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Open Direct Current Alliance

Overview in three slides with five slides ODCA characteristics

Dr. Hartwig Stammberger | Eaton | Open DC Alliance | Aug 2025

ODCA 
direct current by zvei

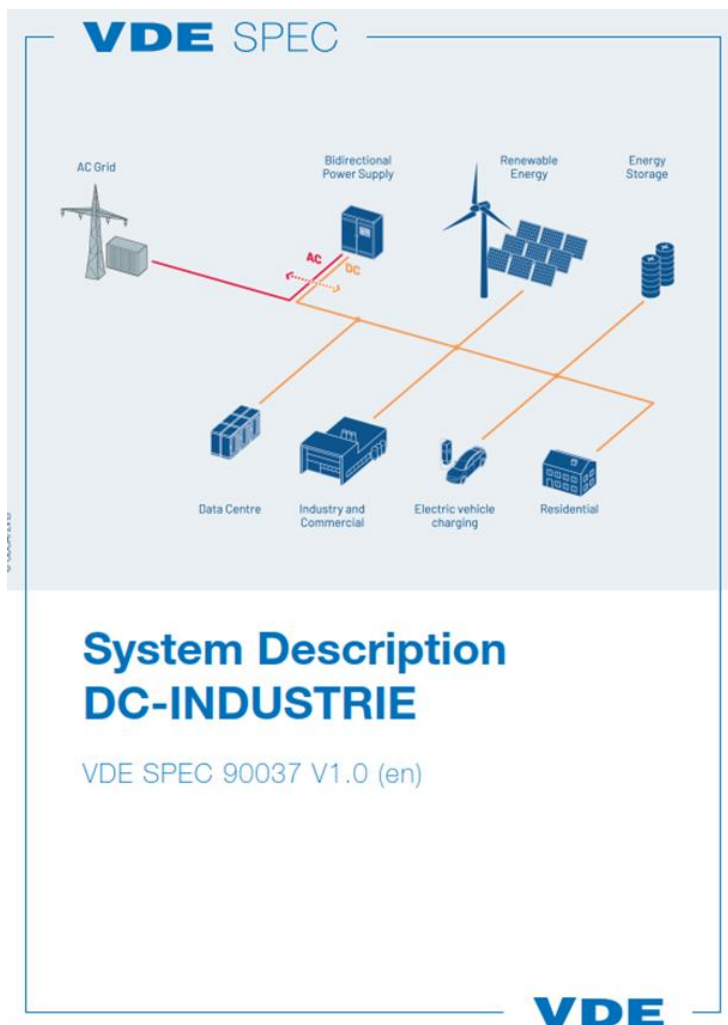
Open Direct Current Alliance ODCA – Who are we?



Plenary meeting March 2025

- **International non-profit organization**
- With **80+** members
- In **16** countries
- On **3** continents
- Main office – **dedicated staff**
- **5** active working groups

Open Direct Current Alliance ODCA – What do we do?



• Publish system description

- Free access

- Recognized by German standards organization VDE

• Networking

- Knowledge exchange

- Best practice sharing

- Contribute to IEC & UL standardization



ODCA: Vision and Mission



Vision

- DC contributes to a sustainable world



Mission

- Establish an international DC ecosystem

Our **organizational** DNA

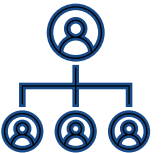


Open technology

- System description freely available
- Based on existing certification
- Liaison with global standardization

Organization

- **Full-time independent staff**
- Transparent working groups
- **Elected board** & working group chairs

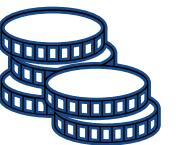


Equal access

- **One member – one vote**
- Same rights for all
- Bringing together the entire DC ecosystem

