



# GV6000 AC DRIVES





# RELIANCE ELECTRIC™ GV6000 HIGH-PERFORMANCE VARIABLE SPEED AC DRIVES

## POWER. CONTROLLED™.

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How well is your power controlled?

Rockwell Automation's Reliance Electric brand represents more than 100 years of expertise in developing and building electrical drive products that improve the performance and efficiency of industrial and commercial motors.

Now we are proud to introduce the newest and most innovative member of our AC drive family—the GV6000 multipurpose industrial AC drive.

Power. Controlled. The new GV6000 drive provides the power you need. Control—down to zero speed with precision to meet your demanding requirements.

Its simplicity and broad application flexibility provide all the versatility you need in standalone, retro-fit, or system integration applications. Its platform is expandable and the easiest to use in its class. Its zero-stacking bookshelf design integrates three standard methods of control—general purpose (Scalar V/Hz), Sensorless Vector Control (SVC), and Flux Vector Control (FVC) with or without encoder feedback.

Even in FVC mode, no option boards are required – The Encoder connects directly to the control board. The GV6000 drive's closed-loop vector control ensures precise control over a 1000:1 operating range with the bandwidth needed for higher performance and greater accuracy.



# GV6000 AC DRIVE...VERSATILITY & SIMPLICITY

## EASIEST DRIVE TO SET UP AND OPERATE

- 1) Removable Operator Interface Module (OIM). The GV6000 OIM contains CopyCat Functionality for Transferring Parameter Sets between Drives.
- 2) Regular and I/O Electronics Housed in a Removable Cassette for Ease of Upgrade or Repair
- 3) Control Connections (removable terminal block)
- 4) Encoder Connections (removable terminal block)
- 5) Communications Module (Optional)
- 6) Power Connections
- 7) Removable Conduit Plate to Facilitate Installation or Replacement of GV6000
- 8) External Communications Interface for Remote OIM or V\*S Utilities (Accessible with Cover Closed)
- 9) Wire Strip Gauge and Screw Torque Specifications Molded Into Drive Enclosure for Easy Reference
- 10) Hinges Designed to Allow Full Opening of Cover Even When Drive is Mounted in Zero-Stacking Arrangement
- 11) Drive Nameplate Available on Side of Drive and Also Inside Drive Cover so that Information is Viewable Even When Drives are Mounted in Zero-Stack Configuration
- 12) Mounting Dimensions Are Engraved on Rear of Mounting Plate to Facilitate Layout of Mounting Surface
- 13) Snubber Transistor (7th IGBT) Internal to Drive Package (Standard on Frames 0 through 4)
- 14) EMC/CE Filtering Built-In Requiring No Additional Panel Space



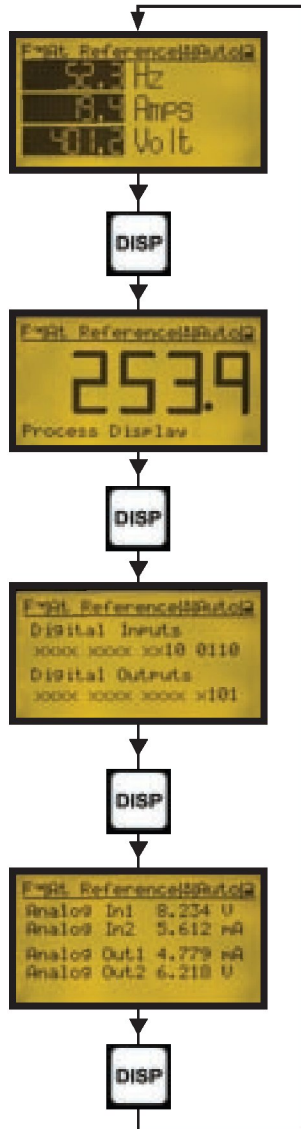
## PERFORMANCE ASSURANCES THAT DRIVE THE INDUSTRY

- 0.001% speed regulation with a 95% load change over a 120:1 speed range (FVC)
- 1000:1 operating range (FVC)
- 97.5% efficiency
- 0 – 420 Hz frequency output

**RELIANCE  
ELECTRIC**

## MOST USER-FRIENDLY OPERATOR INTERFACE AVAILABLE IN SUPERIOR-PERFORMING AC DRIVES

Every GV6000 comes standard with our easy to use Operator Interface Module (OIM) to provide metering, programming and operator control. The GV6000 follows the same TAB programming style as the popular general purpose Reliance MD65 V\*S Drive. This logically organized, easy to use method makes the GV6000 family member the easiest drive in its class to set-up and operate.



### Backlit LCD Display

is large and easy to read.

**Display** key allows you to toggle among four different metering screens which provide viewing of key process parameters such as speed and load. They can even be scaled to your process units such as Gallons/Min or Boxes/hour.

**Status** portion of the screen indicates direction of rotation, drive status, notification of pending alarms, speed reference source and state of password locking of parameter writes.

