

Technical Data Ex9S32A

Motor protective circuit breakers Ex9S32A

General parameters

For protection of various motor applications		
Provide overload, short-circuit and phase-failure protection		
Can replace the circuit breaker and thermal relay to reduce costs and space		
Temperature compensation function to reduce the impact of ambient temperature		
Accessories		
Front-mounted auxiliary contacts	AX51 11, AX51 20	108143, 108144
Side-mounted auxiliary contacts	AX52 11, AX52 20, AX52 02	108145, 108146, 108147
Alarm contact	AL5111	108154
Undervoltage releases	UVT51I, UVT51J, UVT51K	108148, 108149, 108150
Shunt trip releases	SHT51F, SHT51G, SHT51H	108151, 108152, 108153
Max. number of installed accessories are 2 pcs of contact or signal units (2 pcs of AX52 or 1 pc of AX52 + 1 pc of AL5111) or 1 pc of front-mounted contact unit (AX51) and 1 pc of voltage release (SHT51, UVT51)		

Electrical parameters

Tested according to	IEC/EN 60947-4-1 IEC/EN 60947-2
Rated operating voltage U_e	400/690 V AC
Rated frequency f	50/60 Hz
Rated insulation voltage U_i	690 V
Rated impulse withstand voltage U_{imp}	6 kV
Rated current I_e	0.16 – 32 A
Fixed rated inst. short-circuit current I_i	see table below for exact values
Conventional free air thermal current I_{th}	$I_{th} = I_e$
Rated ultimate short-circuit breaking capacity I_{CU} (IEC/EN 60947-2)	
I_e 0.1 – 14 A at 400 V AC	100 kA
I_e 18 – 32 A at 400 V AC	50 kA
I_e 0.16 – 2.5 A at 690 V AC	100 kA
I_e 4 – 32 A at 690 V AC	6 kA
Rated service short-circuit breaking capacity I_{CS} (IEC/EN 60947-2)	
I_e 0.16 – 14 A at 400 V AC	100 kA
I_e 18 – 32 A at 400 V AC	30 kA
I_e 0.16 – 2.5 A at 690 V AC	100 kA
I_e 4 – 32 A at 690 V AC	4 kA
Required contactor type	
I_e 0.1 – 10 A	Ex9CS06/09 or Ex9C12 frame size
I_e 14 – 32 A	Ex9C18/25/32/38 frame size
Maximum operating frequency	30 operating cycles per hour
Electrical service life	100 000 operating cycles (at 400 V AC-3)

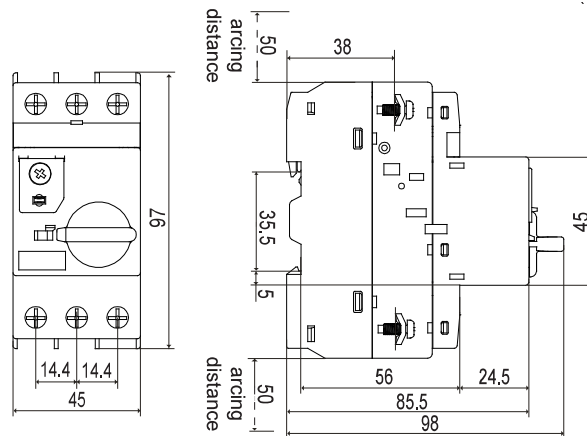
Technical Data Ex9S32A

Motor protective circuit breakers Ex9S32A

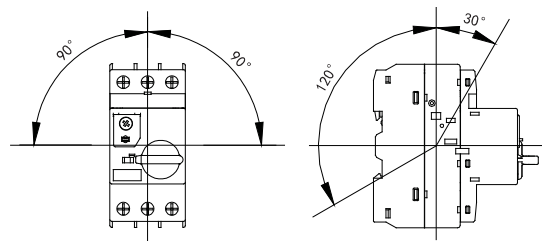
Mechanical parameters

Device width	45 mm
Device height	97 mm
Device depth	98 mm
Frame size	45 mm
Mounting	easy fastening onto 35 mm device rail (DIN)
Safety arcing distance	50 mm
Degree of protection	IP20
Mechanical service life	100 000 operating cycles
Terminals	lift
Terminal capacity	1 – 10 mm ²
Fastening torque of terminals	2,5 Nm
Ambient temperature	-5 – +40 °C
Altitude	≤ 2 000 m
Relative humidity	≤ 90 %
Resistance to climatic conditions	class 2, according to EN60068-2-3 and EN60068-2-30
Resistance to mechanical shock	30 gn (shock duration 11 ms)
Resistance to vibrations	5 gn (5 – 150 Hz)
Pollution degree	3
Installation class	III
Weight	0,33 kg

Dimensions



Mounting positions



Technical Data Ex9S32A

Motor protective circuit breakers Ex9S32A

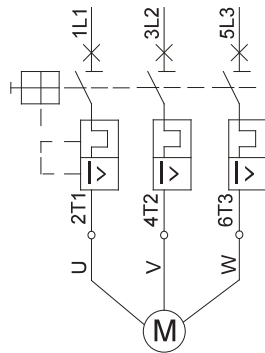
Rated instantaneous short-circuit current I_i

I_e [A]	0.16 A	0.25 A	0.4 A	0.63 A	1 A	1.6 A	2.5 A	4 A	6.3 A	10 A	14 A	18 A	23 A	25 A	32 A
I_i [A]	2.1	3.2	4.8	7.2	11	20	30	50	72.5	130	175	230	280	280	416

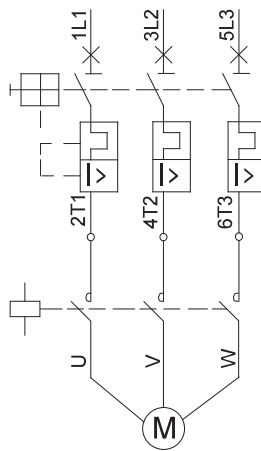
Rated power of three-phase motor

I_e [A]	AC-3, 50/60 Hz [kW]				
	230 V	400 V	440 V	500 V	690 V
0.16 A	-	-	-	0.06	0.06
0.25 A	-	0.06	0.06	0.09	0.12
0.4 A	0.06	0.09	0.09	0.12	0.18
0.63 A	0.09	0.18	0.18	0.18	0.25
1 A	0.18	0.25	0.25	0.37	0.55
1.6 A	0.25	0.55	0.55	0.75	1.1
2.5 A	0.37	0.75	0.75	1.1	1.5
4 A	0.75	1.5	1.5	2.2	3.0
6.3 A	1.5	2.2	2.2	3.0	4.0
10 A	2.2	4.0	4.0	5.5	7.5
14 A	3.0	5.5	5.5	7.5	11
18 A	4.0	7.5	7.5	11	15
23 A	5.5	11	11	15	18.5
25 A	5.5	11	11	15	22
32 A	7.5	15	15	18.5	30

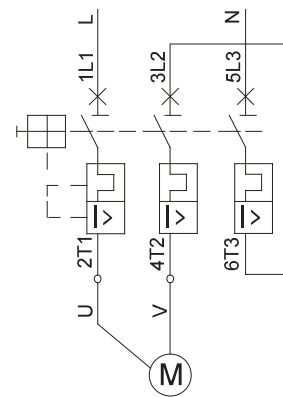
Connection diagrams



3-phase motor protection



3-phase motor protection with contactor



1-phase or DC motor protection

Technical Data Ex9S32A

Motor protective circuit breakers Ex9S32A

Tripping characteristics

