



US Drives Inc.
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Phoenix AC Drives



Tough Drives for Tough Applications

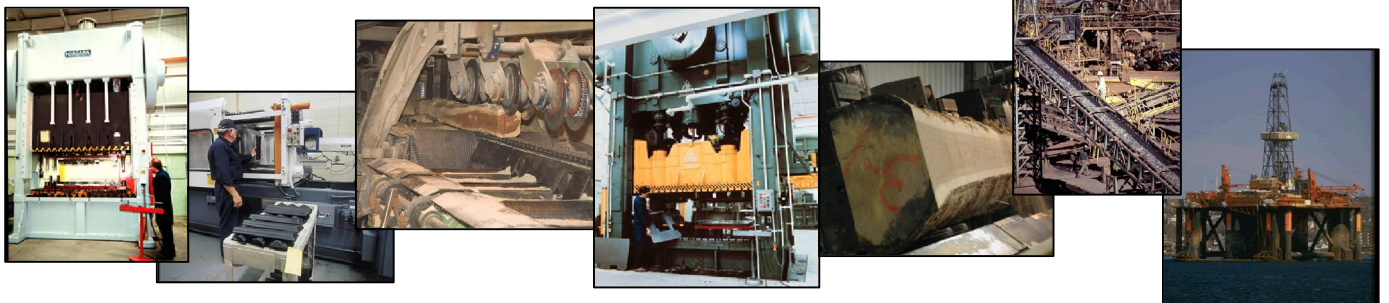
- SAW MILLS
- METAL FORMING PRESSES
- GRINDERS
- VIBRATORY FEEDERS
- KILNS
- CONVEYORS WITH SHOCK LOADING
- ROCK CRUSHERS
- PLASTIC INJECTION MOLDING MACHINES
- CONVEYORS WITH MULTIPLE DRIVE POINTS
- OILFIELD APPLICATIONS
- INDUSTRIAL WASHING MACHINES
- TEST STANDS

Some ac drive applications are just plain tougher than others. Applications that include Impact Loads or Eccentric, Unstable Loads are some of the toughest. Our Phoenix series of ac drives with its unique DC Bus Follower circuit is the perfect product for these tough applications.

Impact Loads (like Rock Crushers, Metal Forming Presses, Saw Mills, and Injection Molding Machines) can cause the ac motor to become a part-time generator unless the drive is specifically designed to prevent this condition from occurring. Regenerative energy must be removed from the system or the drive will trip on "Overvoltage." Most competitive ac drives are not designed to prevent this condition from occurring. The manufacturers of these products typically tell their customers they need to add Dynamic Braking Resistors whenever an ac drive is used on this type of load.

Customers do not need to add expensive Dynamic Braking Resistors when using our product in these applications. **US Drives guarantees trip-free operation, 100% of the time, at maximum load, and over the entire operating speed range.** The performance of our Phoenix ac drive in these applications exceeds the performance of any manufacturers drive including Open Loop and Closed Loop Vector Drives (Direct Torque Control or Indirect Torque Control type) and Open-Loop (V/Hz) Drives. No drive over-sizing is ever required.

Similar conditions exist for Eccentric or Unstable Loads (like Vibratory Feeders, Reciprocating Pumps, and Kilns). Certain Fan and Pump applications where two or more Fans or Pumps are used in tandem and Large Material Handling Conveyors with multiple drives also exhibit these same characteristics.



THREE YEAR WARRANTY

MADE IN USA



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US Drives, Inc. offers a Wide Range of Products to meet your specific Application Requirements:

PHOENIX DS AC DRIVE, 3 HP TO 3500 HP

The Phoenix DS AC Drive is truly the most rugged, most reliable ac drive on the market today. It was designed to easily handle the tough applications that cause other ac drives to trip or fail. Sensorless AC Vector Drive technology means higher starting torque, improved speed regulation, and better overall drive performance. Phoenix DS is suitable for most conventional ac drive applications from pumps and fans to more sophisticated material processing applications. You should be using our Phoenix DS AC Drive if you are currently experiencing any problems due to high input ac line voltage, ac power line transients, high ambient temperature, or difficult loads including shock loads, impact loads, and loads with very high starting torque.



PHOENIX ES AC DRIVE, 3 HP TO 3500 HP

The Phoenix ES AC Drive is a high performance AC Vector Drive with Closed Loop (Encoder Feedback) capability. Phoenix ES offers precise control of both motor speed and motor torque, improved speed regulation, and enhanced low speed performance with operation to and through zero speed. Phoenix ES includes the ability to follow an external frequency reference signal and position synchronizes two or more ac motors with zero drift over time. Like our other products, Phoenix ES stands up to high ac line voltages, nasty ac power line transients, high ambient temperatures, and difficult loads.

PHOENIX DS CLEAN POWER AC DRIVE, 40 HP TO 1000 HP

The Phoenix DS Clean Power AC Drive uses 18 Pulse Rectification to minimize harmonic distortion on the ac power line. It easily meets the stringent requirements of IEEE 519 1992 for Total Harmonic Current and Total Harmonic Voltage Distortion without the use of additional harmonic filters, ac line reactors, or drive isolation transformers. Our Phoenix Clean Power AC Drive includes all the same features that make our Phoenix DS AC Drive a truly outstanding product.



AC LINE REGEN MODULE, 5 HP TO 1750 HP

Our AC Line Regen Module is a unique product that turns any PWM AC Drive into a Line Regenerative AC Drive. Regenerative energy from the AC Motor is efficiently returned to the AC Power Line eliminating the need for inefficient braking resistors. Our AC Line Regen Module is easy to install and simple to use with no user adjustments to worry about.

REGENERATIVE DC COMMON BUS SUPPLY 5 HP TO 1300 HP

The Regenerative DC Common Bus Supply supplies both motoring and regenerative current to the DC bus of one or more AC drives without the need of rectifier front end in each AC drive. When the overall power requirements of the attached common DC bus drives require motoring power, energy flows from the utility to the common DC bus. When the overall power requirements of the attached common DC bus drives require regenerative power, energy flows from the common DC bus to the utility.

