

Schaefer DC charger, 400-800V, 100kW-240kW versions available

[Download PDF Brochure \(English\)](#)

[Download PDF Brochure \(German\)](#)



- AC input: 3-phase, 47 - 63 Hz
- DC output: Voltage and Current to match battery
- Output power 100-240kW
- Continuous short circuit protection
- Galvanically isolated DC output
- Over-voltage protection
- Thermal shutdown with auto restart

- Industrial grade components
- High efficiency through ZVS topology
- High power density
- Compact and robust design
- Parallel, redundant operation
- Input 3 phase contactors switch off unit within 100ms of emergency power off signal

Input

- Voltage range 3 x 400V AC + 15% / - 20% (ph-ph) unit switches off at under- and overvoltage
- Frequency 50/60 Hz
- No-load input power. approx. 20 W
- Switch-on time 300 ms typical
- Inrush current electronic inrush current limiting
- Immunity
 - ESD. acc. to DIN / EN 61000-4-2 level 3
 - Fast transients acc. to DIN / EN 61000-4-4 level 3
 - Surges acc. to DIN / EN 61000-4-5 level 3
- Output
 - Line regulation ($\pm 10\%$) 0.1 %
 - Load regulation (10-90 %) approx. 2%
 - Load transient (10-90-10 %) . . . 6 % typical
 - Response time to $\pm 1\%$ 20 ms typical
 - Turn-on rise time Soft-start, 300 ms typical
 - Overload protection current limited to 105 - 110 % of I_{nom}
 - Overvoltage protection OVP switches off module with automatic return to operation, after 5 seconds, the unit will remain latched off. It can be re-started by pressing the reset push button.
- Remote sensing internally connected to the output.
- Redundant operation by decoupling diode.
- Parallel operation current balancing by active current sharing with interrupt in case of faulty unit in parallel operation (CSI).
- General
 - Efficiency 90 %
 - Operating temperature. -25 to $+75\text{ }^{\circ}\text{C}$
 - Storage temperature -40 to $+85\text{ }^{\circ}\text{C}$
 - Humidity up to 95 % RH, non-condensing + additional protection against moisture, humidity and/or unhygienic environmental conditions.
- Cooling forced cooling with temperature controlled fans.
- Temperature load derating 2.5% / $^{\circ}\text{C}$ from $55\text{ }^{\circ}\text{C}$
- Temperature coefficient 0.02 % / $^{\circ}\text{C}$ typical
- Switching frequency approx. 20 kHz
- Safety / Construction. acc. to DIN / EN 60950-1: 2003
- Isolation resistance $> 10\text{ M Ohm}$ at 800V DC
- Isolation voltage acc. To EN 60950-1: 2003
- Construction (safety) acc. To EN 60950-1: 2003

- Earth leakage < 3.5mA at 230VAC acc. To EN 60950
 - Protection category IP 20, others or NEMA upon request
 - EMC. acc. to EN 55022, class A
 - MTBF(each unit). approx. 70,000 h @ 40°C acc. to MIL - HDBK - 217 E
- (notice 1)