



Adjustable Speed Drive **Built to Last**



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Overview

- Wide Horsepower
 range
- IGBT Inverter
- NEMA 1 Standard
- 6 Pulse DiodeStandard
- Fused Inputs
- VLP Technology





Built to Last

- 110% Continuous Output
 - 150% for 60 sec for 5~125HP
 - 130% for 120 sec for 150~1200HP
- 65kAIC Rating
- Proven Toshiba ASD Technology
- Components are oversized for cooler operation and longer lifespan
- 690V (1700V PIV rated) Transistors
- Conformal coating on most PCBs



Specification Highlights

- 525 ~ 690V Input Voltage
- 5 1200 Horsepower Ratings
- NEMA 1 Enclosure Standard, Fan Cooled
- Temperature Rating: -10 to 40° C
- 1000m Maximum Altitude without Derate
- 9-Series LCD Full English Keypad
- Includes VLP Software

English Keypad vare





Specification Highlights

- MOVs
- Input Fuses
- Control Power Fuses
- DC Bus Fuse
- Control Power Transformer
- NEMA 1 Cabinet

Enclosure above 75HP



Specification Highlights

- 8 digital inputs, 3 analog inputs (0-20mA, 4-20mA, 0-10V, -10 to +10V)
- 3 dry contact programmable relays (1 form C and 2 form A)
- 2 programmable analog outputs (0-20mA, 0-10V)
- Monitoring functions
- Bi-directional speed search
- My Function for customizable
 PLC style programing



VLP Overview

- Linearizes traditional non-linear pump curve
- 5 simple steps to setup the drive
- Additional VLP features:
 - Start & Stop Points
 - Sleep Timer
 - Run External Devices
 - No-Flow/Low NPSH Cut Off
 - Time Based Alternation





Make PID A Process Of The Past 🐗

Obsolete PID Tuning

- VLP takes minutes to calibrate
- Ready to maintain application defined setpoint with no overshoot or oscillation

Adaptability

SHIBA

- Monitors multiple systems for system variables and self-calibrates (impeller losses, friction losses)
- Adjust system (ensure only necessary pumps/fans are operating to maintain BEP)
- Balance flow rates
- Maintain same load across all operating devices



5-Step Approach

5 simple steps to setup the drive out-of-thebox

ULT 15 WEDSchool Upprofile from Flace. Next Exit Motor full load anps 2.2.4. Application type: Pressure Command Source: ECI Low frequency limit: 15.00Hz	05 i6 VLP Setup Migard Back Next Enit Transducer: Units: [PSI] Type: 4-20nA Full scale: 50.0 PSI	VLP Setto Lizerd Back Next > ExR Use encoder to set VLP Maximum: 97 Transducer value: 0.00%	IN 16 WIP Score dicard Back Next Use encoder to set VLP Minimum: 42 Transducer value: 0.00%	VIP Setus Mitard <u>VIP Setus Mitard</u> <u>C Brack Net</u> Press ISTOPI. Virtual linear punp setup is now complete.
STEP 1: Input Motor's Electrical Specifications	STEP 2: Input Transducer Specifications	STEP 3: Input VLP Maximum	STEP 4: Input VLP Minimum	STEP 5: Complete VLP Setup

Options

- Supports standard 7-Series options
- Dynamic braking IGBT (on some ratings)
- 18 pulse option (above 100 HP or consult Factory)
- DC choke and line reactor available
- Extended terminal strips
- Many communications options
- Remote keypad

ASD-MULTICOM-X



Communications



RS232 / RS485 (standard)

ETH - 200

Modbus RTUModbus TCP/IPModbus PlusDeviceNetEthernet IPProfibus DPMetasys N2Siemens FLN

ASD – NANOCOM



ASD Pro Software

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TOSHIBA

Leading Innovation >>>

- Programming/setting
- Free Windows[®]-based software
- Monitoring/tracing
 - Save traced data in MS
 Excel format
- USB interface cable
- Wireless communication via NetPac



Electronic Operator Interface

- Remote mount capability
- Real-Time-Clock
- LCD full English display
- Flash upgradeable EOI software



Overview

GX9 Standard Features above AS1

- 100 HP and higher in NEMA 1 Enclosure
- 75 HP and below NEMA 1 Power Unit
- 65kAIC Rating
- 110% Continuous Output
- VLP Software
- Fused Inputs
- Wider Horsepower Range
- Real-Time-Clock
- 9-Series LCD full English Display
- Conformal Coating on most PCBs
- Isolated Analog Input