### Additional Features:

- TAB menu is intuitive and easy to navigate with minimal keystrokes.
- Parameters include TABS for changing value and display limits, as well as help text to make setup easier.
- Text can be displayed in multiple languages.
- Similar version is available with full numeric keypad.
- Start-up Routines direct the user through self-prompting screens to quickly and easily set up the GV6000 without in-depth knowledge of the drive's parameters.



### Increase, Decrease, Select, and Enter

keys let you quickly and efficiently navigate through programming parameter screens. "Spreadsheet"-style tabs can be navigated with Select key.

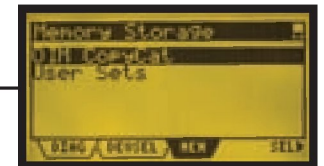


### ESC/Program

key takes you into the program mode where parameters are arranged in logical groups or in a linear list.

### CopyCat Feature

lets you move parameters between drives.



### Dedicated Fault / Alarm Key

with integral help text, simplifies troubleshooting; provides access to time stamped fault and alarm logs.



# GV6000: NO EQUAL FOR PRECISION & PERFORMANCE

The GV6000 AC drive offers two levels of PC programming tools to accommodate your specific application.

## V\*S UTILITIES

- Online programming
- Online monitoring with custom parameter lists
- Drive-to-file and drive-to-defaults comparison
- Diagnostics
- Multi-drop capable (EtherNet or Serial/Network)
- Flash updates
- Context sensitive product/parameter help

## V\*S UTILITIES PRO

- All features of V\*S Utilities
- Offline programming
- Editing via linear list or using functional diagram
- Multi-parameter trend chart

## FRAME SIZES

### Frame 0

0.5 – 1 HP at 240V  
0.5 – 7.5 HP at 480V  
1 – 7.5 HP at 600V

### Frame 1

2 – 7.5 HP at 240V  
10 – 15 HP at 480V  
10 – 15 HP at 600V

### Frame 2

10 HP at 240V  
20 – 25 HP at 480V  
20 – 25 HP at 600V

### Frame 3

15 – 20 HP at 240V  
30 – 50 HP at 480V  
30 – 50 HP at 600V

### Frame 4

25 – 30 HP at 240V  
60 HP at 480V  
60 HP at 600V

### Frame 5

40 – 50 HP at 240V  
75 – 100 HP at 480V  
75 – 100 HP at 600V

### Frame 6

60 – 100 HP at 240V  
125 – 200 HP at 480V  
125 – 150 HP at 600V

## GV6000 DIMENSIONS

Frame	Depth (in)	Height (in)	Width (in)	Weight (lb)
0	7.87	13.23	4.33	11.5
1	7.87	13.23	5.31	15.5
2	7.87	13.48	8.74	27.6
3	7.87	20.37	8.74	40.9
4	7.94	29.87	8.66	54.0
5	10.84	25.37	12.16	82.0
6	10.85	38.43	15.9	157.5 to 165.5*

\*Depends on horsepower rating.



## GV6000 OPTIONS

With the GV6000 AC drive's wide range of options, you can maximize data and speed control, as well as ensure flexible, easy operation. Optional features include an assortment of communications modules, software utilities, remote keypads and full-numeric keypads.



**FULL NUMERIC  
OIM/KEYPAD**



**COMMUNICATIONS  
MODULE**



**REMOTE NEMA 4  
OIM/KEYPAD**



**REMOTE NEMA 1  
OIM BEZEL KIT**



## RAISING THE BAR WITH ENGINEERING INNOVATION AND VALUE-ADDED SERVICES

Rockwell Automation's Power Services Group sets new standards in value-added service solutions. With our Power Services Group and local service centers located throughout North America, we can help you maintain your operation with maintenance programs, equipment startup, and repair/rebuild services for motor and mechanical products that are unmatched in the industry.



## INDUSTRY SOLUTIONS

Today, DODGE and Reliance Electric Products are proving ideal for use in pharmaceutical, unit handling, and food & beverage applications throughout the world.



## RENEWAL PARTS

Genuine DODGE and RELIANCE parts and many popular Custom Classic products that we no longer mass produce are available to you when and where you need them. With Rockwell Automation's \$90 million dollars of inventory, we are ready to ship the parts and components you need 365 days a year anywhere in the world. Our renewal parts and Custom Classics specialists are as close as your phone or the internet 24 hours a day, 7 days a week.



## E-COMMERCE

Rockwell Automation offers a variety of e-Commerce solutions, allowing our customers to become more efficient and lower their overall operating costs. To learn more, reference the "How to Buy" section on [www.dodge-pt.com](http://www.dodge-pt.com) and [www.reliance.com](http://www.reliance.com) or contact your Rockwell Automation Sales Representative.



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This material is not intended to provide operational instructions. Appropriate Rockwell Automation instruction manuals and precautions should be studied prior to installation, operation or maintenance of equipment.

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