JENNY SCIENCE

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Brake Energy Recovery Unit

General

The new Break Energy Recovery Unit (BERU) stores braking energy in capacitors and reuses it instead of converting it to heat. With the BERU, the axis saves energy.

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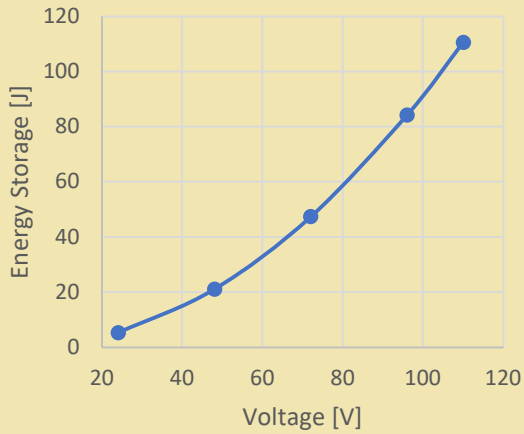
1 Elecrical characteristics

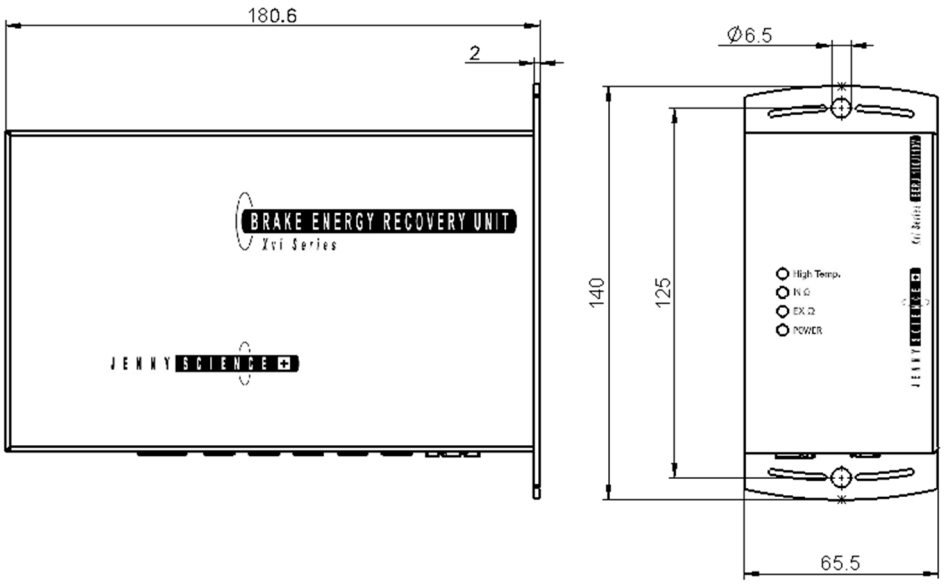
1.1 Connections

Description	Data
Input PW	Input from power supply 24 - 110VDC, 30A
Input LG	Input from power supply 24VDC, 8A
Output PW (Out 1-4)	4x Power output 10A, XENAX®
Output LG (Out 1-4)	4x Logic output 2A, XENAX®
EXΩ	Power output 15A, for external resistor
Output digital	24VDC 100mA, Overtemperature -> Warning 60°C, Error 80°C
Output LED	High Temp. > 60°C yellow, > 80°C red IN Ω EX Ω Power

1.2 Technical data

Description.	Data
Intermediate Circuit Voltage	24V – 110VDC
Energy Storage 	5.2J @ 24V 21J @ 48V 47J @ 72V 84J @ 96V 110J @ 110V
Internal heat dissipation	25W / Δ45K (Internal fan starts > 60°C)

1.3 Dimensions



Description.	Data
Dirt resistance	IP 20
Weight	1770g

2 Hardware and installation

2.1 Environmental conditions

Description.	Data
Storage and transport	No outdoor storage. Warehouses have to be well ventilated and dry. Temperature from -25°C up to +55°C
Temperature while operating	5°C - 50°C environment
Humidity while operating	10-90% non-condensing
Air conditioning	No external air conditioning needed; integrated heat sink.

2.2 Assembly and installation

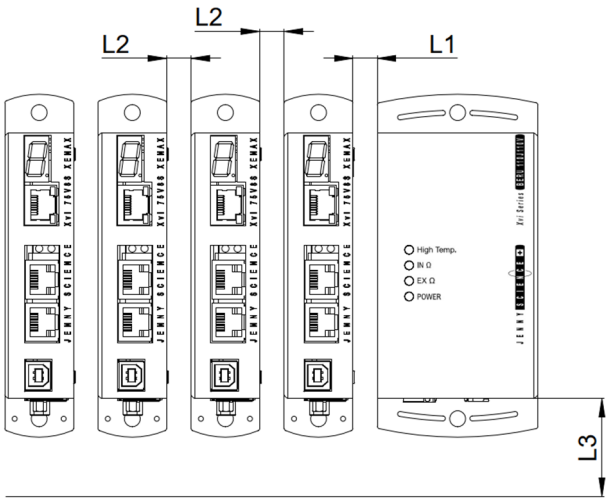
Assembly with two screws on an electrically conductive rear wall e.g. the back wall of a switch cabinet. The devices should be installed in a vertical position to ensure good air circulation.