Membership fees

- **According to company size**
- Everyone contributes

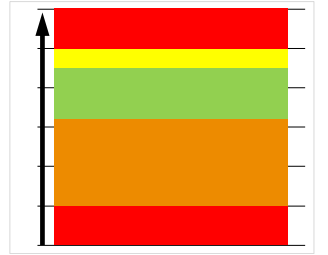


Our **technical** DNA – overview



Symmetry

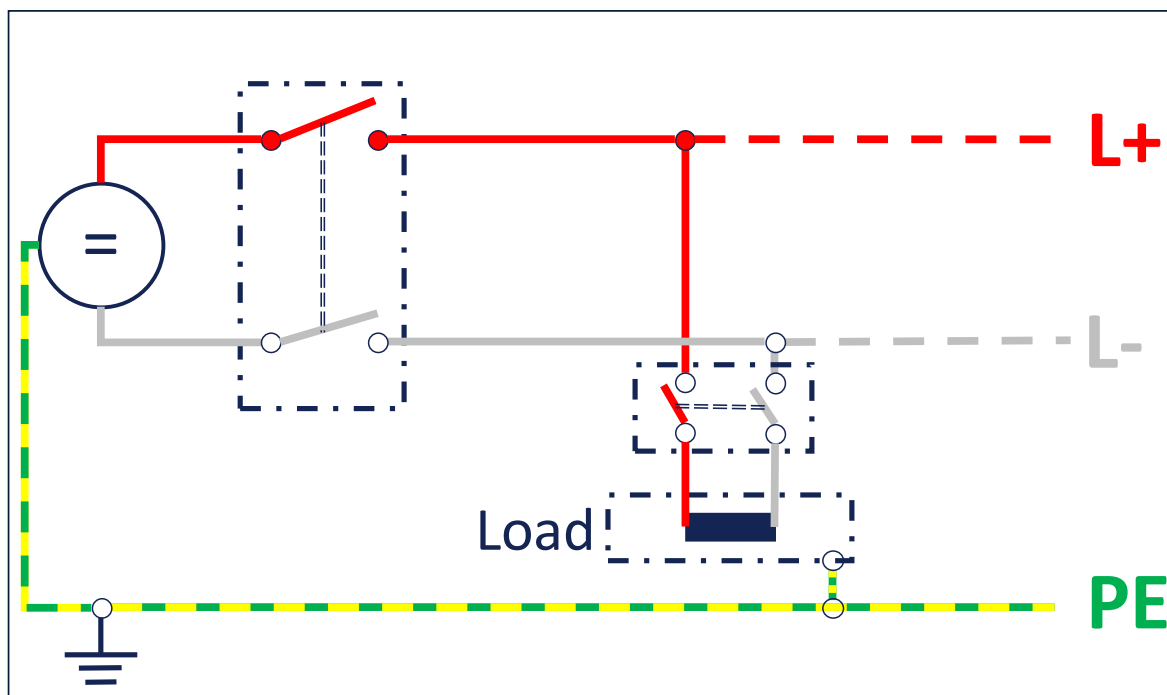
Voltages



Power
management

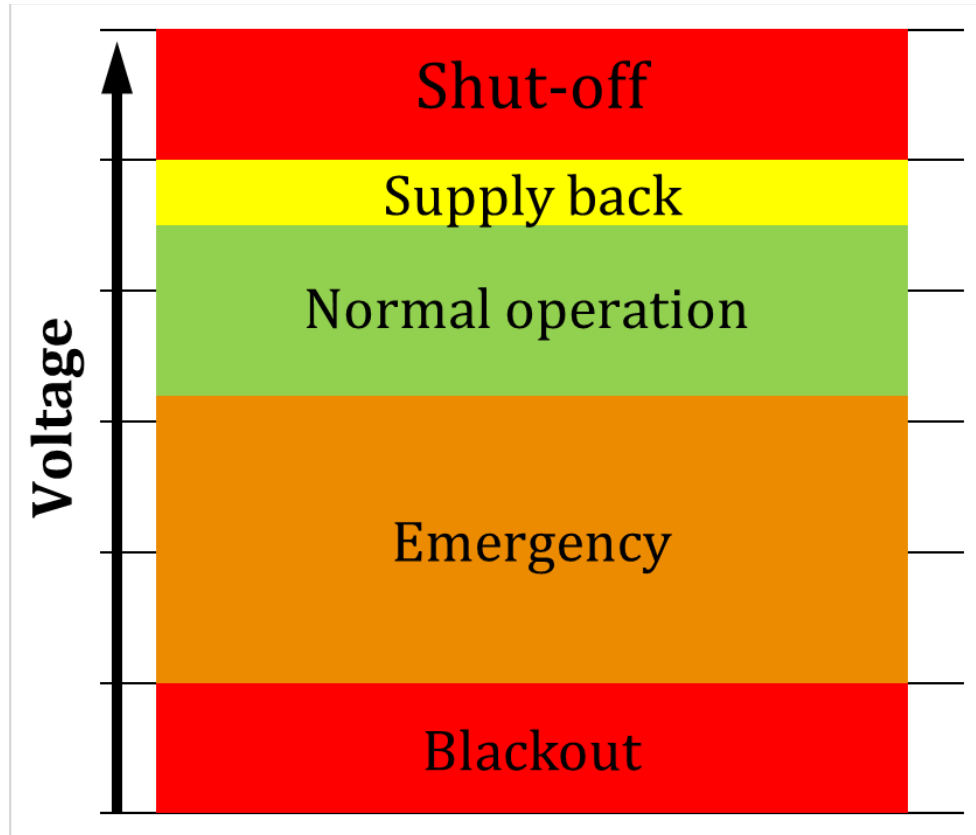
Protection





Symmetrical system

- L+ and L-
- Simple wiring
- Simple control
- Simple protection
- Smaller insulation distance
- No active wire at / near ground potential

