

NAME, ARTICLE NUMBER AND E-NUMBER

Name	Item number	E-number (sv)
8 Output module PTC	A-FU122408OP02	52 137 22

Product image



IF

Fuse cards, with sum-alarm, are used to protect electronic circuits from damage due to overcurrent or short circuit.



IMPORTANT

Since the fuses are fixed and cannot be changed, the maximum load per output must not exceed 2.7 A. The maximum load for the entire board is 10 A.

What is a PTC fuse?

A PTC fuse, where "PTC" stands for "Positive Temperature Coefficient," is a type of thermal fuse or overcurrent protection device. These fuses are used to protect electrical circuits from overcurrent and short circuits.

The fuse works by changing its resistance characteristic when it gets too hot due to high current. When the current becomes too large, the temperature in the fuse increases, causing it to become less conductive and restrict the flow of current. When the temperature in the fuse goes down, the fuse returns to its normal state and allows current to pass as usual.

MOUNTING IN BATTERY BACKUP

The card is delivered mounted in its plastic casing, for easy installation.

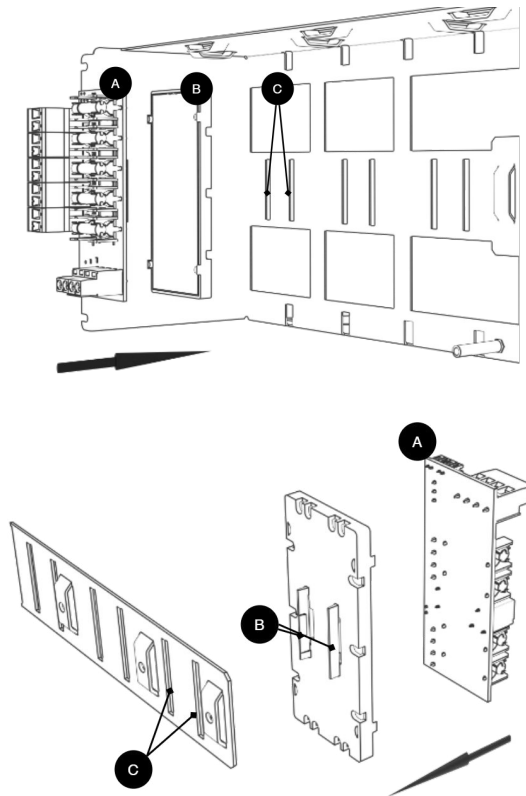
If the card has come loose, snap it back into the plastic casing.

Mount the card on any card slot in the enclosure, leave space for cables.



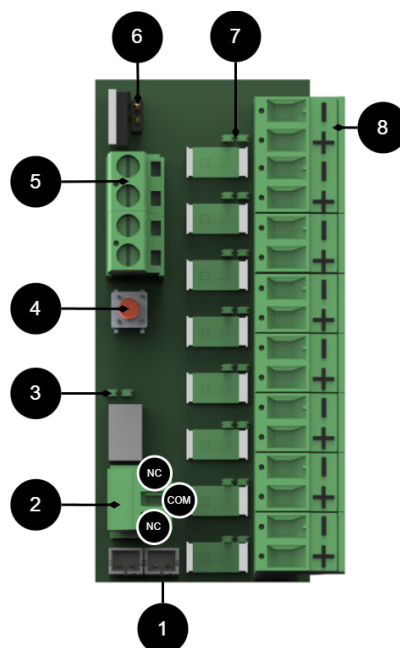
IMPORTANT

Install the board before screwing on wiring or commissioning.



Letter	Explanation	Comment
A	Optional card	Optional card comes mounted on plastic housing from factory. Has it come loose? Snap it back on before mounting the card.
B	Plastic casing	The plastic casing has hooks for attaching slots in the plate.
C	Place for plastic casing	Slits in sheet metal to snap the plastic bracket.

