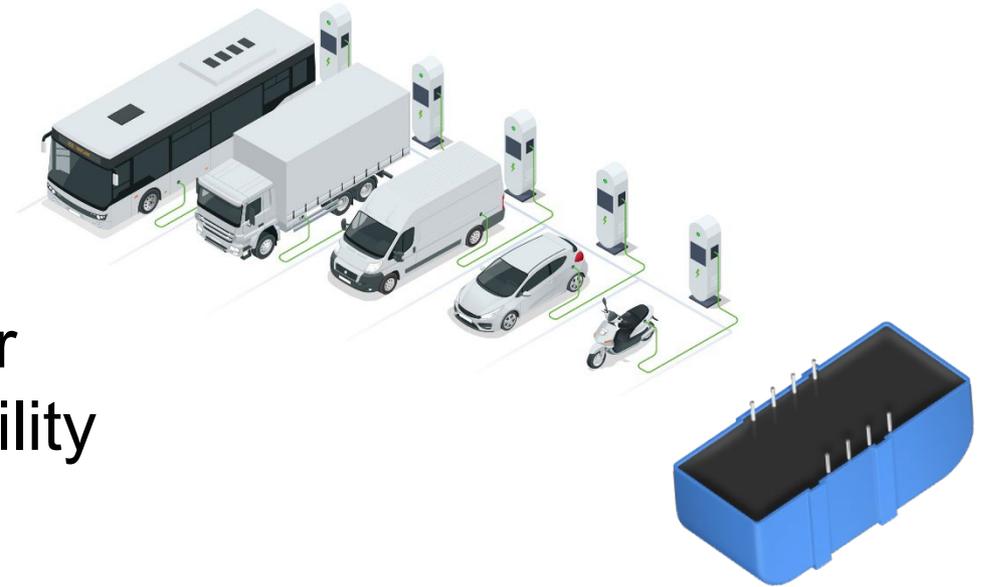


Attracting Tomorrow



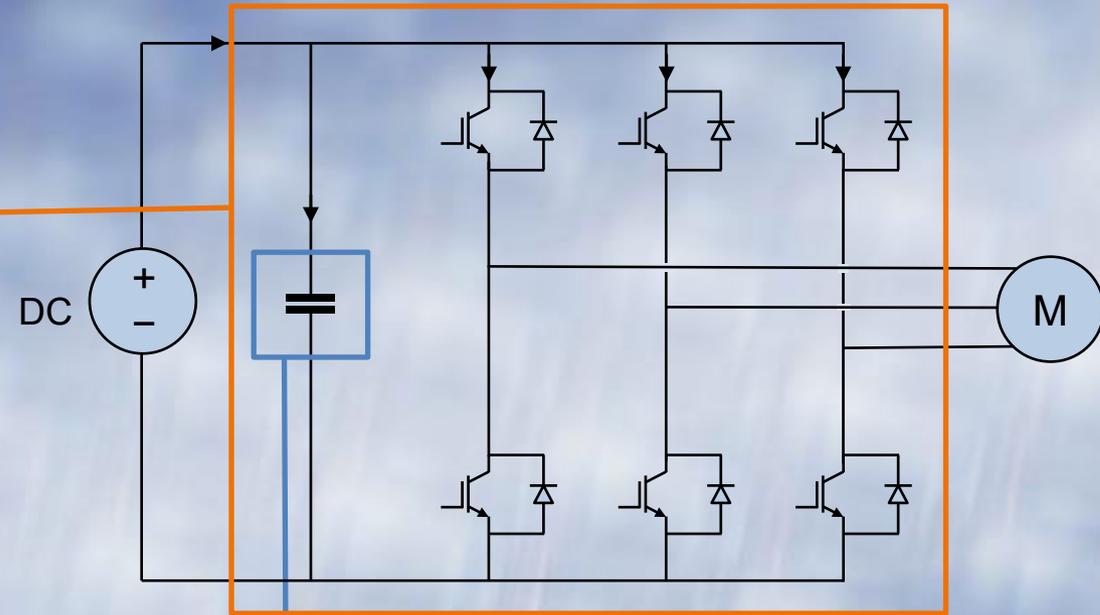
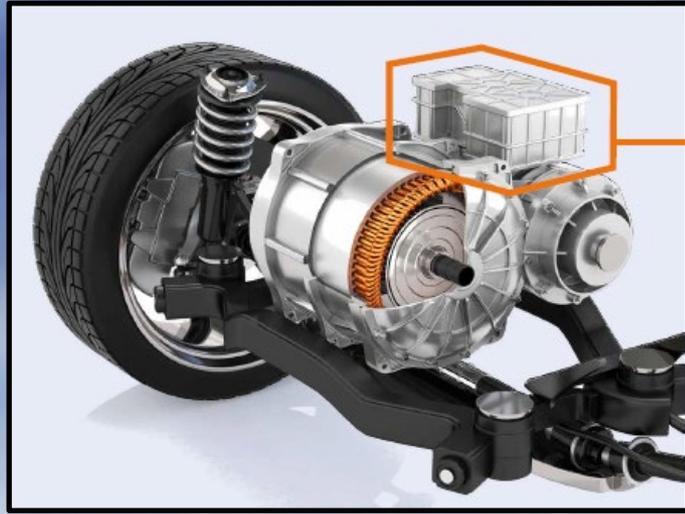
xEVCap

