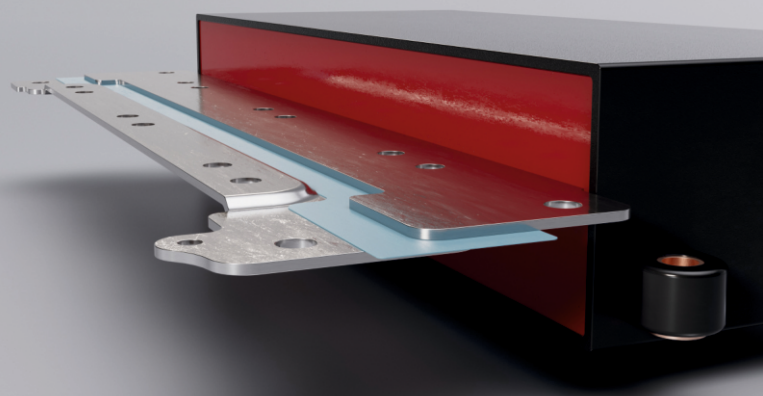
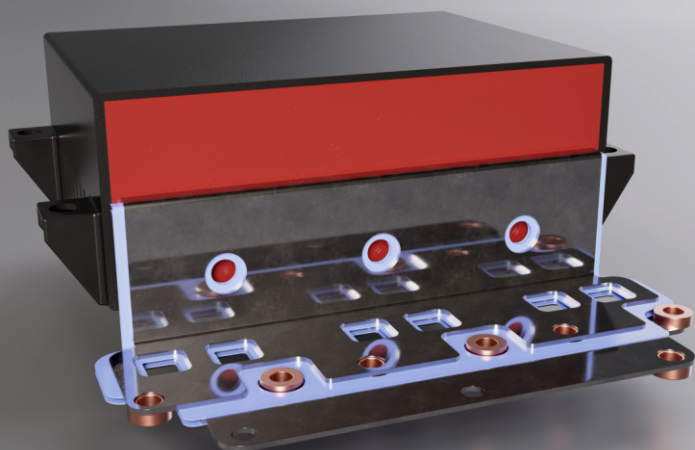