SHORT DESCRIPTION

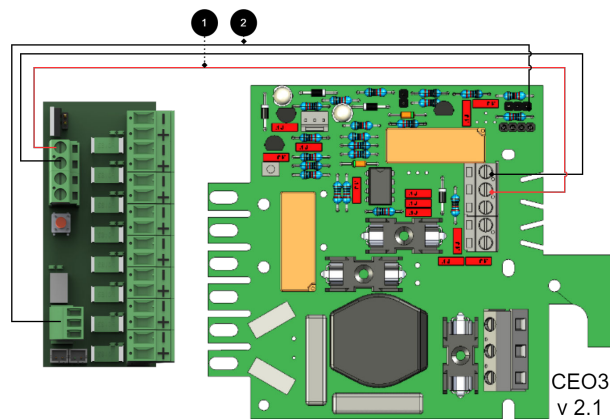


No	On circuit board	Explanation
1	J14, J15	Connection to alarm on motherboard. Bridging connection for alarms from another card.
2	P3:1-3	Alarm output, NC/COM/NO.
3	D19, D16	Indicator diode. Green = ok. RED ^a = alarm.
4	S1	Acknowledgment button for alarms.
5	P1	Incoming voltage from motherboard.
6	JU1	Jumper for switching the card to 12 V. Jumpered = 12 V, Not jumpered = 24 V, factory setting.
7	D1-D8	Indicator diode lights up green when there is voltage at the output.
8	P2:1-8	Load output +/-

^aLights up red until the alarm is acknowledged.

CONNECT 8 OUTPUT MODULE PTC TO MOTHERBOARD: CEO3 V 2.1

Connect the card as shown in the picture



+ and - from load on motherboard are connected to + and - on the option board.

Communication is connected between terminals as the solid line shows.

Connecting the power supply

Connect power (24 V) from the battery backup's load output to the card's 24 V input.

Connection of load

Connect load wiring to P2:1-8 on 8 Output module PTC.



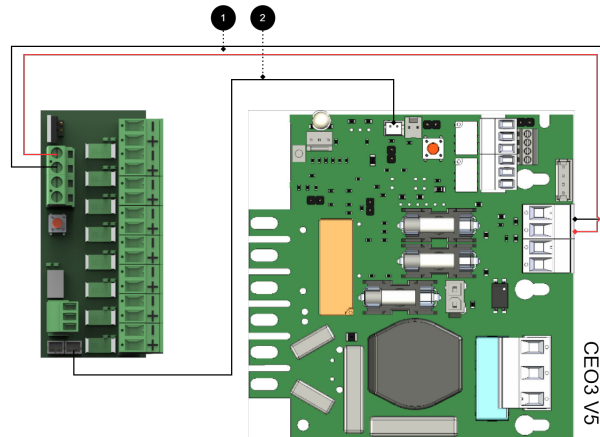
WARNING

Maximum load is 1.85 A per load output and the card's total load must not exceed 10 A.

No	Connections	8 Output module PTC	Motherboard
1	Power supply connection	P1:1-4	Optional load output.
2	Alarm output: connected between NO and COM	P3:1-3	JU3 Connects between the middle pin and an outer pin.
-	Bridging alarms to the card is not possible as the card has no alarm input.	-	-

CONNECT 8 OUTPUT MODULE PTC TO MOTHERBOARD: CEO 3 V5

Connect the card as shown in the picture



+ and - from load on motherboard are connected to + and - on the option board.

Communication is connected between terminals as the solid line shows.

Connecting the power supply

Connect power (24 V) from the battery backup's load output to the card's 24 V input.

Connection of load

Connect load wiring to P2:1-8 on fuse module for priority load.



WARNING

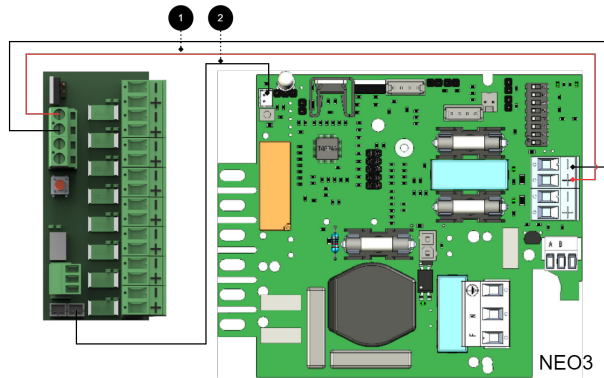
Maximum load is 1.85 A per load output and the card's total load must not exceed 10 A.

Connections from battery backup to fuse board

No	Connections	8 Outoput module PTC	Motherboard
1	Power supply connection:	P1:1-4	Optional load output
2	Bridging alarm to motherboard:	J14	J27
	Bridging of alarms to additional option cards	J15	

CONNECT 8 OUTPUT MODULE PTC TO MOTHERBOARD: NEO3

Connect the card as shown in the picture



+ and - from load on motherboard are connected to + and - on the option board.

Communication is connected between terminals as the solid line shows.

Connecting the power supply

Connect power (24 V) from the battery backup's load output to the card's 24 V input.

Connection of load

Connect load wiring to P2:1-8 on 8 Output module PTC.



