



## IMPULSE® VG+ Series 3 Features & Benefits

### SAFETY

<b>Brake Test</b>	Allows testing of available brake torque
<b>Encoder Loss Detection</b>	Signal loss detection at all times
<b>Snapped Shaft Detection</b>	Detects a broken coupling or shaft
<b>Slack Cable Detection</b>	Identifies a slack cable condition and provides a selectable response (stop, slow down, alarm)
<b>Roll Back Detection</b>	Drive monitors brake functionality at stop
<b>Torque Proving at Start</b>	Drive monitors brake functionality at start
<b>Brake Check at Stop</b>	Drive monitors brake functionality at stop
<b>Safe Operating Windows™</b>	Reduces the possibility of programming unsafe parameters
<b>Load Check™</b>	Reduces the possibility of lifting an overload
<b>Quick Stop™</b>	Reduces the possibility of crane collision
<b>Multi-Level Password Protection</b>	Limits unauthorized modification of drive parameters
<b>Phase Loss Detection</b>	In case of phase loss, brake will set immediately, retaining load
<b>Control Interface</b>	120 V optically isolated-standard (Other voltages available as option)
<b>Ground/Fault Short Circuit Protection</b>	Reduces damages to motor and drive

### PERFORMANCE

<b>Indexing</b>	Allows precise programmed motor movement
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<b>Loadshare</b>	Allows use of two or more motors on the same drive shaft
<b>Hook Height Measurement</b>	Uses encoder signal to determine hook height from calibrated position
<b>Motor Lead Reversal</b>	Electronically swaps motor leads for reverse operation
<b>Keypad Copy</b>	Copy, store and write parameters from keypad
<b>Communication</b>	Built-in RS485 communication
<b>Static Auto Tune</b>	Allows auto tune without mechanical disconnection
<b>Enhanced Keypad Display</b>	Easier to navigate and read diagnostics
<b>Load Float™</b>	Allows a load to be held aloft at zero speed without setting the electric brake
<b>Weight Calculation</b>	Enables load weight to be calculated with an accuracy of $\pm 5\%$ of full load (0-10VDC Output)
<b>X-Press Programming™</b>	Allows programming initial setup within seconds
<b>Swift-Lift™/Ultra-Lift™</b>	Allows overspeeding with light loads or empty hook
<b>Reverse Plug Simulation™</b>	Allows operator to smoothly and quickly stop and change directions without setting brake
<b>Stall Prevention</b>	Extends acceleration time and prevents the motor torque limits from being exceeded
<b>Micro-Positioning™</b>	Allows operator to make precise, slow moves
<b>Torque Limit at Accel/Deceleration</b>	Allows for load dependent Acceleration or Deceleration
<b>Multi-Function Input Terminals</b>	For end of travel/slow down limits stops or other options
<b>Flash ROM</b>	Stores last four fault occurrences, even after power-down, for diagnostic purposes



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MATERIAL HANDLING

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<b>Elapsed Time Counter</b>	Indicates actual time of operation (power on or run time)
<b>Hoist Synchronization</b>	Synchronize up to 8 motors in master-slave configuration
<b>RELIABILITY</b>	
<b>Fault Storage</b>	Stores the last ten faults with trace data of the most recent fault
<b>Maintenance Timer</b>	Alerts operator when maintenance is required
<b>Programmable Fan</b>	Cooling fan on/off control for longer life
<b>Ambient Compensated Overload</b>	High ambient motor protection
<b>Increased Drive Output Current Ratings</b>	Robust Power Section
<b>Built-In Auto Tune</b>	Maximizes performance and life of motor
<b>Serial Communication</b>	Provides reliable digital linkage among various crane system peripherals, including Modbus, Modbus+, Profibus and Ethernet
<b>Operation/Fault Display</b>	Simplifies setup and troubleshooting