

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.

Ordering information

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

Illumination voltage/power consumption

operating voltage	filament/neon
AC 115 V	< 1.5 mA
AC 230 V	< 1.5 mA



1120-..

without water splash protection with water splash protection

Technical data

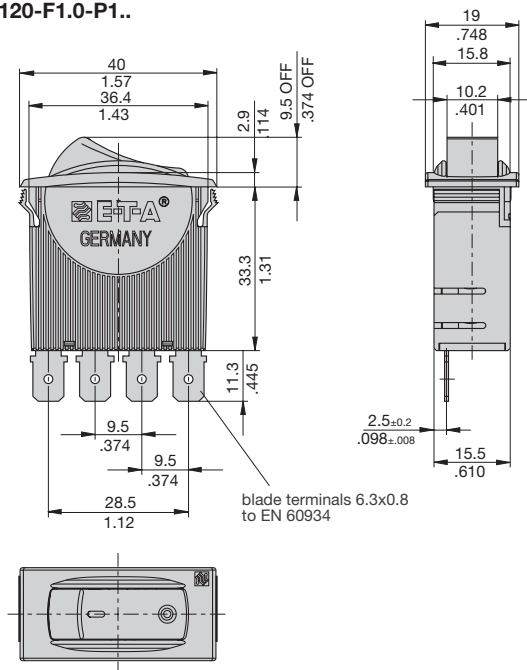
Voltage rating	AC 240 V; DC 32 V DC 50 V (only double pole)
Current ratings	3...16 A
Typical life	10,000 operations at I_N , inductive
Ambient temperature	-20 °C...+60 °C
Insulation co-ordination (IEC 60664-1)	2.5 kV/2 reinforced insulation in operating area
Dielectric strength	operating area terminal area pole/pole
	test voltage AC 3,000 V test voltage AC 1,500 V 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 DC 50 V: 200 A, 2 pole DC 32 V: 200 A, 1 and 2 pole
Switching capacity (UL 1077)	AC 277 V: 3,500 A, 1 and 2 pole DC 50 V: 2,000 A, 2 pole DC 32 V: 2,000 A, 1 and 2 pole
Degree of protection (IEC 60529)	operating area IP40 with water splash protection IP66 terminal area IP00
Vibration	8 g (57-500 Hz), ± 0.61 mm (10-57 Hz) test to IEC 60068-2-6, test Fc, 10 frequency cycles/axis
Shock	20 g (11 ms) test to IEC 60068-2-27, test Ea
Corrosion	48 hrs in 5% salt mist, test to IEC 60068-2-11, test Ka
Humidity	96 hrs in 95% RH, test to IEC 60068-2-3, test Cab
Mass	approx. 20 g

Standard current ratings and typical internal resistance values

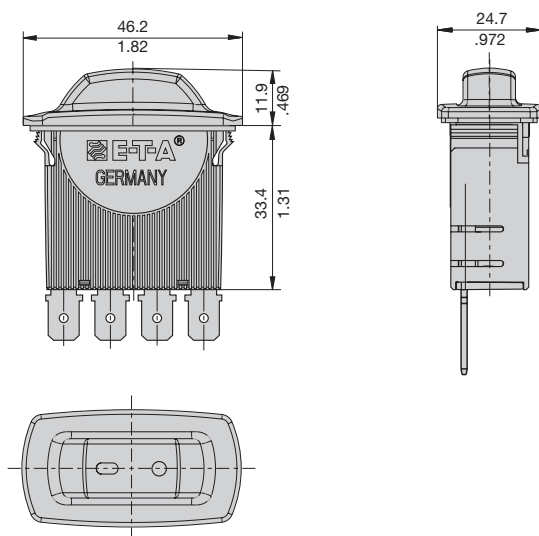
Current rating (A)	Internal resistance (Ω)	Current rating (A)	Internal resistance (Ω)
3	0.09	10	≤ 0.02
4	0.05	12	≤ 0.02
5	0.04	14	≤ 0.02
6	0.03	15	≤ 0.02
8	≤ 0.02	16	≤ 0.02

Dimensions single pole

1120-F1.0-P1..

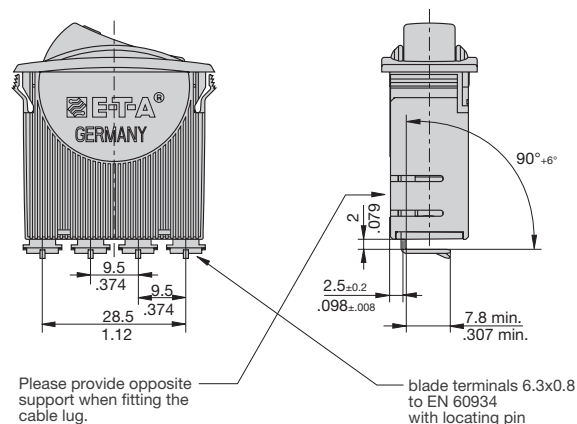


1120-F2.1-P1..



