

Circuit Protectors
CP31F, 32F, 33F

CP-F slim type circuit protectors
250V AC/65V DC (1-pole) 0.1A to 30A
250V AC/125V DC (2-pole) 0.1A to 30A
250V AC (3-pole) 0.1A to 30A

■ Description

FUJI's compact and high-performance CP-F series circuit protectors incorporate FUJI's advanced technology. Their thin sizes make them ideal for use as AC/DC line switches in office and industrial equipment.

■ Features

- Only 17.5mm wide — mounting space is reduced by 30% compared with conventional types.
- AC/DC common use
- Available with auxiliary switch and alarm switch
- Also available in types having inertia delay characteristics
- Trip-free mechanism
- IEC rail mounting

■ Standards

UL (File No.E96846)
TÜV (IEC)(R9650230)
CCC (China GB)(2003010309067080)

■ Accessories

• Auxiliary switch (Type W)

This switch is used for ON-OFF lamp indicator or control circuit.

• Alarm switch (Type K)

This switch can be connected to a warning lamp or buzzer to indicate when the circuit protector has been tripped. Auxiliary and alarm switches for low level circuit are also available on request. (Type W1, K1)

Ratings of auxiliary and alarm switches

Standard type (Type W, K)

250V AC	Resistive load: 1A Inductive load: 0.5A
125V AC	Resistive load: 3A Inductive load: 1A
60V DC	Resistive load: 1A Inductive load: 0.5A
30V DC	Resistive load: 2A Inductive load: 1A

Minimum permissible load

For low level circuit (Type W1, K1)

24V DC	1mA
12V DC	2mA
6V DC	5mA

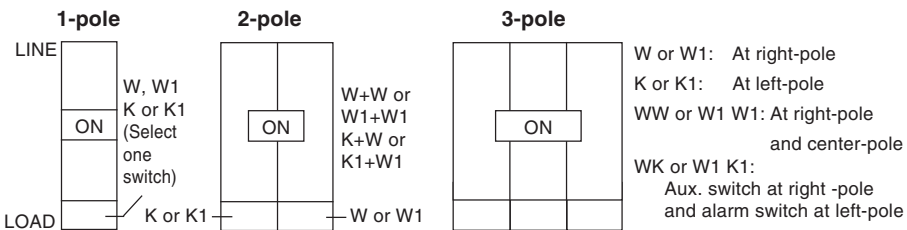


■ Specifications

Type	CP31F	CP32F	CP33F
Pole	1-pole	2-pole	3-pole
Rated insulation voltage (Ui)	250V AC 65V DC	250V AC 125V DC	250V AC —
Rated operational voltage (Ue)	240V AC 60V DC	240V AC 120V DC	240V AC —
Rated current	0.1, 0.3, 0.5, 1, 2, 3, 5, 7, 10, 15, 20, 25, 30A		
Rated breaking capacity	2500A at 240V AC 2500A at 60V DC (1-pole) 2500A at 120V DC (2-pole)		
Operating characteristic	Long time delay (AC circuit only) Medium time delay, Instantaneous tripping		
Tripping mechanism	Hydraulic-magnetic		
Ambient temperature	-10 to +60°C		
Dielectric strength	2000V AC 1min		
Electrical durability	10000 operations or more		
Terminals	M5 (25A or over), M4 (20A or less)		
(Self-lifting)	M3.5		
Mass (Approx.)	80g	160g	240g

Main contact	Auxiliary switch/W	Alarm switch/K
ON		
OFF		
TRIP		

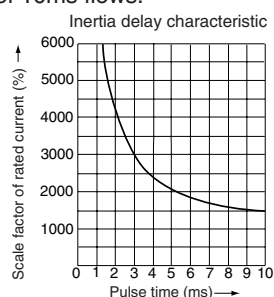
Number of auxiliary and alarm switches mountable



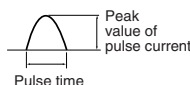
● Inertia delay device (Type D)

This inertia delay device is designed to prevent the circuit protector from operating erroneously due to such inrush current and to carry out an interruption within the prescribed operating characteristics in the face of an overcurrent.