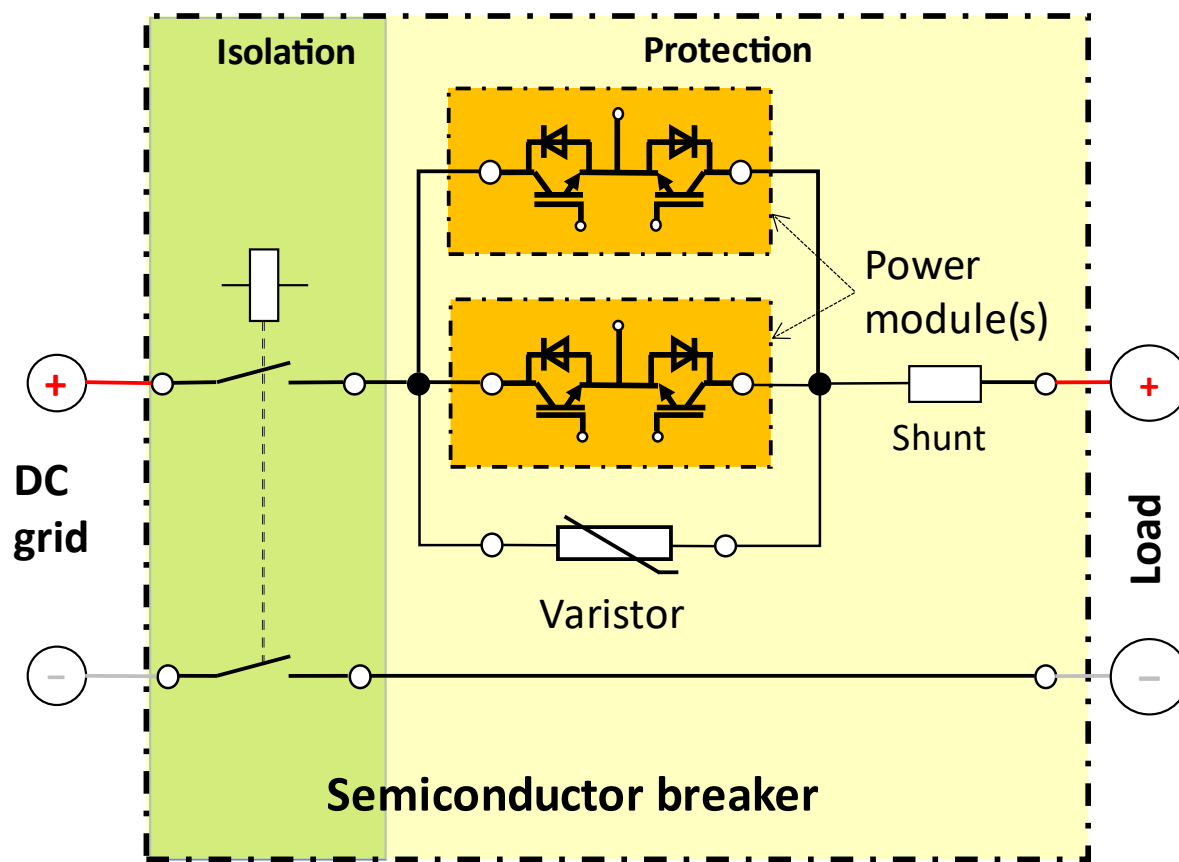


- Voltage band
 - Full function in green band
 - Based on IEC TR 63282
 - Compatible to AC voltage levels