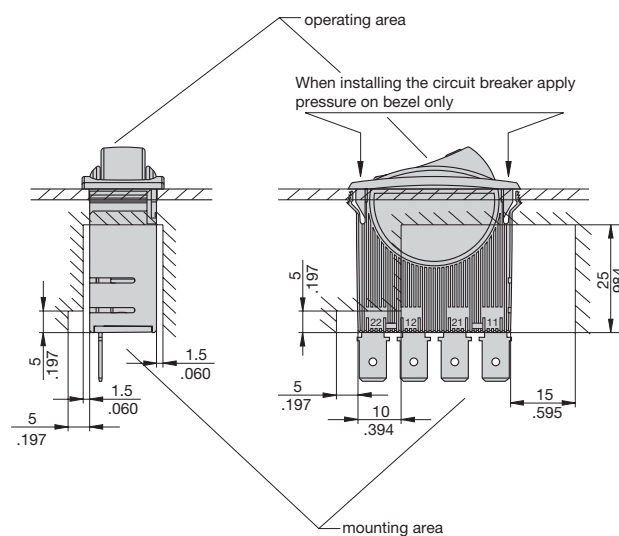
Dimensions double pole

1120-F...-P2



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

Installation drawing

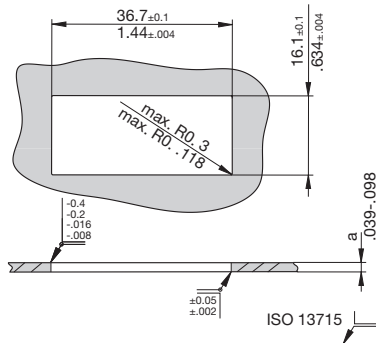


This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

Approvals

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

Cut-out dimensions

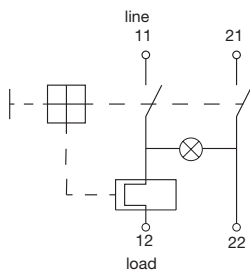


version	dimension "a"
1120-F1...-...	1 - 2.5 mm/ .039-.098
1120-F2...-...	1 - 2 mm/ .039-.079

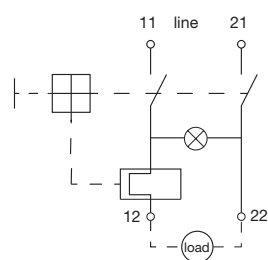
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Internal connection diagrams

single pole connection
AC 240 V, DC 32 V

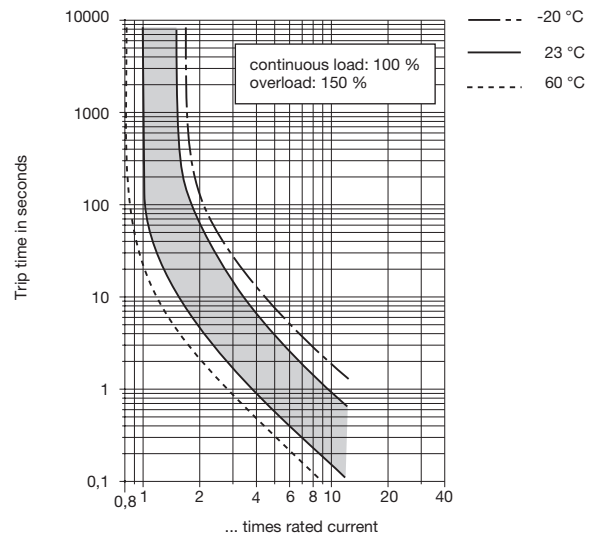


AC 240 V, DC 50 V
double pole
one pole thermally protected

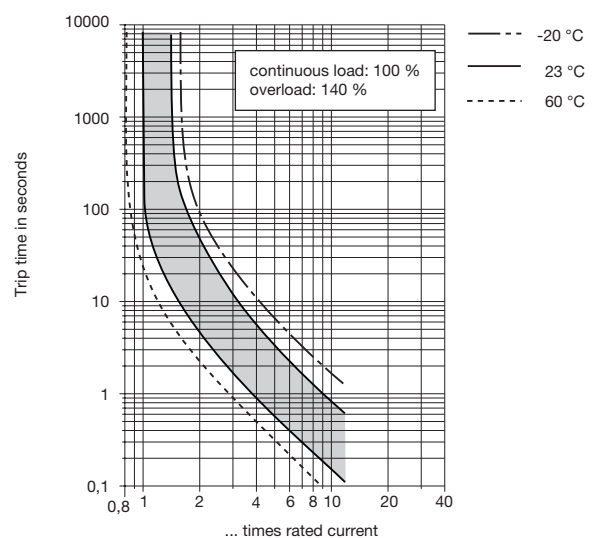


T1 - thermal characteristic curve

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 °F	-4	+14	+32	+73.4	+104	+122	+140
°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.