



Motor Starter Protectors (MSP)

Technical

SIRIUS 3RV101–3RV104

Technical Data											
Standards: IEC 947-1; IEC 947-2; IEC 947-4-1; DIN VDE 0660 Part 100; DIN VDE 0660 Part 101; DIN VDE Part 102				Type							
Size				3RV101	3RV102	3RV103	3RV104				
Number of poles				S00	S0	S2	S3				
Max. rated current I_n max (= max. rated operational current I_n)				A	12	25	50	100			
Permissible ambient temperature		storage/transport operation	°F/°C °F/°C	-58 to +176/-50 to +80 -4 to +158/-20 to +70 (over +60°C current reduction required)							
Ambient temperature permissible rated current				+140°F +158°F 100% 87%	+60°C +70°C 100% 87%						
Rated operational voltage U_e				V	690						
Rated frequency				Hz	50/60						
Rated insulation voltage U_i				V	690						
Rated impulse withstand voltage U_{imp}				kV	6						
Utilization category		IEC 947-2 (circuit breaker) IEC 947-4-1 (motor starter)		A AC-3							
Class		IEC 947-4-1		10		10/20					
Rated short-circuit breaking capacity I_{cn}				see table on page 314							
Power loss P_V per MSP depending on rated current I_n (upper setting range)				I_n(A)	P_V(W)	I_n(A)	P_V(W)	I_n(A)	P_V(W)	I_n(A)	P_V(W)
				up to 1.25	5	up to 0.63	5	up to 25	12	up to 63	20
				1.6 to 6.3	6	0.8 to 6.3	6	32	15	75 & 90	30
				8 to 12	7	8 to 16	7	40 to 50	20	100	38
						20 to 25	8				
Shock resistance		acc. to IEC 68 Teil 2-27		g				25			
Degree of protection				IP20		IP20		IP20 ^①		IP20 ^①	
Shock-hazard protection		acc. to DIN VDE 0106 Part 100		safe from finger touch							
Temperature compensation		acc. to IEC 957-4-1		°F/°C				-4 to +140/-20 to +60			
Phase failure sensitivity		acc. to IEC 60947-4-1		yes							
Explosion protection		acc. to EC Directive 94191EC		yes (KEMA test cert. no. Ex-97.4.3236.DMT)							
Isolator characteristics		acc. to IEC 947-3		yes							
Main and EMERGENCY-STOP switch characteristics^②		acc. to DIN VDE 0113		yes							
Safe Isolation between main and auxiliary circuit		acc. to DIN VDE 0106 Part 101		up to 400V							
Mechanical endurance		operating cycles		100,000		100,000		50,000		50,000	
Electrical endurance		operating cycles		100,000		100,000		25,000		25,000	
Max. switching frequency per hour (motor starts)		1/h		15		15		15		15	
Conductor cross-sections for main circuit											
Terminal type		Terminal screw		Screw type Pozidrive		Screw type Pozidrive		Box terminal Pozidrive		Allen screw 5/32" or 4 mm	
Minimum/maximum conductor cross-sections finely stranded with end sleeve											
1 conductor		mm ²		0.5/2.5		1/6		0.75/25		2.5/50 ^③	
2 conductors solid or stranded		mm ²		0.5/2.5		1/2.5 or 2.5/6		0.75/16		2.5/35 ^③	
1 conductor		mm ²		0.5/4		1/6 (max. 10)		0.75/35		2.5/70 ^③	
2 conductors solid or stranded		mm ²		0.75/2.5 (max. 4)		1/2.5 or 2.5/6		0.75/25		2.5/50 ^③	
stranded		AWG		2 × (18 to 14)		2 × (14 to 10)		2 × (18 to 2)		—	
		AWG		—		—		—		2 × (10 to 1/0)	
Terminal type				Cage Clamp							
		mm ²		2 × (0.5 to 2.5)		—		—		—	
		AWG		2 × (18 to 14)		—		—		—	
Permissible mounting position				any							

①Terminal housing IP00.

②With appropriate accessories.

③After removing the box terminals, connection with cable lugs and busbars is possible.

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IEC Control