

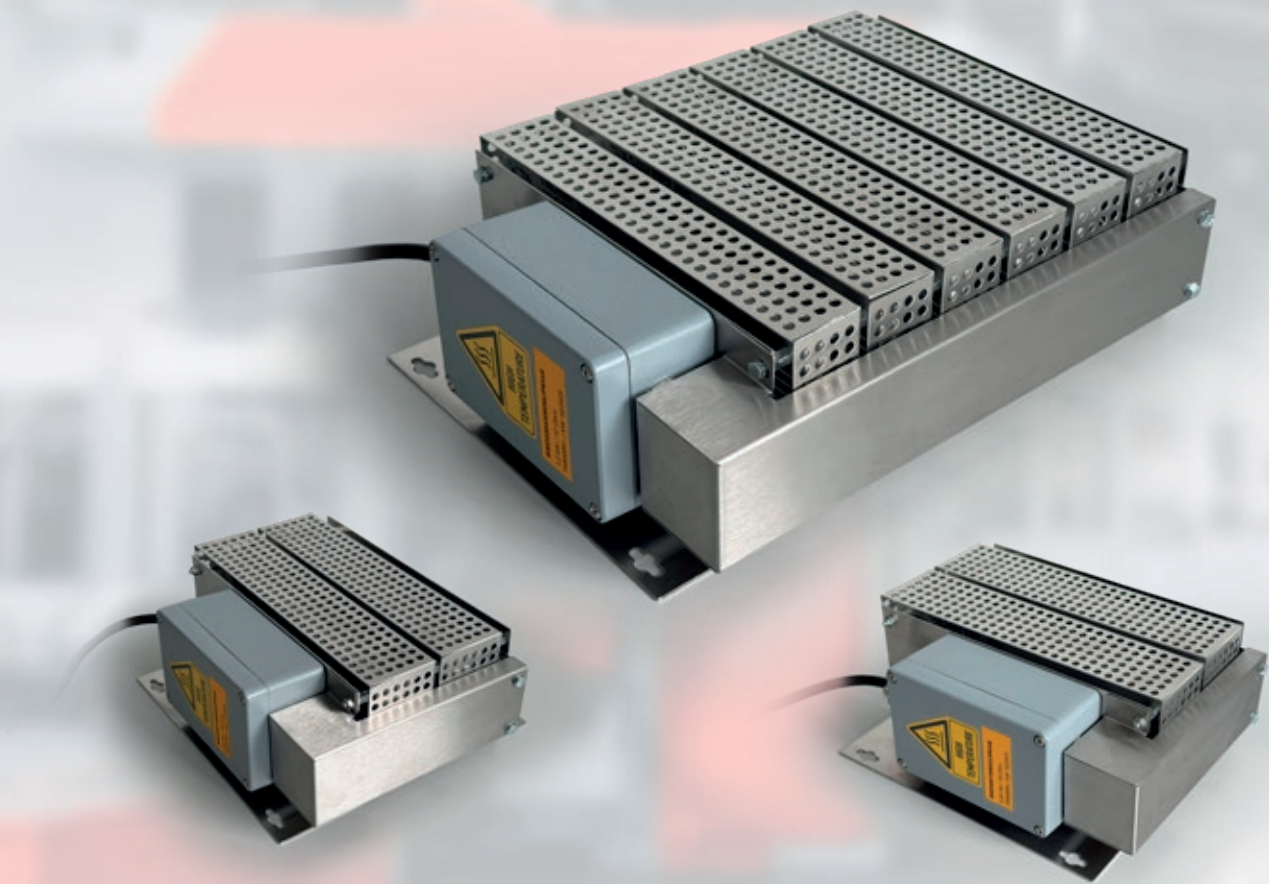
# Safe Dynamic Braking Resistors and Active Energy Management Devices for Electric Drives



New  
Products  
2025

# Safe dynamic braking resistor unit with a high protection class

Compact design with touch protection for each dynamic braking resistor module, a stylish cover, and connection via an easily accessible terminal box: a powerful unit that meets the individual requirements of even decentralized drive technology. Several sizes and a very wide range of resistance values, as well as high flexibility with regard to the connecting cable, make the safe braking resistor unit with protection class IP65 the preferred product.



