

Technical Data Ex9R

Overload thermal relays Ex9R12, Ex9R38, Ex9R100

General parameters

Thermal overload relays		
Ex9R12 for direct mounting onto Contactors Ex9CS		
Ex9R38B for direct mounting onto Contactors frame size 18, 38 (with spacer)		
Ex9R100 for direct mounting onto Contactors frame size 65, 100		
For stand-alone applications by means of adaptor AD5.		
Suitable mainly for motor protection against overload or phase lost		
With built-in auxiliary contacts 1 NO + 1 NC		
Accessories		
Adaptors for stand-alone use	AD51, AD56, AD53	101436, 110339, 101438

Electrical parameters

	Ex9R12	Ex9R38	Ex9R100
Tested according to	IEC/EN 60947-4-1		
Rated op. voltage U_o	690 V AC		
Rated insulating voltage U_i	690 V AC		
Rated impulse withstand voltage U_{imp}	6 kV	6 kV	6 kV
Rated frequency	50/60 Hz		
Tripping Class	10A	10A	10A
Current setting range (per frame size)	0.1 — 12 A	1 — 38 A	23 — 100 A
Tripping threshold	$1.14 \pm 0.06 \times I_n$		
Phase failure detection	30 % in a phase		
Maximum short circuit protection fuse	25 A gG/gL	80 A gG/gL	160 A gG/gL
Reset	Manual or Auto		
Min. op. voltage per AX contact U_{min}	17 V AC, 3 V DC		
Rated thermal current I_{th} of AX cont.	5 A 600 V AC, 1 A 300 V DC		
Rated op. current I_e , AC-15 of AX	1.64 A / 230 V, 0.95 A / 400 V		
Rated op. current I_e , DC-13 of AX	0.13 A / 220 V		
Min. operational current I_{min} of AX	5 mA AC, 5 mA DC		
Max. back-up fuse of AX	6 A gG/gL, 6 A MCB char. B		
Conditional short circuit current I_k with max. back-up fuse of AX	1 kA		

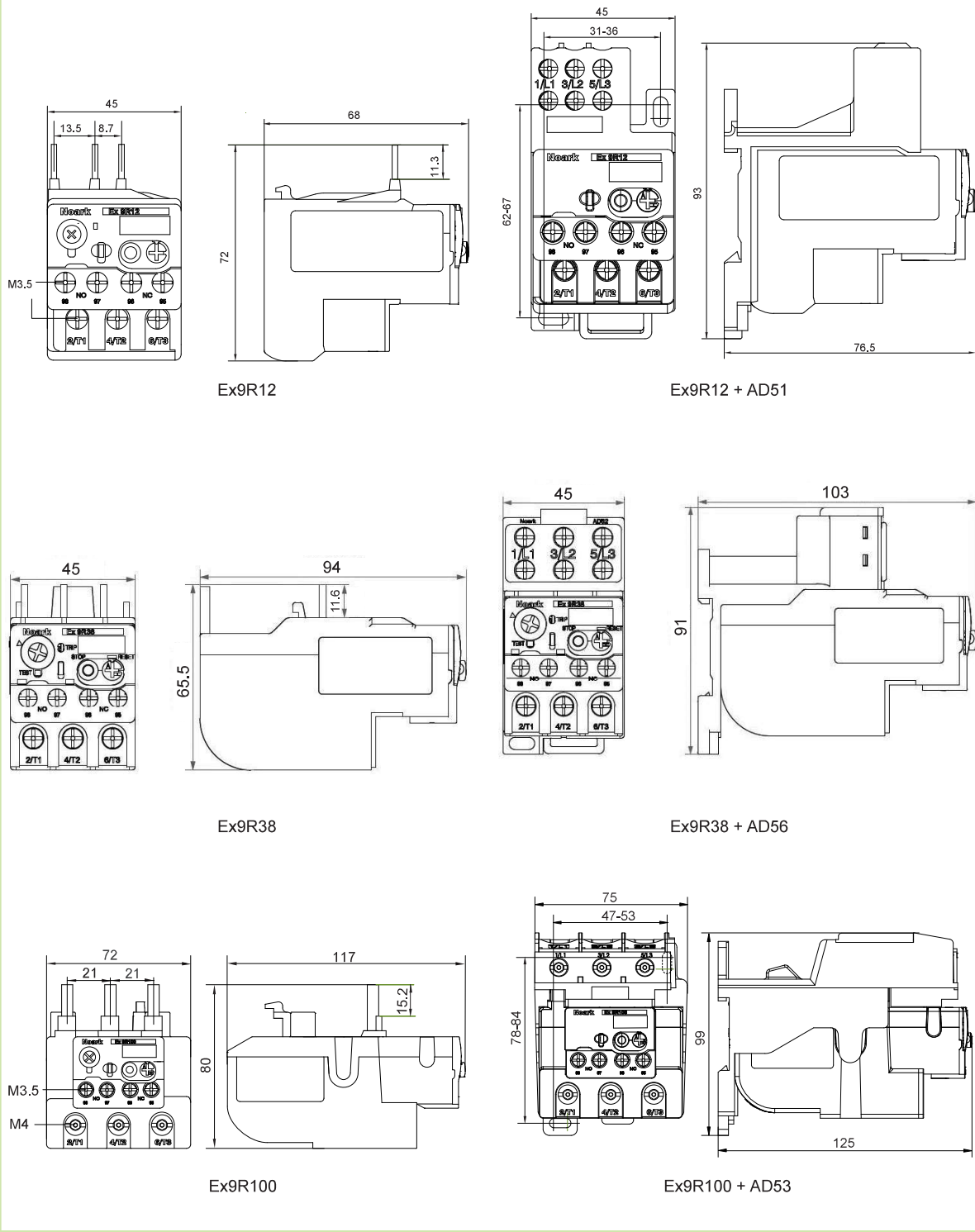
Mechanical parameters

	Ex9R12	Ex9R38	Ex9R100
Tripping indicator	yellow	yellow	yellow
Device width	45 mm	45 mm	72 mm
Device height	72 mm	65.5 mm	80 mm
Device depth	68 mm	94 mm	117 mm
Mounting onto	Ex9CS, AD51	Ex9C09 — 38, AD56	Ex9C40 — 100, AD53
Degree of protection	IP20		
Terminals	lift		
Terminal capacity	1 — 4 mm ²	1 — 10 mm ²	4 — 35 mm ²
Fastening torque of terminals	1.7 Nm	2.5 Nm	9 Nm
Weight	0.16 kg	0.14 kg	0.51 kg
Vibration resistance IEC 68-2-6	2 g, 5 — 300 Hz		
Shock resistance IEC 68-2-27	15 g, 11 ms		

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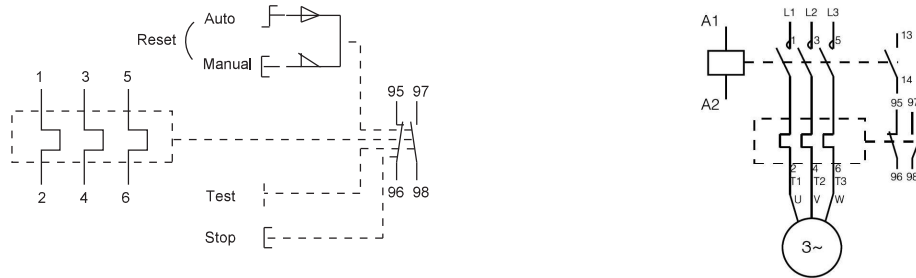
Dimensions



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Wiring diagrams



Tripping characteristics

