

Overload relay



ZB Overload Relay



ZEB Overload Relay



Motor protection is a central task of electrical equipment for machinery. From cost-effective bimetal solutions to demanding full motor protection with cross-linkage - we offer the right solution for each application.

Bimetal relay - overload relay up to 630 A

- Direct mounting on contactor saves mounting time.
- ATEX approval for the protection of EEx e motors up to 250 A.
- Comprehensive motor protection through phase failure sensitivity.
- Integrated test pushbutton facilitates high safety.

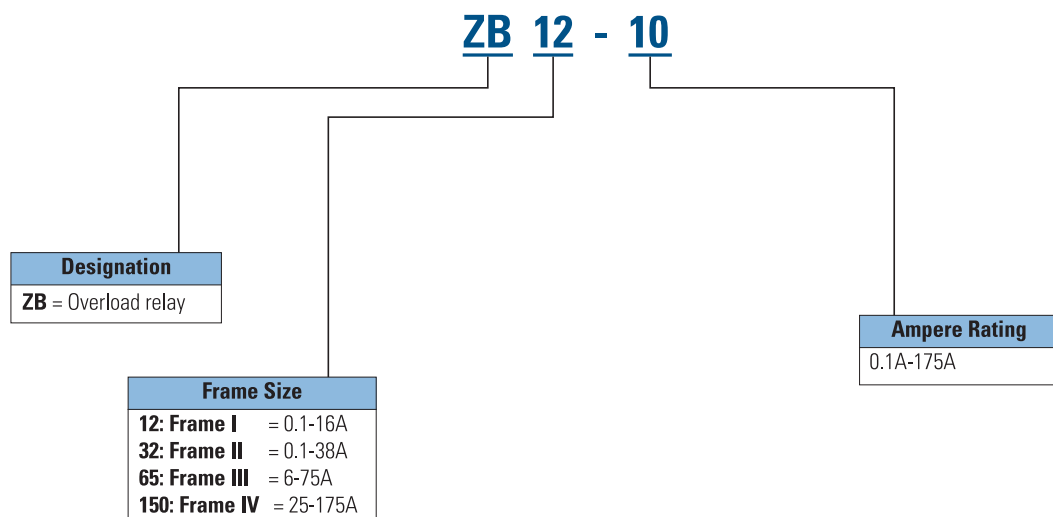
ZEB electronic overload relay - overload relay up to 1500 A

- ATEX approval for protection of EEx e motors up to 1500 A.
- Adjustable tripping classes.
- Phase failure and unbalance protection.
- Optional earth fault detection.
- Additional current setting range (5:1).

EMT6 thermistor overload relay for machine protection

- Overload protection through direct evaluation of winding temperature.
- Quick detection of operating state through LED display.
- Suitable for overload monitoring of motors in EEx e range.
- Wide range power supply reduces amount of types.

