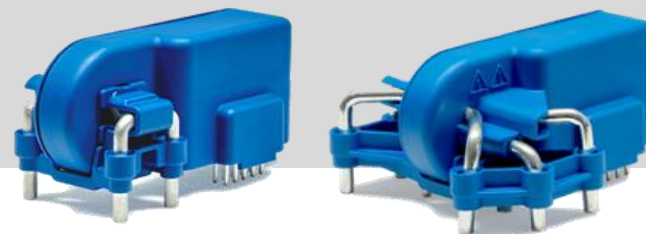




CDSR Series

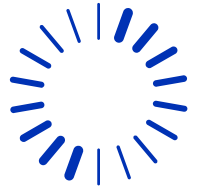
Leakage Current Sensor



LEM

CDSR

Leakage Current Sensor



Complies with standards, nothing more

Design

- Single phase up to 7.3 kW / 32A
- Three phase up to 22 kW / 32A
- Extremely compact solution 26 mm

Downsizing

Safe & LEM quality

- Over current detection via default output
- Independent test winding
- 2kHz bandwidth

State of the art technology

Complies with application standards

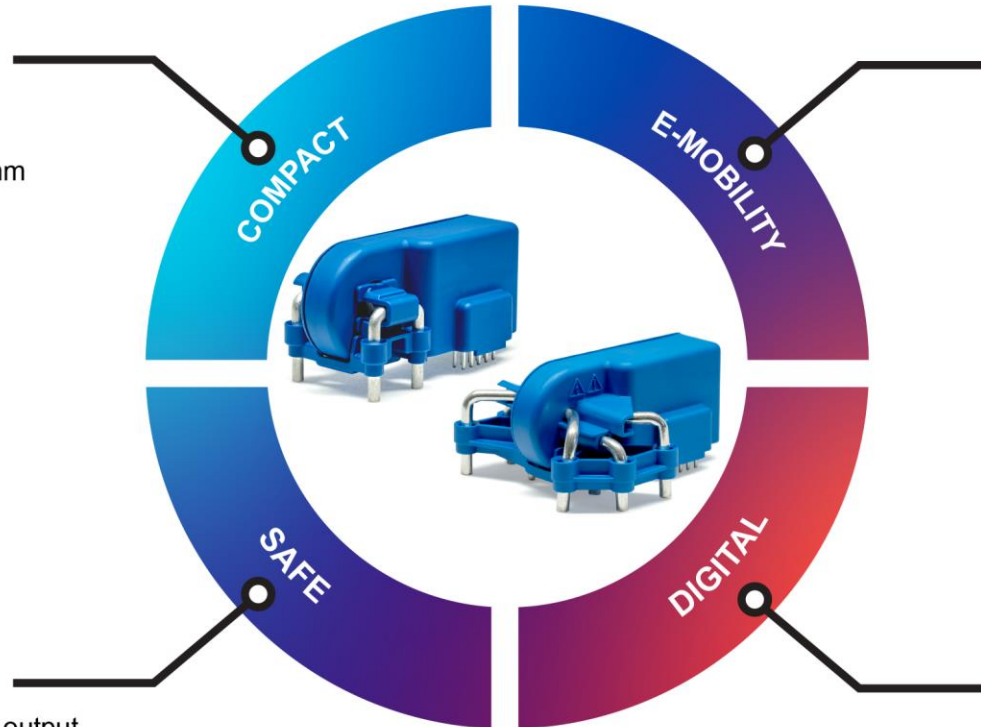
- IEC 61851-1 / IEC 62752 / IEC 62955
- UL 2231-1/-2 /
- UL 2594

