



POWERFORGE
MADE FOR POWER CONVERTERS

THE INNOVATIVE BENCHMARK SOFTWARE FOR POWER CONVERTERS

EXPLORATION



**SWEEP ACROSS
MULTIPLE
PARAMETERS**



**BENCHMARK POWER
SEMICONDUCTOR
DEVICES FROM A WIDE
& EXTENSIBLE LIBRARY**



**SPECIFY
OPERATING
POINT**



**BENCHMARK
TOPOLOGIES:
FLYING-CAPACITOR,
NPC, T-TYPE...**



**EXPLORE
MODULATION
STRATEGIES**



**MANAGE
SWITCHING
FREQUENCIES**

COMPARISON



**EVALUATE
PERFORMANCE
CRITERIA**



**COMPARE
SiC MOSFET vs
IGBT 2-LEVEL vs
MULTILEVEL**



**TRADE-OFF
EFFICIENCY vs COST,
COST vs TECHNOLOGY,
FREQUENCY vs MASS...**

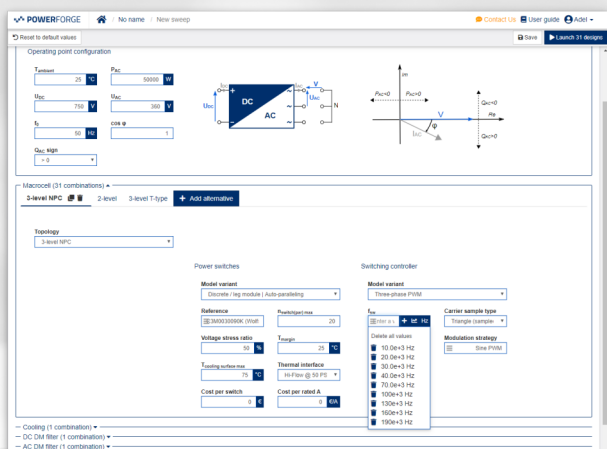
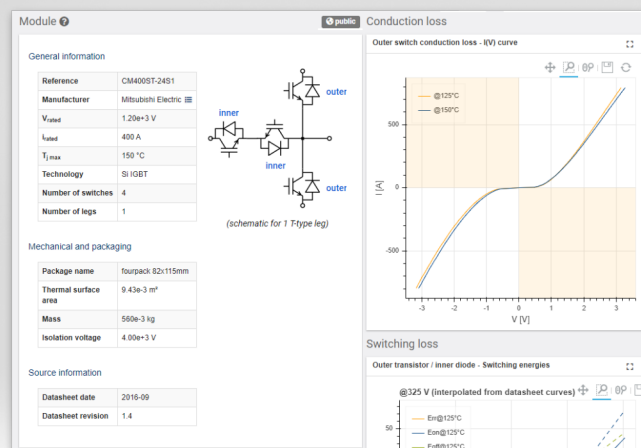
MASS — VOLUME — LOSSES — COST

Automated sweep and trade-off of POWER CONVERTERS — Smaller at same cost

BROAD LIBRARIES OF

These libraries are assembled from manufacturer-provided data, harmonized in a universal data set enabling a fair comparison across manufacturers and technologies:

- **IGBT, Si & SiC MOSFET, GaN FET**
- Packaged as discretes & power modules
- Film capacitors
- Magnetic materials



AUTOMATED MULTI-PARAMETER SWEEP

Explore the sensitivity of parameters such as:

- **Semiconductor**
- Switching frequency
- Topology
- Modulation strategy
- Number of paralleled chips & interleaved legs

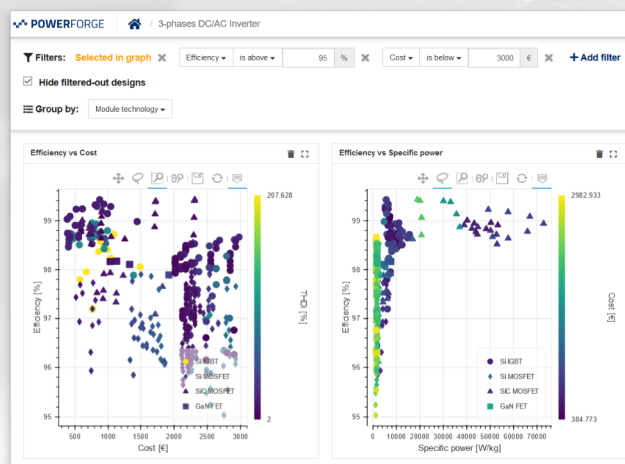
Comprehensive performance data is provided for each parameter combination, helping engineers to identify the best power converter design solution.

CUSTOMISABLE DATA VISUALIZATION TOOLS

Effortlessly build graphs that highlight the performance trade-offs relevant to your project, such as:

- **Efficiency vs cost**
- **Power density vs cost**

Compare across several possible solutions the breakdown of total converter **losses** and **cost** between semiconductor devices, heatsink and filtering passives.



EXPORT TO THIRD-PARTY SOFTWARE: READY TO USE