WARNING

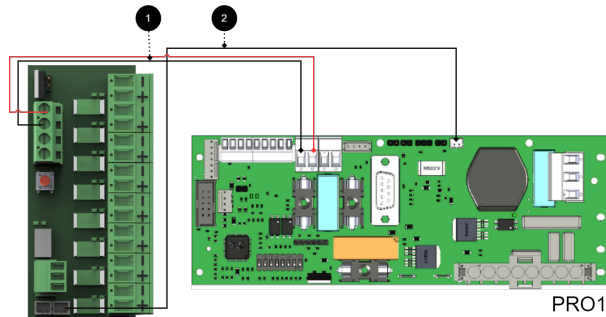
Maximum load is 1.85 A per load output and the card's total load must not exceed 10 A.

Connections from battery backup to fuse board

No	Connections	8 Output module PTC	Motherboard
1	Power supply connection:	P1:1-4	Optional load output.
2	Bridging alarm to motherboard:	J14	J5
	Bridging of alarms to/from additional option cards	J15	

CONNECT 8 OUTPUT MODULE PTC TO MOTHERBOARD: PRO1, 5 A - 10 A

Connect the card as shown in the picture



+ and - from load on motherboard are connected to + and - on the option board.

Communication is connected between terminals as the solid line shows.

Connecting the power supply

Connect power (24 V) from the battery backup's load output to the card's 24 V input.

Connection of load

Connect load wiring to P2:1-8 on 8 Output module PTC.



WARNING

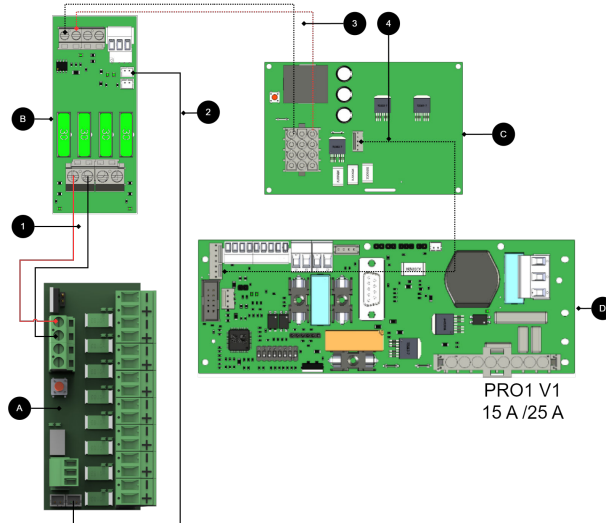
Maximum load is 1.85 A per load output and the card's total load must not exceed 10 A.

Connections from battery backup to fuse board

No	Connections	8 Output control module	Motherboard
1	Power supply connection:	P1:1-4	Optional load output
2	Bridging alarm to motherboard:	J14	J13
	Bridging alarms to/from additional option cards:	J15	-

CONNECT 8 OUTPUT MODULE PTC TO MOTHERBOARD: PRO1, 15 A - 25 A

Connect the card as shown in the picture



+ and - from load on motherboard are connected to + and - on the option board.

Communication is connected between terminals as the solid line shows.

Connecting the power supply

Connect power (24 V) from the battery backup's load output to the card's 24 V input.

Connection of load

Connect load wiring to P2:1-8 on 8 Output module PTC.



WARNING

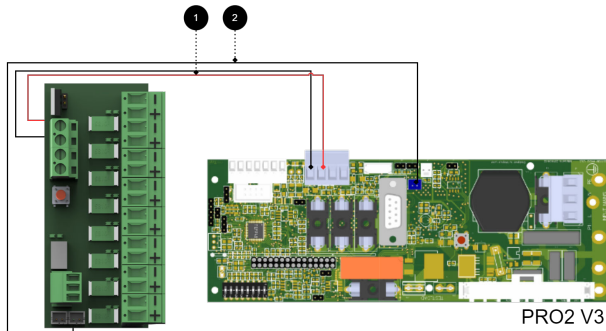
Maximum load is 1.85 A per load output and the card's total load must not exceed 10 A.

Connections 15 A and 25 A units

No/letter	On circuit board (A)	Explanation
A	8 Output modules	Optional card.
B	2 Output module	Card for connection of load and power supply to 8 Outoput module PTC.
C	Effect card	Available in 15 A and 25 A units.
D	PRO1	Motherboard in battery backup.
1	P1:1-4	Connect power supply 8 Outoput module PTC from (B).
2	J14	Alarms are connected to load cards.
3, 4, 5	-	Internal power supply and communication between cards.

CONNECT 8 OUTPUT MODULE PTC TO MOTHERBOARD: PRO2 V3, 5 A - 10 A

Connect the card as shown in the picture.