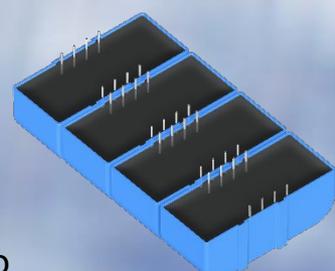
Standardized and Modular DC Link Capacitor
Solution for Main Traction Inverters in E-Mobility
Applications



TDK Electronics AG
Aluminum & Film Capacitors Business Group
Munich, Germany
June 2025

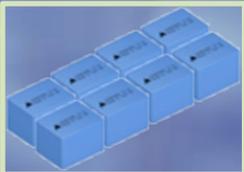
xEVCap: Circuit Position DC Link





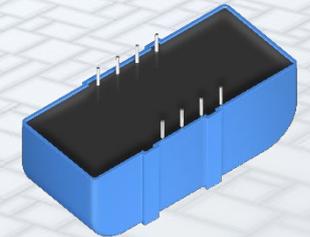
xEVCap

Classic approaches

- Block capacitor (PCC LP) 
- Discrete film capacitor 

xEVCap: Product Overview

C_N	Dimensions	Ordering code	$I_{max}^{1)}$	ESL	ESR	\hat{I}	I_s	MOQ
(120 Hz) [μ F]	(L x W x H) [mm]		(10 kHz) [A]	(1 MHz) [nH]	(10 kHz) [m Ω]	[kA]	[kA]	[pcs.]
$U_R = 500 V_{DC}; U_{MAX} = 525 V; U_s = 665V$								
200	85 x 47 x 40.5	B25654A5207K001	40	17	1.13	2.1	6	64
270	109 x 47 x 40.5	B25654A5277K001	50	17	0.89	2.8	8	48
$U_R = 650 V_{DC}; U_{MAX} = 750 V; U_s = 900V$								
115	97.5 x 35.5 x 42.5	B25654A6117K001	60	14	0.51	2	6	60
130	85 x 47 x 40.5	B25654A6137K001	42	17	0.89	1.6	5	64
175	109 x 47 x 40.5	B25654A6177K001	55	17	0.66	2.2	6.5	48
$U_R = 850 V_{DC}; U_{MAX} = 890 V; U_s = 1200V$								
80	97.5 x 35.5 x 42.5	B25654A8806K001	56	14	0.57	1.7	5.2	60
100	85 x 47 x 40.5	B25654A8107K001	40	17	1.04	1.4	4.2	64
135	109 x 47 x 40.5	B25654A8137K001	50	17	0.78	1.9	5.8	48
$U_R = 920 V_{DC}; U_{MAX} = 950 V; U_s = 1250V$								
60	97.5 x 35.5 x 42.5	B25654A9606K001	55	14	0.65	1.5	4.7	60
75	85 x 47 x 40.5	B25654A9756K001	35	17	1.18	1.2	3.8	64
110	109 x 47 x 40.5	B25654A9117K001	45	17	0.89	1.6	5.1	48



Dimensions A Dimensions B Dimensions C

Traction inverters are crucial components of modern electrified automotive powertrains. TDK as a leading company for DC link capacitors is enabling power electronics suppliers with the **xEVCap** for **fast time to market** of inverters at **low TCO** (total cost of ownership). The **xEVCap** shows **high flexibility** in **power ranges** and **designs changes** of the inverter and is perfect for **platform concepts** and **scalable designs**