- **Power management**
 - Droop curve
 - Measure voltage → control power

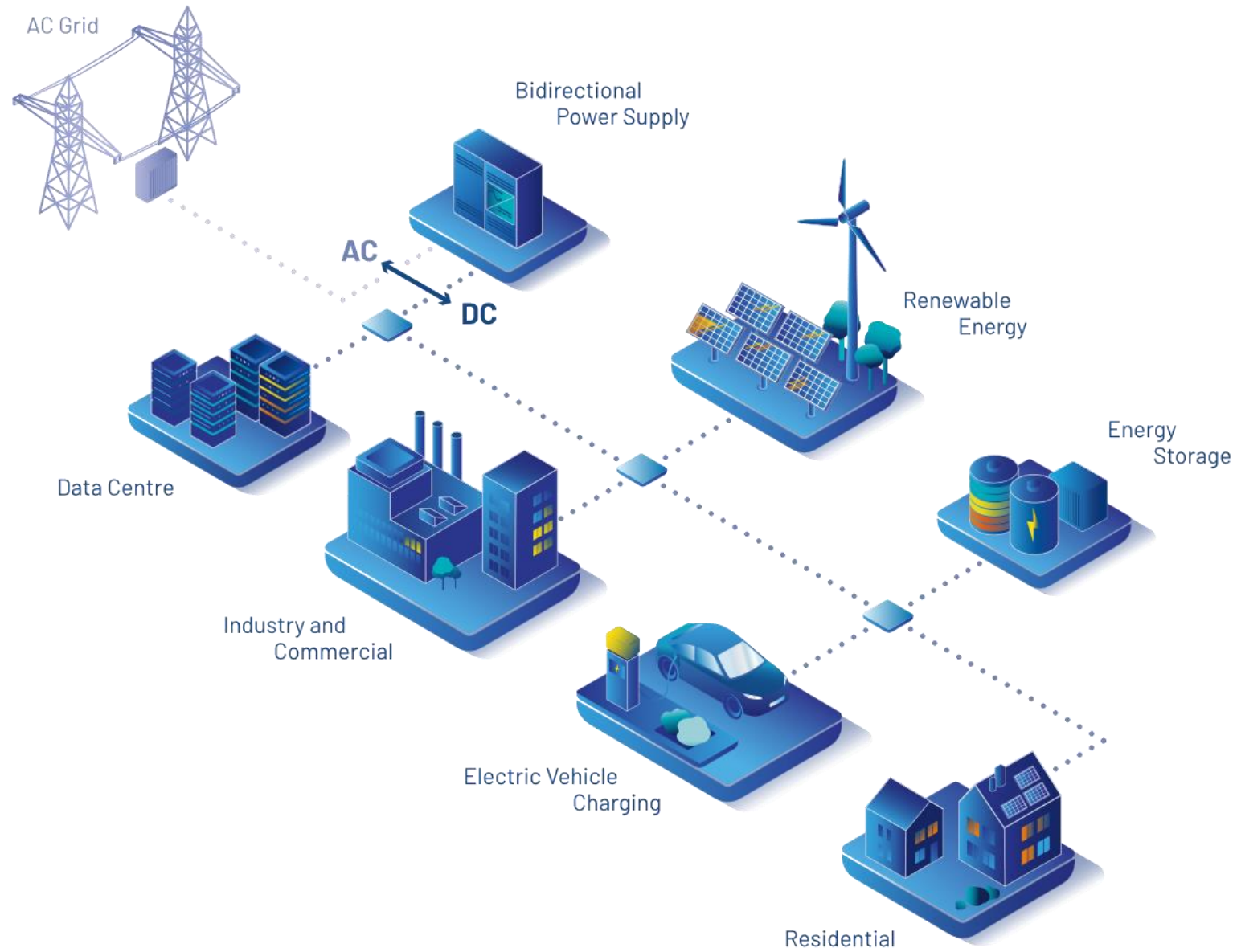




• Protection

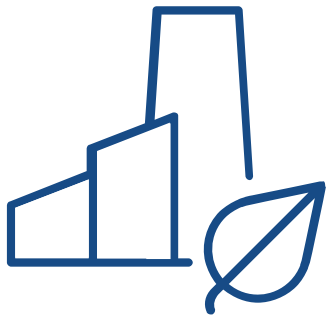
- Electronic solution preferred
- Same safety rules as for AC





WE CAN DO BETTER – WITH DC!

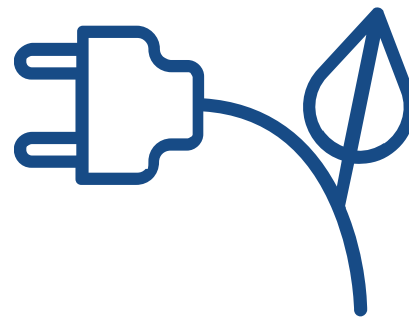
For more
information:



Resource
efficient



