Schneider Electric Acti9 iC60 RCBO Selection Guide (IEC 61009)

Schneider Electric · IEC 61009-1 : 2020 · Selection guide

What an RCBO does

An RCBO (Residual Current circuit Breaker with Overcurrent protection, IEC 61009-1) combines two functions in one modular device: overcurrent (thermal + magnetic, like an MCB) and residual current (earth-leakage, like an RCD). The Schneider Acti9 iC60 range implements the combination in a 18 mm modular width that drops into any DIN-rail board.

Decoding the Acti9 catalog reference

A9D + 4-char code + 4-char pole/current tail. Char 4 = curve + waveform class (1=C+AC, 3=C+A, 4=B, 5=D, 7=C+F). Char 5 = sensitivity + Icn (4=30mA/6kA, 7=30mA/10kA, 8=100mA/10kA, 9=300mA/10kA). Chars 6-7 = current In in A. Chars 8-9 = poles (15=1P+N, 16=2P, 35=3P+N, 36=4P). Worked example A9D17216: C-curve, type-F, 2-pole, 16 A, 30 mA, 10 kA.

Sensitivity selection

IdN	Function	Application
10 mA	Additional shock protection	Medical wet-zone, portable in bathrooms
30 mA	Personal protection	Domestic socket circuits (IEC 60364-4-41)
100 mA	Fire + equipment	Fixed loads, small industrial
300 mA	Fire only	Main incomer selectivity, VFDs
500 mA	Fire only	Selectivity above 300 mA sub-circuits

Waveform class

Type AC = sinusoidal only. Type A adds pulsating DC. Type F extends A with mixed-frequency (up to 1 kHz) and short-duration DC pulses; mandatory on single-phase VFD load side. Type B adds smooth DC; required on three-phase VFDs and EV charging (IEC 62955).

Cross-references

Schneider Acti9	ABB DS201	Hager	Siemens 5SU
A9D34216 (C 30mA A)	DS201 M C16 A30	ADC916D	5SU1354-6KK16
A9D34225 (C 30mA A)	DS201 M C25 A30	ADC925D	5SU1354-6KK25
A9D17216 (C 30mA F)	DS201 M C16 F30	ADF916D	5SU1354-7KK16

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