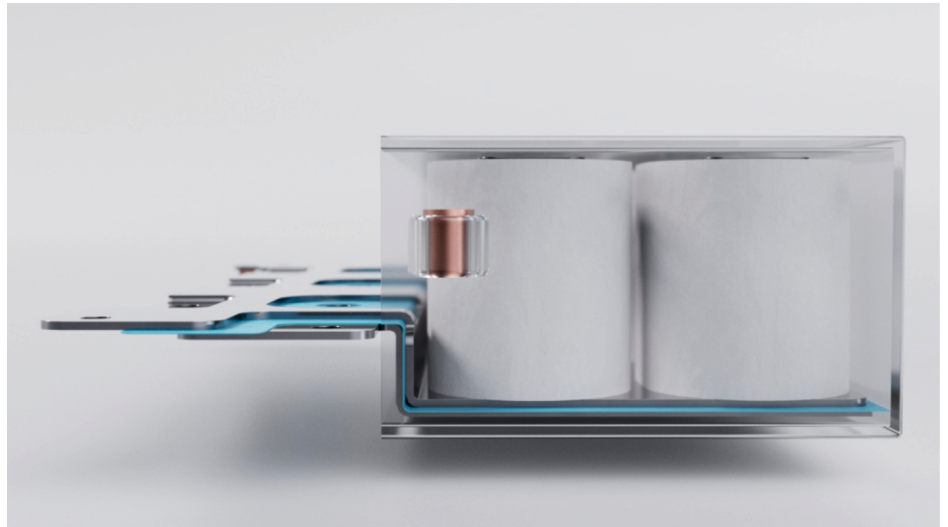
**MADE IN GERMANY**



## DC-LINK Capacitors for Inverters

# Innovative by Tradition

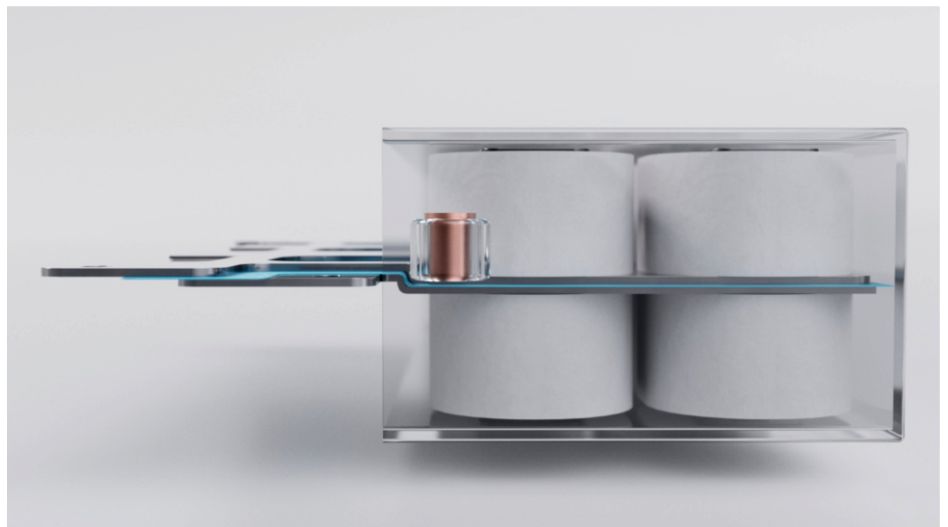
As a privately-owned company located in Germany, WIMA has over 75 years of experience in development and production of plastic film capacitors. With a strong focus on innovation, our strength lies in the design and production of customized products requiring experience and highly developed expertise. WIMA capacitors are manufactured on ultra-modern production lines with a high degree of automation and meet the high standards of today's environmental requirements in terms of energy and raw material consumption.



## WIMATec PRO

WIMATec PRO series is the all-rounder: Extremely low inductance and very good cooling properties on the top or bottom side of the capacitor windings and the simple

design with wide range of options for adaptation to your application make this design the most frequently chosen version by our customers.



## WIMATec MAX

WIMATec MAX series stands for maximum efficiency and performance: Due to the halving of the capacitor winding heights, the self-heating (because of the smaller ESR) during operation is significantly reduced. Thus, the limits for

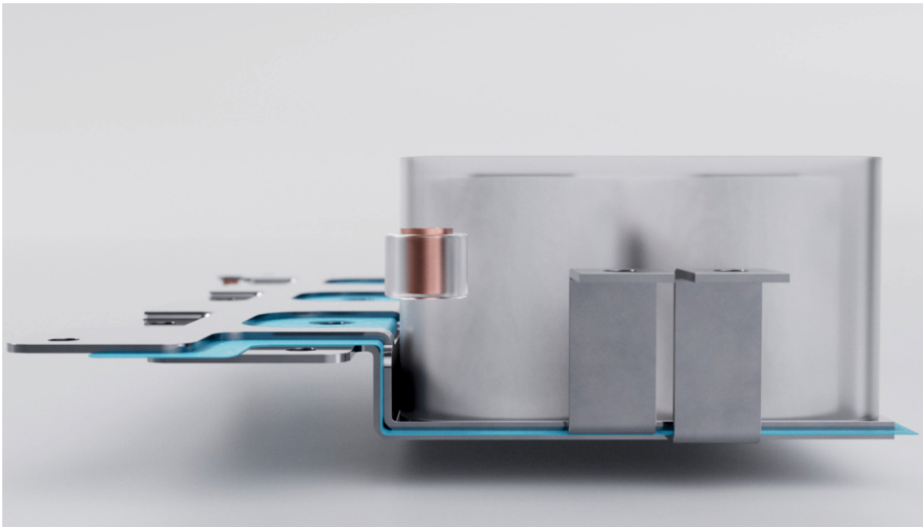
higher capacitor currents and loads are significantly extended. Extremely low inductance, maximum current path symmetry and a wide range of options for adaptation to the installation space in your application are thus guaranteed.



## WIMATec ULTRA

WIMATec ULTRA series stands for maximum cooling performance and a wide range of busbar connection options: The busbars are located outside the capacitor and can be provided with connection terminals from all sides (WIMATec 360°). The busbars can be connected directly to a heat sink, and undesirable side effects due to thermal insulation effects of the potting and

housing are thus completely avoided. In particular, applications with very high busbar currents can thus be perfectly cooled. In addition, the capacitor can be made lighter and a lower overall height can be achieved. Extremely low inductance and a wide range of options for adaptation to the installation space in your application are thus guaranteed.



