

TOSHIBA

ADJUSTABLE SPEED DRIVES



G3 Plus Pack

Reliability *in motion*[™]

XT

Toshiba G3 Plus Pack



The G3 Plus Pack Adjustable Frequency Drive is designed to withstand the harshest conditions. It is a solid-state AC drive that ranges from 66-1500 KVA. This drive features *true torque control*, which is Toshiba's vector algorithm that enables motors to develop high-starting torque and compensates for motor slip. A forty-character LCD display, RS232 port, ground fault protection and motor/drive overloads are just a few standard characteristics that make the G3 Plus Pack efficient and dependable. It is available in Nema™ 3R packages for ambients of 50°C* with air-to-air heat exchangers on units 163 KVA and larger. This design eliminates the maintenance issues associated with coolant-based units while preventing outside air exchange with inside air. These features make the G3 Plus Pack suitable for a wide variety of applications that require unparalleled motor control and rugged reliability.

G3+A Standard Specification

Model Range	66 - 1500 KVA
Voltage Rating	380 - 480 V \pm 10%
V / Hz Pattern	Constant Torque, Variable Torque, Auto Torque Boost, Auto Torque Boost with Automatic Energy Saving Mode, Vector Control, Vector Control with Automatic Energy Saving Mode
Overload Rating	100% Continuous, 120% for One Minute
Frequency Setting	Keypad Control, 0 - 10 V, \pm 10 V, \pm 5 V, 4 - 20 mA, Binary Input, Motorized Potentiometer Input
Frequency Precision	Analog Input \pm 0.2% of the Maximum Output Frequency, Digital Input \pm 0.01% of the Maximum Output Frequency
Frequency Command Resolution	0.01 Hz Operation Panel, 0.1 Hz Analog Input, 10 - 12 bit A-D Converter
Speed Regulation	True Torque Control Mode (0.1 - 0.5%) / PWM Mode (3%)
Discrete Inputs	Eight Discrete Input Terminals Programmable to 54 Functions
Analog Inputs	One 4 - 20 mA, One 0 - 10V or 1 - 10 KOHM Potentiometer Connections, One \pm 10 V or \pm 5 V
Output Contacts	Three Output Terminals Programmable to 64 Functions, Form C Contacts Rated 250 V AC 2 amps Inductive
Analog Outputs	Two 4 - 20 mA Outputs Programmable to 17 Functions
Set Point Control (PID)	Proportional Gain, Integral Gain, Differential Gain, Upper/Lower Deviation Limits, Feedback Source Delay Filter
Protective Functions	Fault Codes Include: Overcurrent, Overvoltage, Inverter Overheat, Load-side Short Circuit, Ground Fault, ASD Overload, EEPROM Error, RAM Error, ROM Error, CPU Error, Communications Error, Auto-Tuning Error, Emergency Stop, Undervoltage, Overtorque, Open Output Phase, Motor Overload, Low Operating Current, Option PCB Error, Gate Array Error
Restart	ASD will catch a freewheeling motor smoothly.
Ambient	Temperature: -10 - 50°C*, 14-122°F, Humidity 95% Non-Condensing

Electronic Operator Interface (EOI)

