

# AVDT34 residual current circuit breakers for currents 6–63 A

The AVDT34 RCCBs are designed for protection of persons against electric shock in case of damaged insulation in electric installations, preventing fires caused by earth leakage currents and protection against overloads and short-circuits in AC systems of voltage 400 V and frequency 50 Hz.

The AVDT34 with built-in overcurrent protection respond not only for sinusoidal alternating differential currents but also for pulsing direct differential currents. The sources of pulsing current can be, for example, washing machines with speed control, adjustable luminaries, TV sets, VCRs, personal computers, etc.

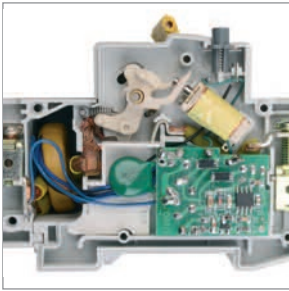
The AVDT34 are produced as 4-pole devices for rated currents 6, 10, 16, 25, 32, 40, 50, 63 A and rated tripping differential currents 10, 30, 100, 300 mA



### Advantages

- Compact design of the circuit breaker controlled by differential current, with built-in overcurrent protection.
- Rated conditional short-circuit current 6000 A allows for use of AVDT34 RCCBs as input protection devices.
- Wide range of rated currents (6, 10, 16, 25, 32, 40, 50, 63 A) and rated tripping differential currents (10, 30, 100, 300 mA).
- Good electric wear resistance: at least 6000 switching operations.
- Ergonomic TEST button to check the device operability and correct connections.
- The work curve A at presence of differential current ensures a universal protection against electric shock in case of unintentional contact with conductor and protection against leakage currents.
- Design of the main contacts of 4-pole AVDT34 RCCB provides for early make and delayed break of neutral contact, thus preventing voltage unbalance in the load as in case of broken mains neutral.

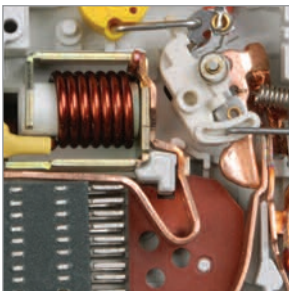
## Design Features



Noise-immune design excluding false tripping: patent No. RU 124453.



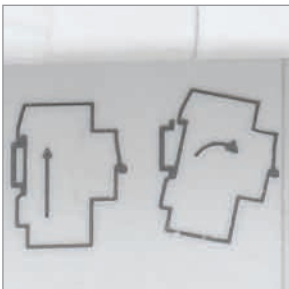
Simultaneous connection by FORK bar and flexible conductor is possible for power supply distribution via upper terminals, as well as connection by PIN bar.



Free release mechanism of new design that ensures fast break of the main contacts.



The range of AVDT34 breakers is extended to include currents 40, 50, 63 A and tripping settings 30, 100, 300 mA



The AVDT34 design ensures quick mounting/removal without need of tools and extra reliability of snapping on to the DIN-rail.



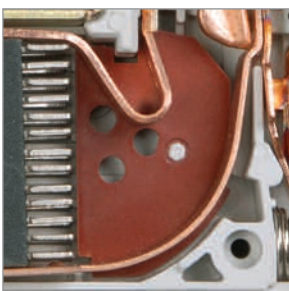
Ergonomic TEST button to check the device operability and correct connections.



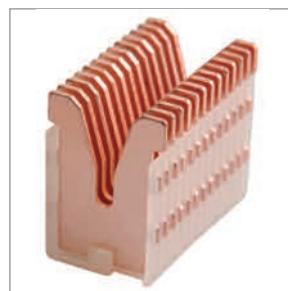
Soldered-on composite material with silver improves wear resistance of the contact assembly and decreases the transient resistance.



Notched terminal clamps reduce the heat loss and increase mechanical stability of the connection.



Arcing plate of the moving contact is made as smooth curved surface that considerably facilitates arc pulling into the arc suppression chamber.



Arc suppression chamber made of 13 steel plates for efficient arc suppression.



