



DX3 Variable Frequency Drives

Driven by Energy.



The DX3 drive Family of AC Inverter Drives are manufactured in our Alberta, Canada, plant using the highest quality blend of Canadian, American and Japanese components.

DX3 Enterprises Ltd. is an OEM manufacturer and systems integrator of YASKAWA Variable Frequency Drive (VFD) systems, which are predominantly used in oil & gas production related and industrial applications. The DX3 drive family of drives is designed for the toughest oil field and industrial environments; they are rugged and reliable with a core VFD Mean Time Between Failures of 28 years.

Through experience we determined the real world requirements for reliable power systems and designed our VFD's and Electrical Distribution Systems to exceed these operating parameters through application of power technology combined with our in-house experience.

Our comprehensive power inverter system DX3 drive product line includes Low Voltage and Medium Voltage NEMA1, NEMA3R and NEMA4 drives for Electrical Submersible Pumps (ESP), Progressive Cavity Pumps (PCP), Sucker Rod Pumps (SRP) and Industrial, Horizontal Pump Systems (HPS) systems, as well as Industrial Motor Drives for Pumps, Fans and similar applications.

DX3 drive systems may be specified with DX3-Wave IEEE519 compliant line, sinewave or dv/dt filters.

Our control systems are intuitive and include all of the normal protective features normally associated pump type applications such as under and over loads, over current, under & over voltage, reverse rotation, backspin, true fundamental output voltage, frequency and current leakage monitoring.

DX3 Drive Systems

The full family of DX3 Drive are user configurable to operate on regular international power supplies of 380V to 480V at 50 or 60Hz, and at 6, 12, 18 or 24 pulses.

DX3D-1000

The DX3D1000 drive family is ideal for normal-duty usage indoors at 40°C. These units are used in control rooms and offer the convenience of a NEMA 1 enclosure.

DX3D-3000

The DX3D3000 drive family takes the basic DX3D1000 drive package into an outdoor setting. Cooling is achieved by filtered ambient air flowing through the cabinet. It has a NEMA 3R enclosure rated for a maximum ambient temperature of 40°C. Not recommended for dusty environments.

DX3D-4000

The DX3D4000 drive family is designed for use in harsh locations where a fully sealed enclosure is a necessity instead of a choice. These VFDs are rated for either a 40°C or 55°C ambient temperature, depending on the installed cooling system's specification. Air-to-air intercoolers provide normal cabinet cooling. These intercoolers are refrigerant-free heat transfer devices that reduce internal cabinet temperatures without using air conditioning.

DX3D6000M

The DX3D6000MV drive family operates at medium voltages of 3.3kV to 6.6kV and uses an array of low-voltage components to create complex multi-step output waveforms. With the basic drive generally meeting or exceeding IEEE519, there is no longer a requirement to select inverter-rated motors. These MV-VFDs may be retrofitted to older installations. Systems are available in NEMA 1 and NEMA 3R packages, and they are available with input voltages ranging to 13.8kV. All drive systems are currently air-cooled; however, fluid cooling is expected to be introduced in 2009.

DX3D7000R

The DX3D7000R is similar in function to the DX3D6000 with the exception of its fully regenerative variable frequency drive. The VFD features an active rectifier section that draws power from the grid and, when over-driven, injects regenerated power back onto it. These energy sources can be used to regenerate power and offset the overall costs in any operation that requires driven motors, running pumps, belts, or other similar tools, with the potential to over-speed, push, or coast during high-inertia loads.

DX3 Variable Frequency Drives for Oil & Heavy Industry

Strong, Rugged and Reliable



Meeting IEEE Harmonics Standards

6, 12, 18 or 24 Pulse front end rectifiers are available dependent upon the power quality guide being followed. VFD systems are preconfigured at the factory to meet the final application design requirements. When requested, a load tests may be performed to predetermine performance.



Enclosure Construction

Our custom designed and manufactured NEMA 1 to NEMA 4 cabinets may also be produced in full Stainless Steel for harsh or corrosive environments. With field installation in mind our VFD's may optionally be configured with input and output junction boxes for cable connection.



Direct Power Bypass Feature (Optional)

The optional Bypass package is a 3-switch bypass with the appropriate contactors engaged by external selector switch, which allows motor operation from the VFD or an across the line starter. This facilitates drive maintenance while the motor continues to operate.



DX3-Wave Harmonic Filters (Optional)

The optional DX3-Wave Series of harmonic filters interact with the drive system to control inherent high frequency harmonics. With the harmonics removed, the VFD waveforms resemble true sinewaves resulting in lower insulation stress and longer motor cable system runlife.



Transient Voltage Surge Suppressors (Optional)

The optional TVSS uses state of the art MOV devices assembled in a non-destructive fuse protected, NEMA 4 package. The TVSS device may be mounted inside the VSD enclosure without the use of additional protective devices such as circuit breakers.

For more information on these or other
products & services email us at:

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