Din rail adapters are available as an option.

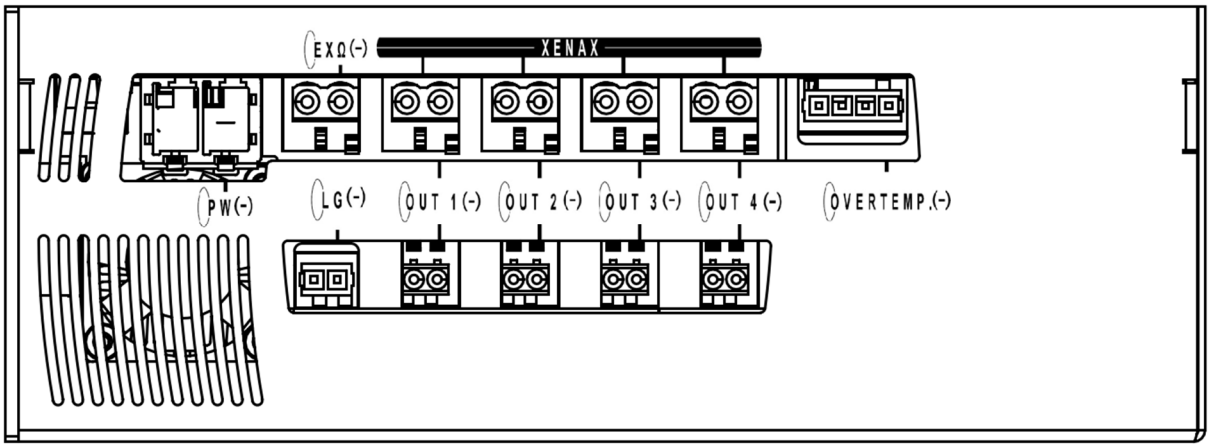
L1: For a series mounting, we recommend a distance of 10 mm between the XENAX® and Brake Energy Recovery Unit®.

L2: From XENAX® to XENAX® we recommend a distance of 10mm, with low power and the XENAX Xvi 75V8S this can be reduced to 1mm.

L3: We recommend a distance of 120 mm from the floor.



3 Electrical connections



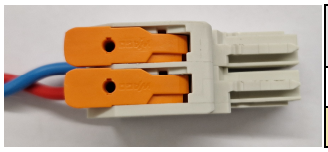
3.1 Plug arrangement

Description.	Plug Type
PW	2 pole connectro Wago, pitch 7,62mm Use for cable: Wago Art. Nr. 831-1102/133-000 [1]
LG	2 pole connector Wago, pitch 3,5mm Use for cable: Wago Art. Nr. 734-102 [1]
EXΩ	2 pole connector Wago, pitch 5mm Use for cable: Wago Art. Nr. 231-602 [1]
OUT 1-4 PW	2 pole connector Wago, pitch 5mm Use for cable: Wago Art. Nr. 231-602 [2]
OUT 1-4 LG	2 pole connector Wago, pitch 3,5mm Use for cable: Wago Art. Nr. 734-302 [2]
OVERTEMP.	4 pole connector Wago, pitch 3,5mm Use for cable: Wago Art. Nr. 734-104 [1]

[1] is included in the package
[2] is included in the cable set, which can be ordered separately

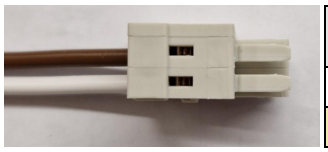
3.2 Plug Pin Configuration

3.2.1 Input Power



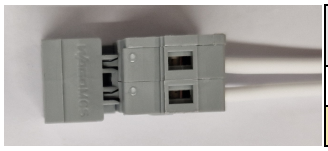
Pin	Description
1	Power GND
2	24 - 110VDC

