

# AFI

## Residual Current Circuit Breakers



With Residual Current Circuit Breaker (RCCB) the following protective measures are available: fault protection, protection against fire and additional protection in case of direct contact. They are also suitable for isolation and have optional operation position.

### Types

Type A  
Type AC

### Applications

Residual Current Circuit Breakers AFI are switches with instantaneous tripping. They are used for protection against indirect contact, fire protection and additional protection against direct contact. AFI type AC is sensitive to residual sinusoidal alternating currents only.

### Features

- ▶ They are suitable for isolation (switch disconnector)
- ▶ Degree of protection IP20; after installation in a distribution box IP40
- ▶ Assembly to a 35 mm wide mounting rail in accordance with EN 60715
- ▶ Additional colour display of the main contact position (red - contacts closed, green - contacts open)

**AFI characteristics**

Technical data	Symbol	Unit	AFI2	AFI4
Standards			IEC/EN 61008	
Approvals			CE	
Module width			2	4
Number of poles			2	4
Rated voltage	$U_n$	V	230	400
Rated insulation voltage	$U_i$	V	400	
Rated impulse withstand voltage	$U_{imp}$	kV	4	
Rated frequency	$f$	Hz	50	
Rated current	$I_n$	A	25, 40, 63	
Rated residual current	$I_{\Delta n}$	mA	30, 300, 500	
Residual operating current (AC 50 Hz)			0.5 - 1.0 $I_{\Delta n}$	
Rated conditional short-circuit current	$I_{nc}$	kA	6	
Rated residual making and breaking capacity	$I_m$	A	630 ( $I_n = 25 - 63$ A)	
Rated residual making and breaking capacity	$I_{\Delta m}$	A	630 ( $I_n = 25 - 63$ A)	
Max. back-up fuse for short-circuit current gL	$I_v$	A	63	
Maximum breaking times			1 x $I_{\Delta n}$ : < 300 ms; 5 x $I_{\Delta n}$ : < 40 ms	
Minimum response time delay			instantaneous	
Mechanical endurance		op. c.	min. 5000	
Electrical endurance		op. c.	min. 2000	
Minimum distance of open contacts		mm	4	
Ambient temperature		°C	-25 ... +40	
Storage temperature		°C	-35 ... +60	
Resistance to climate			acc. to IEC 60068-2-30: 28 cycles (55 °C, 95 % relative humidity)	
<b>Terminal capacity</b>				
rigid (solid and stranded)	S	mm <sup>2</sup>	1 ... 35	
flexible			1 ... 35	
Screw			M5	
Screw head			PZ2	
Tightening torque		Nm	2	
Length of removed conductor insulation		mm	15	
Degree of protection			IP20 (IP40 after installation in a distribution box)	
Pollution degree			2	
Weight		g	215	360

**AFI2 characteristics**

Type	Rated current $I_n$ (A)	Rated residual current $I_{\Delta n}$ (A)	No. of poles	Ordering No.	Weight (g)	Packaging (pcs)
<b>A</b>						
AFI2 25/0.03	25	0.03	2	on request	215	1
AFI2 40/0.03	40	0.03	2	030.105.264	215	1
<b>AC</b>						
AFI2 16/0.03	16	0.03	2	030.105.225	215	1
AFI2 25/0.03	25	0.03	2	030.105.058	215	1
AFI2 25/0.1	25	0.1	2	030.105.218	215	1
AFI2 25/0.3	25	0.3	2	030.105.059	215	1
AFI2 25/0.5	25	0.5	2	030.105.060	215	1
AFI2 40/0.03	40	0.03	2	030.105.061	215	1
AFI2 40/0.1	40	0.1	2	030.105.212	215	1
AFI2 40/0.3	40	0.3	2	030.105.062	215	1
AFI2 40/0.5	40	0.5	2	030.105.229	215	1
AFI2 63/0.03	63	0.03	2	030.105.063	215	1
AFI2 63/0.1	63	0.1	2	030.105.213	215	1
AFI2 63/0.3	63	0.3	2	030.105.064	215	1
AFI2 80/0.03	80	0.03	2	030.105.065	215	1
AFI2 80/0.3	80	0.3	2	030.105.066	215	1

