

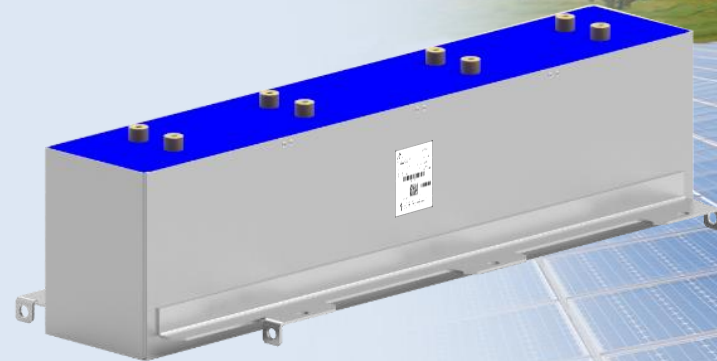
Attracting Tomorrow



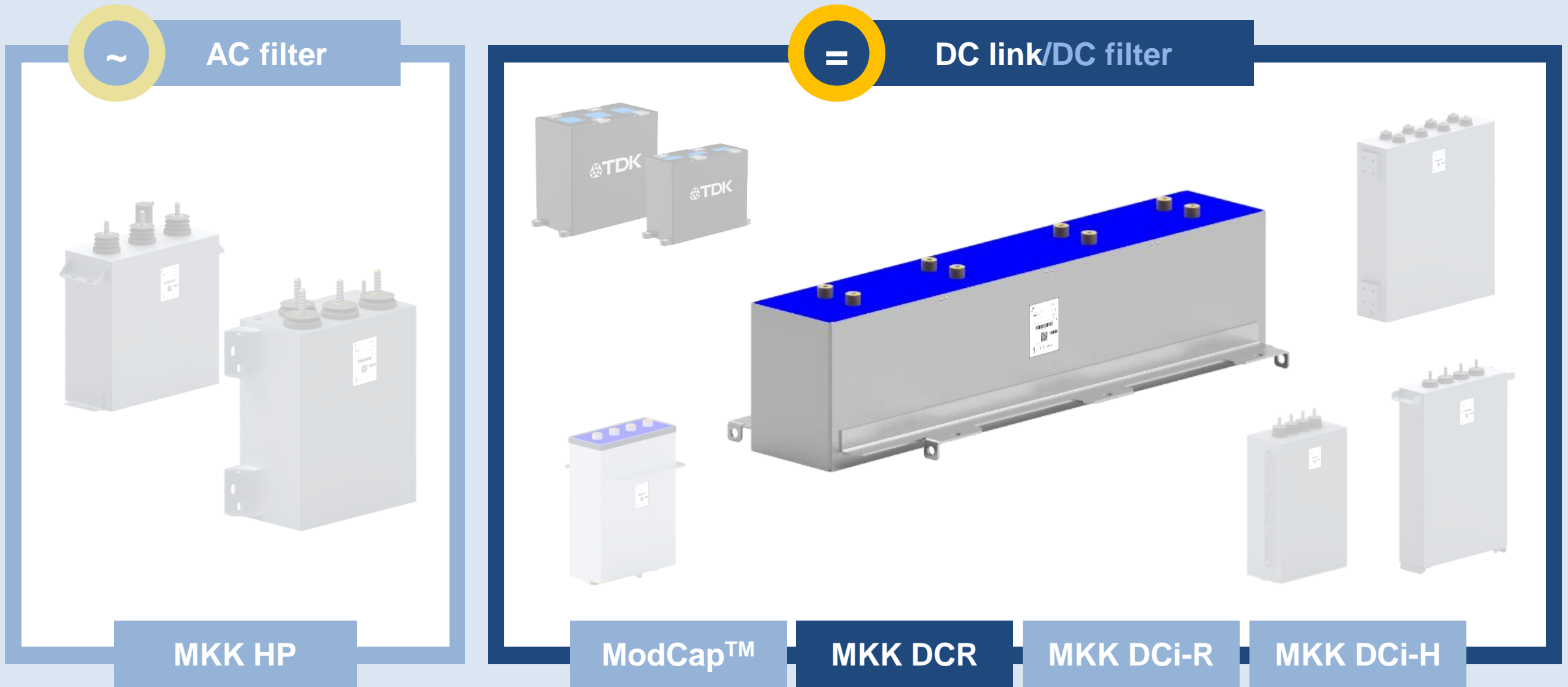
# MKK DCR capacitors

Resin-filled technology  
(opened)