6 mA DC, 30 mA AC measurement

Digital sensor

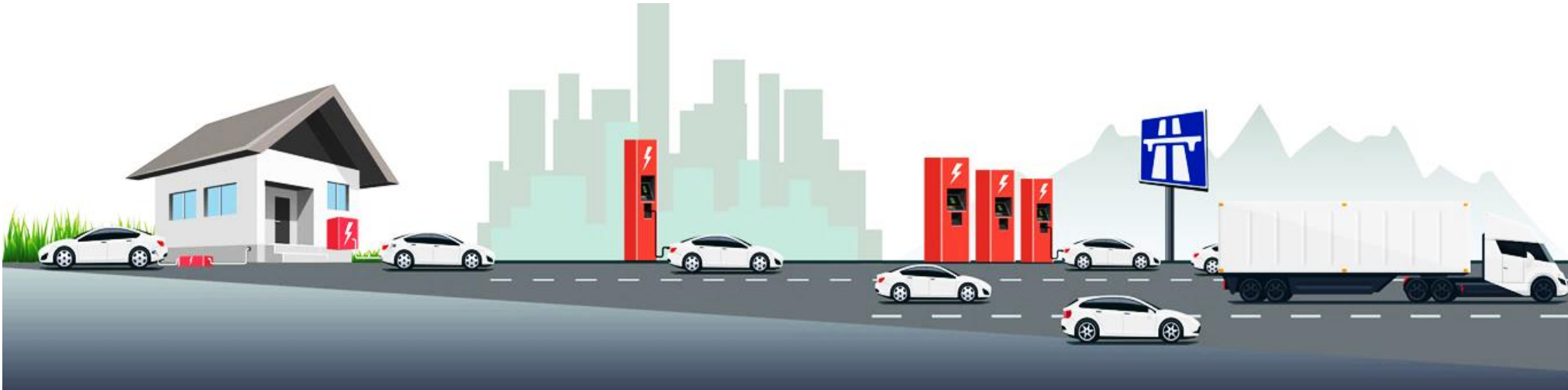
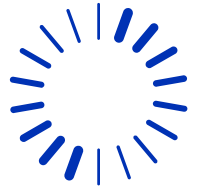
- Serial Peripheral Interface
- Analog output
- Ratiometric and differential output