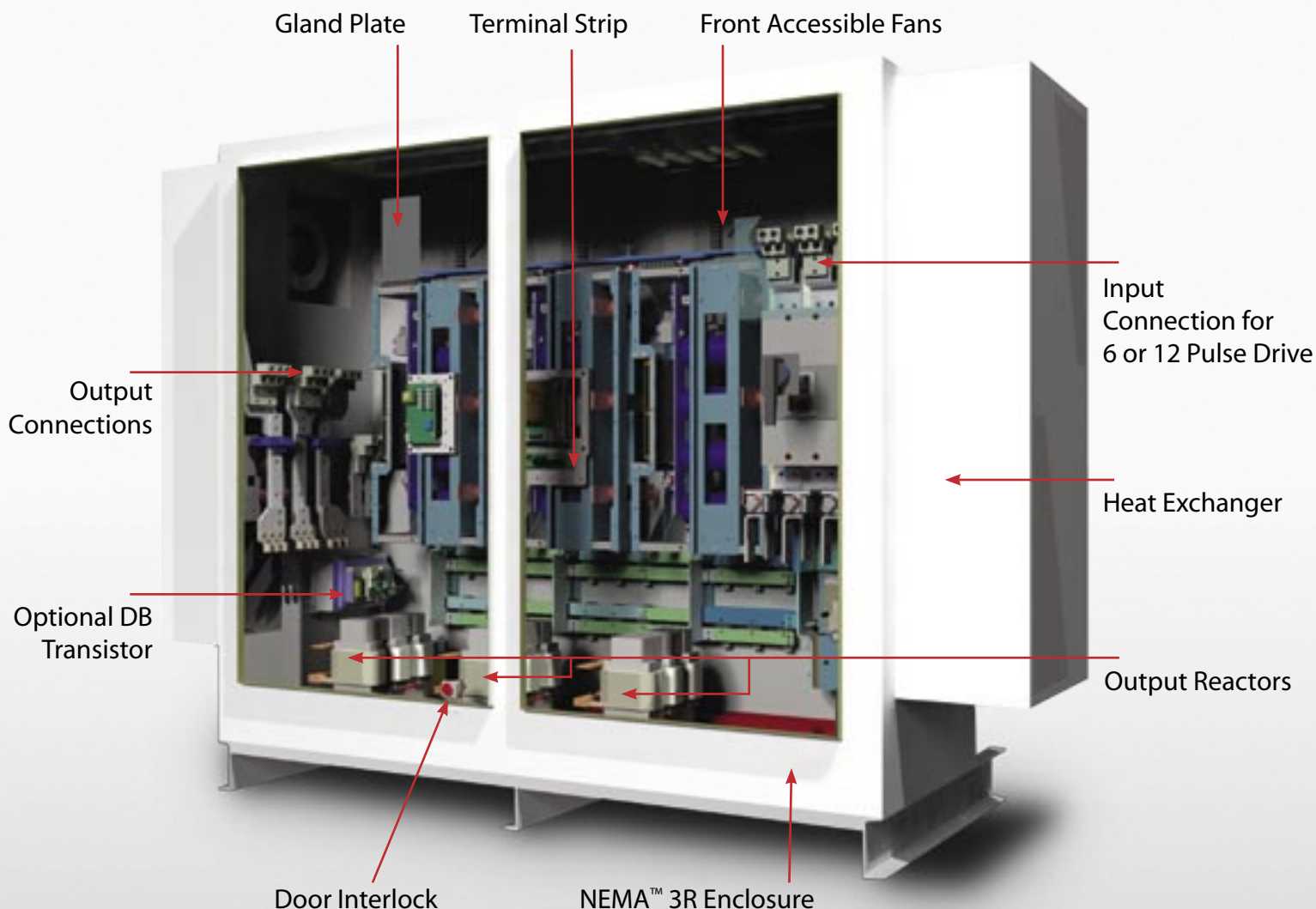
LCD EOI (Liquid Crystal Display/Electronic Operator Interface)	2 x 20 Back-Lit, Multi-Language LCD Display
LED Indications	Remote/Local (Green), DC Bus Charge Indication (Red)
Monitoring	Terminal Input/Output Status, Forward/Reverse, Frequency Setting Value, Output Frequency, Output Current, Output Voltage, Input Power, Output Power, Torque Current, Cumulative Run Time, Past Faults, Excitation Current, DBR Overload Ratio, ASD Overload Ratio, Motor Overload Ratio, PID Feedback Value, DC Voltage
EOI Communications Ports	RS232 Port Standard
Remote-Mount Display	Remote Mountable up to 1000' with Optional Kit

G3+A Physical Information

Nominal HP	60	75	100	150	200	250	350	400	500	600	700	800	900	1000	1200	1400	1500
Drive Output (KVA)	66	83	111	163	200	260	390	454	518	600	700	815	932	1000	1200	1400	1500
Drive Rating (A)	79	100	133	196	241	313	469	546	623	722	842	980	1121	1203	1443	1684	1804
Nema 1 Dim. H X W X D (inch)	N/A				78 X 37 X 38.3				78 X 72 X 44.2				78 X 84 X 44.2				
Nema 3R Dim. H X W X D (inch)	78 X 25 X 32		78 X 32 X 32		78 X 45.8 X 38.3				78 X 89.4 X 44.2				78 X 117.3 X 44.2				
Nema 1 Weight (lbs)	N/A				1150				2250				3250				
Nema 3R Weight (lbs)	625		750		1250				2500				3500				

* 518,1400 & 1500 KVA are 40°C max

Handles Your Outdoor Applications



Standard Equipment

- NEMA 3R Outdoor Duty Adjustable Speed Drive
- High Horsepower Applications: 66-1500KVA Ratings
- Input Circuit Breaker with Through the Door Handle
- Input Fuses
- Ambient Temperature Rating of -14°F-122°F
or -10°C - 50°C (518,1400 & 1500 KVA are 40°C max)

- Maximum Altitude of 4500 Feet Without Derate
- Epoxy Powder Coat on Heat Exchangers
- Common Spare Parts 518-1500 KVA
- Common Keypad and Control Board for Entire Product Rating
- Sub-Assemblies for Easy Maintenance

Optional Equipment

- 12-Pulse Diode Input for Harmonic Mitigation
- NEMA 1 Indoor Enclosure
- Anti-Condensation Heaters

- External Junction Box for Easy Field Connection
- Dynamic Braking Transistor
- DC Link Reactor

TOSHIBA INTERNATIONAL CORPORATION



North America Headquarters & Manufacturing Facilities (Houston, TX)

TOSHIBA - Quality by Design

Our company culture and history is strongly rooted on quality. Our designs are technologically innovative and our products are manufactured from start to end using only the highest quality foreign & domestic parts.

Product Warranty

Toshiba offers a comprehensive warranty program on its full line of industrial products. Consult your salesperson or the factory for specific information.

Need to Know More?

Be sure to visit our web site located at www.tic.toshiba.com for the latest information on Toshiba products.

Customer Support Services

Toshiba offers 24 hour service nationwide. For assistance of any type, call: 1-800-231-1412



ADJUSTABLE SPEED DRIVES MOTORS CONTROLS UPS INSTRUMENTATION PLC

TOSHIBA

TOSHIBA INTERNATIONAL CORPORATION

INDUSTRIAL DIVISION

13131 West Little York Road, Houston, Texas 77041
Tel 713/466-0277 Fax 713/466-8773
US 800/231-1412 Canada 800/872-2192 Mexico 01/800/527-1204
www.tic.toshiba.com
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