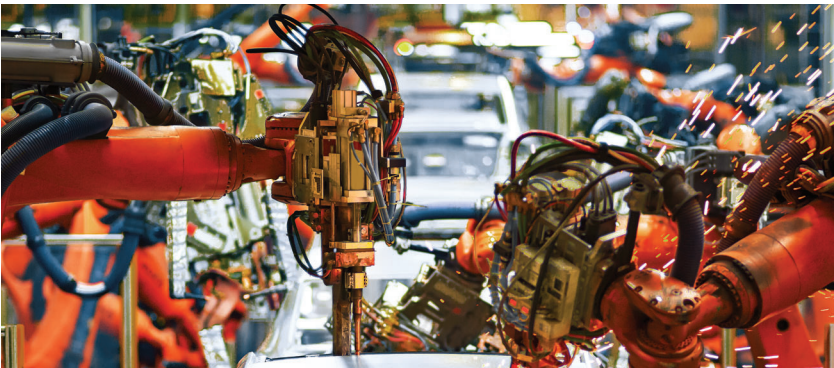




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Press-pack IGBT 3-Level Inverters

A range of 3-level topology assemblies using press-pack IGBT technology has been developed to serve applications at the highest end of the power market.

Three separate system designs are available: 3.3 kV, 6.6 kV, and 10 kV. Each system benefits from direct water cooling to provide highly effective heat dissipation away from the devices and pre-loaded disc spring clamping to evenly distribute the applied force across the entire surface area of the device. Also designed into each system is an integrated snubber circuit design and an isolated clamping rod system to limit the occurrence of eddy currents within the unit.

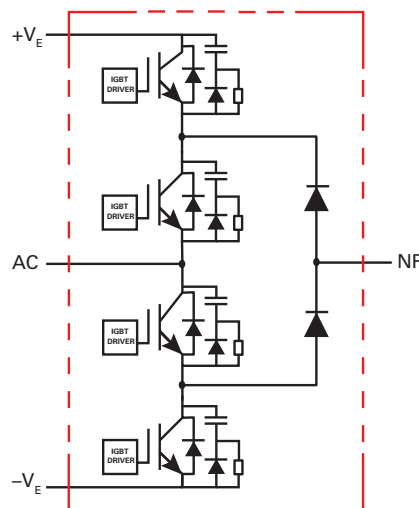
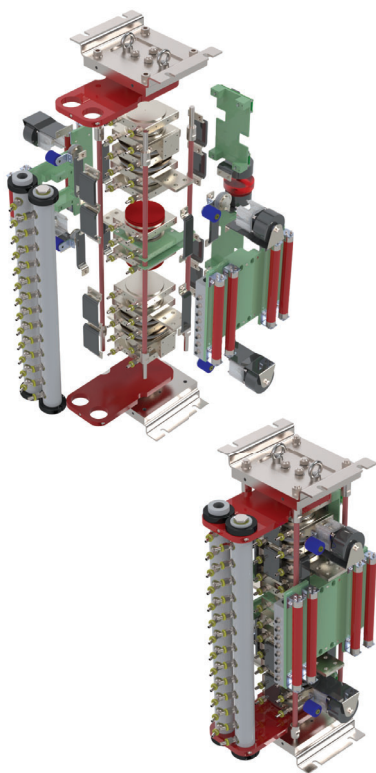
Features and Benefits

- Direct water cooled for effective heat dissipation
- Pre-loaded clamping to evenly distribute applied force
- Isolated clamping rod system
- Integrated snubber circuit
- Single unit mechanical configuration: low stray inductance

Applications

- High-power electric motors: medium voltage drives
- Transportation: marine electric propulsion systems
- Renewable energy: wind turbines, medium voltage DC grid

3.3 kV System – Diode and IGBT Stacks



Power Rating (MW)	8
Line Current (A)	1600
Number of IGBTs	4
Number of Diodes	6
Number of Coolers	13
Required IGBT Type	T2400GB45E
Required Diode Type	E2400EC45E