SPI & Analog output



CDSR

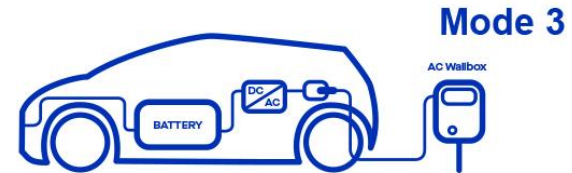
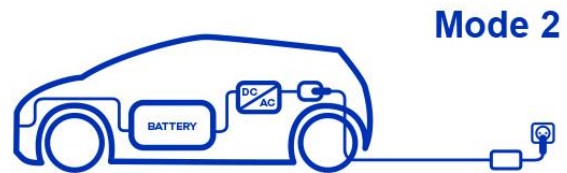
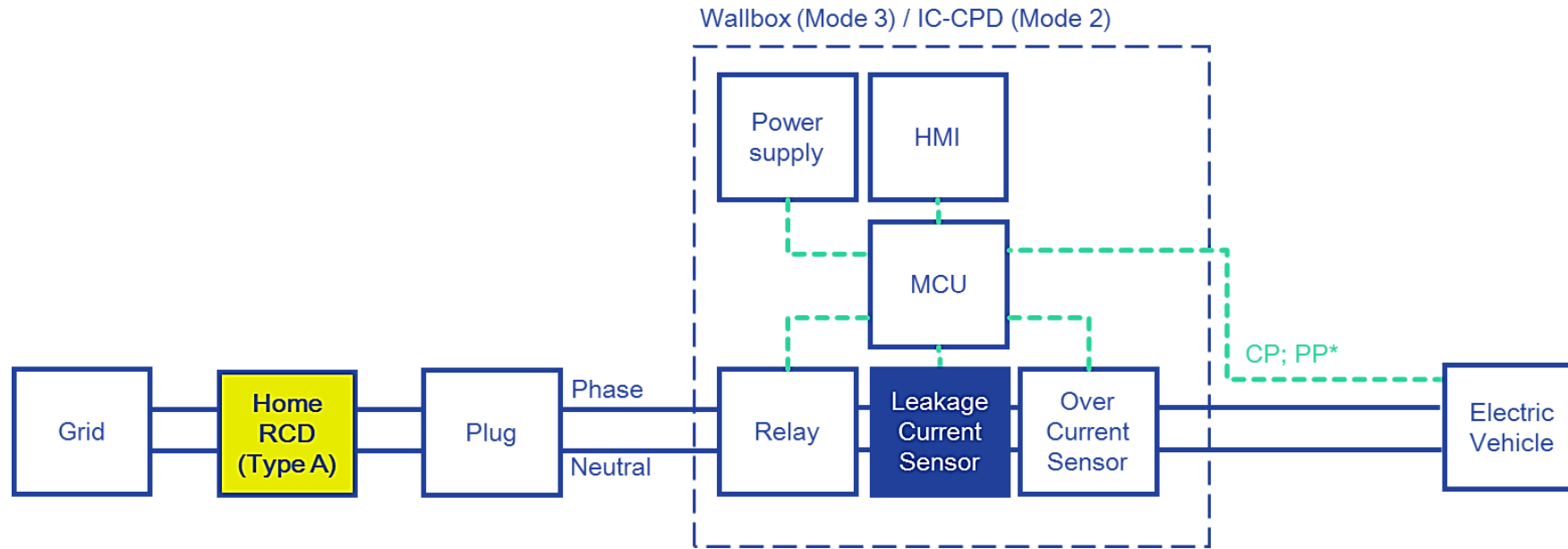
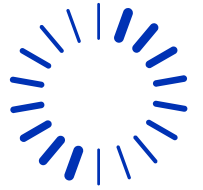
Leakage Current Sensor



