

# Next- Generation High-Power IGBT Modules



Power Semiconductors

"Reliability, Efficiency, Operating Performance"

Next-Generation 1800A & 2000A 3.3kV, 1500A 4.5kV, 1000A & 1200A 6.5kV



## Applications

- High reliability inverters
- Motor controllers
- Traction Drives
- Different circuit topologies (half bridge, single switch, chopper).

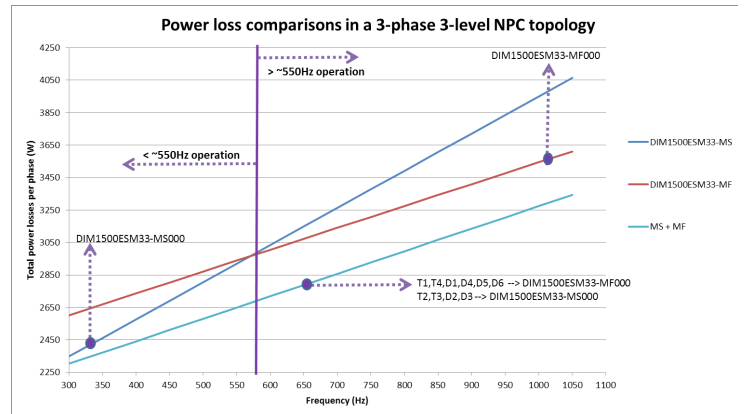
The Dynex manufacturing plant is a vertically integrated facility with device design, wafer fab, packaging, qualification and testing available on site. With facilities in the UK and China, we are able to offer mass production capabilities, engineering samples and collaborative R&D projects.

The industry-leading high-power modules are robust and work with high reliability at any temperature condition from  $-40/-50^{\circ}\text{C}$  up to  $+150^{\circ}\text{C}$ .

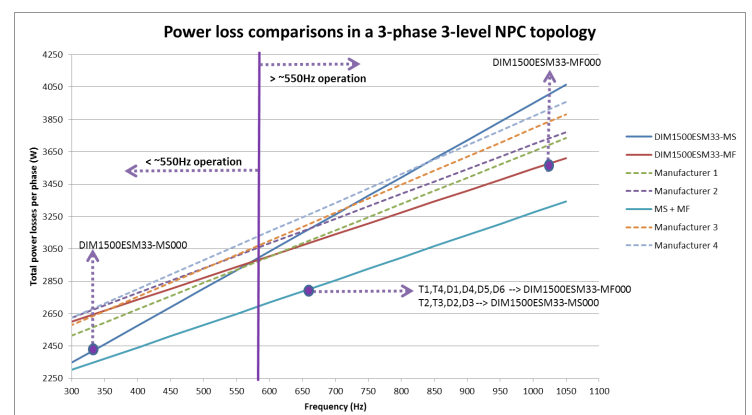
Great emphasis is placed on low inductance power bus bar designs so the module can cope with fast switching transients such as, those of next generation Trench Gate IGBT's and SiC MOSFET.

## Key Features

- Demonstrable lowest total losses of any module on the market
- $150^{\circ}\text{C}$  operating junction temperature for greature durability
- The most robust module package
- 3 chip options for performance optimization
- Latest generation Dynex-proprietary LOCOS Trench Gate designs



Semiconductor Power losses per phase (W) Vs. Frequency (Hz) MS vs MF and optimised use of MF + MS



Comparison of Power Losses using Dynex MS and MF variant modules vs modules from four competitors