SKiM Stack Assembly

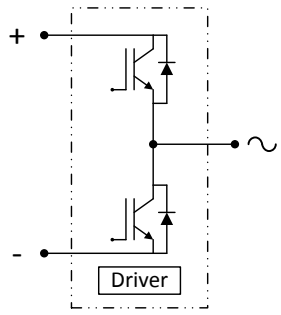
Half-Bridge Stack Assembly

SKiM429GD17E4HD

Features
- SKiM technology
- Liquid cooled
- Driver board
- Convenience Hardware Kit

Typical Applications
- Power converter for 1.5MW Doubly Fed Induction Generator

Notes
(1) Based on 1.5MW DFIG Non-ESS wind turbine application.



Circuit Diagram

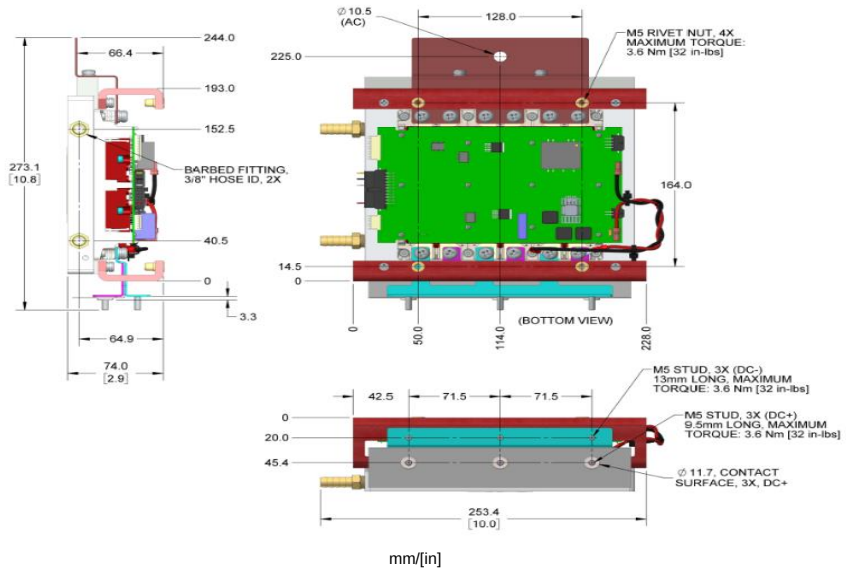
Absolute Maximum Ratings			
Symbol	**Description, Conditions**	**Values**	**Unit**
V_{CE}	Collector-emitter voltage	1700	V
V_{CC}	Maximum operating DC link voltage	1000	V
T_{jmax}	Maximum junction temperature	175	°C

The following characteristics are an estimation of the stack performance based on the given conditions.

Characteristics			
Symbol	**Description, Conditions**	**typ.**	**Unit**
I_{out} (1)	Continuous output phase current	340	A_{rms}
	60s Overload	450	A_{rms}
	10s Overload	600	A_{rms}
	1s Overload	900	A_{rms}
	Current ratings are subject to the following conditions: • Line voltage ≤ 690V_{rms} • Switching frequency = 3kHz • Fundamental frequency = 60Hz • Coolant temperature = 55°C • Coolant flow rate = 8L/min, each heatsink • Coolant = 50/50 EGW		

Description

The stack assembly consists of a single SKiM429GD17E4HD IGBT module mounted on a liquid cooled heatsink. DC and AC bus bars provide an interface between the external connections and the module. The location of the mounting holes and AC/DC connection points are compatible with the existing design. A driver board for controlling the IGBTs is mounted on the module and comprises an interface that is compatible to the existing interface.



Mechanical Outline