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Technical data

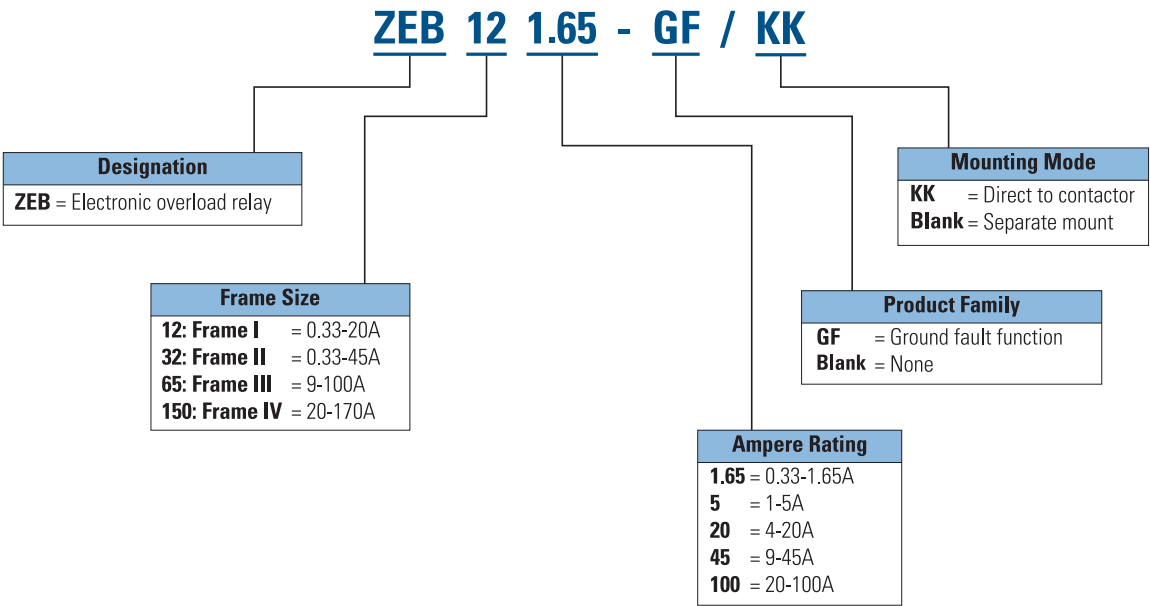
ZE, ZB

			ZB12, ZB32	ZB65	ZB150(KK)
General					
Standards			IEC/EN 60947, VDE 0660, UL, CSA		
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30		
Ambient temperature					
Open ¹⁾	°C		-25...55	-25...55	-25...55
Enclosed ¹⁾	°C		-25...40	-25...40	-25...40
Temperature compensation			Continuous		
Mounting position			See catalogue for more information		
Weight	kg		0.15	0.25	1.64
Mechanical shock resistance half-sinusoidal shock, 10 ms to IEC 60068-2-27	g		10	10	10
Protection type			IP20	IP00	IP00
Protection against direct contact when actuated from front (EN 50274)			Finger- and back-of-hand proof		
Main contacts					
Rated impulse withstand voltage	U _{imp}	V AC	6000	6000	8000
Overvoltage category/pollution degree			III/3	III/3	III/3
Rated insulation voltage					
AC	U _i	V AC	690	690	1000
Rated operating voltage	U _e	V AC	690	690	1000
Safe isolation according to EN 61140					
Between auxiliary contacts and main contacts		V AC	440	440	440
Between the main contacts		V AC	440	440	440
Overload relay setting range	A		0.1...38	6...75	25...175
Temperature compensation residual error > 40 °C	%/K		≤ 0.25	≤ 0.25	≤ 0.25
Short-circuit protection rating maximum fuse			See catalogue for more information		

Notes

- ¹⁾ Ambient temperature: Operating range to IEC/EN 60947, PTB: -5°C to +55°C
- ²⁾ Use identical cross-section when using two conductors
- ³⁾ 6 mm flexible with ferrules to DIN 46228
- ⁴⁾ With ZB65-XEZ max 1 x (1... 16)
- ⁵⁾ ZB32-38: solid and flexible with ferrule, 2.5 - 25 mm², 3 Nm tightening torque.
AWG10-b, 27 lb-in tightening torque for solid or stranded conductors.

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Technical data

ZEB			ZEB12, ZEB32	ZEB65-45	ZEB65-100	ZEB150
General						
Standards			IEC/EN 60947, VDE 0660, UL, CSA			
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30			
Ambient temperature						
Open	°C		–25...65	–25...65	–25...65	–25...65
Enclosed	°C		–25...65	–25...40	–25...40	–25...40
Temperature compensation			Continuous	Continuous	Continuous	Continuous
Mounting position			Any	Any	Any	Any
Mechanical shock resistance half-sinusoidal shock, 10 ms to IEC 60068-2-27			g	15	15	15
Protection type			IP20	IP20	IP20	IP20
Protection against direct contact when actuated from front (EN 50274)			Finger- and back-of-hand proof			
Main contacts						
Rated impulse withstand voltage	U _{imp}	V AC	6000	6000	6000	6000
Overvoltage category/pollution degree			III / 3	III / 3	III / 3	III / 3
Rated insulation voltage						
AC	U _i	V AC	690	690	690	690
Rated operating voltage	U _e	V AC	690	690	690	690
Safe isolation according to EN 61140						
Between auxiliary contacts and main contacts		V AC	600	600	600	600
Between the main contacts		V AC	600	600	600	600
Overload relay setting range			A	0.3...45	20...100	20...100