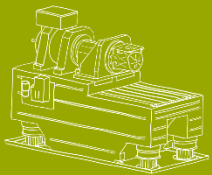
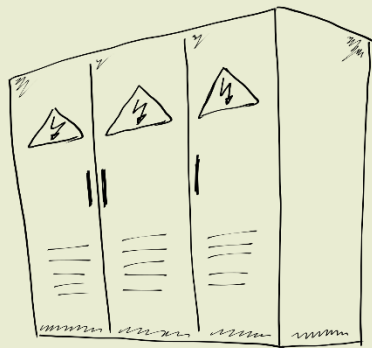


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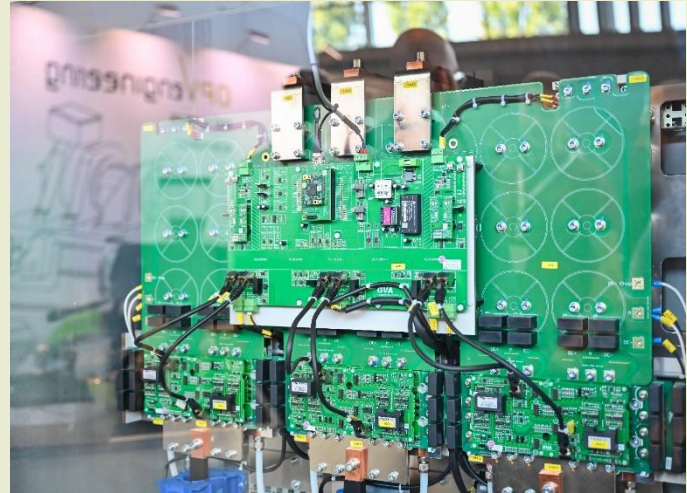


OPVdynarig

performance drives



OPVdynarig test rig inverters



Flexible and scalable inverter design

- Scalable power with parallel power modules
 - Hard or soft paralleling
 - Paralleling with interleaving
- IGBT power modules with
 - 1.200 V (e.g. 480 V engines) and 1.700 V (e.g. 690 V engines)
 - Switching up to 20 kHz per module
 - Higher effective switching rate with interleaving or multilevel design
- Direct DC supply of inverter or optional AFE supply modules
- Optional DC sources at common DC bus
- Water or Air cooling

High dynamic current and speed control

- Minimized reaction time through FPGA integrated speed and current control
- Calculation time current and speed control: 1 μ s
- State space implementation enables robust and highly dynamic operation
- Various encoder interfaces with high acquisition rate up to 4 MHz available (SinCos, Resolver, EnDat, TTL...)
- IGBT / SiC / Multilevel capable
- EtherCAT slave interface with up to 20 kHz and option for synchronized bus and control



Example: highspeed AC dyno 8.000 rpm

Parameter	
DC voltage (max.)	800 VDC
Output current nom. / max.	480 Arms / 620 Arms
Output power nom. / max.	280 kW / 410 kW
Switching frequency nom. / max.	8 kHz / 20 kHz
Cooling type	Water
Number of power modules	1
Topology	2-level
Cabinet size (without AFE / DC supply)	600 x 2.200 x 600 mm (WHD)
Fits for dyno brand and type	GTW 1662MT / Siemens 1SR9

Example: highspeed PM dyno 18.000 rpm

Parameter	
DC voltage (max.)	1.200 VDC
Output current nom. / max.	830 Arms / 1.550 Arms
Output power nom. / max.	252 kW / 455 kW
Switching frequency nom. / max.	11 kHz / 30 kHz
Cooling type	Water
Number of power modules	2
Topology	2-level with interleaving
Cabinet size (without AFE / DC supply)	1.000 x 2.200 x 600 mm (WHD)
Fits for dyno brand and type	Krebs & Aulich PMW160L4P3

Example: highspeed PM dyno 25.000 rpm

Parameter	
DC voltage (max.)	800 VDC
Output current nom. / max.	1.020 Arms / 1.200 Arms
Output power nom. / max.	520 kW / 600 kW
Switching frequency nom. / max.	12 kHz / 22 kHz
Cooling type	Water
Number of power modules	2
Topology	2-level with interleaving
Cabinet size (without AFE / DC supply)	1.000 x 2.200 x 600 mm (WHD)
Fits for dyno brand and type	DEF Hercules 200

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