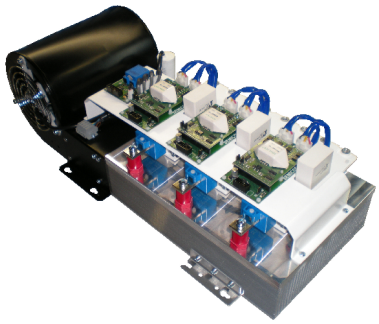
MTM-B2I0300F12LSBA

IGBT power stack

PRELIMINARY TECHNICAL INFORMATION

HIGHLIGHTS

- Wide range.
- Reliability.
- Short delivery time
- Modular system.
- Cooling system included.
- Current, voltage and temperature sensors.
- IGBT drivers included.
- Ready to use.



non-contractual photo

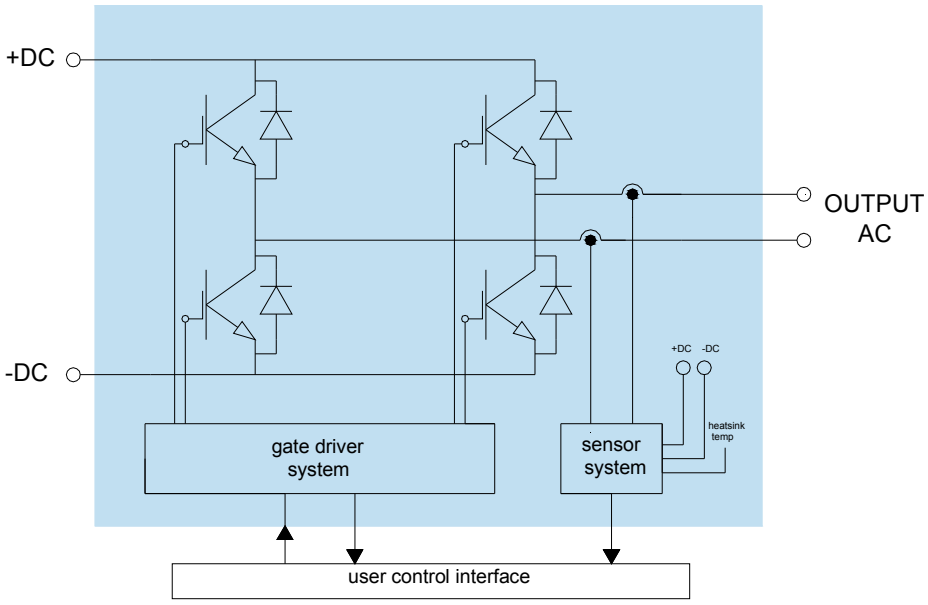
Please read before the document "MTM series complete datasheet" for further information about dimensions, connections, drivers, sensor system and more.

Briefing	
Topology	B2I
Market	industrial
Sensor system	SCiSensor153
Driver system	SCiCoreLink62
Parameters monitorized	DC voltage, Output current (each phase) temperature on heatsink
Voltage class	1200 V
Output current per phase (1)	280 A

(1): stack working as a sinusoidal inverter with f_{sw}=5 kHz, T_J<125ºC T_{AMB}=40ºC, f_{OUT}=50Hz P.F.=0.85 m=1 VDClink=600 V.

About MTM series

IGBT inverter stacks from 40 kW to 250 kW in B2I and B6I topologies with medium-range power IGBT modules. Gate drivers, current, voltage and temperature sensors included along sensor concentrator-adaptator board. Control signals fan-out are isolated from power to user interface. Optical interface also available.



140325 Rev.:1

Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

MODULE ELECTRICAL CHARACTERISTICS

description	symbol	conditions & notes	min	typ	max	units
IGBT						
Collector-Emitter voltage	V_{CES}	T_J=25ºC			1200	V
DC collector current	I_{Cnom}	T_C=80ºC, T_J=150ºC			300	A
Collector-emitter saturation voltage	V_{CEsat}	Ic=300 A, T_C=125ºC		2.55		V
FREE-WHEELING DIODE						
Repetitive reverse voltage	V_{RRM}	T_J=25ºC			1200	V
DC forward current	I_F	T_C=80ºC, T_J=150ºC			300	A
Forward voltage	V_F	Ic=300 A, T_C=125ºC		1.93		V
MODULE						
maximum junction temperature	T_{Jmax}				150	ºC
Module isolation voltage	V_{ISO}	50 Hz @ 1min (2)	2500			V

ANALOG SIGNALS OUTPUT

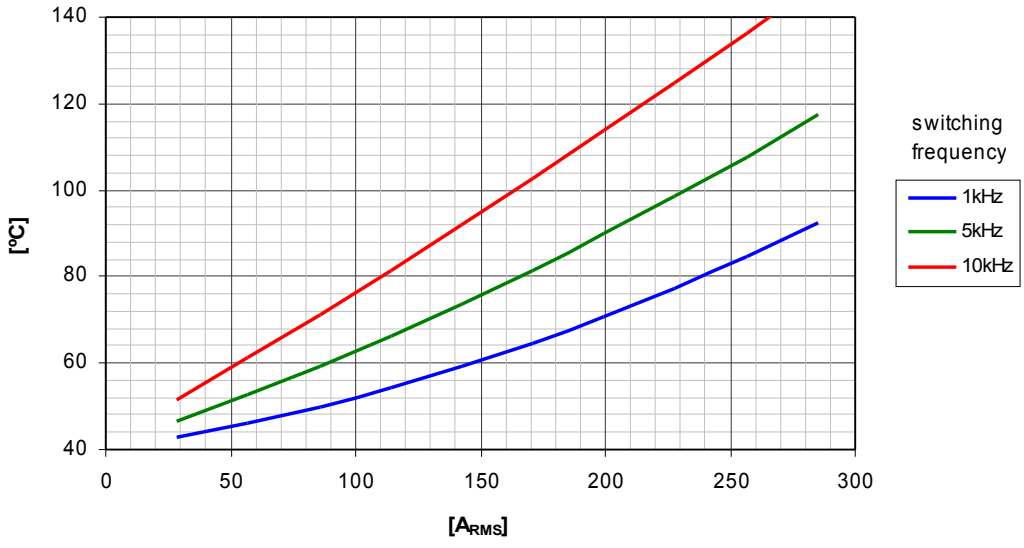
description	symbol	conditions & notes	min	typ	max	units
DC Voltage analog signal	V_{UDC}	*1V/100V_{DClink}*	0		15	V
Output current analog signal	V_{IOUT}	*5V±(1V/160A)*	1.25		8.75	V
Heatsink temperature analog signal	V_{THK}	*1V/10ºC*	0		12	V

Please refer to "MTM series complete datasheet" for further information.

PERFORMANCE CURVES

stack working as a sinusoidal inverter.

T_{J_IGBT} vs I_{OUT} (per phase, AC output)



V_{DC}	V_{OUT}	cos fi	f_{SW}	f_{OUT}	T_J	T_{AMB}
V_{DC} typ	600 V_{RMS} (1200V class)	0.85	parameter	50Hz	125ºC	40ºC

(2): This is an inner property of the IGBT module. It refers to the isolation between the internal chip and the external case.

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