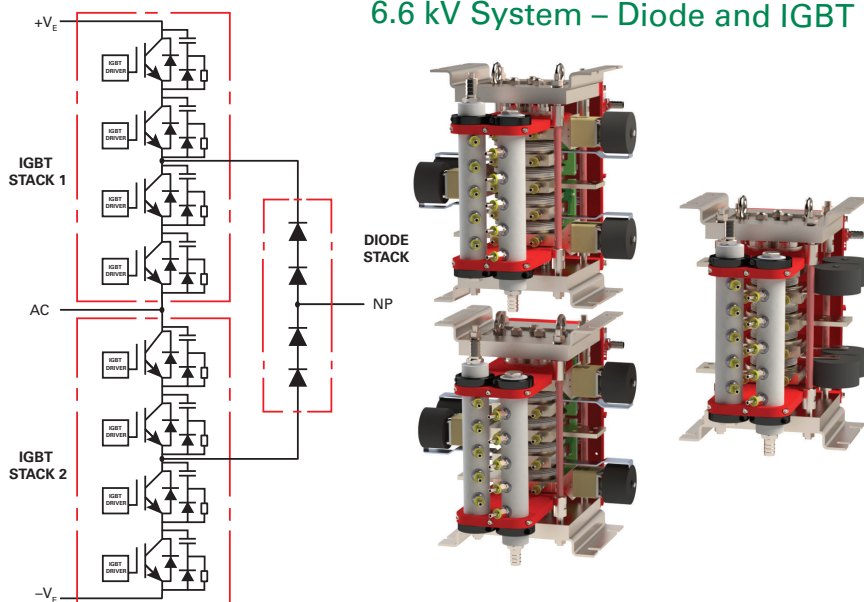


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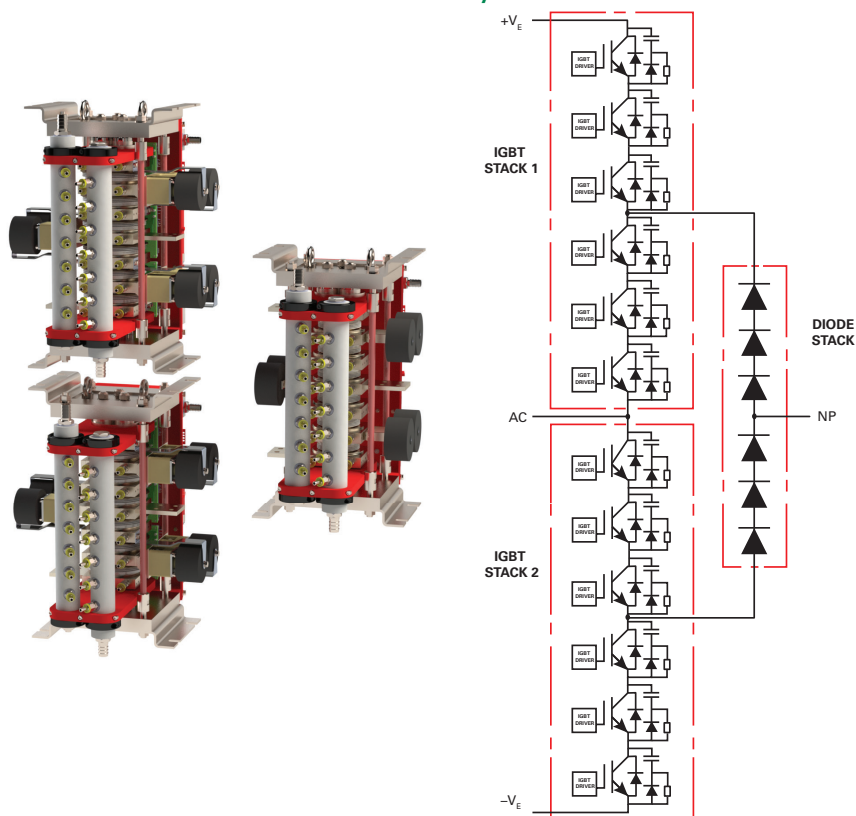


6.6 kV System – Diode and IGBT Stacks



Power Rating (MW)	10
Line Current (A)	1000
Number of IGBTs	8
Number of Diodes	4
Number of Coolers	15
Required IGBT Type	T1800GB45A
Required Diode Type	E2400EC45E

10 kV System – Diode and IGBT Stacks



Power Rating (MW)	16
Line Current (A)	1000
Number of IGBTs	12
Number of Diodes	6
Number of Coolers	21
Required IGBT Type	T1800GB45A
Required Diode Type	E2400EC45E