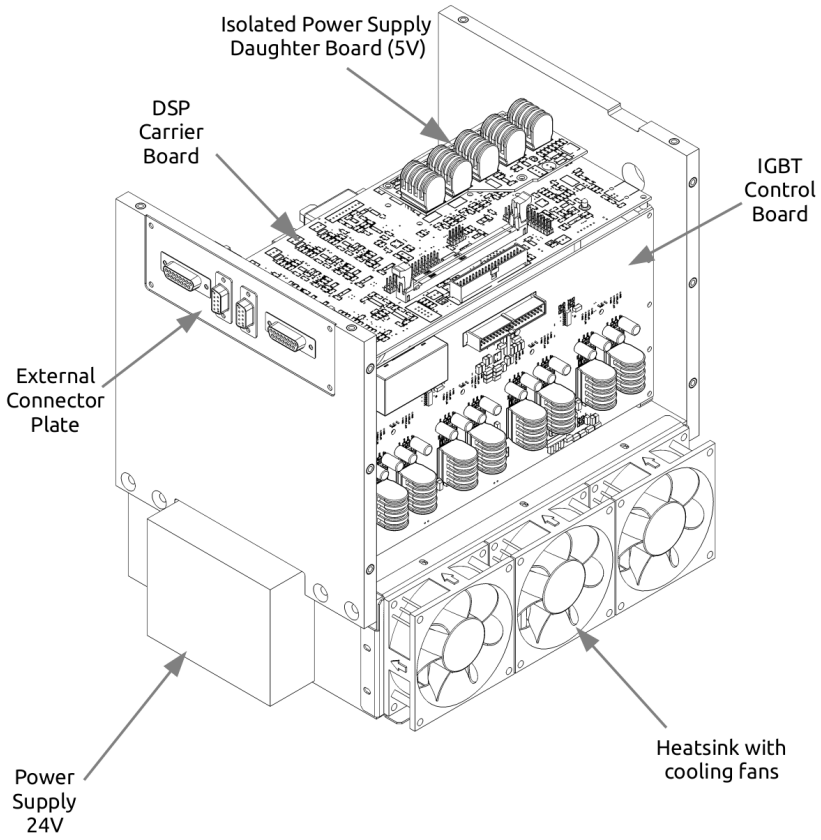
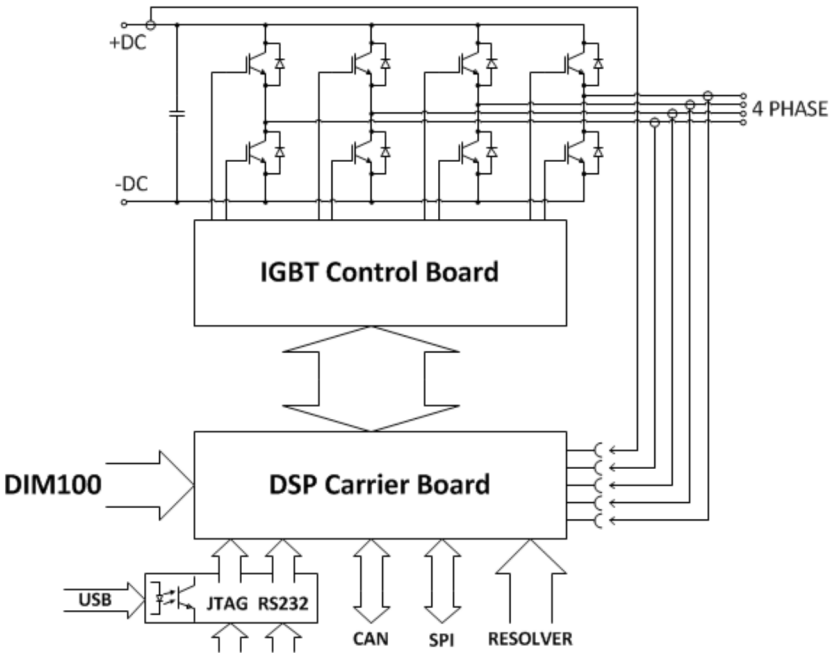
OPEN 4 LAB MECHANICAL VIEW



BLOCK SCHEME



BENEFIT

Open 4 Lab is a flexible piece of laboratory equipment that allows user specific algorithms and software to be implemented in the device.
The device has four phases containing high performance dual IGBT modules capable of enduring currents of 100 A and voltages of 1200 V.
Various protective and fault monitoring circuitry is implemented in the device as well as voltage, current and temperature measurements.

FEATURES

- 4 phase
- High performance IGBT inverter bridge
- Integrated gate drive with fault monitoring & protection
- Isolated power supplies for gate drive
- Low inductance laminar bus
- Output current measurement & feedback
- Possibility multiturn through current sensors
- Current sensor on DC bus
- Short circuit detection
- Stopped DSP detection with shutdown
- Cooling fans controlled via I2C
- Temperature to DSP via I2C
- Filtered power supplies 5 V; ±15 V
- Integrated 100-240VAC to 24V power supply for logic power
- System status / troubleshooting LEDs to verify or monitor proper operation
- Enclosure (with removable top cover, easy access to DSP carrier board)
- DSP carrier board

INTERFACE

- USB to JTAG, optically isolated
- USB to RS232, optically isolated
- Connector for external JTAG emulator
- CAN bus
- SPI
- Resolver to digital, configurable resolution (10, 12, 14 or 16 bits)

POWER SECTION

- 4 100A 1200V dual IGBT modules
- 5 closed loop current sensors
- 3 thermal sensors
- Forced air-cooled heatsink with three 80cm cooling fans

ELECTRICAL CHARACTERISTICS

Supply voltage	100 – 240 VAC
Voltage input	700 VDC
Current input	65 A
Voltage output	0.7*Vin 3Ø
Current output	50 A RMS

CONTACT

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