



### Outline Specification – LAB Series Inverter

<b>Versions</b>	Single variant to cover PM motor drive or PM generator interface applications
	Existing model rated up to 200kW, designs for 500kW model
<b>Package</b>	Wall-mountable module (830mm x 410mm x 404mm)
	Glands for power cables
	Unions for liquid coolant
<b>Functions</b>	Motor drive or generator inverter, both 4 quadrant
	Three-phase PWM output
	Sophisticated control algorithms
	Resolver or absolute encoder feedback
	CAN used for control inputs and status outputs – with additional hardware interlocks
	Fully isolated user interface
	Ground Fault Indication
Complete system node, includes contactors/pre-charge	
<b>Rating</b>	Up to 610V DC link voltage (nominal)
	Up to 200kW continuous @ 610V DC voltage
	Up to 500kW version in design
<b>Control</b>	Torque/speed control as a motor drive
	Voltage control as a generator interface
	Real-time mode and function switching
	Flexible multi-variable limiting
	Dynamic derating
	Real-time parameter update
<b>Status outputs</b>	Actual torque, RPM, machine angle
	Actual DC link voltage and current
	Operational state
	Machine and inverter temperatures
	Top level fault and warning flags
	GFI state
	Hardware status
	Extended data sets on demand
Separate diagnostic CAN	
<b>Interface to higher-level controller</b>	CAN
	Hardware enable
	Dual status lines
	Configuration interlock
	24V DC main supply
	24V DC contactor supply
	RS232 available
<b>Interface to electrical machine</b>	3-phases
	Resolver/encoder
	6 thermistors
<b>Connectors</b>	Deutsch DRC 64 pin
<b>Support</b>	PC Monitoring tool with comprehensive data display and logging functionality
	Excel macros to plot logged data