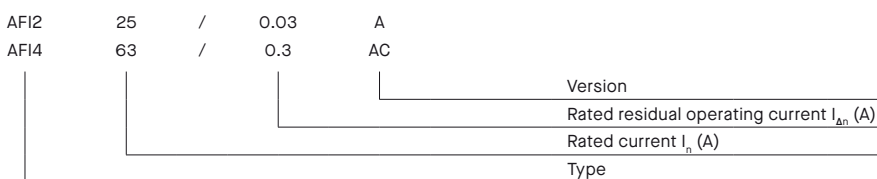


**AFI4 characteristics**

Type	Rated current $I_n$ (A)	Rated residual current $I_{\Delta n}$ (A)	No. of poles	Ordering No.	Weight (g)	Packaging (pcs)
<b>A</b>						
AFI4 25/0.03	25	0.03	4	030.105.123	360	1
AFI4 40/0.03	40	0.03	4	030.105.265	360	1
AFI4 40/0.3	40	0.3	4	on request	360	1
<b>AC</b>						
AFI4 16/0.03	25	0.03	4	030.105.226	360	1
AFI4 25/0.03	25	0.03	4	030.105.067	360	1
AFI4 25/0.3	25	0.3	4	030.105.068	360	1
AFI4 25/0.5	25	0.5	4	030.105.069	360	1
AFI4 40/0.03	40	0.03	4	030.105.070	360	1
AFI4 40/0.3	40	0.3	4	030.105.071	360	1
AFI4 40/0.5	40	0.5	4	030.105.072	360	1
AFI4 63/0.03	63	0.03	4	030.105.073	360	1
AFI4 63/0.1	63	0.1	4	030.105.219	360	1
AFI4 63/0.3	63	0.3	4	030.105.074	360	1
AFI4 63/0.5	63	0.5	4	030.105.075	360	1



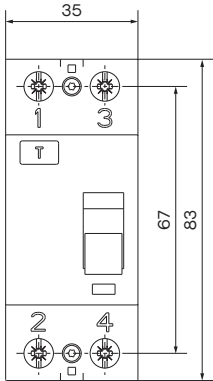
**Ordering data**



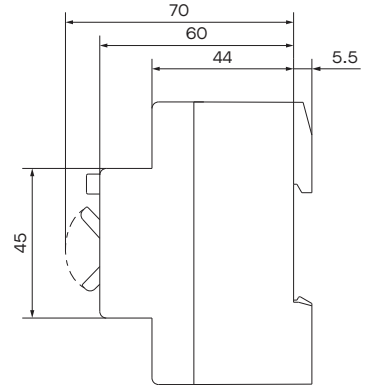
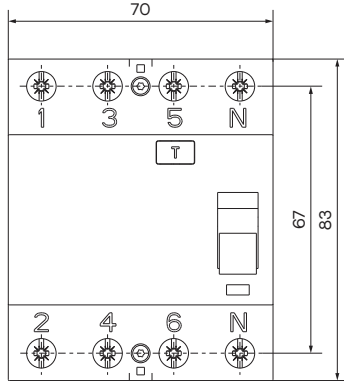
## Dimensions

(mm)

**AFI2**

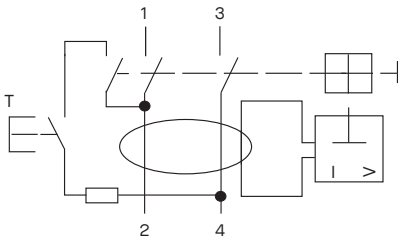


**AFI4**



## Schematics

**AFI2**



**AFI4**