## Range



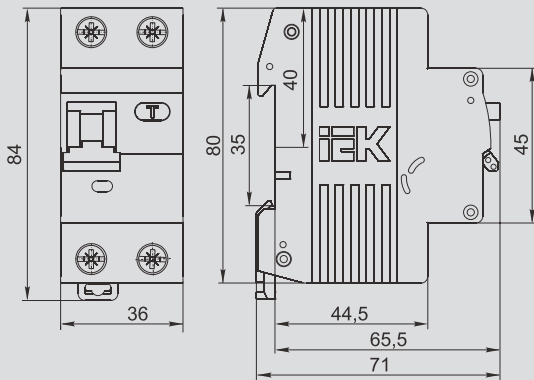
Name	Rated current $I_n$ , A	Rated breaking residual current, mA	Package amount, pcs multiple	Package amount, pcs transport	Product ID
AVDT34 C6 10 mA	6	10	3	30	MAD22-6-006-C-10
AVDT34 C10 10 mA	10		3	30	MAD22-6-010-C-10
AVDT34 C16 10 mA	16		3	30	MAD22-6-016-C-10
AVDT34 C10 30 mA	10	30	3	30	MAD22-6-010-C-30
AVDT34 C16 30 mA	16		3	30	MAD22-6-016-C-30
AVDT34 C25 30 mA	25		3	30	MAD22-6-025-C-30
AVDT34 C32 30 mA	32		3	30	MAD22-6-032-C-30
AVDT34 C16 100 mA	16	100	3	30	MAD22-6-016-C-100
AVDT34 C25 100 mA	25		3	30	MAD22-6-025-C-100
AVDT34 C32 100 mA	32		3	30	MAD22-6-032-C-100
AVDT34 C16 300 mA	16	300	3	30	MAD22-6-016-C-300
AVDT34 C25 300 mA	25		3	30	MAD22-6-025-C-300
AVDT34 C40 30 mA	40	30	3	30	MAD22-6-040-C-30
AVDT34 C50 30 mA	50		3	30	MAD22-6-050-C-30
AVDT34 C63 30 mA	63		3	30	MAD22-6-063-C-30
AVDT34 C40 100 mA	40	100	3	30	MAD22-6-040-C-100
AVDT34 C50 100 mA	50		3	30	MAD22-6-050-C-100
AVDT34 C63 100 mA	63		3	30	MAD22-6-063-C-100
AVDT34 C40 300 mA	40	300	3	30	MAD22-6-040-C-300
AVDT34 C50 300 mA	50		3	30	MAD22-6-050-C-300
AVDT34 C63 300 mA	63		3	30	MAD22-6-063-C-300

## Technical Features

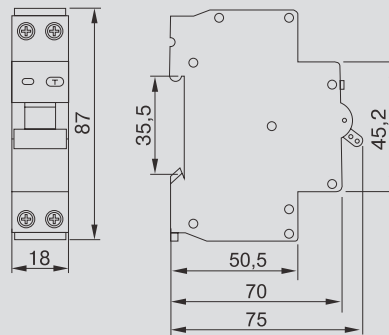
Feature	AVDT32	AVDT34	AVDT32M
NP / No. of poles	1P+N	3P+N	1P+N
Overcurrent protection	In phase pole	In each phase pole	In phase pole
Rated operating voltage $U_e$ , V	230	400	230
Operating voltage range U, V	50 ÷ 265	50 ÷ 460	—
Rated frequency, Hz	50	50	50
Rated current $I_n$ , A	6; 10; 16; 20; 25; 32; 40; 50; 63	6; 10; 16; 20; 25; 32; 40; 50; 63	6; 10; 16; 20; 25; 32
Rated breaking residual current $I_{\Delta n}$ (setting value), mA	10; 30; 100	10; 30; 100, 300	0,01; 0,03; 0,1
Rated non-breaking residual current $I_{\Delta n0}$ , A	0,5 $I_{\Delta n}$	0,5 $I_{\Delta n}$	0,5 $I_{\Delta n}$
Rated max. short-circuit switching capacity $I_{cn}$ , A	6000	6000	4500
Performance value in case of residual current with DC component, type	A	A	AC
Overcurrent cutoff characteristics, type	B, C	C	B, C
Mechanical durability, not less than, ops.	10 000	10 000	15000
Electrical durability, not less than, ops.	6000	6000	6000
Cables max. size, mm <sup>2</sup>	25	25	no more 6
Silver content, (Ag), g/pole	0,8	0,8	—
Weight, kg	0,25	0,4	no more 0,19
Protection degree	IP20	IP20	IP20

## Overall Dimensions

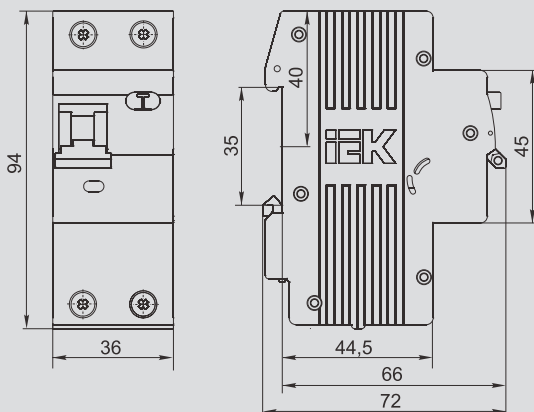
AVDT32



AVDT32M



AVDT32  $I_n=50, 63$  A



AVDT34

