

ACEPACK DMT-32 with SiC power MOSFETs



Flexible and compact power module for OBC and DC-DC converters



Best compromise between energy losses and high switching frequency operation mode

The ACEPACK DMT-32 dual in-line, molded, through-hole power module is an all-in-one solution that is suitable for application in different stages of on-board chargers and auxiliary DC-DC converters in electric and hybrid electric vehicles.

This compact power module offers flexible topologies ready for implementation in several configurations. Its typical in-line pinout guarantees easier PCB placement and faster time to market.

Thanks to the DBC substrate, DMT-32 ensures optimal thermal performance, while the fully molded package enhances robustness and reliability, with special grooves designed to improve creepage distance.

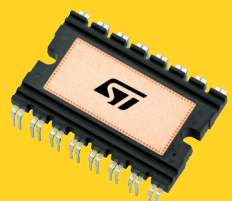
(*) Under development

KEY FEATURES & BENEFITS

- AQG-324 qualified
- 1200 V and 650 V* breakdown voltage
- SiC MOSFET power switches for higher power density and efficiency
- 175°C maximum junction temperature
- DBC substrate based on AlN and Al₂O₃*, to improve thermal performance
- 3 kV AC 60s insulation voltage
- High creepage distance thanks to the grooves on molded module
- In-line and zig-zag* pinout options
- Integrated NTC sensor

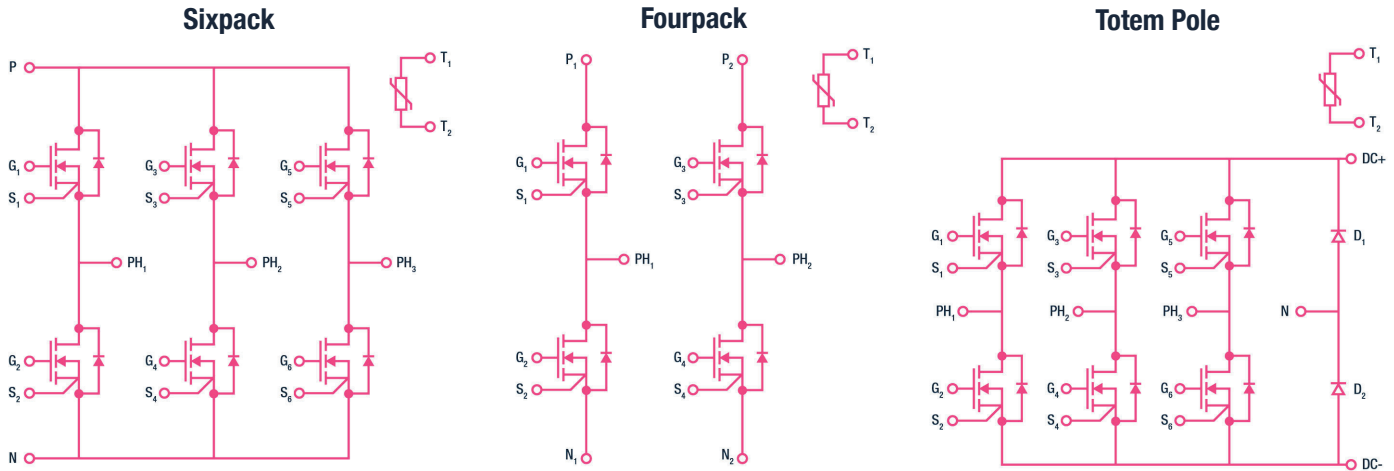
KEY APPLICATIONS

- On-board charger (OBC)
- DC-DC converter for HEV/EVs
- Fluid pumps
- HVAC



The ACEPACK DMT-32 power module incorporates Generation 2 and 3* SiC MOSFET technology in sixpack, fourpack, and totem pole converter topologies to reduce time to market in applications requiring very high power density and efficiency. The module range targets different subfunctions from 4 kW to 22 kW power, and from 650 V* to 1200 V voltage rating.

ACEPACK DMT-32 topology



(*) Under development

Pinout options



Product portfolio

Part number	Breakdown voltage (V)	Power switch	RDS(on) @25°C (mΩ)	DBC	Pinout	Topology
M1F45M12W2-1LA	1200	SiC Gen2	45	AIN	In-Line	Fourpack
M1F80M12W2-1LA*	1200	SiC Gen2	80	AIN	In-Line	Fourpack
M1TP80M12W2-2LA*	1200	SiC Gen2	80	AIN	In-Line	Totem Pole
M1P45M12W2-1LA*	1200	SiC Gen2	45	AIN	In-Line	Sixpack
M1P80M12W2-1LA*	1200	SiC Gen2	80	AIN	In-Line	Sixpack

(*) Soon available



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