

Power Contactors for Switching Motors

Accessories and Spare Parts for SIRIUS 3RT Contactors and SIRIUS 3RH2 Contactor Relays

Accessories

Overview

Auxiliary switches

The auxiliary switches can be designed as positively driven contacts in 3RH contactor relays or also as mirror contacts in the case of 3RT power contactors.

For more information on positively driven operation and mirror contacts, [see Manual → "More information", page 3/83, and in the selection and ordering data from page 3/88 onwards.](#)

Solid-state time-delay auxiliary switch blocks for mounting on 3RT2 contactors and 3RH2 contactor relays

[See pages 3/83 and 3/101](#)

The 3RA28 solid-state time-delay auxiliary switches which can be mounted onto the contactor are designed for applications in the range from 24 to 240 V AC/DC (wide voltage range). Both the electrical and mechanical connection are made by simple snapping on and locking.

The time-delay auxiliary switch is supplied with power directly by two plug-in contacts through the coil terminals of the contactor, in parallel with A./A2.

A protection circuit (varistor) is integrated in each module.

A sealable cover is available to protect against careless adjustment of the set times.

Note:

Mounting more auxiliary switches to the contactor is not permitted.

Surge suppressors

- Without LED (also for spring-type terminals)
Sizes S00 to S3, [see page 3/103](#)
- With LED (also for spring-type terminals)
Sizes S00 to S3, [see page 3/104](#)

All 3RT2 contactors and 3RH2 contactor relays can be retrofitted with RC elements or varistors for damping opening surges in the coil. Diodes or diode assemblies (comprising noise suppression diodes and Zener diodes for short break times) can be used.

The surge suppressors are plugged onto the front of size S00 contactors. Space is provided for them next to a snap-on auxiliary switch block.

Varistors, RC elements or diode assemblies can be plugged onto the front of size S0 to S3 contactors.

Coupling contactors are supplied either without overvoltage damping or with a suppressor diode, varistor or diode connected as standard, according to the version.

Note:

The OFF-delay times of the NO contacts and the ON-delay times of the NC contacts increase if the contactor coils are attenuated against voltage peaks (suppression diode 6x to 10x; diode assemblies 2x to 6x; varistor +2 to 5 ms).

Coupling links for control by PLC

[See pages 3/85 and 3/105](#)

- Operation with 24 V DC
- Operating range 17 to 30 V
- Low power consumption of 0.5 W
- An LED indicates the switching state.

The 3RH2924-1GP11 coupling link has an integrated surge suppressor (varistor) for the contactor coil being switched and is mounted onto the size S0 contactor coil via a coil connection module.

Power Contactors for Switching Motors

Accessories and Spare Parts for SIRIUS 3RT Contactors and SIRIUS 3RH2 Contactor Relays

Accessories

Coupling links for control by PLC

Type		3RH2924-1GP11		3RH2914-.GP11	
Mounting on contactors of size		S0		S00 to S3	
General data					
Standards		IEC 60947			
Rated insulation voltage U_i (pollution degree 3)	V	300			
Protective separation between coil and contacts Acc. to IEC 60947-1, Appendix N	V AC	Up to 300			
Degree of protection acc. to IEC 60529					
• Connections		IP20			
Permissible ambient temperature					
• During operation	°C	-25 ... +60			
• During storage	°C	-40 ... +80			
Control side					
Rated control supply voltage U_s	V DC	24			
Operating range	V DC	17 ... 30			
Power consumption at U_s	W	0.5			
Nominal current input	mA	20			
Release voltage	V	≥ 4			
Function display		Yellow LED			
Protection circuit		Varistors			
Load side					
Mechanical endurance	Operating cycles	20 million		10 million	
Electrical endurance at I_e	Operating cycles	0.1 million			
Switching frequency	1/h	5 000			
Make-time	ms	Approx. 7			
Break-time	ms	Approx. 4			
Bounce time	ms	Approx. 2			
Contact material		AgSnO ₂			
Switching voltage	V AC/DC	24 ... 250			
Rated operational current I_e					
• AC-15/AC-14 at 230 V	A	3			
• DC-13 at 230 V	A	0.1			
Permissible residual current of the electronics (with 0 signal)		mA	2.5		
Conductor cross-sections					
Connection type (1 or 2 conductors can be connected)		 Screw terminals			
• Solid	mm ²	2 x (0.5 ... 2.5)			
• Finely stranded with end sleeve (DIN 46228-1)	mm ²	2 x (0.5 ... 1.5)			
• Terminal screws		M3			
Connection type (1 or 2 conductors can be connected)		 Spring-type terminals			
• Solid	mm ²	--	2 x (0.25 ... 1.5)		
• Finely stranded with end sleeve (DIN 46228-1)	mm ²	--	2 x (0.25 ... 1.5)		
• Finely stranded without end sleeve	mm ²	--	2 x (0.25 ... 1.5)		
• AWG cables, solid or stranded	AWG	--	2 x (24 ... 16)		
• Operating devices	mm	--	3.0 x 0.5		

Selection and ordering data

For contactors	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Type		d					

Coupling links for control by PLC

Screw terminals



Size S0



3RH2924-1GP11

For mounting onto the coil terminals of the contactors (for contactors with screw terminals only)

With LED for the switching state and with integrated varistor for damping opening surges

3RT2.2

- 24 V DC control, 17 ... 30 V DC operating range



3RH2924-1GP11

1

1 unit

41B

Sizes S00 to S3



3RH2914-1GP11

For mounting on the front side of contactors with AC, DC or AC/DC operation

- 24 V DC control, 17 ... 30 V DC operating range

5

3RH2914-1GP11

1

1 unit

41B

3RT2.1,
3RT2.2,
3RT2.3,
3RT2.4
3RH2



3RH2914-2GP11

- 24 V DC control, 17 ... 30 V DC operating range

5

3RH2914-2GP11

1

1 unit

41B

3RT2.1,
3RT2.2,
3RT2.3,
3RT2.4
3RH2

Spring-type terminals



Technical specifications, [see page 3/85](#).