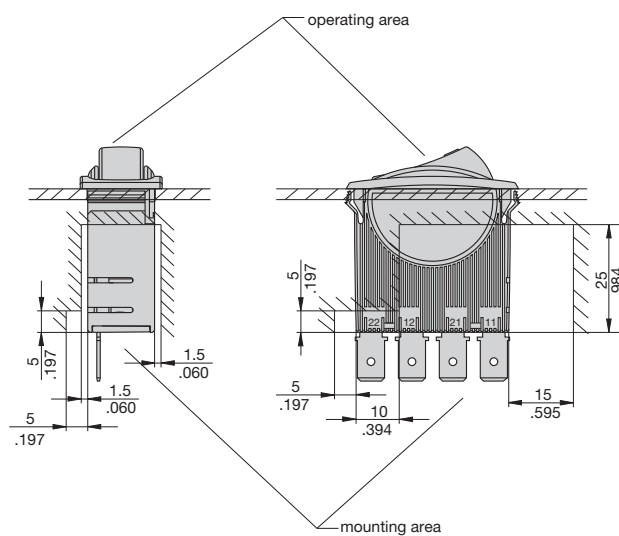
## Dimensions double pole

1120-F...-P2

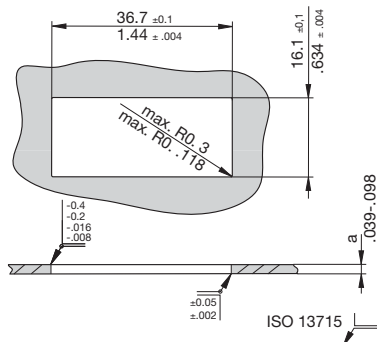


Applicable for nominal dimensions without direct tolerance indication:  
DIN ISO 286 ± IT13

## Installation drawing



## Cut-out dimensions

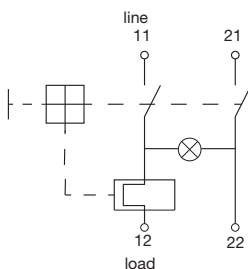


| version        | dimension "a"         |
|----------------|-----------------------|
| 1120-F1...-... | 1 - 2.5 mm/ .039-.098 |
| 1120-F2...-... | 1 - 2 mm/             |

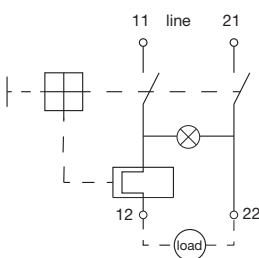
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## Internal connection diagrams

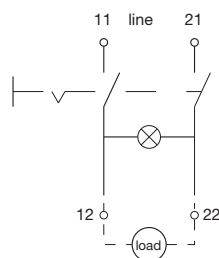
single pole connection  
AC 240 V, DC 32 V



AC 240 V, DC 50 V  
double pole  
one pole thermally protected

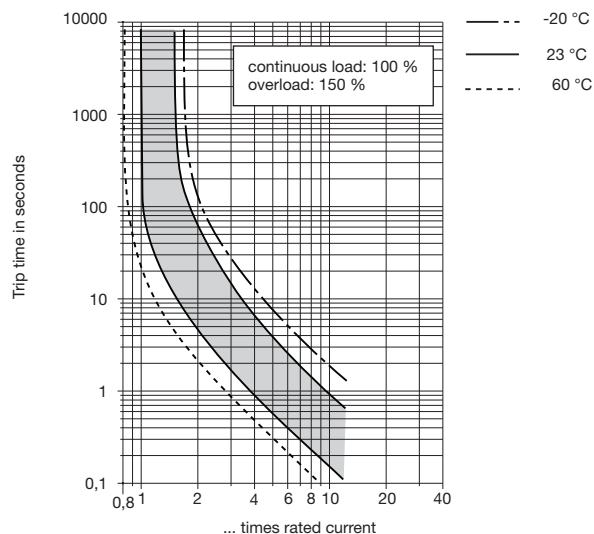


double pole  
without protection

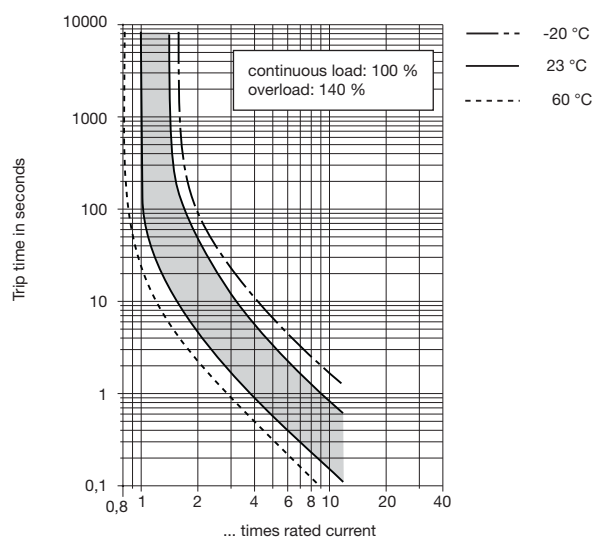


## T1 - thermal characteristic curve

3 ... 6 A



8 ... 16 A



The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below.

| Ambient temperature °C | -20  | -10  | 0    | +23 | +40  | +50  | +60  |
|------------------------|------|------|------|-----|------|------|------|
| Derating factor        | 0,84 | 0,88 | 0,92 | 1   | 1,08 | 1,14 | 1,23 |

This is a metric design and millimeter dimensions take precedence ( $\frac{\text{mm}}{\text{inch}}$ )

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.