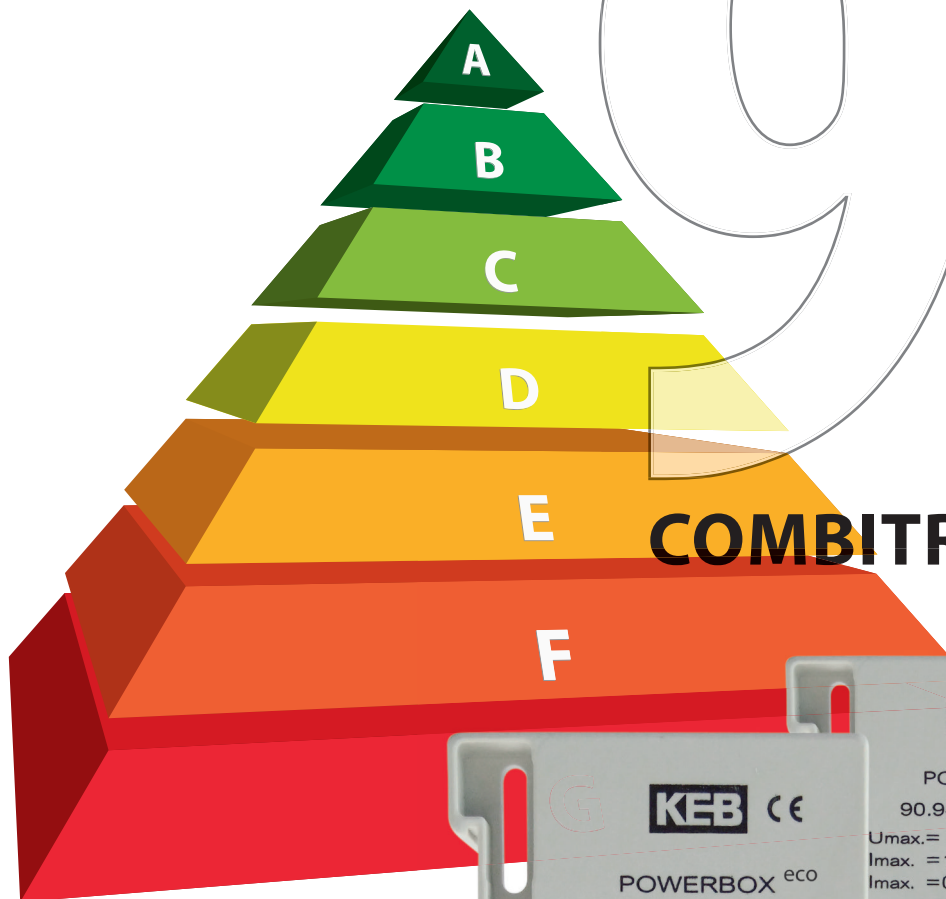
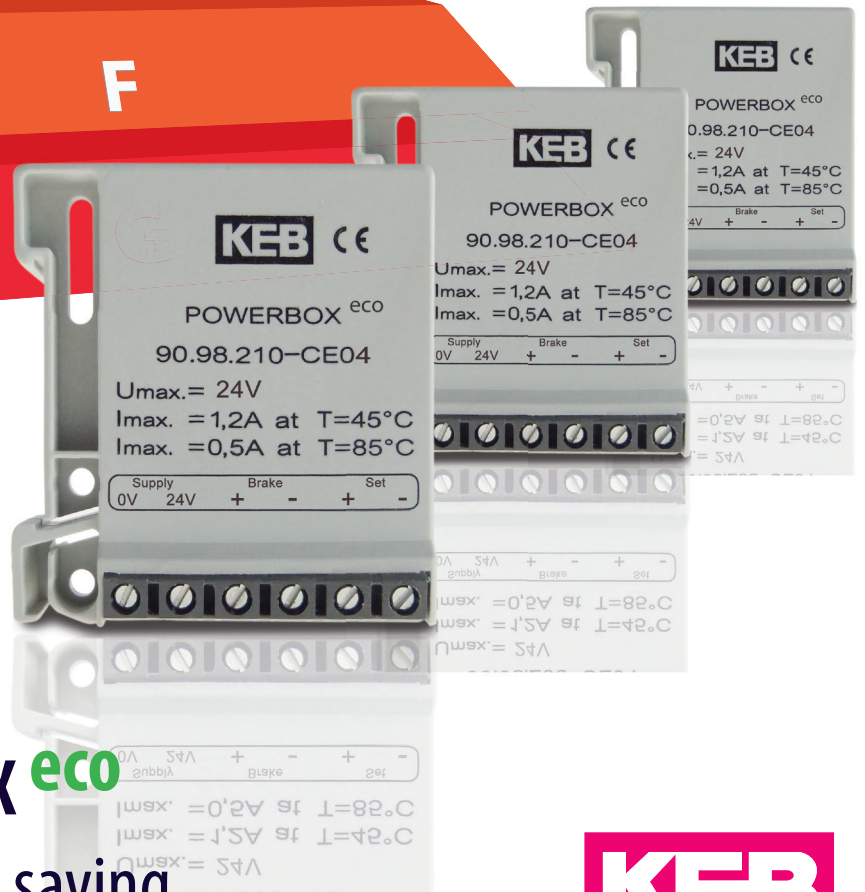


# 988



## COMBITRON

MADE IN GERMANY



**POWERBOX eco**  
pure energy saving





Electromagnetic holding brakes are continuous powered during operation and switched off in emergency situations.

