

GETRIEBEBAU NORD

Member of the NORD DRIVESYSTEMS Group



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SK CU4-PD1

Part number: 275 271 025

Power Discharger for NORDAC FLEX

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 delivery

1 x	Module	SK CU4-PD1
2 x	Fastening screws	M4 x 20, Phillips head
3 x	Connecting cables	2.5 mm ²
1 x	Insulating film	



Field of use

Module intended for installation into a decentralised electronic drive technology device. The integrated discharge device lets you dissipate residual electrical voltages or residual charges at the power input of the frequency inverter. This is particularly vital for pluggable power connections of frequency inverters where the power plug contacts are uninsulated and unprotected against touching after the plug was pulled out.

Technical Information / Datasheet	SK CU4-PD1			
Power-discharger	TI 275272025	V 1.1	1823	en

Description of connection

To connect the pluggable power input, the module features appropriate power terminals. Connection to mains is possible in two different ways:

- Series connection (ex-factory standard for configured devices)
- Parallel connection

Application examples

The module is primarily intended for connection to 3-phase mains. It can also be used for connection to 1-phase mains. In this case, the terminals for phase L3 remain empty.

Information

Decentralised 1-phase devices with 115 V mains voltage cannot be used with the module!

Information

Decentralised Size 4 devices cannot be used with the module.

Technical Data

Temperature range	-25°C ... 50 °C
Temperature class	Class 3K3
Vibration resistance	3M7

Protection class	IP20
Dimensions [mm] ¹⁾	HxWxT: 27 x 99 x 65

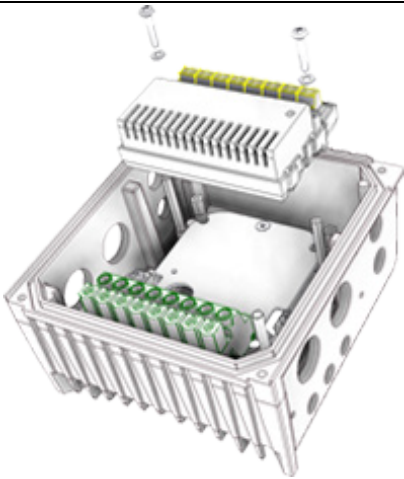
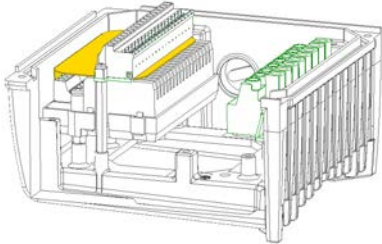
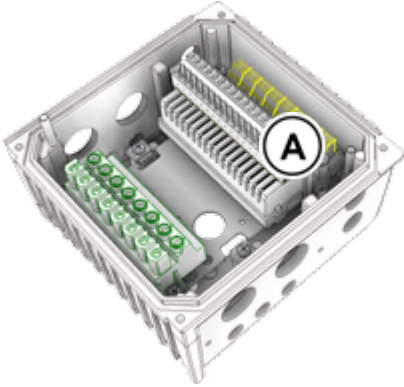
1) Module mounted on connection unit

Designation	Data
Load resistors (Y circuit)	3 x 470 kΩ (R _{nom.})
Max. voltage (phase – phase)	550 V AC / DC
Power consumption (3-ph 400 V @ R = R _{nom.})	0.34 W
Max. power consumption (3-ph 550 V @ R = R _{nom.} – 5 %)	0.68 W
Max. current	20 A

Installation

Installation location	On specified option slot inside the device
Mounting	With screw fasteners

Installation steps

		NORDAC FLEX¹⁾	
1.			
2.	The insulating film (marked yellow in the adjacent illustration) is to be fixed between the control terminal block and the epoxy spacer plate.		
3.			

1) You may have to remove the control terminal strip (A) before performing installation step 1. Install the control terminal strip (A) after having performed installation step 2.

Connections

Terminals	Screw terminals	1 terminal strip with 8 terminals, (5 mm spacing)
Cable cross-section	0.25 - 2.5 mm ²	AWG 24-14
Tightening torque	1.1 – 1.5 Nm	

Information

The cross section of the connection cable should comply with the specifications for decentralised devices. A parallel connection of the module is necessary in case of cross sections > 2.5 mm²! Twin ferrules should preferably be used for connection at the power terminals of the device if the module is connected in parallel.

Power terminal details

Connections, functions

Labelling	Function
L1	1st phase
L1	1st phase
-	none
L2	2nd phase
L2	2nd phase
-	none
L3	3. Phase
L3	3. Phase

Mains ~



NOTE: The terminals of each phase are bridged inside the module!

Information

The N (neutral) lead of mains or device is connected to terminal L2 of 1~ 230 V devices.

