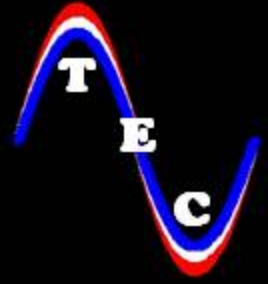


# Tier Electronics

Your Future For Electronics

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## Mid AIO Power Converter

The AIO power converter family is specifically designed for universal applications. The Mid AIO was the original All-In-One power converter from Tier Electronics. It has been refined to an extremely reliable power converter that is easily configurable.

### Features:

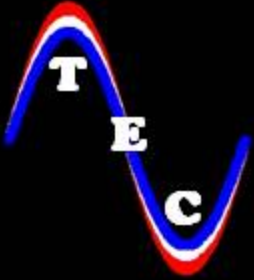
- Power Range of 20 kW to 125 kW
- 200 VAC through 690 VAC Versions
- Extremely Configurable via Optional PCB Cards
- PWM Frequencies of up to 16 kHz
- Completely Self Contained
- 32 Bit DSP Controller
- RS-232 and CAN Communications
- Improved Bus Structure
- Specialized Current Sensors
- Optional Expansion PCB to Allow Easy Configuration
- Compact Size

### Protection Features:

- Hardware Overcurrent
- Software Overcurrent
- Hardware Overvoltage
- Software Overvoltage
- Internal Logic and Support Power Supply Monitors
- IGBT Overtemperature Monitor
- De-Sat Protection
- IGBT Gate Status Feedback with Anti-Shoot-Through Circuitry
- Loss of Communications (Optional)
- Loss of Sync (Optional)



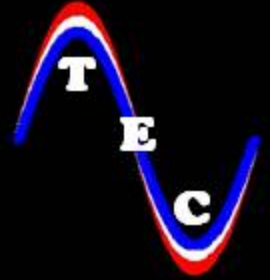
125 kW Mid AIO



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## Max AIO Power Converter

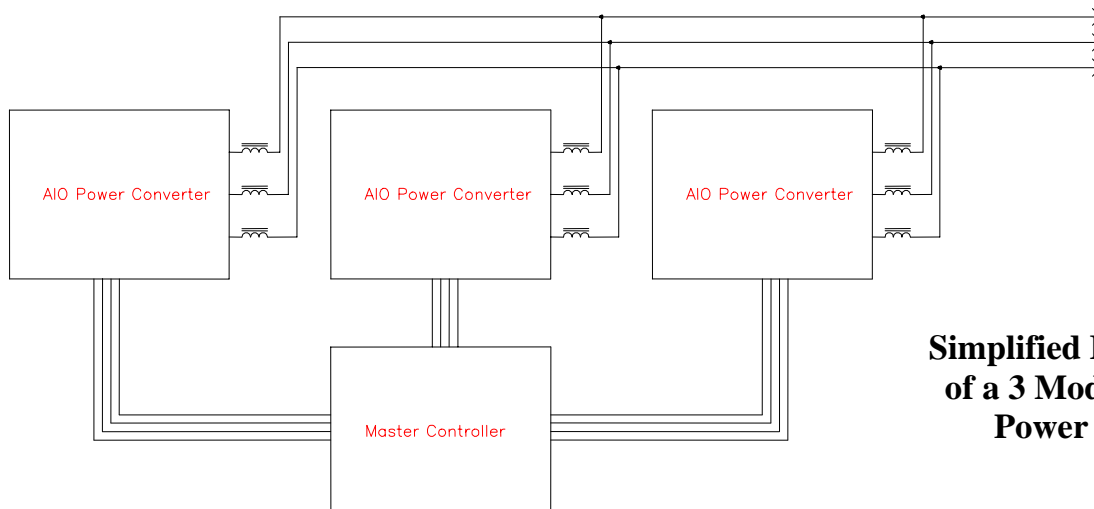
The AIO power converter family is specifically designed for universal applications. The building block approach of the Max All-In-One power converter lowers the cost per kW and offers smaller field changeable modules, unlike most large power converter designs.

### Features:

- Multiple Bi-Level Design
- Power Range of 50 kW to 600 kW
- 200 VAC through 690 VAC Versions
- Multi-Phase Converter Designs
- Equivalent PWM Frequencies of up to 40 kHz
- 32 Bit 100 MHz DSP Master Controller
- RS-232 and CAN Compatible
- Local Controllers for True Modularity
- Greatly Reduced Filter Components
- Modular Design with N+1 Capabilities
- Ideal for Demanding High Power Needs

### Protection Features:

- Hardware Overcurrent
- Software Overcurrent
- Hardware Overvoltage
- Software Overvoltage
- Internal Logic and Support Power Supply Monitors
- IGBT Overtemperature Monitor
- De-Sat Protection
- IGBT Gate Status Feedback with Anti-Shoot-Through Circuitry
- Loss of Communications (Optional)
- Loss of Sync (Optional)



**Simplified Block Diagram  
of a 3 Module Max AIO  
Power Converter**