3.2.2 Input Logic



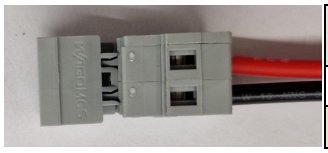
Pin	Description
1	24VDC
2	Logic GND

3.2.3 Output External Resistor



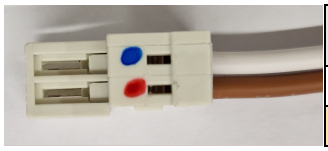
Pin	Description
1	Resistor
2	Resistor

3.2.4 Output 1-4 Power



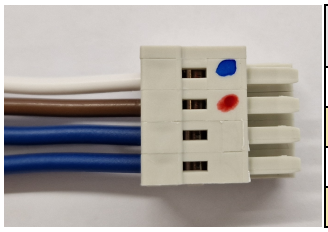
Pin	Description
1	24 - 110VDC
2	Power GND

3.2.5 Output 1-4 Logic



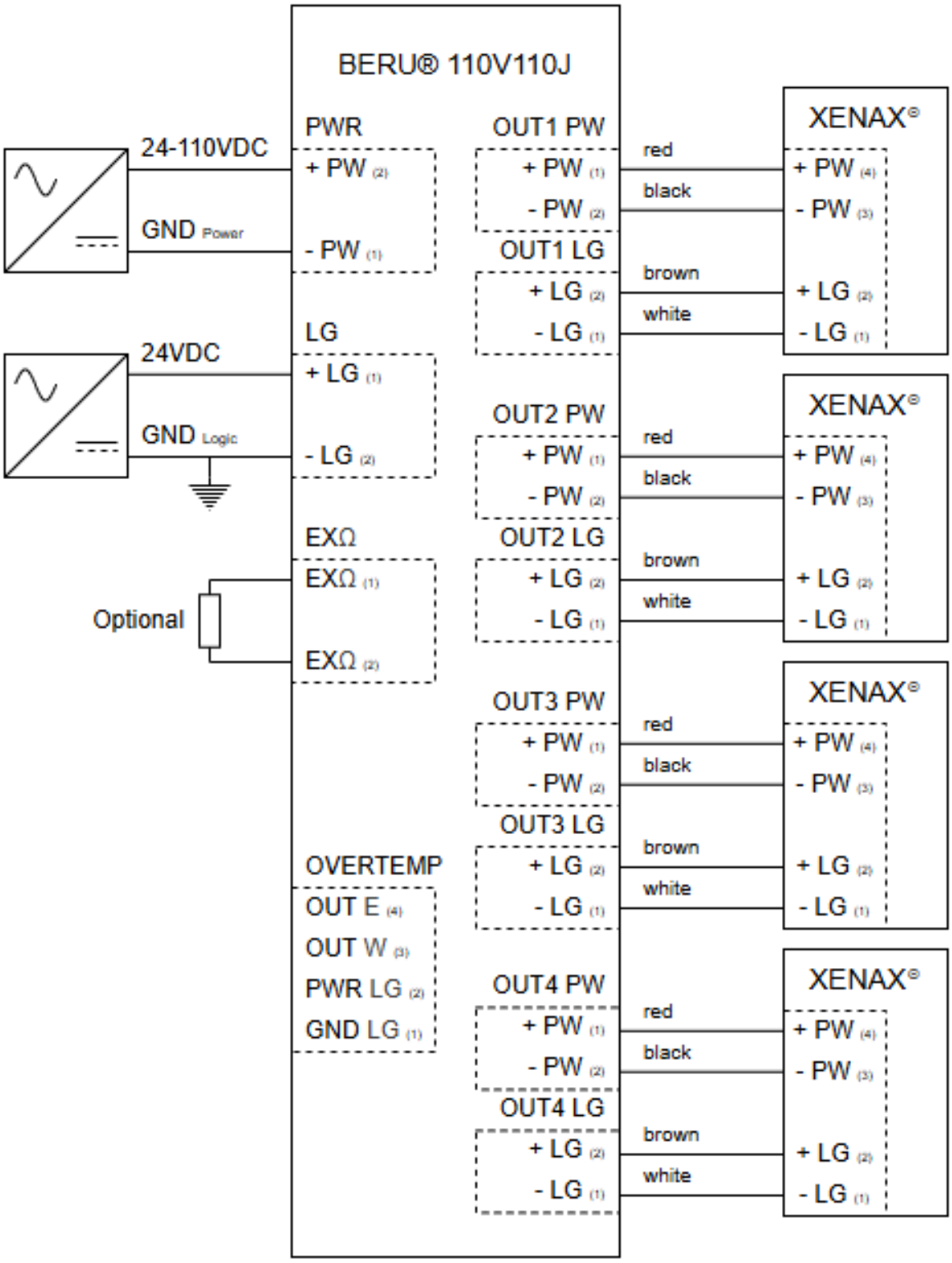
Pin	Description
1	GND Logic
2	24VDC

3.2.6 Output Overtemperature



Pin	Description
1	GND LG
2	PWR LG (24V/100mA)
3	Out Warning 60°C
4	Out Error 80°C

4 Wiring diagram



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