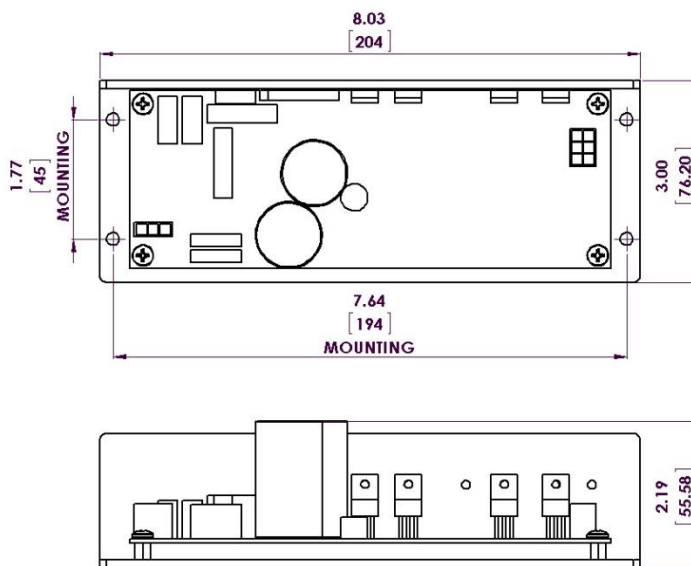




## SPD-500 *Single-Phase OEM Motor Drive*

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.

- **Combustion Blowers, Fans**
- **Single-Phase In – Single-Phase Out**
- **120/150 VAC – 4Amps rms (1/2HP)**
- **50/60/400 Hz – Up to 25kHz Output**
- **-40C to +55C Operation**
- **Altitude Sensor**
- **Tilt Sensor**
- **3 Configurable Relay Outputs**
- **Connectorized Input/Output for quick factory assembly**



See reverse side for technical specifications

# SPD-500 *Single-Phase OEM Motor Drive*

Model		SPD-500	SPD-400	Custom
Maximum Motor Capacity (HP)		1/2HP		
Input	Input Current (A)* *Input current varies depending on the power supply impedance	6Amps rms		
	Rated Voltage	120, 150Vac		
	Rated Frequency	60, 50		50, 60, 400
	Allowable Voltage Fluctuation	-10 to +10%		
Output	Rated Output Capacity (kVA)	440VA		
	Rated Output Current (A)	4		
	Overload Tolerance	120% of rated output current for 60s		
	Carrier Frequency	5kHz		
	Maximum Output Voltage (V)	110Vac proportional to input		
Control Characteristics	Control Method	V/F Control		
	Frequency Control Range (Hz)	2-120	400	2-400
	Frequency Accuracy	1% -40 ° C to 55 ° C		
	Frequency Setting Resolution	.25Hz		
	Frequency Setting Signal	Preset speeds	Fixed	Serial, Preset
	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 120%		
	Overvoltage Protection	Stops when DC bus voltage exceeds approx. 250 V		
	Undervoltage Protection	Stops when DC bus voltage falls below approx. 75 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		