| | | | | |
|-------------|-------------|--------------|---------------|--------------------|
| 7 h | 35 min | 30 min | < 10 min* | < 4 min* |
| 3.7 kW | 44 kW | 50 kW | 150 kW | 400 kW |
| Cord set | Wall-Box | Fast charger | Super charger | Ultra Fast charger |
| AC chargers | DC chargers | | | |

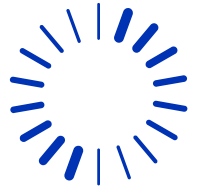
CDSR

Leakage Current Sensor



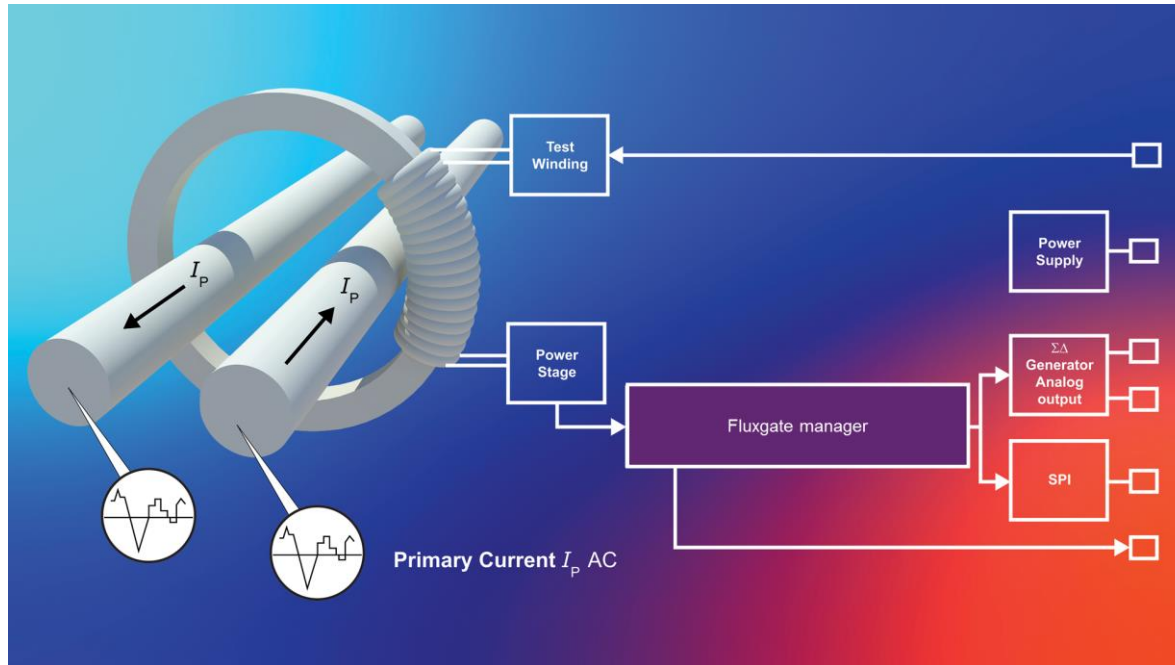
CDSR

Leakage Current Sensor



Market needs:

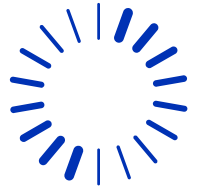
- New AC chargers, wallbox, cord set need to detect DC leakage current, with a Residual Current Sensor to protect RCDs Type A against the blinding effect
- This detection is defined at 6mA DC by standards



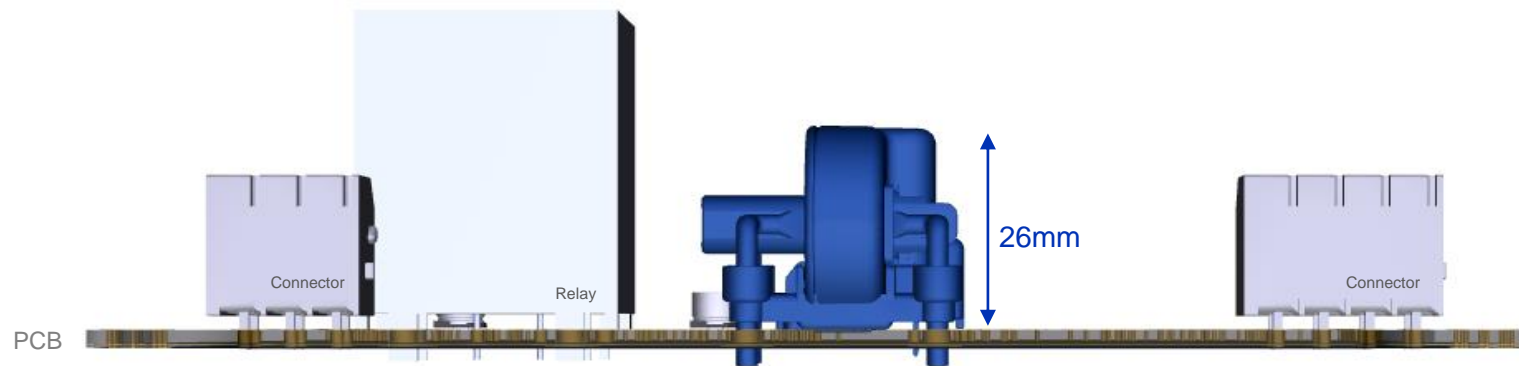
- **Fluxgate technology** allows reduced size of and 0.5 mA DC measurement
- **Dual output communication** Serial Peripheral Interface (SPI) and Analog enable the transition to the digital world
- **Test winding** enables independent check of the sensor directly connected to the magnetic core

