Tunng Standards to New Limits

SEMITRANS® 10 DPD
Up to 2MW
SEMİTRANS® 10 DPD

SEMİTRANS 10 DPD is a robust standard compatible package with copper baseplate and screw terminals that boosts output performance to 1800A nominal output current thanks to the new Direct Pressed Die (DPD) technology. Excellent switching behaviour that ensures low losses in combination with superior low Rth enables a Tjop below 150°C, while delivering 30% higher output power than with standard solder packages. Semikron’s unique DPD bus bar concept allows the single AC terminal concept to be maintained, enabling straightforward upgrades from existing stack designs.

Benefits
- Robust industrial standard compatible package
- Direct Pressed Die (DPD) technology
- Optimised low stray inductance design for safe operation with high DC-link voltages
- Unique low-loss switching performance

Applications
The new DPD-based package is designed for a broad range of applications such as wind and solar power, industrial drives and traction applications, all of which require a long service life and robustness, while maintaining flexibility and scaling capabilities.

Product range
The SEMİTRANS 10 DPD is available in 1700V / 1800A half-bridge topology in an industrial standard package.

More output power with symmetric paralleling

SEMİTRANS 10 DPD and SKYPER Prime have been optimized to provide outstanding performance, a multitude of features and sophisticated paralleling.
- Digital signal processing in the SKYPER Prime driver ensures stable switching and error characteristics across the entire temperature range
- Stable positive and negative gate voltages for symmetric current sharing
- Direct paralleling of error, sense and switching signals
- Symmetric gate control with centralised signal distribution
- Board-to-board connection solution eliminates the need for costly cable and connector assemblies

Key features
- Fully compatible to industry standard
- Direct Pressed Die technology
- Current rating 1800A
- Enhanced switching performance
- Isolated copper baseplate using DBC technology
- Integrated gate resistors
- Integrated temperature sensor
- High isolation voltage
Novel package design

- Low Rth thanks to the use of new Direct Pressed Die Technology
- ~10 times better power cycling reliability compared to soldered and Al wire bonding technologies

More output power at lower temperatures

- 30% higher output power than in standard soldered modules by applying same chip technology
- Optimized switching performance thanks to optimized internal low stray inductance gate routing and IGBT paralleling

Upgradable package design

- Same package outline as standard packages
- High performance internal bus bar with single AC terminal

Portfolio

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<th>Type designation</th>
<th>$V_{ce}$ in V</th>
<th>$I_{ce}$ in A</th>
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