Opening the brake requires a nominal voltage to generate a magnetic field that „works against“ a spring load or permanent magnet force.

The KEB POWERBOX reduces the voltage after the excitation time of the rated voltage to holding voltage.

Advantages: power reduction of up to 94 %  
lower heating

**Application:** Permanent magnet brake, Spring applied brake



**Advantage:** Sufficient power to release the brake and then keep it in holding position with a minimum of energy.

Short time cost amortisation of Powerbox invest

**Cost savings:** without Powerbox 130 W; 24 h operation; 1 year  
=> 1,138 kWh x 9 Cent = 102.42 €

with Powerbox 130 W down to 8 W  
=> 70 kWh x 9 Cent = 6.31 €

**Saving 96.11 € per year**

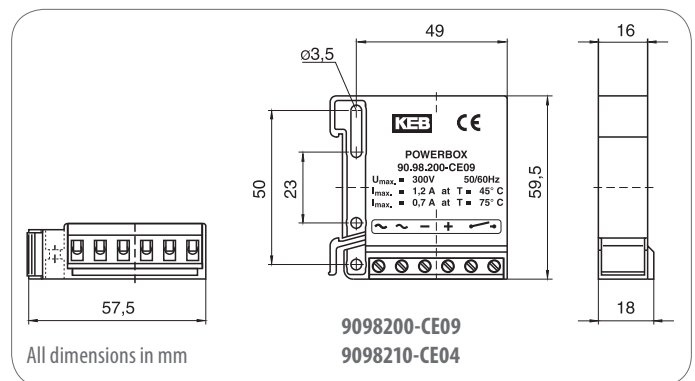
**COMBITRON 98** rapid-switching rectifiers with overexcitation for optimal turn-on and turn-off times of spring-applied brakes and electromagnets.

Two Powerbox versions with the same housing to fit on DIN rail or bolt on version.

COMBITRON 9098200-CE09 UL - certification (No.: E.308765)

	9098210-CE04	9098200-CE09 <sup>1)</sup>
Input voltage	24 V DC $\pm 20\%$	180-300 V AC $\pm 0\%$
Overexcitation time	800 ms $\pm 15\%$	350 ms $\pm 10\%$
Cable length	max. 10 m to brake coil	max. 100 m to brake coil
Current I <sub>N</sub> 45 °C	1.2 A continous 7 A for 800 ms	1.2 A continous 2.4 A for 350 ms
Current I <sub>N</sub> 75 °C	0.6 A continous 3.5 A for 800 ms	0.7 A continous 1.4 A for 350 ms
Temperature	CCV -40° ... 75°	CCV -40° ... 75°
Switching cycles	max. 6 per minute at max current	max. 1 per minute at max current
Height above sea level	> 1,000 m - 1 % current reduction/100 m	> 1,000 m - 1 % current reduction/100 m
Wiring diagrams		

<sup>1)</sup> different values (U, A) when used under conditions of UL



# You need further information? Gladly we set all in motion!

Please contact us by fax +49 5263 401 116 or via our website:  
[www.keb.de/en/products/request.html](http://www.keb.de/en/products/request.html)



Name, Surname ..... Company .....

Function ..... Phone, Fax .....

E-Mail ..... Internet .....

Address ..... Zip Code, City .....

I am interested in  
**products from KEB Headquarters Barnttrup:**

- Control Technology
- Servo Technology
- Supply-/Regen-Units
- EMC
- Magnet Technology
- Frequency Inverters
- Cooling Concepts
- Communication
- Electronic Assembly
- Others

I would like you to:

- call me!
- offer me as follows:
- visit me!

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I am interested in  
**products from KEB Geared Motor Factory Schneeberg:**

- AC motors
- Servo motors
- Inline helical gears
- Helical bevel gears
- Flat gears
- Worm gears
- Others

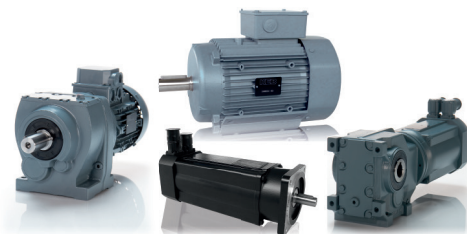
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- offer me as follows:
- visit me!

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Please send me the regularly published newsletter for KEB



KEB Autmaton KG  
Südstraße 38 • D - 32683 Barnttrup  
Telefon +49 5263 401-0 • Telefax 401-116  
Internet: [www.keb.de](http://www.keb.de) • E-Mail: [info@keb.de](mailto:info@keb.de)



KEB Antriebstechnik GmbH • Geared Motors  
Wildbacher Straße 5 • D - 08289 Schneeberg  
Telefon +49 3772 67-0 • Telefax 67-281  
Internet: [www.keb-drive.de](http://www.keb-drive.de) • E-Mail: [info@keb-drive.de](mailto:info@keb-drive.de)