## WIMATec ULTRA Lite

WIMATec ULTRA Lite series represents superior cooling performance and a versatile range of busbar connection options. With busbars located externally, they can be fitted with connection terminals from any direction (WIMATec 360°). This design allows direct connection to a heat sink, effectively eliminating unwanted thermal insulation effects from potting

and housing materials. This makes the series particularly well-suited for applications with high busbar currents, ensuring optimal cooling. Additionally, the capacitor's modular design makes it highly cost-efficient to manufacture. Extremely low inductance and extensive adaptability to your application's installation space are ensured.



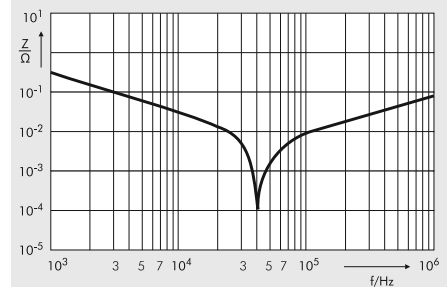
WIMA DC-LINK film capacitors for power semiconductors with Polypropylene (PP) dielectric show some fundamental advantages:

- Extreme low inductance (LI) ( $\leq 5 \text{ nH}$ )
- Highly symmetrical design
- Optional: 3- voltage level configurations / 2x cap series connection
- Significant resonance point shift in high frequency ranges vs. conventional designs.

### Other Features:

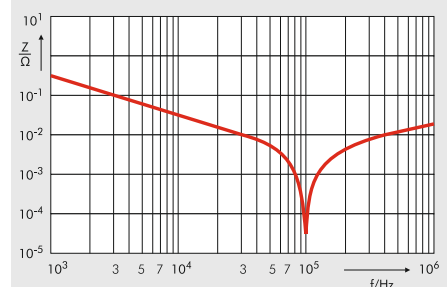
- WIMA single side cooling (SSC)
- ESR optimized
- Application temperatures up to  $105^\circ\text{C}$
- Lightweight design.

### Reference Design



$C_r = 500 \mu\text{F} \pm 10\%$   
 $\text{ESR} = 0.46 \text{ m}\Omega$  at  $1 \text{ kHz}$   
 $f_R \approx 42.5 \text{ kHz} \Rightarrow \text{ESL} \approx 30 \text{ nH}$

### NEW: LI Design



$C_r = 500 \mu\text{F} \pm 10\%$   
 $\text{ESR} = 0.4 \text{ m}\Omega$  at  $1 \text{ kHz}$   
 $f_R \approx 100 \text{ kHz} \Rightarrow \text{ESL} \approx 5 \text{ nH}$



**WIMA GmbH & Co.KG.**  
Besselstraße, 2-4  
68219 Mannheim · Germany

Phone: +49-621-862950  
E-mail: [sales@wima.de](mailto:sales@wima.de)  
Internet: [www.wima.com](http://www.wima.com)

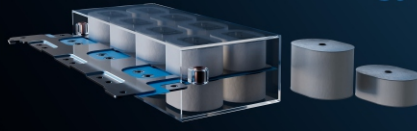
## Peak performance

**ESL**  
**≤5nH**

Customized  
Designs



Reduced  
self-heating  
technology



**DC LINK**  
capacitors  
for inverters

**WIMA**  
**360°**

Advanced  
Cooling  
Tech



**1000x → ∞**

FROM SMALL TO MASS QUANTITY PRODUCTION



## Which WIMATec Version is Right for You?



**WIMATec Series PRO**

- Low inductance / ESL** high resonance point
- Busbar cooling** for high busbar currents
- High capacitor current** low self-heating / high power efficiency
- Volume & weight** low profile & lightweight character
- Mechanical connectivity** WIMATec 360°



**WIMATec Series MAX**

- Low inductance / ESL** high resonance point
- Busbar cooling** for high busbar currents
- High capacitor current** low self-heating / high power efficiency
- Volume & weight** low profile & lightweight character
- Mechanical connectivity** WIMATec 360°



**WIMATec Series ULTRA**

- Low inductance / ESL** high resonance point
- Busbar cooling** for high busbar currents
- High capacitor current** low self-heating / high power efficiency
- Volume & weight** low profile & lightweight character
- Mechanical connectivity** WIMATec 360°



**WIMATec Series ULTRA Lite**

- Low inductance / ESL** high resonance point
- Busbar cooling** for high busbar currents
- High capacitor current** low self-heating / high power efficiency
- Volume & weight** low profile & lightweight character
- Mechanical connectivity** WIMATec 360°