CDSR

Leakage Current Sensor

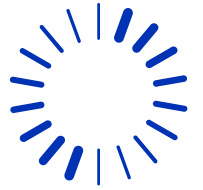


**Designed for Downsizing
& Cost-optimized
electronics**



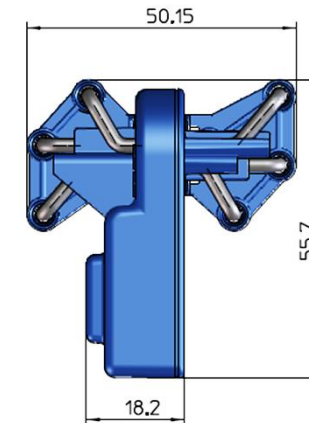
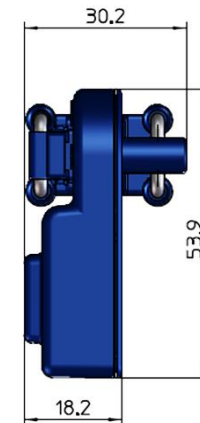
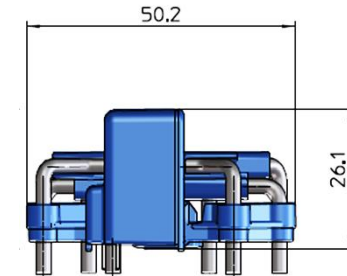
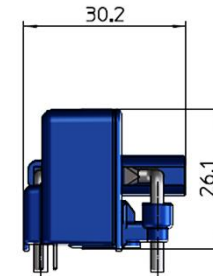
CDSR

Leakage Current Sensor



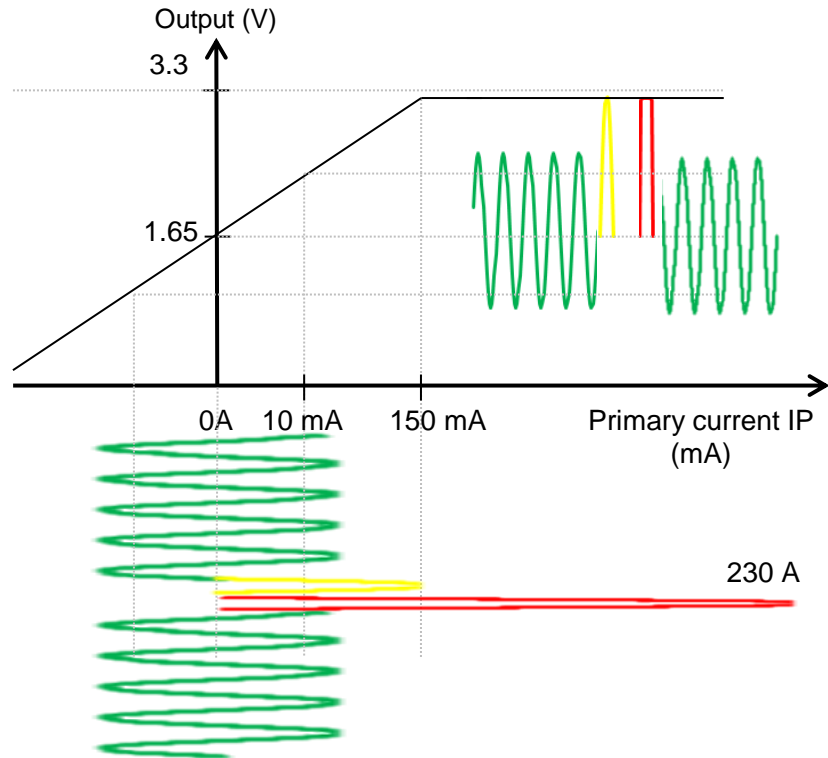
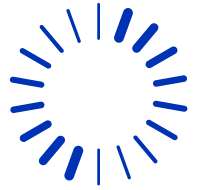
Key features

- Primary current 32 A RMS
- 150 ± mA AC and DC measuring range
- ±0.5 mA accuracy at 5 mA AC and DC
- Dual output with digital com. (SPI) and Analog
- Test winding
- < 50 mA current consumption at 3.3V
- -40°C to 85°C operating temperature
- DC to 2kHz Bandwidth
- 8 mm Creepage and Clearance distances Prim. / Sec.
PD2 OVC2 (TP) /OVC3 (NP) 300 V UL 840, 4000 m
- Ratiometric and differential output signal
- [IEC 62752 / 62955 / 61851-1 / UL 2231-1,2](#)



CDSR

Leakage Current Sensor



Nominal Current: ± 1 to 10mA

- Residual current is measured by the CDSR with the highest accuracy at ± 0.5 mA DC

Measurement range: ± 150 mA

- Max peak current is measured by the CDSR with an accuracy at 10% of I_{pn} AC & DC

Peak current: 230A

- A short pulse of up to 230 A is acceptable



Thank you

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