

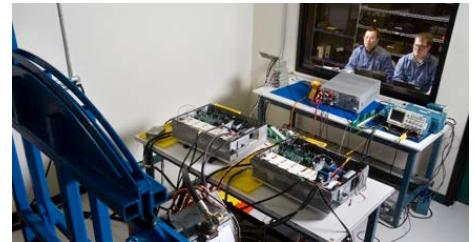
## Providing Advanced Control for Hybrid Electric Applications

John Deere offers a family of inverters designed to provide advanced control for AC motor applications. The product line covers a wide range of power levels (up to 300 kVA) and utilizes common motor control software for efficient control of IPM or induction motors.



Dedicated Power Electronics Facility 90,000 sq. ft. [8,400 m<sup>2</sup>]

Using leading edge technology, each inverter is built on the legacy of millions of controllers operating in demanding environments today. Each inverter is based on high performance DSP real-time embedded software to support advanced features such as field-oriented control. The high-voltage, high-power modules are designed to work at maximum efficiency with complete monitoring capabilities to enable control under the various operating conditions. The thermal management system delivers robust and reliable performance over the life of the system.



## Customer Support and Services

### -Documentation

- CAN specification
- User's manual
- Product-specific installation manuals

### -Desktop utility tool for customer tuning

### -Integration Support

- Two-day integration training in Fargo, North Dakota, USA
- On-call WebEx team support
- On-site support available

### -Documents available online

### -Capabilities in power electronics

- John Deere Electronic Solutions leverages its core strengths in ruggedized electronics design and supply for John Deere and other leading OEMs
- Over 120 dedicated power electronics engineers

### -Strong test culture, proven reliability

- Automated end-of-line test, extensive capability
- A2LA Certified in-house product test
- 14 dyno test cells with variety of speed and power limits, monitoring and control equipment

### John Deere Electronic Solutions

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# John Deere Family of Inverters



**PD300**



**PD400 Single**



**PD400 Dual**



**PD550 Dual**

## PERFORMANCE

	PD300	PD400 Single	PD400 Dual	PD550 Dual
Peak Current	300 Arms	500 Arms	500 Arms each	550 Arms each
Continuous Current	300 Arms	400 Arms	400 Arms each	425 Arms each
kVA @ 320 V DC	96 kVA	128 kVA	128 kVA	136 kVA
kVA @ 700 V DC	210 kVA	280 kVA	280 kVA	298 kVA

## MECHANICAL

	PD300	PD400 Single	PD400 Dual	PD550 Dual
Dimensions	L = 377 mm W = 350 mm H = 148 mm	L = 380 mm W = 330 mm H = 130 mm	L = 395 mm W = 330 H = 185 mm	L = 464 mm W = 712 mm H = 196 mm
Weight	15.0 kg	17.3 kg	30.4 kg	64.0 kg
Footprint	1,260 cm <sup>2</sup>	1,250 cm <sup>2</sup>	1,300 cm <sup>2</sup>	3,510 cm <sup>2</sup>
Volume	18.3 L	16.3 L	24.1 L	68.0 L

## ENVIRONMENTAL

	PD300	PD400 Single	PD400 Dual	PD550 Dual
Ambient Temperature	-40°C to +85°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C

## Common Specifications

High Voltage Operation: up to 750 V DC

Sealing: IP67

Liquid Cooling: 50% WEG blend

-40°C to +70°C

Supply Voltage: 9 – 32 V DC

EMC: CISPR25 Class 3

Vibration: Based on MIL-STD-202 method 214A