## BWD-K0xLIP65SG

3 sizes, 4 power variants

Rated power [W]

Resistance values [R]

Dimensions L x W x H [mm]

Cable length from terminal box [mm]

Cable end configured as required

480 – 1,200

4.5 – 3,720

245 x 216 x 96.5

245 x 227 x 96.5

245 x 349 x 96.5

max. 2,000

✓

## Your advantages

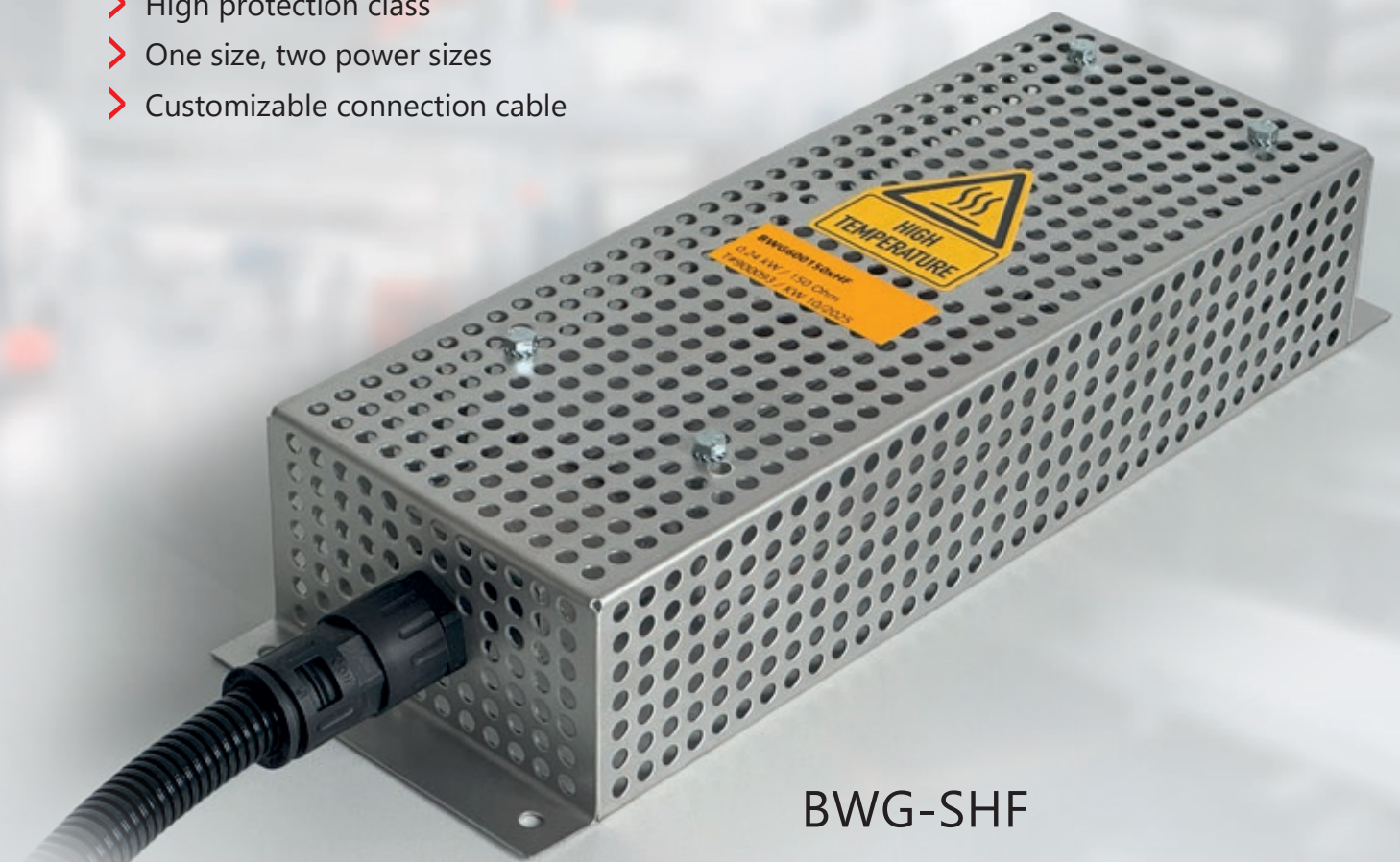
- Compact solution
- High protection class
- Three sizes, four power sizes
- Wide range of resistance values