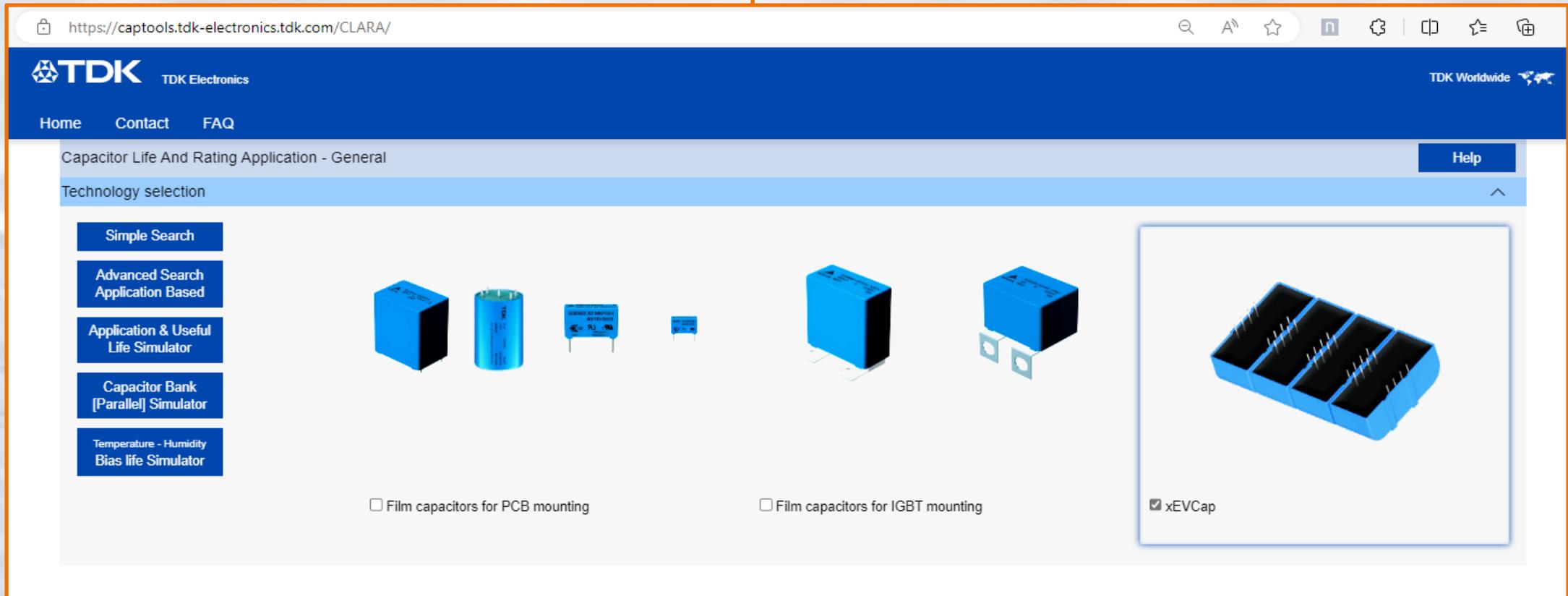
Features and benefits

- High design flexibility at inverter design
- Fast time to market of system (reduced coordination needs compared to bulk)
- Ideal for platform designs and scalable systems
- Available at distribution (samples and MP)
- Connection concept flexible: Busbar and PCB
- Reduced supplier- and stock complexity

STEP files

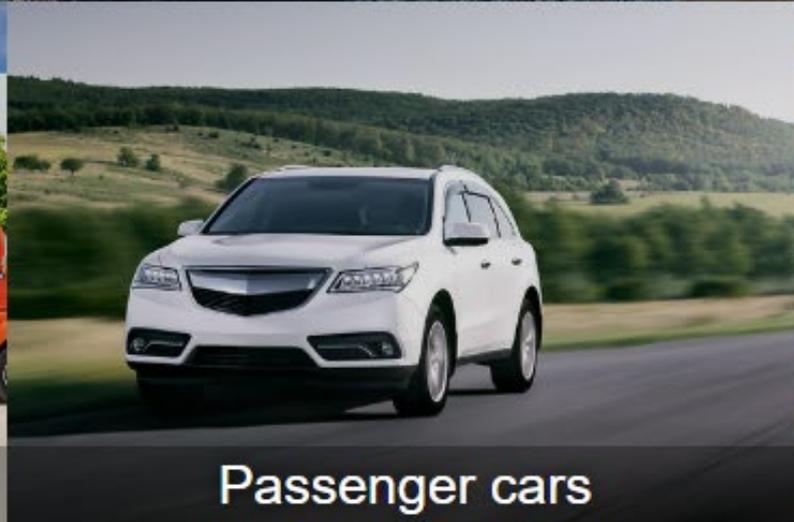
CLARA (Capacitor Life And Rating Application)

Spice models



For CLARA: <https://www.tdk-electronics.tdk.com/clara> or „TDK CLARA“ in your web browser

xEVCap: Applications





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