




MV HESS Inverter

Name of the HW/SW technology: MV HESS Inverter Purpose of the HW/SW technology: Converting DC into AC / Grid connection of the MV HESS storage elements	
Detailed description	Inverter for connecting DC sources like batteries or Photovoltaic modules to the electrical grid. Due to the newest technologies the inverter is very compact and is 2-4 times smaller than state of the art products.
Applications	Designed for applications where size matters. Fits perfectly in a row with typical battery racks and can be used inside of sea container. Due to fast reaction and high efficiency it is suitable for PV and battery inverters.
Technical specification	Nominal Power of 1000 kW Efficiency up to 98,9% Modular with 8 slots with 125 kW each Inverter built into a 19" Rack with 200 cm Included Technologies: <ul style="list-style-type: none"> - Newest Silicon MOSFET Semiconductors - high switching frequency of 40 kHz - Water cooled semiconductor - Push in technology (slot can be removed during operation) - Advanced chokes built out of ironpowder material in tablet form - Predictive Control Algorithms for fast and smooth reaction to set point changes and disturbances
Images, drawings	 <p>Inverter slot with 125 kW power</p>





Full Inverter Rack with 1000 kW power

Company name and details

Fraunhofer Institute for Solar Energy Systems ISE
Stefan Schönberger
Heidenhofstr. 2, 79110 Freiburg, Germany
Phone +49 761 4588-5311
stefan.schoenberger@ise.fraunhofer.de
www.ise.fraunhofer.de

