



Outline Specification – LAB Series Inverter

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|------------------------------------------------------|--------------------------------------------------------------------------------------|
| Versions | Single variant to cover PM motor drive or PM generator interface applications |
| | Existing model rated up to 200kW, designs for 500kW model |
| Package | Wall-mountable module (830mm x 410mm x 404mm) |
| | Glands for power cables |
| | Unions for liquid coolant |
| Functions | 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 | |
| Rating | Up to 610V DC link voltage (nominal) |
| | Up to 200kW continuous @ 610V DC voltage |
| | Up to 500kW version in design |
| Control | 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 |
| Status outputs | 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 | |
| Interface to higher-level controller | CAN |
| | Hardware enable |
| | Dual status lines |
| | Configuration interlock |
| | 24V DC main supply |
| | 24V DC contactor supply |
| | RS232 available |
| Interface to electrical machine | 3-phases |
| | Resolver/encoder |
| | 6 thermistors |
| Connectors | Deutsch DRC 64 pin |
| Support | PC Monitoring tool with comprehensive data display and logging functionality |
| | Excel macros to plot logged data |