The protector does not operate even when a pulse current of approx. 14 times (peak value) rated current with a pulse width of 10ms flows.



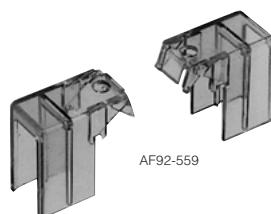
- Scale factor of the rated current (%)
Peak value of pulse current $\times 100$
Rated current of protector
- Waveform of pulse current:
Sinusoidal wave or parabolic pulse



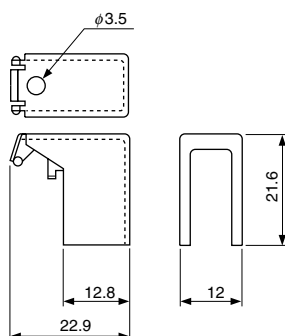
● Snap-on mounting terminal covers

For main terminal: CP-T4

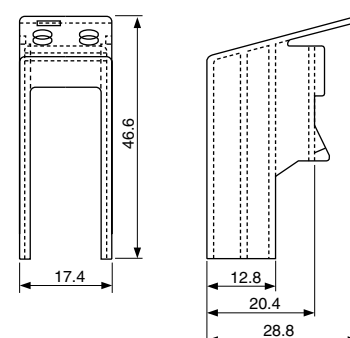
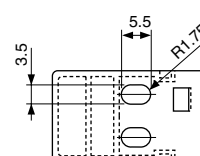
For auxiliary terminal: CP-T5



CP-T4

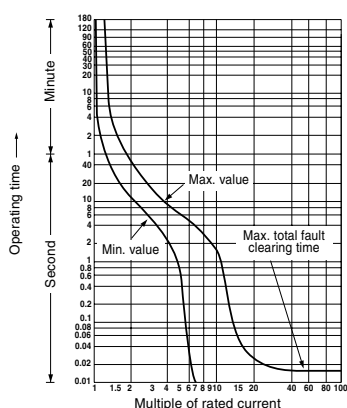


CP-T5

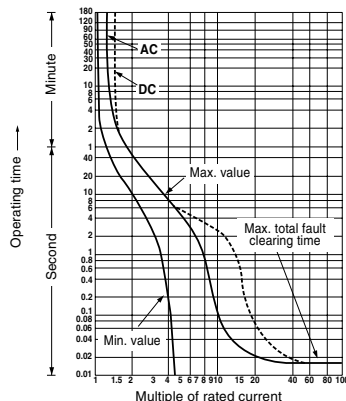


■ Characteristic curves

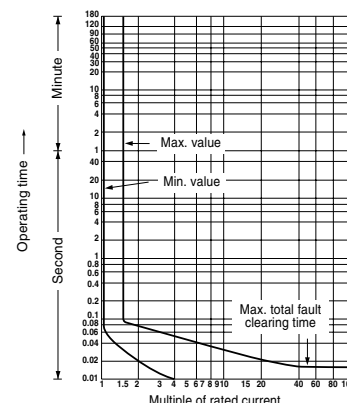
Long time delay tripping type AC circuit only



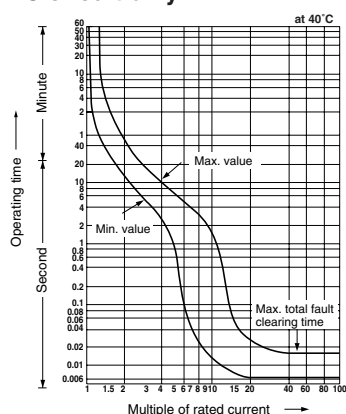
Medium time delay tripping type AC/DC circuit



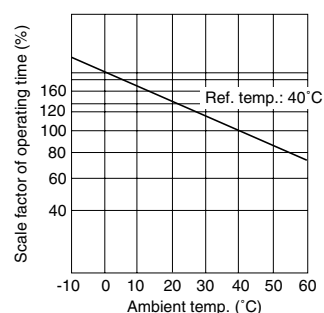
Instantaneous tripping type AC/DC circuit



