

# DXL

## GENERAL PURPOSE

VARIABLE FREQUENCY DRIVES



# DXL

## VARIABLE FREQUENCY DRIVE

An American-manufactured drive with capabilities for applications up to 500 HP, Phase Technologies' DXL (General Purpose, Six Pulse) variable frequency drives are the solution to your power distribution needs. Purchase as a standalone drive or customize your unit in an enclosed panel configuration using our 508A panel shop. Additionally, take advantage of extra add-on components to increase the efficiency and performance of your unit.

Protect your investment with our all-steel, NEMA 3R enclosures, guaranteed to keep out the elements while allowing your drive to operate at peak performance. We also offer options in Open and NEMA 1 configurations. All our enclosures are made in-house at our metal fabrication shop, ensuring the highest quality products, proudly made in America.



## GENERAL PURPOSE VARIABLE FREQUENCY DRIVES



**12-DAY  
LEAD TIMES**



**MADE IN THE  
USA**



## PERFECT FOR ALL APPLICATIONS

- ▶ Available as a stand alone drive and enclosed panel configuration
- ▶ Power conditioning for smooth power input
- ▶ Easy Set Up Wizards preprogrammed in your system for quick and easy startup
- ▶ Great of all industrial applications
- ▶ Phase Converting capabilities for single phase or three phase input

### Common Applications

<b>AGRICULTURE</b>	<ul style="list-style-type: none"> <li>▶ Irrigation</li> <li>▶ Livestock</li> </ul>
<b>MUNICIPAL</b>	<ul style="list-style-type: none"> <li>▶ Sewer Bypass</li> <li>▶ Lift Stations</li> </ul>
<b>MINING &amp; CONSTRUCTION</b>	<ul style="list-style-type: none"> <li>▶ Dewatering</li> <li>▶ Slurry &amp; Tailings Removal</li> <li>▶ Wasterwater Reuse</li> <li>▶ Dust &amp; Fire Suppression</li> <li>▶ Evaporation Equipment</li> <li>▶ Process Water</li> </ul>
<b>INDUSTRIAL</b>	<ul style="list-style-type: none"> <li>▶ Constant Torque</li> <li>▶ Rotating Equipment</li> <li>▶ Conveyor Belts</li> <li>▶ Rock Crushers</li> <li>▶ Compressors</li> </ul>
<b>HVAC</b>	<ul style="list-style-type: none"> <li>▶ Circulating Pumps</li> <li>▶ Cooling Towers</li> <li>▶ Supply Fans</li> <li>▶ Exhaust Fans</li> <li>▶ Air Handlers</li> </ul>
<b>OIL &amp; GAS</b>	<ul style="list-style-type: none"> <li>▶ Water, Oil &amp; Mud Transfer</li> <li>▶ Drilling Mud Recirculation</li> <li>▶ Fuel Storage Tank Booster</li> <li>▶ Downhole Pumps</li> </ul>



## CRAFT YOUR CUSTOM UNIT

Our DXL drives come in Open, NEMA 1 and NEMA 3R enclosure options so no matter your need or use, Phase Technologies has a drive that can be catered to your specific operation.

### General Purpose VFD

Our DXL model is a high-performance variable frequency drive (VFD) designed for controlling and optimizing motor speed in various industrial applications. With phase converting capabilities and 230V & 460V inputs available, your power needs are easily met across many industries.

Known for its robust design, the DXL offers advanced motor control, energy efficiency, and protection features. It is particularly effective in applications requiring precise motor

### Panel Shop Additional Options

- ▶ MCCB - Service Rated
- ▶ HOA & Speed Pot
- ▶ Line Reactor
- ▶ Run & Fault Light
- ▶ Output Filters
- ▶ Bypass
- ▶ Surge Protection
- ▶ Leg Kit

### Nomenclature

HP
Enclosure Type  
|
Blank = NEMA Type 1  
|
R = NEMA Type 3R  
**DXL4250R**

**VFD Series** ——— **Voltage**  
DXLL, SDX, DXL, DX, SD = General Purpose
0 = 208V - 230V  
LHX, 1LH, 3LH = Low Harmonic
2 = Voltage Doubling  
ES, SD, 2XD = Aqua Phase
4 = 460V



## Physical / Environmental

Operating Temperature Range	-40 °C – 50 °C (-40 °F – 104 °F) *Heater in enclosure may be required below –40 °C, de-rating required above 40 °C
Storage Temperature Range	-40 °C – 57 °C (-40 °F – 135 °F)
Enclosure	NEMA Open, Nema Type 1: Indoor
Altitude	Altitude Derate by 1% every 400 ft above 3300 ft elevation

## Input Power

Input Phase	Single-Phase or Three-Phase
Input Voltage	230 V   460 V
Input Voltage Range	190 V – 264 V   440 V – 520 V
Input Frequency	50/60 Hz

## Output Power

Output Phase	Three-Phase
Nominal Output Voltage	230 V   460 V
Output Voltage Range	100 V – 270V   200 V – 530 V
Output Frequency	5 Hz – 120 Hz
Horsepower	5 HP - 500 HP
Output Power	1.5 - 300 kW
Switching Frequency	2 kHz – 5 kHz
Output	V/f control or torque Control (Optional)

## Electrical

Short Circuit Withstand Rating	65 kA RMS symmetrical Amps
Efficiency	> 98%
Startup Ramp Time	1 – 120 s
Shutdown Ramp Time	1 – 120 s or Coast to Stop
Overload Capacity	110% for 60 s



## Analog Inputs

Quantity	(3) Programmable
Current Reference	4 – 20 mA, (2) Inputs
Voltage Reference	0 – 10 VDC, (1) Input
Terminal Block Size	26 - 12 AWG

## Digital Inputs

Quantity	(4) Programmable, Expandable
Ratings	< 5 V, galvanically isolated
Terminal Block Size	26 - 12 AWG

## Relay Outputs

Quantity	(4) Programmable
Rating	Relay 1 : 30 VDC or 277 VAC, 10 A Relay 2 : 30 VDC or 277 VAC, 10 A Relay 3 : 30 VDC, 2 A or 125 VAC, 0.5 A Relay 4 : 30 VDC, 2 A or 125 VAC, 0.5 A
Terminal Block Size	26 - 12 AWG

## Features

Certification	ETL listed to UL 61800-5-1 and CSA C22.2 No. 274-17
User Interface	Push button membrane keypad with backlit graphic display





**DIGITAL PHASE  
CONVERTERS**

**VARIABLE  
FREQUENCY  
DRIVES**

**MOTOR  
PROTECTION**

**STARTER  
PANELS**

## **OUR MISSION**

*Relentlessly seek to provide Uncommon Value, solutions, innovation, and support for the industries that we serve.*

