

DPDLite™

DPDLite™

The digital engine that drives motors more efficiently and quietly

Brushless DC motors and drives are replacing traditional electric motor technologies such as single phase AC induction motors and universal motors in increasing numbers, driving fans, pumps and compressors used in industrial and commercial applications.

DPDLite™ eliminates the need for Hall sensor feedback, necessary for motor commutation in conventional brushless DC motor drives. DPDLite™ detects motor rotor position at motor stand still, through an innovative algorithm, based on motor phase-inductance measurement. This is used to start the motor reliably, unidirectionally and without any startup delay.

DPDLite™ provides sensorless control of BLDC motors at performance levels that exceeds the performance of conventional Hall commutated drives. DPDLite™ can be integrated into the motor bell-end or operate as a separately mounted device.

Key Features

- » Closed loop torque and velocity control
- » High power density
- » Over-voltage protection
- » Under-voltage protection
- » Over-current
- » Over-temperature protection
- » PID loop compensation parameters
- » Two wire power connection
- » Ready for motor integration
- » Compact, single board design

Product Benefits

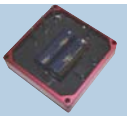
- » Increased reliability
- » Increased performance
- » Reduced motor cost due to elimination of Hall sensors and related wiring
- » Integrates into the motor bell end at the customer's option
- » High starting torque

Applications

- » Fans
- » Pumps
- » Compressors
- » Centrifuges
- » HVAC
- » Drills and mills
- » Conveyors
- » Office equipment
- » Medical equipment
- » Automotive subsystems
- » Appliances
- » Other

Verticals

- » Motor Manufacturers
- » White Goods
- » Pumps, Fans and Compressors
- » HVAC
- » Automotive



Application Software

- DP-D™ tuning tools with graphical analysis and data logging, frequency analysis, setup and configuration

Product Specification

Product	DPDLite™
Part Number	10-D010-01
Amplifiers	1
Amplifier Options	30A (Peak)
Operating Voltage	15V Min—30V Max
Network Options	Serial (RS232)

Part Number System

Example: 10-D010-01

Description: 1 Axis Serial DPDLite with the amplifiers setup at 30V 30A.

10	Product Class	10- Controller Only, 11—Evaluation Kit
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D	Series Type	D—DPDLite
0	Custom	0- Standard, 1- Custom, 2—Custom Software
1	Number of Axis	1—1 Axis
0	Network Type	0—RS232
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01	Axis 1 Amplifier Type	01—30V, 30A

Accessories

Product	Part Number
DP-D Application Software	35-0028
DPDLite Getting Started Guide	34-0006
DPDLite Evaluation Kit	11-D010-01