**TDK ELECTRONICS COMPONENTS S.A.U.**  
Aluminum & Film Capacitors Business Group  
Málaga, Spain  
November 2020



# Product portfolio



# DC link & DC filter applications

Energy transmission



Renewable energies

Solar

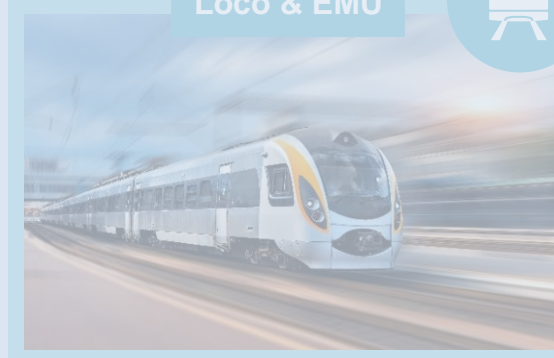


Wind



Traction

Loco & EMU



Light trains



Industry

LV



MV



# Key figures B25640D series

=

MKK DCR (dry)



## Features

- Capacitance range 100 to 20,000  $\mu\text{F}$  and voltage 700 to 1500 V DC
- Low ESL <30 nH
- Temperature range up to 85 °C hotspot
- IEC 61071, IEC 61881-1, EN 45545-2 (HL2 R22, HL3 R23)
- Filled with polyurethane resin (dry technology)
- Aluminum case (opened)
- Segmented film
- Flat windings

## Benefits

- 100% customized solution
- Open design specially suitable for low inductance requirements
- Homogeneous internal current distribution
- Design compatible with bus bar integration
- Life time >150,000 hours at hotspot temperature +85 °C
- ANSYS™ simulations available upon request



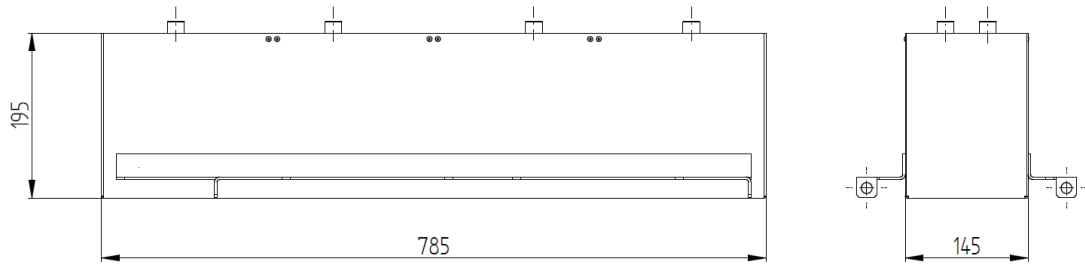
Recommended applications

Get more info [here](#)