+ and - from load on motherboard are connected to + and - on the option board.

Communication is connected between terminals as the solid line shows.

Connecting the power supply

Connect power (24 V) from the battery backup's load output to the card's 24 V input.

Connection of load

Connect load wiring to P2:1-8 on 8 Output module PTC.



WARNING

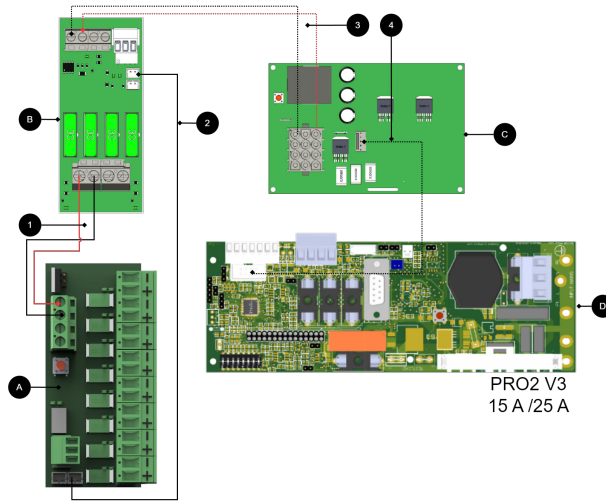
Maximum load is 1.85 A per load output and the card's total load must not exceed 10 A.

Connections from battery backup to fuse board

No	Connections	8 Outoput module PTC	Motherboard
1	Power supply connection:	P1:1-4	Optional load output.
2	Bridging alarm to motherboard:	J14	J1
	Bridging alarms to additional option cards:	J15	

CONNECT 8 OUTPUT MODULE PTC TO MOTHERBOARD: PRO2 V3 15 A - 25 A

Connect the card as shown in the picture



+ and - from load on motherboard are connected to + and - on the option board.

Communication is connected between terminals as the solid line shows.

Connecting the power supply

Connect power (24 V) from the battery backup's load output to the card's 24 V input.

Connection of load

Connect load wiring to P2:1-8 on 8 Output module PTC.



WARNING

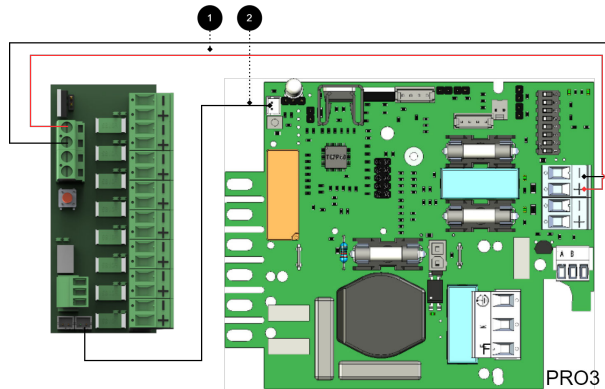
Maximum load is 1.85 A per load output and the card's total load must not exceed 10 A.

Connections 15 A and 25 A units

No/letter	On circuit board (A)	Explanation
A	8 Output module PTC	Optional location.
B	2 Output module	Card for connection of load and power supply to 8 Output module PTC.
C	Effect card	Available in 15 A and 25 A units.
D	PRO2 v3	Motherboard in battery backup.
1	P1:1-4	Disconnect power supply 8 Output module PTC (B).
2	J14	Connect alarm to load card.
3, 4	-	Internal power supply and communication between cards.

CONNECT 8 OUTPUT MODULE PTC TO MOTHERBOARD: PRO3 5 A - 10 A

Connect the card as shown in the picture.



+ and - from load on motherboard are connected to + and - on the option board.

Communication is connected between terminals as the solid line shows.

Connecting the power supply

Connect power (24 V) from the battery backup's load output to the card's 24 V input.

Connection of load

Connect load wiring to P2:1-8 on 8 Output module PTC.



