



US DRIVES, INC.

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Visit us at www.usdrivesinc.com

Phoenix DS AC Drives

- Microprocessor Based Digital Control Circuitry
- Latest Generation IGBT Power Devices and Surface Mount Printed Circuit Boards
- Sensorless AC Vector Control for Precise Control of Motor Speed and Torque
- Highest Starting Torque - *Smart Power Start* Maximizes Motor Torque Per Ampere
 - Constant Torque Rated (High Overload Capacity) Drives produce 150% Rated Current for 1 Minute
 - Variable Torque Rated (Normal Overload Capacity) Drives produce 120% Rated Current for 1 Minute
- Continuous Automatic Tuning – Provides Optimal Performance Under All Conditions
 - No Need to Perform Auto-tune Routine or Disconnect the Motor from the Load or During Drive Start-Up
- Operator Keypad with English Language Display – 2 Line, 32 Character
 - Easily Display any parameter including Motor Speed, Motor Current, Motor Voltage, Kw, and Kwh
 - User Programmable Parameter Scaling and Formatting – Display “Real World” Values – GPM, CFM, PSI
 - Includes Speed Increase/Decrease Keys, Start/Stop, Forward/Reverse, and Fault Reset Keys
 - LED’s for “Current Limit”, “Fwd/Rev”, “Run”, and “Fault.”
- 50°C Ambient Temperature Rating (Nema 1 Enclosed Drives)
- Ground Fault and Line to Line Short Circuit Protection
- Tolerates High Input AC Line Voltages – 250/500/600 VAC +10% (240/480/575 VAC Input)
- Line Voltage Surge Protection - Transients to 6000V - Meets IEEE C62.41-1991 Cat B
- High Electrical Noise Immunity – Meets EN50082-1,2 – Showering Arc, 2000 V Peak
- Programmable Speed Sensitive Motor Overload Protection to Comply with UL 508C Sections 43.3, 43.4 and 43.5
- Built In Radio Frequency Noise (RFI) Filter
- High Performance PID Control Loop (Full Setpoint Control or Trim Control)
- Sleep Mode PID
- Pump Underload and Overload Protection and Load Recovery
- Pump Backspin Control
- 8 Preset Speeds with Individually Adjustable Accel/Decel Rates for Each Speed
- Speed Increase / Decrease (MOP) Function
- Bi-Directional Flycatcher (Start Into a Rotating Motor) – No Inertia Limits
- Power Loss Ride Through
- Built In Kw / Kwh Metering and Total Cost of Power Calculator
- Linear or S Curve Accel/Decel Control with up to 16 Different Accel/Decel Ramp Rates
- Programmable Time Based Function Generator and Programmable Threshold Detectors
- Programmable time delay and logic functions (AND, OR, NOR) of bit parameters, digital inputs and outputs
- Adding, subtracting, multiplying, dividing, ramping, limiting, and/or filtering functions of parameters and analog inputs and outputs
- Run Time and Power on Time Countdown Timers with Alarms plus Run Time and Power on Time Totalizers
- Critical Speed Rejection, 3 Bands – Individually Programmable Bandwidth
- User Programmable Auto-Restart Function
- Metal Enclosure (Reduces EMI) – Nema Type 1 as Standard, Nema 12/4/4X Optional
- Autologging Fault History - Last 10 Faults Saved in Order of Occurrence
- 8 Digital Inputs, 24 VDC (7 Programmable Inputs and 1 Fixed Stop/Enable Input)
- 2 Programmable Digital Outputs – Two Form C Dry Contacts rated 5 Amps at 115VAC
- 2 Programmable Analog Input Signals, -10 VDC to +10 VDC or 4 to 20 ma
- 2 Programmable Analog Output Signals, -10 VDC to +10 VDC
- DC Braking
- Fixed or Variable Carrier Frequency



3 Year Warranty

Made In USA