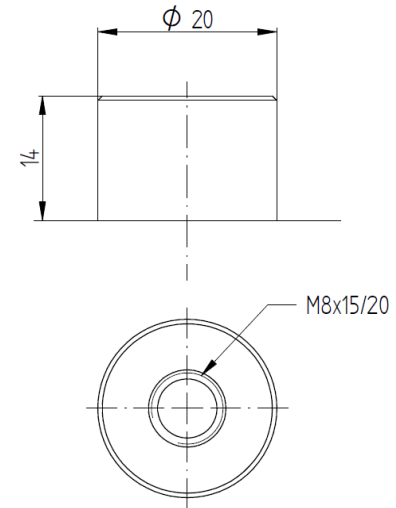
# Construction

## Simplified drawing: Example

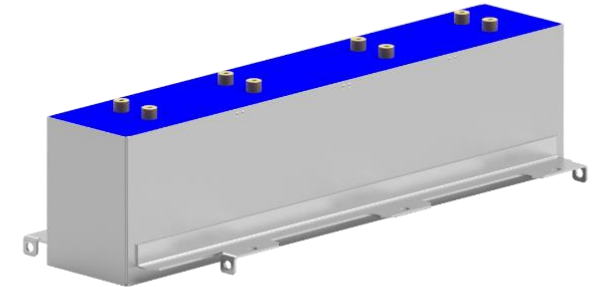
Main dimensions 500 x 240 x 710 mm



Terminal

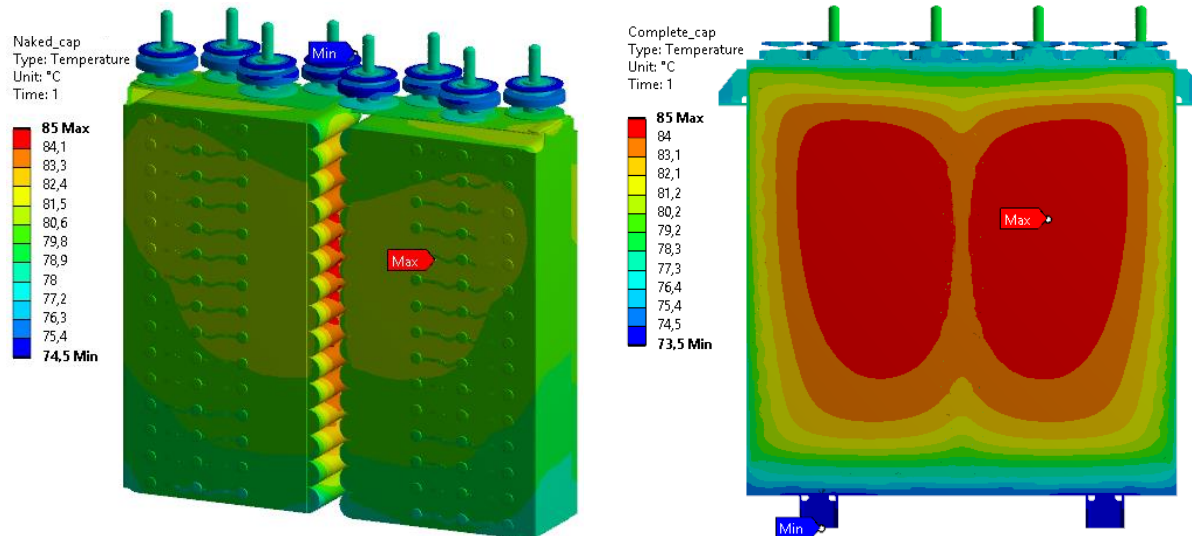


3D



# Thermal & electromagnetic model: Simulation

## Thermal: Hotspot and temperature mapping



Thermal model available for specific simulation according to spectrum and boundary conditions defined by the customer.

## Electromagnetic

Customer input

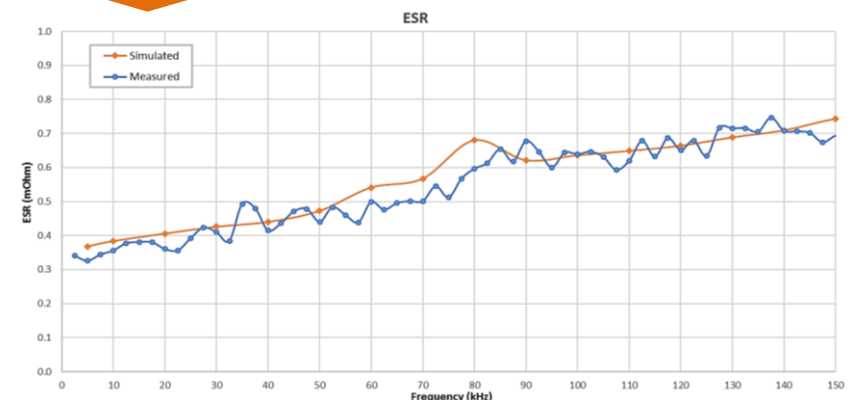
- AC current spectrum
- Boundary conditions

TDK input

- 3D model
- Electrical parameters of the capacitor (capacitor design)

Simulation

- ESR vs freq graph





[www.tdk-electronics.tdk.com](http://www.tdk-electronics.tdk.com)