# Safe dynamic braking resistor halogen-free

A halogen-free connection cable with a protective sheath and touch protection above the safe dynamic braking resistor module: two crucial components of this safe dynamic braking resistor, which, with its high protection class IP65, meets the requirements of decentralized drive technology. The length of the connection cable can be adjusted to the exact centimeter, and the connection cable end can be individually configured to meet application-specific requirements for stranded wires or connectors.

## Your advantages

- > Halogen-free
- > High protection class
- > One size, two power sizes
- > Customizable connection cable



## BWG-SHF

|                                     |                |
|-------------------------------------|----------------|
| Rated power [W]                     | 240 or 400     |
| Resistance values [R]               | 5 – 300        |
| Dimensions L x W x H [mm]           | 320 x 106 x 64 |
| Halogen-free connection cable       | ✓              |
| Cable length from terminal box [mm] | max. 2,000     |
| Cable end configured as desired     | ✓              |

# Safe dynamic braking resistor mounted on control cabinets

Specially designed for mounting on control cabinets: The base of the safe dynamic braking resistor fits directly onto the roof of standard control cabinets, and an optional cover provides touch protection. Continuous power can be adjusted in 400-watt increments up to 8 kilowatts, corresponding to a peak power of 280 kilowatts at a 1% duty cycle (1.2 seconds). High flexibility is ensured by the wide range of resistance values. The connection cable is designed according to customer requirements; its thickness and length are determined according to the application and can be provided with a sheath upon request. The spacious terminal box achieves protection class IP65. Additional optional mechanical components enable individual adaptation to the ambient conditions.

## Your advantages

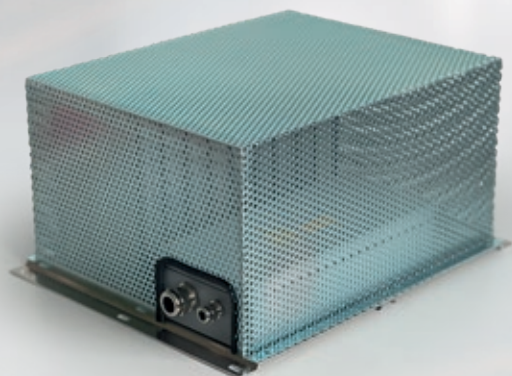
- > Powerful
- > High protection class
- > One size, many power sizes
- > Customizable



## BWD-KzzDIP65S

1 size

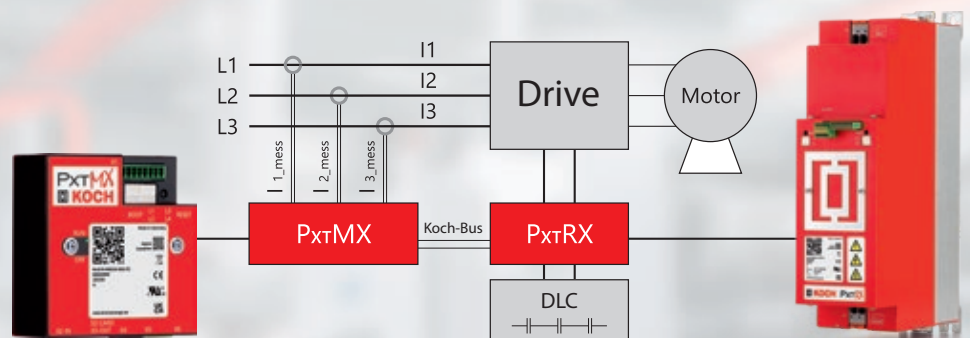
|                                      |                   |
|--------------------------------------|-------------------|
| Rated power [W]                      | up to 8,000       |
| Resistance values [R]                | 0.5 – 3,000       |
| Dimensions L x W x H [mm]            | 550 x 440 x 252.5 |
| Dimensions with cover L x W x H [mm] | 550 x 440 x 275   |
| Cable length from terminal box [mm]  | max. 2,000        |