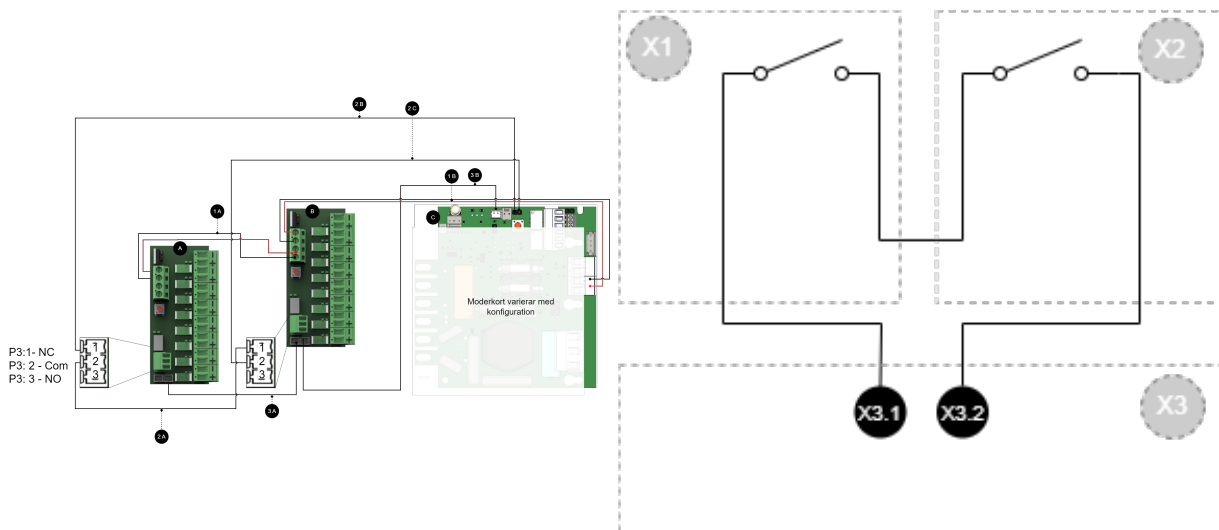
WARNING

Maximum load is 1.85 A per load output and the card's total load must not exceed 10 A.

Connections from battery backup to fuse board

No	Connections	8 Outoput module PTC	Motherboard
1	Power supply connection:	P3:1-4	Optional load output.
2	Bridging alarm to motherboard:	J14	J5

CONNECTION OF ANOTHER 8 OUTOUT MODULE PTC



Connecting additional option cards to the motherboard



NOTE

For alarm connection use 2A and 2B for connection of newer devices (after approx. 2018). For older devices (before approx. 2018) use 3A-3C.

Connection of additional optional cards

Letter / No	Explanation	On the card
A	8 Outoput module PTC.	-
B	8 Outoput module PTC.	-
C	Motherboard, may vary with configuration.	-
1 A	Power supply to 1B from 1A.	P1:1-+2
1 B	Power supply to 1B from motherboard.	P1:3-4
2 A	Bridging of alarms from card A to card B.	J15
2 B	Connection of alarm on C (motherboard) from board A.	See table below.
2C	Connection of alarm on C (motherboard) from board B.	See table below.
3 A	Alarm output switches From board A to board B.	J14-J15
3 B	Alarm output switches From board A to board B.	J14-J15

Connection, schematic diagram

Letter / No	Explanation
X1	Optional card 1
X2	Optional card 2
X3	Motherboard
X3.1	Connection to motherboard from option board.
X3.2	Connection to motherboard from option board.

Alarms from optional cards are connected on terminal block (on motherboard)

Motherboard	Terminal as an alarm from an optional card must be connected (on motherboard)
CEO3 v5	J27
NEO3	J5
PRO1	J13
PRO2 v3	J1

Motherboard	Terminal as an alarm from an optional card must be connected (on motherboard)
PRO3	J5

TECHNICAL DATA - 8 OUTPUT CONTROL MODULE

Info	Explanation
Card name:	8 Output control module
Product description	8 Output control module is a protection module with 10 fully protected outputs, of which seven are prioritized and three are non-prioritized.
The product fits in	Battery backups with motherboard: PRO1, PRO2, PRO2 V3, PRO3 and NEO3.
Measure	120 x 45 mm.
Own consumption	65mA
Output voltage	24 V
Fuses	F2A comes with cards.
Indication	Yes, LED on circuit board

Outputs

Info	Value
Alarm outputs, number	1
Alarm on changing relay? (Yes No)	Yes
Load outputs, number	8
Voltage on load output	27.3V DC
Priority (always voltage) load outputs (Yes/No)	Yes
Max load, per output	10 A
Maximum load, total, (must not be exceeded).	16 A
Load output plus (+) fused? (Yes No)	Yes
Load output minus (-) secured (Yes/No)	No
Fuses on output	T2A.
Connection to buzzer? (Yes No)	No

Manufactured in Milleteknik's factory in Partille, Sweden.

This translation is not verified and should be cross referenced with the swedish original before use.

ABOUT TRANSLATION OF THIS DOCUMENT

User manual and other documents are in the original language in Swedish. Other languages may be machine translated and/or not reviewed, errors may occur.

ADDRESS AND CONTACT DETAILS

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