

GETRIEBEBAU NORD

Member of the NORD DRIVESYSTEMS Group



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SK CU4-PD2

Part number: 275 271 026

Power Discharger for NORDAC BASE

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-PD2
2 x	Fastening screws	M4 x 20, Phillips head
3 x	Connecting cables	2.5 mm ²



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.

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.

Technical Information / Datasheet	SK CU4-PD2			
Power-discharger	TI 275272026	V 1.0	2921	en

i Information

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

i Information

NORDAC BASE, Size 1

Decentralised 3~ 400 V devices of Size 1 are special devices. They bear the additional code **-PD2** at the end of the type designation (SK 180E-750-340-B-C-**PD2**).

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

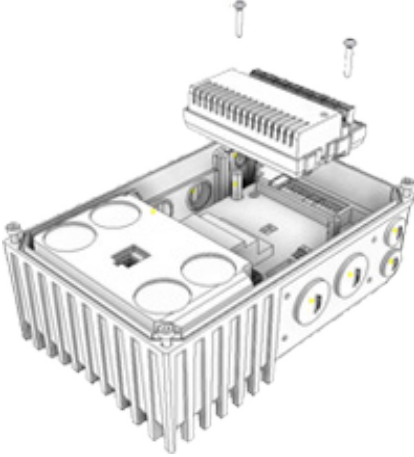
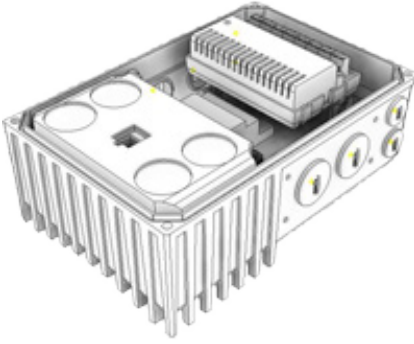
1) Module mounted on connection unit

Designation	Data
Load resistors (Y circuit)	3 x 160 kΩ (R _{nom.})
Max. voltage (phase – phase)	550 V AC / DC
Power consumption (3-ph 400 V @ R = R _{nom.})	1.0 W
Max. power consumption (3-ph 550 V @ R = R _{nom.} – 5 %)	2.0 W
Max. current	20 A

Installation

Installation location	On specified option slot inside the device (SK 1xxE)
Mounting	With screw fasteners