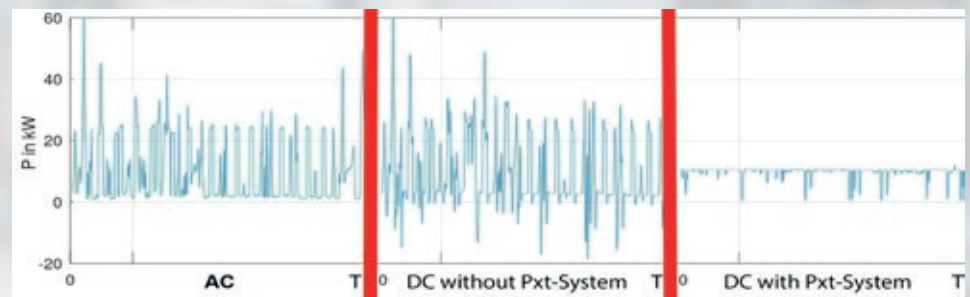
# Plug & Play Peak Power Reduction

The PxtMX plug-in module transforms the PxtFX and PxtRX active energy management devices, or their associated systems, into powerful peak power reducers! The module is simply plugged in and recognized by the active energy management device. Snap-on rings for measuring the currents of the three input phases (AC) of the drive are connected via a plug. Using the PxtTerminal visualization tool, the input current limit can be set to the exact ampere, regardless of the initial value, over a range of 100 amperes. Any additional power requirements are met by the active energy management device or system, which has been previously designed to meet the application-specific requirements.

Example setup of a drive system with peak power reduction using PxtMX and input current measurement in conjunction with PxtRX and double-layer capacitor modules.



The effect of peak power reduction can be very positive, as illustrated here using the example of a robot cell whose power load was reduced from around 60 to 10 kW through the use of an active energy management system with PxtMX.



Simply plugged in and connected to the snap-on current measuring rings via the gray cable, the active energy management system operates via plug & play after prior application engineering.



## Your advantages

- > Maintain a defined maximum mains input current
- > Easy operation
- > Ampere-accurate adjustment
- > Plug & Play activation

# Active Energy Management Device PxTX

The PxTX device acts as a short-term, uninterruptible power supply for electric drives and DC circuits. It is specially protected against airborne particles. The enclosed housing and heat dissipation via convection ensure this special protection. The PxTX's primary application is the compensation of brownouts, i.e., bridging short voltage dips, as well as the safe and defined shutdown of the electric drive system during blackouts.



## Your advantages

- UPS functionality
- Protection against airborne particles
- Powerful
- Strong communication capabilities

## PxTX

|                                                     |                         |
|-----------------------------------------------------|-------------------------|
| Rated power [W]                                     | 18,000 for 3 s          |
| Energy volume [J]                                   | 2,000 per energy module |
| Dimensions L x W x H [mm]<br>with one energy module | 297 x 100 x 276         |

# Customization

There are many examples of customizing active energy management devices and systems. Some customers want the housings in their corporate colors, others even under their own logo. The documentation and labeling in general can also be customized. The possibilities are extensive; just contact us.

A recently implemented example: The connection between the PxTfX active energy management device and the PxTEx energy module with lockable and screwable connectors, thus providing a permanently secure connection to additional external energy capacity.

