

GETRIEBEBAU NORD

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SK CU4-SSR

Part number: 275 271 124

Solid-State-Relays

NOTICE

Validity of this document

This document is only valid in combination with the operating instructions for the relevant electronic drive technology and under strict compliance with the safety and warning instructions which they contain. Safe commissioning of this module and the electronic drive technology depends on the availability of this information.

Scope of supply

1 x	Module	SK-CU4-SSR
1 x	Cable set for digital signals	black / white / blue
1 x	Connection cable (Jumper) for simultaneous switching	red
2 x	Connecting screws	M4 x 20, cross-head



Field of use

The Solid-State-Relay unit is foreseen for use in decentralized electronic drive technology. This module enables the switching of DC voltage and AC voltage. The unit is equipped with two Solid-State-Relays. The Solid-State-Relays are galvanically separated from the control. The switching is possible via digital signals for each relay individual or simultaneously (through using of a jumper).

Function description

Two Solid-State relays are integrated on the module which can be controlled via the digital outputs of the frequency inverter and used as normally open (NO) contacts according to their connection.

Each relay can be controlled individually or simultaneously through a jumper. The relay base and the associated normally open contact are capacitively coupled.

Application examples

Thus, it is possible to supply voltage to an external devices or component. You can switch the voltage supply for a mechanical brake or a stand still heater unit with the device SK CU4-SSR.

Technical data

Temperature range	-25°C ... 50 °C
Temperature class	Class 3K3

Vibration resistance	3M7
Protection class	IP20

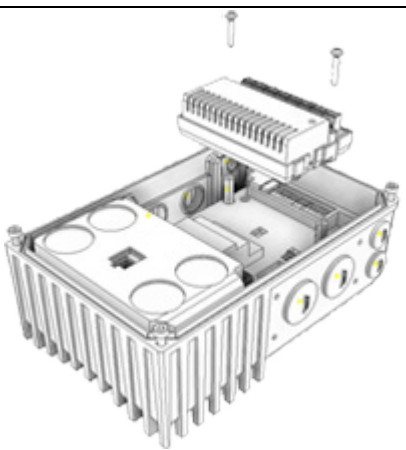
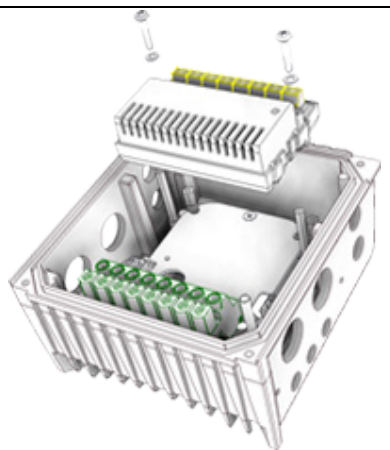
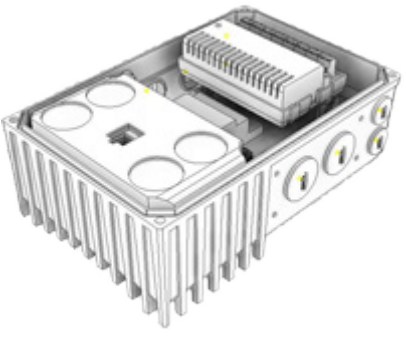
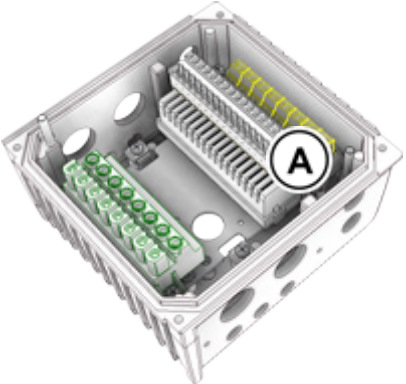
Installation

Installation location	In defined option slot inside the frequency inverter (SK 1xxE, 2xxE).
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Technical Information / Datasheet	SK CU4-SSR			
Setpoint converter	TI 275271124	V 1.0	1721	en

Fastening	with screw fastenings
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Installation steps

	SK 1xxE	SK 2xxE *)
1.		
2.		

*) Before carrying out installation step 1 it may be necessary to remove the control terminal bar (A),
The control terminal bar (A) must be fitted after installation step 2.

Connections

Terminals	Screw terminals	1 terminal bar with 16 connections, (5 mm spacing)
Cable cross section	0.14...2.5 mm	AWG 14-26
PE connection	Via device	Via screws for installation in the device

Control terminal details

Labelling, function

DIN:	Digital input	GND:	Reference potential for digital signals
R:	Relay		

Connections, Functions

Labelling	Function
R21	Relay 2 basis
R24	Relay 2, NO
R11	Relay 1 basis
R14	Relay 1, NO
40	GND/0V
C2	DIN2
C1	DIN1

Digital/relay potential level



Meaning, Functions		Description / Technical data	
Terminal No.	Designation	Meaning	Parameter No. Function of factory setting
Digital inputs		Relay input for connection of a digital output signal from the electronic drive technology. Low: 0 - 5 V (2.8 kΩ) High: 18 - 30 V (1.6 kΩ)	24 V DC ± 25 % Maximal 15 mA Response time max 7 ms
C1	DIN1	Digital input 1	Assignment of the functions of the digital output signals is made via parameter P434[...] of the frequency inverter.
C2	DIN2	Digital input 2	
40	GND/0V	Reference potential GND	
Relay outputs		Relay output executed as normally open, control via the signals applied to the digital input. Load: max. 850 mA (with fuse), Voltage: 277 V AC / 24 V DC (± 25%) Response time: maximum 7 ms	
R14	R1 NO	Relay 1.1 – normally open	Signal source: DIN1 Connecting relay as <i>Normally open: R11 / R14</i>
R11	R1 basis	Relay 1.3 – basis	
R24	R2 NO	Relay 2.1 – normally open	Signal source: DIN2 Connecting relay as <i>Normally open: R21 / R24</i>
R21	R2 basis	Relay 2.3 – basis	

Connection example

C1	Black	DIN1	Digital signal 1 (input): Connection to a digital output on the electronic drive technology (Delivery state: Jumper between DIN1 and DIN2)
C2	White	DIN2	Digital signal 2 (input): Connection to a digital output on the electronic drive technology (Delivery state: Jumper between DIN1 and DIN2)
40	Blue	GND	Connection to ground / 0 V on the electronic drive technology
R14	-----	R1 NO	Relay (R11 / R14 = NO) Relay signal corresponding to digital signal 1
R11	-----	R1 basis	
R24	-----	R2 NO	Relay2 (R21 / R24 = NO) Relay signal corresponding to digital signal 2
R21	-----	R2 basis	

Further documentation (www.nord.com)

Document	Name
<input type="checkbox"/> BU 0135	Motor starter manual SK 135E, SK 175E
<input type="checkbox"/> BU 0180	Frequency inverter manual SK 180E, SK 190E

Document	Name
<input type="checkbox"/> BU 0200	Frequency inverter manual SK 2xxE