



International Power Electronics Consulting IPEC LLC

Founded in 2007 by Prof. Dr. Johann W. Kolar,
Director of the Power Electronic Systems Laboratory, ETH Zurich

Business philosophy: Make cutting edge technologies in Power Electronics available to industry

Business model: Provision of *Technology Packages* for selected topologies

- Complete documentation
- Hardware demonstrator
- Control software and software tools
- Tutorial and training
- Non-exclusive license with the right to build and sell own systems

Staff:	Prof. Johann W. Kolar	Founder and Chief Consultant
	Dr. Johann Miniboeck	Chief Designer
	Dr. Beat Seiler	General Manager

Main office: Zurich, Switzerland

Technical laboratory: Walkenstein, Austria

Hardware origin: Made in Austria

Examples:

3-Phase PFC Rectifiers

(uni- and bidirectional)



VIENNA Rectifier VR/I-DSP

Output power	12 kW
V_{in}	115 VAC or 230 VAC
V_{out}	350 V @ 115 VAC 700 V @ 230 VAC
Power factor	> 0.99
Power density	8.5 kW/litre (excl. heatsink and fans)

1-Ph PFC Rectifiers & DC/DC Converter

(uni- and bidirectional)

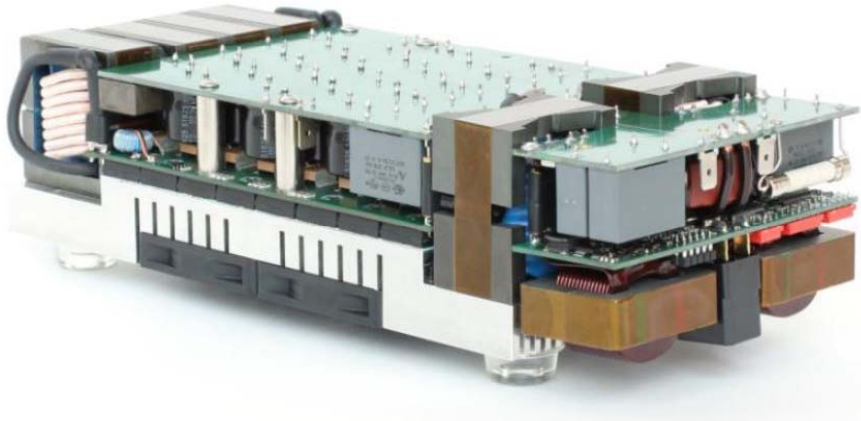


3.33kW Telecom Rectifier

	2 stage AC/DC-DC/DC; galvanic isolation
V_{in}	184...264 VAC (rms)
V_{out}	50...58 VDC
Efficiency	typ. 97%
Power density	3.33 kW/litre (incl. fans)

EV Chargers

(1-phase and 3-phase)



6.4 kW Single-Phase On Board Charger

V_{in}	185 ... 264 VAC (rms)
V_{out}	400 ... 450 VDC
	galvanic isolation
Efficiency	> 95%
Power density	4.6 kW/litre (incl. heat sink and fans)

DC-DC Converters

(uni- and bidirectional)



10 kW Dual Active Bridge

V_{in}	3ph 115 VAC or 230 VAC 50...60 Hz or 360...800Hz
V_{out}	1 kVDC or 2 kVDC bidirectional operation galvanic isolation