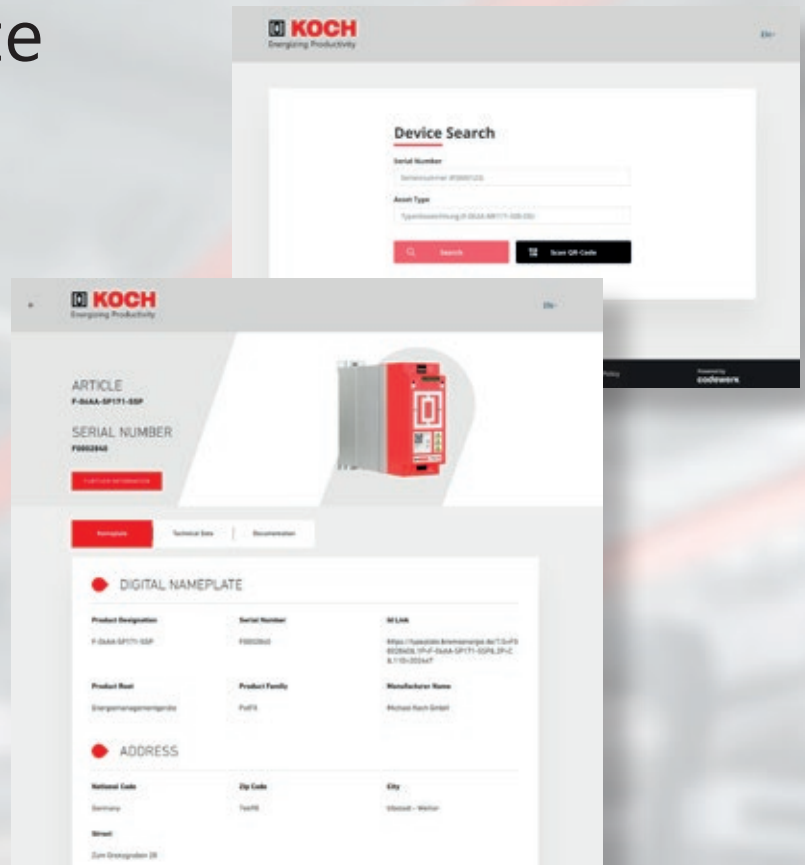


## Your advantages

- Individual additional benefits
- Integration into corporate design
- Identification with the solution

# Digital nameplate

The completely redesigned version of the digital nameplate is now structured according to the requirements of the Digital Product Passport. In addition to the technical data printed on the product itself, extensive detailed product information is available by scanning a QR code and connecting to the internet.



## Your advantages

- Additional information on site
- Digital nameplate
- Customizable

# Simulation with SERVOfsoft

The PRO version of the SERVOfsoft software package from ControlEng, starting with the current version 6.1, offers the option of combining drive systems with an active energy management system. SERVOfsoft's "EasySize Wizard" complements the precise design with a comprehensive simulation that includes the entire drive system, from the power connection to the output shaft. Optimizing grid power peaks thus becomes a simple task.



## Your advantages

- Highly accurate system definition
- Simulation of the entire drive system
- Precise component design

## What we offer:

- Tested product quality
- Certified processes
- Individual application support
- Machine specific design and sizing
- Rapid reaction
- Quick delivery times
- On-time delivery
- Reliable partner
- Long-term business relationship
- Direct customer relations

Use our communication channels:



## Your specialist for:

- Active energy management devices and systems
- Safe brake resistors

for electric drive technology

We look forward  
to hearing from you!



Michael Koch GmbH  
Zum Grenzgraben 28, 76698 Ubstadt-Weiher, Tel. +49 7251 96 26-200  
[www.brakeenergy.com](http://www.brakeenergy.com), [mail@bremsenergie.de](mailto:mail@bremsenergie.de)

Technical changes reserved. MK\_PRO\_NEUHEITEN\_2025\_ENG\_R01\_0