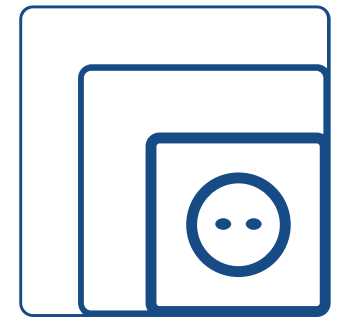
Energy
efficient



Direct
integration of
green energy

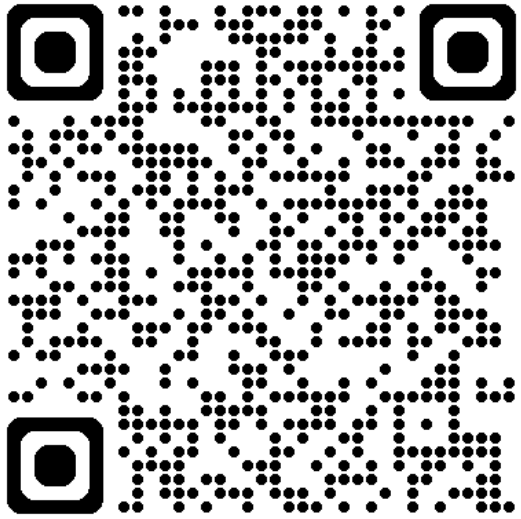


Resilient



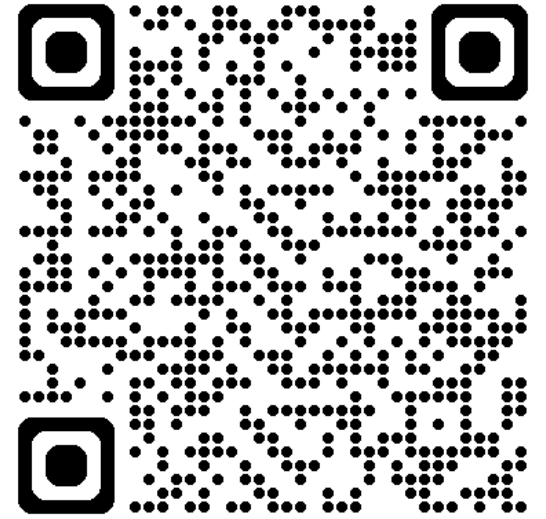
Peak power
reduction

in



<https://www.linkedin.com/showcase/opendcalliance/>

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<https://odca.zvei.org/>