Long time delay with inertia delay device AC circuit only



Ambient temperature compensation



Circuit Protectors

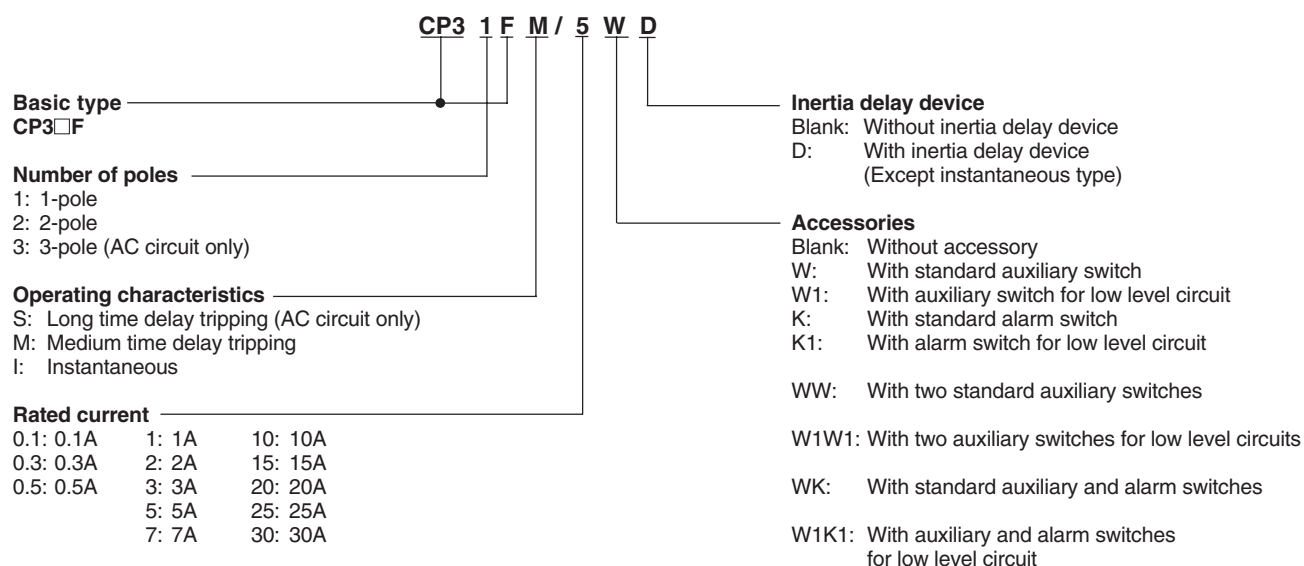
CP31F, 32F, 33F

■ Versions

	Operating characteristic	CP31F (1-pole) Type	CP32F (2-pole) Type	CP33F (3-pole) Type
Without inertia delay device	Long time Medium time Instantaneous	CP31FS/□ CP31FM/□ CP31FI/□	CP32FS/□ CP32FM/□ CP32FI/□	CP33FS/□ CP33FM/□ CP33FI/□
With inertia delay device	Long time Medium time Instantaneous	CP31FS/□D CP31FM/□D —	CP32FS/□D CP32FM/□D —	CP33FS/□D CP33FM/□D —
With standard auxiliary switch	Long time Medium time Instantaneous	CP31FS/□W CP31FM/□W CP31FI/□W	CP32FS/□W CP32FM/□W CP32FI/□W	CP33FS/□W CP33FM/□W CP33FI/□W
With standard auxiliary switch and inertia delay device	Long time Medium time Instantaneous	CP31FS/□WD CP31FM/□WD —	CP32FS/□WD CP32FM/□WD —	CP33FS/□WD CP33FM/□WD —
With standard alarm switch	Long time Medium time Instantaneous	CP31FS/□K CP31FM/□K CP31FI/□K	CP32FS/□K CP32FM/□K CP32FI/□K	CP33FS/□K CP33FM/□K CP33FI/□K
With standard alarm switch and inertia delay device	Long time Medium time Instantaneous	CP31FS/□KD CP31FM/□KD —	CP32FS/□KD CP32FM/□KD —	CP33FS/□KD CP33FM/□KD —