Frequency inverter type: 1~ 200 - 240 V ± 10%

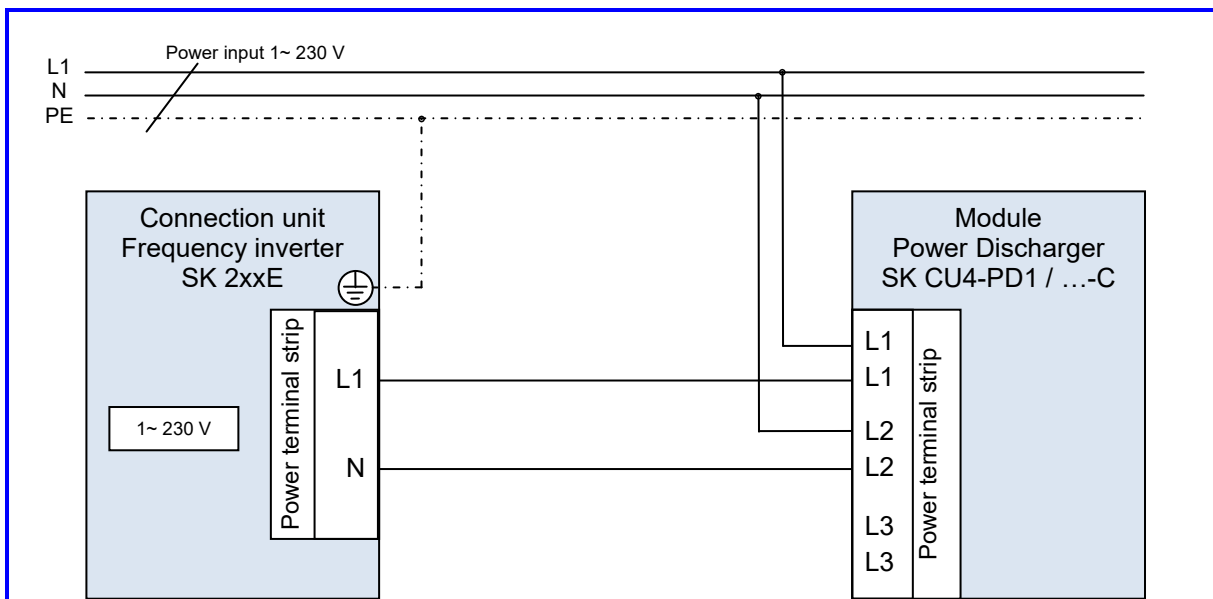
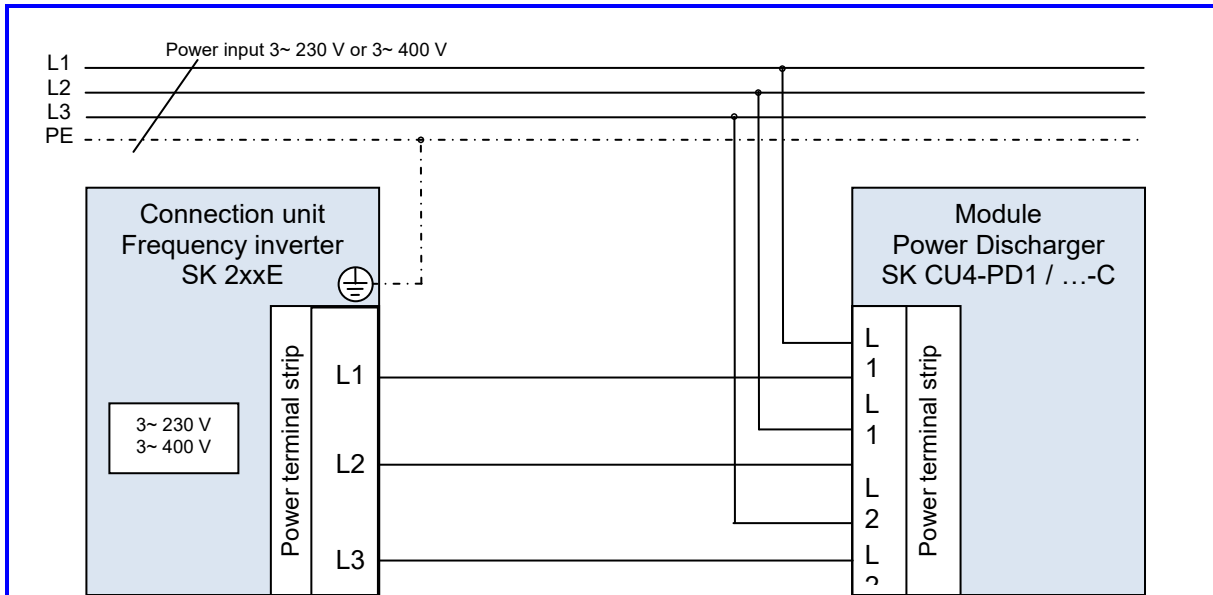
Mains connection		Mains plug connections
Phase	Terminal	Lead for
L1	L1	Mains connection 1st phase
N	L2/N	Mains connection Neutral

Frequency inverter type: 3~ 380 - 500 V -20 %/ +10%

Mains connection		Mains plug connections
Phase	Terminal	Lead for
L1	L1	Mains connection 1st phase
L2	L2	Mains connection 2nd phase
L3	L3	Mains connection 3rd phase

