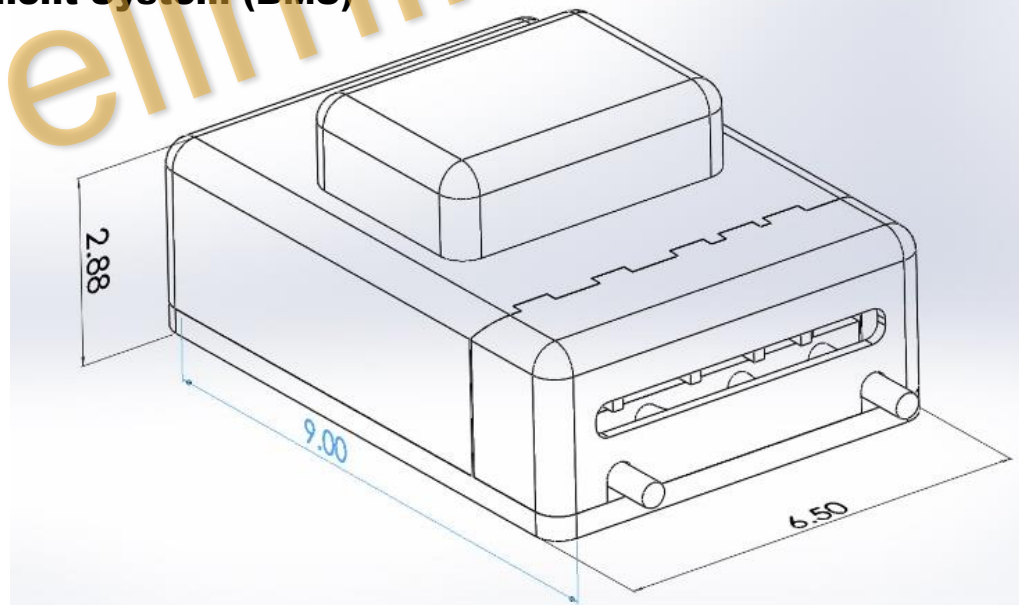
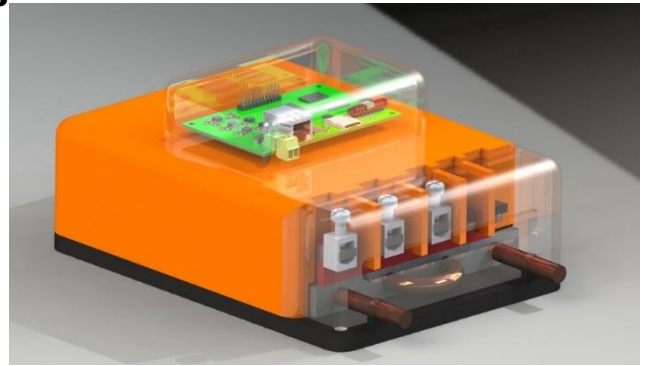




## 3PD-60096 *Electric Vehicle Drive*

Invention House provides custom and off-the-shelf power drive solutions for demanding OEM applications. These compact drives operate in rugged environments over a wide range of voltage, frequency, and temperature. A certified small business, Invention House has been delivering inverters and motor controls with in-house design, test and production for 20 years.

- **Electric Vehicles, Battery Carts & Lifts**
- **Fork machines, stackers**
- **DCV In – Three-Phase Out**
- **Up 108V<sub>DC</sub> Input, 600Amps rms Output**
- **Drives Induction or PM motors**
- **Vector Control, Torque Regulating**
- **-40C to +55C Operation**
- **No Electrolytic Capacitors**
- **Optional Accelerometer for tilt prevention and constant decel braking**
- **Identical footprint to Curtis 1236**
- **Optional User Boards;**
  - **CAN Bus, other serial interfaces**
  - **5-24V I/O, limit switches, pressure sensors**
  - **Battery Management System (BMS)**



See reverse side for technical specifications

# 3PD-60096 *Electric Vehicle Drive*

Model		3PD-60096	Custom	
Maximum Continuous Motor Capacity (HP)		25Hp		
Input	Input Current (Adc)* *Input current varies depending on the power supply impedance	280Adc continuous 560A peak		
	Rated Voltage	108Vdc		
	Rated Frequency	DC		
	Allowable Voltage Fluctuation	-25% to +10%		
Output	Rated Output Capacity (kVA)	39KVA		
	Rated Output Current (A)	300		
	Overload Tolerance	200% of rated output current for 60s		
	Carrier Frequency	18kHz		
	Maximum Output Voltage (V)	75Vac proportional to input		
Control Characteristics	Control Method	V/F Control	Sensorless Vector, ECM	
	Frequency Control Range (Hz)	2-400		
	Frequency Accuracy	1% -40 ° C to 55 ° C		
	Frequency Setting Resolution	.25Hz		
	Frequency Setting Signal	Serial, Preset speed	Serial, 0-10V,4-20ma, presets	
	Speed Response	5 Hz		
	Current Limit	Runs in limit, does not trip		
	Accel/Decel time	3 to 20 second		
	Braking Torque	N/A		
	Main Control Functions	Speed Control, Run in current limit, upper lower limits for frequency reference, fault restart		
Protection Functions	Motor Protection	Current limit function but not UL recognized		
	Overload Protection	Drive folds back when output current exceeds 200%		
	Overvoltage Protection	Stops when DC bus voltage exceeds approx. 125 V		
	Undervoltage Protection	Stops when DC bus voltage falls below approx. 80 V		
	Heatsink Overheat Protection	100 ° C		
	Stall Prevention	Stall prevention is available during acceleration, deceleration, and run		
Environment	Area of Use	Indoors, outdoors with appropriate enclosure		
	Ambient Temperature	-40 ° C to +55 ° C		
	Storage Temperature	-40 ° C to +60 ° C		
	Humidity	95 RH% or less (no condensation)		
	Altitude	1000 meters w/o derating, up to 3000 m with derating		
	Vibration	2grms per MIL STD-810 Composite Wheel		
	Shock	40gs per MIL STD-810		