Installation steps

1.	SK 1xxE 
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	3rd phase
L3	3rd phase

Mains -



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

i 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%

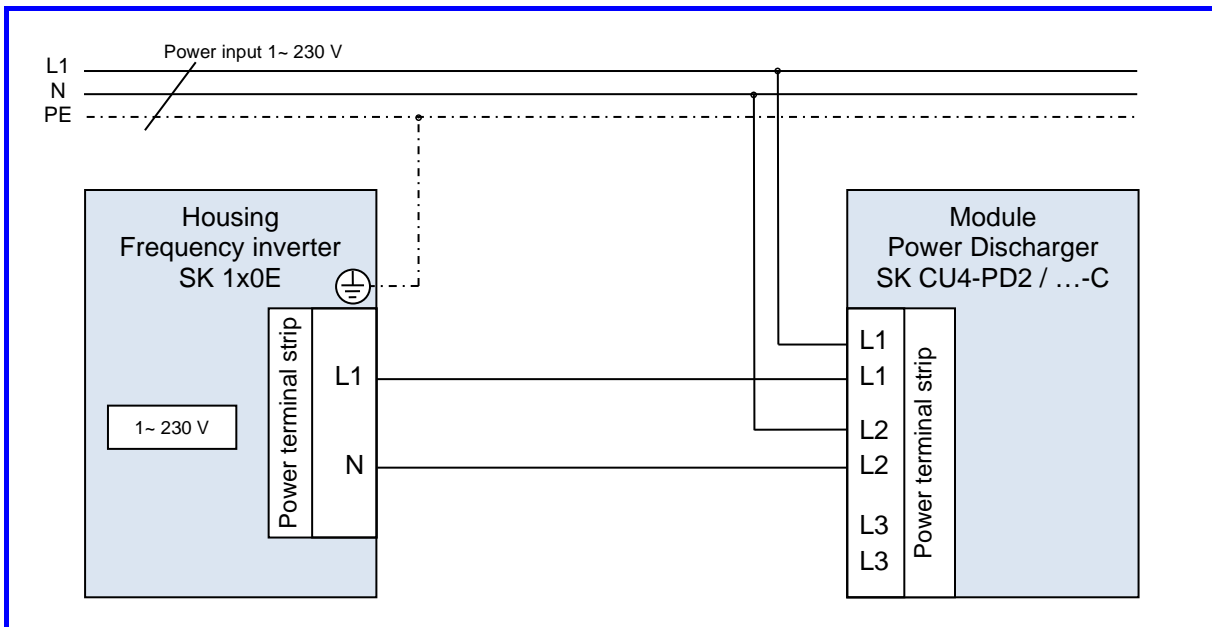
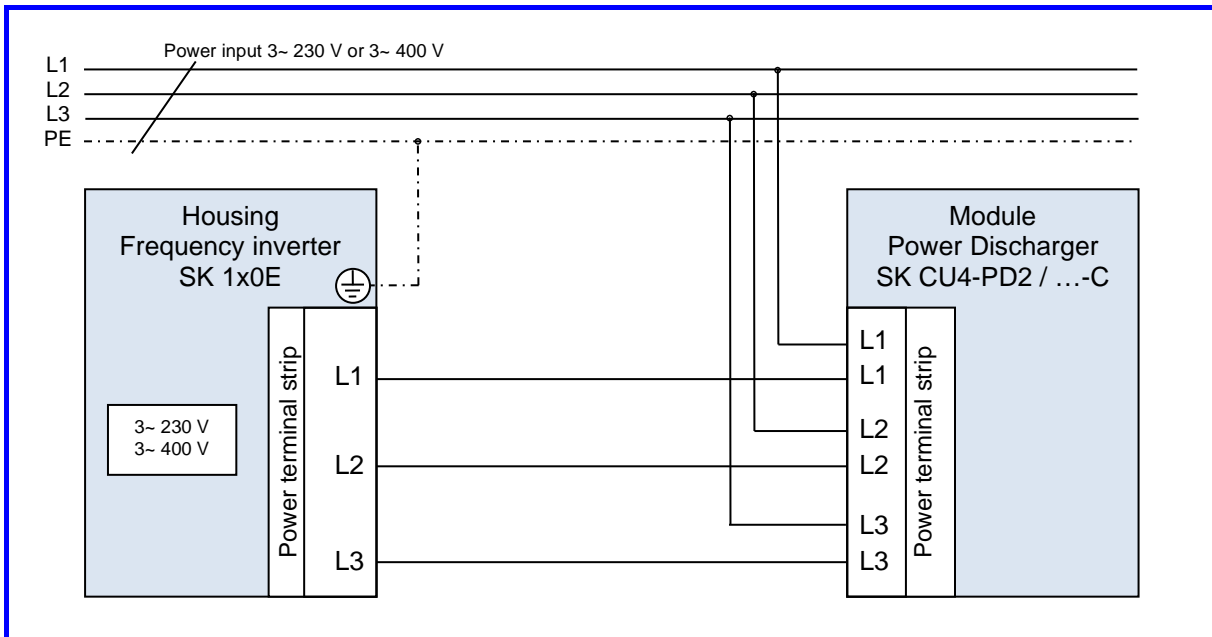
Mains connection		Mains plug connections
Phase	Terminal	Lead for
L1	L1	Mains connection 1st phase
N	L2/N	Mains connection Neutral