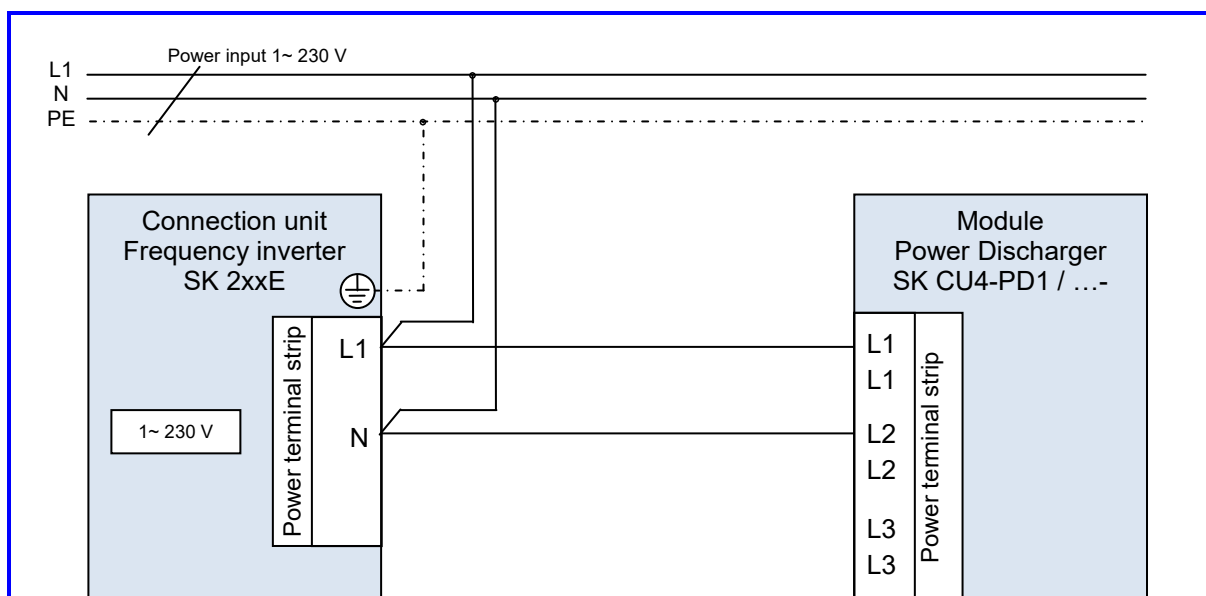
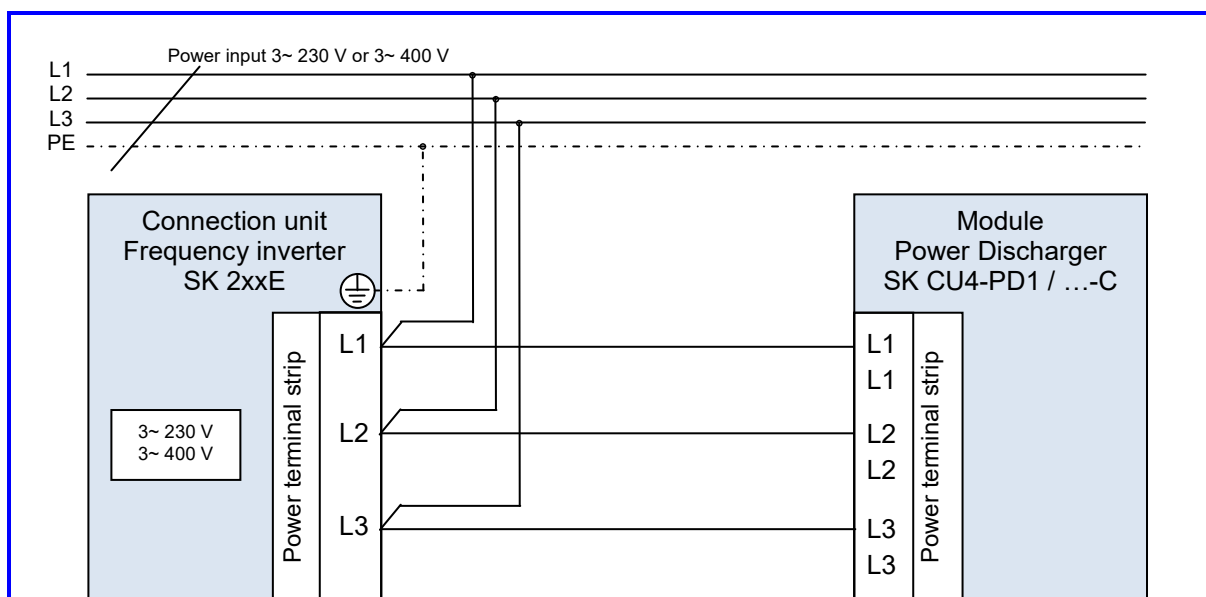
Connection example for NORDAC FLEX

In series to mains connection



Power-discharger – SK CU4-PD1

Parallel to mains connection



Further documentation www.nord.com

Document	Designation	Product series
BU 0200	Frequency inverter manual	NORDAC FLEX SK 200E
TI 80_0037	Technical information – mobile mains connection	NORDAC devices