With auxiliary switch for low level circuit	Long time Medium time Instantaneous	CP31FS/□W1 CP31FM/□W1 CP31FI/□W1	CP32FS/□W1 CP32FM/□W1 CP32FI/□W1	CP33FS/□W1 CP33FM/□W1 CP33FI/□W1
With auxiliary switch for low level circuit and inertia delay device	Long time Medium time Instantaneous	CP31FS/□W1D CP31FM/□W1D —	CP32FS/□W1D CP32FM/□W1D —	CP33FS/□W1D CP33FM/□W1D —
With alarm switch for low level circuit	Long time Medium time Instantaneous	CP31FS/□K1 CP31FM/□K1 CP31FI/□K1	CP32FS/□K1 CP32FM/□K1 CP32FI/□K1	CP33FS/□K1 CP33FM/□K1 CP33FI/□K1
With alarm switch for low level circuit and inertia delay device	Long time Medium time Instantaneous	CP31FS/□K1D CP31FM/□K1D —	CP32FS/□K1D CP32FM/□K1D —	CP33FS/□K1D CP33FM/□K1D —

Note : □ Enter the rated current in the □ mark of the type number. 0.1A: 0.1, 0.3A: 0.3, 0.5A: 0.5 ----- 30A: 30

■ Type number nomenclature

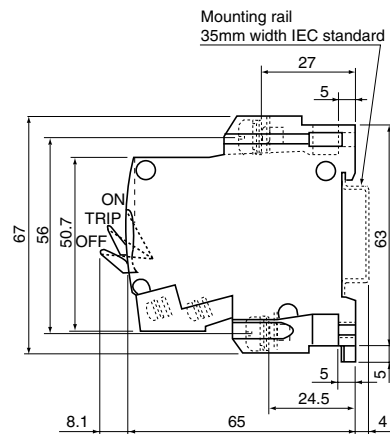
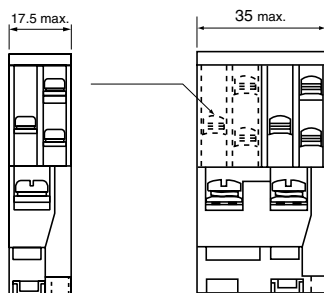
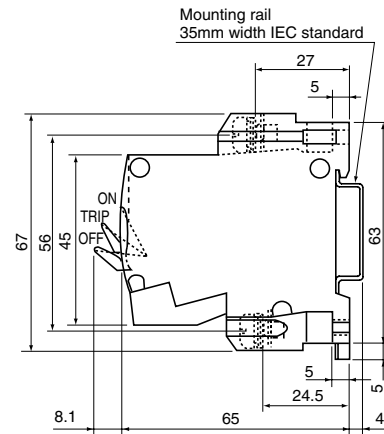
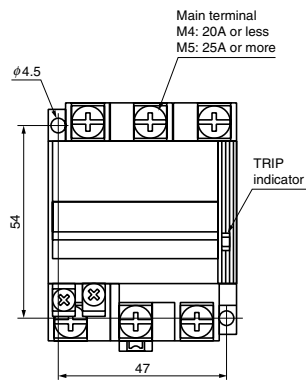
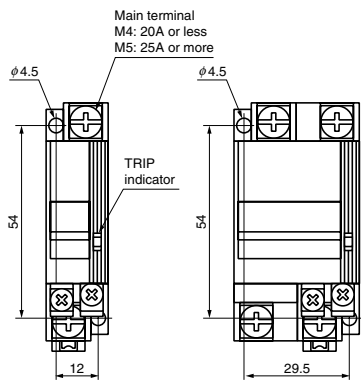


■ Dimensions, mm

1-pole

2-pole

3-pole



Panel drilling