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

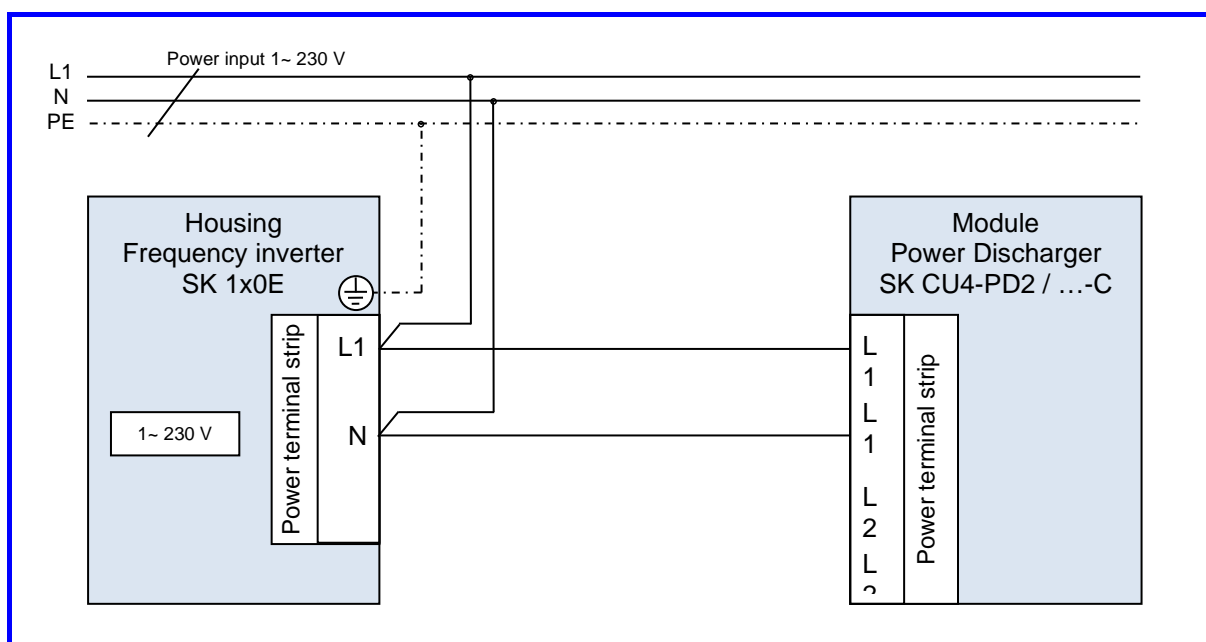
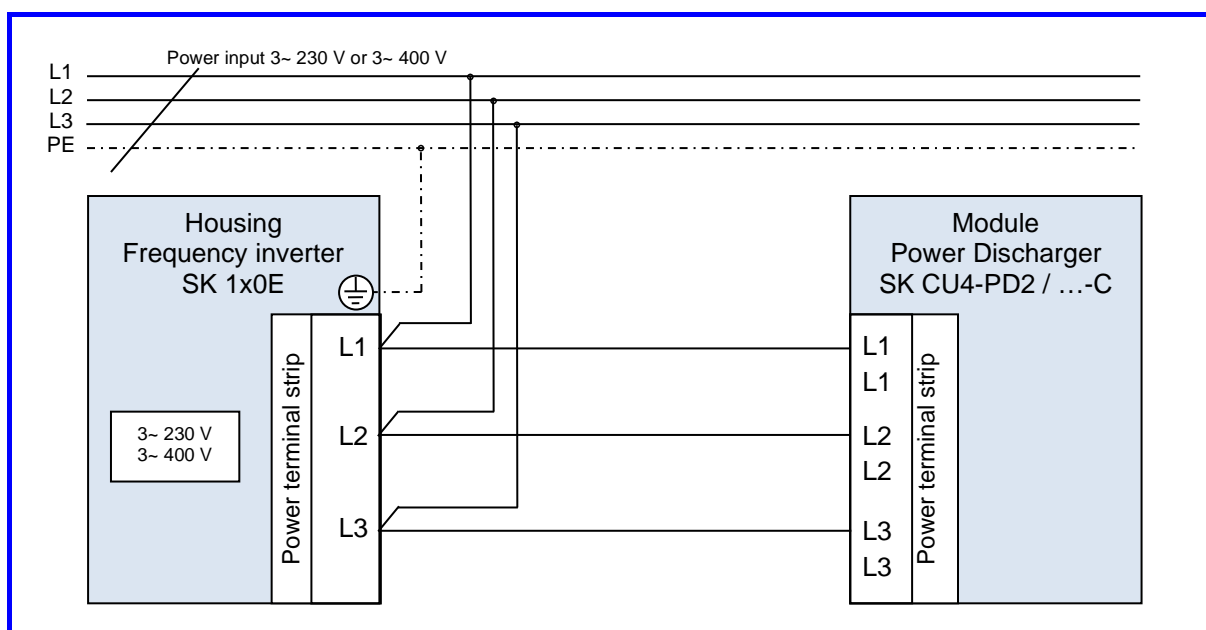
Connection example for SK 1x0E

In series to mains connection



Power-discharger – SK CU4-PD2

Parallel to mains connection



Further documentation www.nord.com

Document	Designation	Product series
BU 0180	Frequency inverter manual	NORDAC BASE SK 180E / SK 190E
F3018 E3000	Product flyers	NORDAC BASE SK 180E / SK 190E
TI 80_0037	Technical information – mobile mains connection	NORDAC devices