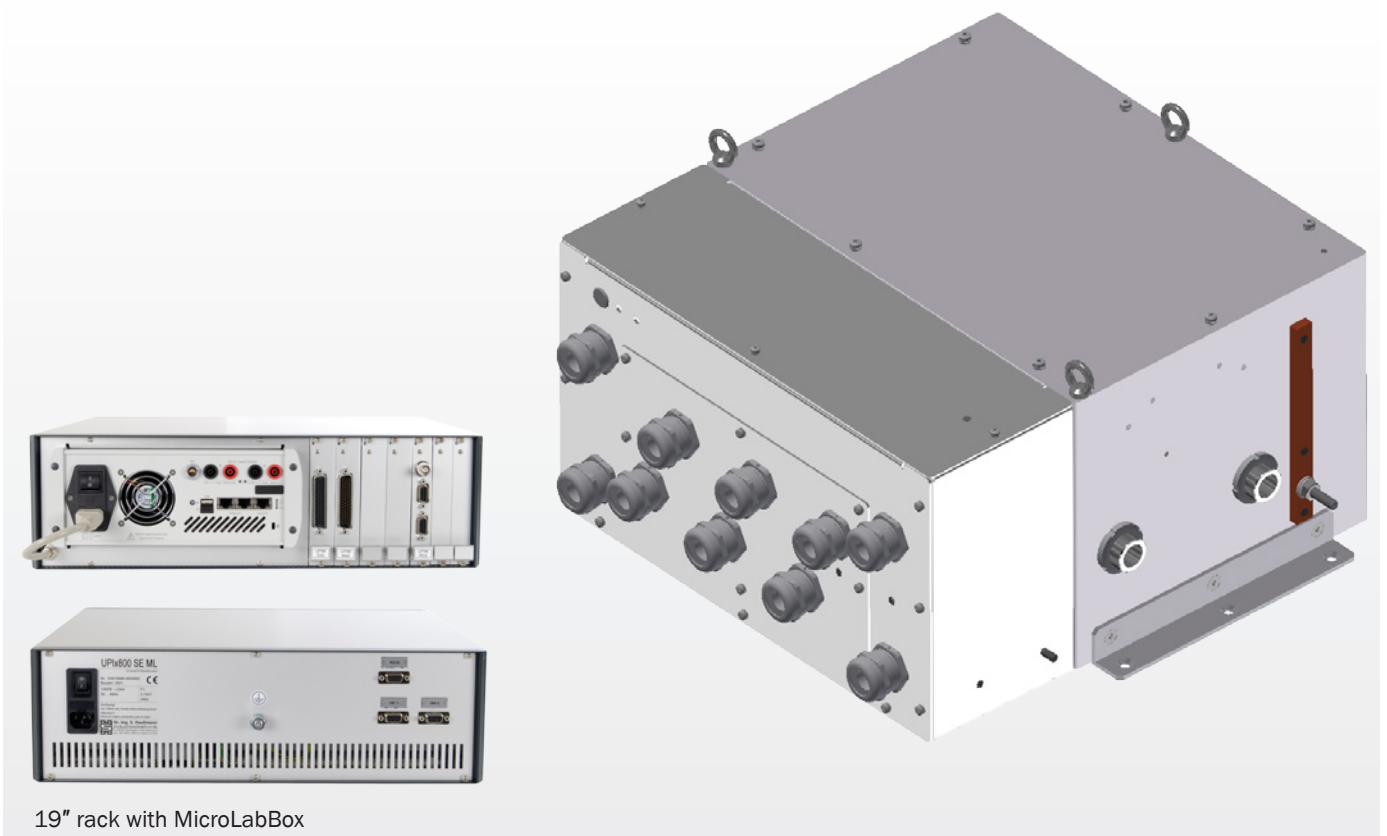




Universal test bench inverter UPI1000

Inverter for 3-phase electrical motors



19" rack with MicroLabBox

Main features

- Power electronics with SiC modules with suitable driver control.
- Control and data acquisition via dSPACE MicroLabBox with 50-pin DSub connectors
- AC and DC voltage acquisition ($\pm 0,6\%$, 0 – 800 kHz)
- DC and AC current acquisition ($\pm 1\%$, 0 – 140 kHz)
- Heat sink temperature sensing
- Connection possibilities for resolver and incremental encoders via interface cards
- Protection against overcurrent and overvoltage
- DC power supply via battery simulator or vehicle battery possible
- Internal FPGA logic for self-protection (max. frequency, hot branch, heat sink temperature)

Technical data:

Max. voltage DC:	1000 V
Continuous output AC:	1200 kVA (continuous operation)
Continuous current AC:	1000 Arms
Overload current AC:	1200 Arms for 30 s
Switching frequency:	1 kHz – max. 25 kHz
Continuous current AC vs. rotating field frequency	<p>UPI1000 Continuous current = f(fsw, fout), 1000VDC (20.02.2022)</p>
Overload current AC vs. rotating field frequency	<p>UPI1000 Overload current = f(fsw, fout), 1000VDC (20.02.2022)</p>
DC link capacity:	1,68 mF
Protection class:	1, PE connection with min. 70 mm ²
Protection:	IP30
Permitted ambient temperature:	5 – 40 °C, non condensing humidity
Auxiliary power supply:	230 V (max. 500 VA) for inverter 230 V (max. 100 VA) for MicroLabBox

Housing dimensions and cooling water connection:

Housing, weight:	approx. 525 x 555 x 450 mm (L x W x H), approx. 65 kg
Cooling water:	50:50 water-glycol, max. flow temperature: 25 °C, 30 L/min
Dimensions MicroLab-Box mounting:	approx. 450 x 450 x 135 mm (L x W x H)

Schematic representation:

