



# Gate Drive Solutions & Development Kits

## Applications

- Inverters
- High frequency power supplies
- AC servo systems
- Welding
- Induction heating
- General industrial use
- Prototyping & production

## Product Advantages

- Reduce engineering design time and expense by utilizing proven gate drive designs.
- Compact designs save costly space in circuit layouts.
- Built in, isolated DC-to-DC converters included on most gate drivers.
- Gate drive solutions designed specifically to work with your Powerex modules.

## Overview

Powerex provides a variety of gate drivers and accessory components to simplify your power semiconductor development. This includes:

- **Gate Drivers** – Power amplifiers that take signal-level control input and create the desired gate drive output for power transistors. They provide optically isolated control signals to the power transistors which demand higher voltage and current than can be provided by a 5V logic control signal. Built-in desaturation protection is included on most types.
- **DC-DC Converters** – On board power supplies that offer 15V and 24V isolated input and output DC voltage. Over current protection circuits are built in.
- **Plug & Play Drivers** – Completely populated gate driver boards designed to drive specific modules or IGBT packages.
- **Prototype Development Kits** – Complete gate drive circuits designed for use with IGBT models intended to shorten prototype build time, not for commercial production use.

## Plug & Play Driver Solutions

Plug & Play Driver Solution	Applicable Module
VLA536-01R	Any 600V & 1200V Dual NX-M Modules
VLA553-01R VLA553-02R	CM2500DY-24S CM1800DY-34S



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## IGBT & MOSFET Driver – Development Kit Compatibility

Driver IC	Applicable Module Ratings	Switching Frequency	Driver Peak Output Current	Development Kit*	Recommended DC-DC Converters	Application
VLA567-01R	600V up to 1000A, 1200V up to 1000A	<20kHz	±8A	<b>BG2G</b>	Integrated	General Industrial
VLA500K-01R	1700V up to 1000A	<20kHz	±12A	<b>BG2A-K</b>	Integrated	Use with 1700V IGBTs
VLA552-01R	All 600V, All 1200V, 1000A to 3600A, All 1700V, 1000A to 3600A	<20kHz	±24A	<b>BG2F</b>	Integrated	General Industrial with High Driver Output Current Needed
VLA513-01R	600V up to 600A, 1200V up to 400A	>20kHz	±5A	<b>BG2C-5015</b>	VLA106-15242 ( $V_{IN} = 15V$ ) VLA106-24242 ( $V_{IN} = 24V$ )	Welding Induction Heating Inverters
VLA502-01R	1200V up to 600A	>20kHz	±12A	<b>BG2A-NFH</b>	Integrated	Inverters AC Servo Systems with Switching Frequency >20kHz
VLA542-01R	EXS Series 600V up to 600A, EXS Series 1200V up to 400A	<20kHz	±5A	<b>BG1B-5015</b>	VLA106-15242 ( $V_{IN} = 15V$ ) VLA106-24242 ( $V_{IN} = 24V$ )	Single Channel Chopper, Buck or Boost for Inverters & AC Servo

\*Development kits are intended to shorten prototype build time, not for commercial use.

## IPM – Development Kits

Development Kit*	IPM Series	IPM Package	Module Rating	Included Accessory ICs
 <b>BP7B-LS</b>	L1	A (131mm x 67mm) or B (120mm x 55mm)	600V, 50 to 150A 1200V, 25 to 75A	VLA106-15151 x4 VLA606-01R x1
		C (135mm x 110mm)	600V, 200A & 300A 1200V, 100A & 150A	VLA106-15151 x4 VLA606-01R x1
 <b>BP6A-L</b>	L1	D (150mm x 172mm)	600V, 450A & 600A 1200V, 200A to 450A	VLA106-15151 x6
 <b>BP2B-V</b>	V1	Small (120mm x 70mm)	600V, 400A & 600A 1200V, 200A to 450A	VLA106-15151 x2
		Large (120mm x 90mm)	600V, 900A 1200V, 600A	VLA106-15151 x2

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Accessory Part Number	IC Type
 VLA606-01R	6 Opto-Couplers / IC
 VLA106-24151 VLA106-24154 VLA106-15151	24V DC to 15V DC 24V DC to 15V DC 15V DC to 15V DC



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