



**TOSHcare**   
Migration Solutions for Low Voltage Drives

**TOSHIBA**

# TOSHcare®

## G3+ to HX7+ Control Platform Conversion

TOSHIBA LOW VOLTAGE ADJUSTABLE SPEED DRIVES

### MIGRATING TO THE HX7+D

Toshiba's G3+ Plus Pack low voltage adjustable speed drive can be converted in the field to a HX7+D, Toshiba's current-generation low voltage Plus Pack® adjustable speed drive. Conversions are currently available for G3+A and G3+B drives and offer several advantages, including:

- A reduction in spare parts inventory as a result of using only one operating platform.
- Eligibility of converted drives for coverage for correction of applicable defects with the purchase of a TOSHcare® Protection Plan\*.
- Improved control via the HX7+D platform, which utilizes Toshiba's proprietary VLP Technology®\*\*.

### G3+ Conversion Kit

The G3+ conversion kit contains all circuit boards, cables, connectors and mounting hardware required for the upgrade. Field conversion will be performed by factory-authorized personnel and includes testing to help ensure a smooth transition between control platforms and continued operation of your equipment.

Contact Toshiba International Corporation to determine whether your G3+ series Plus Pack qualifies for conversion. Please contact us at 855-803-7092 or send us an email at [TIC-TOSHcare@toshiba.com](mailto:TIC-TOSHcare@toshiba.com) for more information or to request a quote.

*\*G3+ to HX7+D Control Platform Conversions are considered part of TOSHcare® Lifecycle Services, which are subject to applicable terms, conditions and limitations.*



G3+ Controller



HX7+ Controller

\*\*VLP Technology® as used herein refers to Virtual Linear Pumping Technology.

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### G3+ to HX7+D COMPARISON

As the current generation of Toshiba's Plus Pack® low voltage adjustable speed drive, the HX7+D uses Toshiba's proprietary VLP Technology<sup>®\*\*</sup>, which uses algorithms that simplify typical PID programming to simply inputting values for optimum pressure, temperature level and/or flow control.

	G3+	HX7+D	Differences
Electronic Operator Interface (EOI)	2 x 20 Back-Lit, Multi-Language LCD Display	4 x 20 Graphical Plain-English Back-Lit LCD Display for Programming, Monitoring & Diagnostics	Increased EOI Functionality
Digital Inputs	Eight Discrete Programmable to 54 Functions	Eight Discrete Programmable to 68 Functions	Expanded Programmable Functions
Digital Outputs	Three Output Terminals, Form C Contacts	Three Output Terminals, Two Form A Contacts, One Form C Contact	
Analog Inputs	One 4 - 20 mA, One 0 - 10 V or 1 - 10 KOHM Potentiometer Connections, One $\pm 10$ V or $\pm 5$ V	Three Programmable: One 0 to 20 mA or 0 to 10 VDC Input, One 0 to 10 VDC Input, & One $\pm 10$ VDC Input	
Analog Outputs	Two Programmable: Both 4 to 20 mA	Two Programmable: Both 4 to 20 mA	
Communication	RS232	Half/Full Duplex RS485/RS232 & TTL Port	Additional Communication Ports
Software Features	True Torque Control Mode (0.1 - 0.5%) / PWM Mode (3%)	Open Loop: Up to 0.1%; Closed Loop: Up to 0.01%	New Features Including VLP Technology <sup>®</sup>
		Determine Start/Stop Based On User-Set Values	
		Sleep Timer	
		Can Run External Device	
		No-flow/Low NPSH Cut-off	
		Sealing Water/Vacuum Priming	

\*\*VLP Technology<sup>®</sup> as used herein refers to Virtual Linear Pumping Technology.

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Rev.08ESSENCE1623



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