



Power Products for Wind Turbine

Solutions Focus

Eaton's years of extensive research and design in wind power generation has resulted in power products custom designed to withstand hostile environments, vibration and shock of wind turbine applications.



Power Units - Custom Designed for Wind

Utility companies recognize the need for wind plants that produce a steady and reliable flow of energy. And that's placing greater demands on the performance of wind turbine technology.

"Utility grade" wind turbines must perform around the clock. And to assure long-term reliability, wind turbine component manufacturers must provide local on-site service and support.

At the heart of advanced wind turbines is a hydraulic control system that manages the pitch, speed and braking functions. Eaton has been the leading worldwide manufacturer of these critical hydraulic components



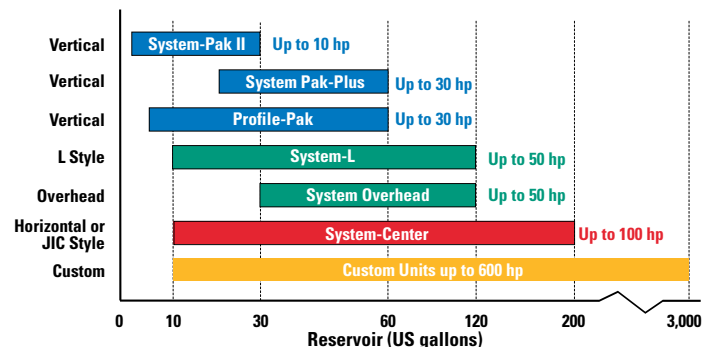
and subsystems since the early 1980s. Eaton has set the standard for the design, performance and service of wind power hydraulics.

With applications located all over the world, the sun literally never sets on Eaton wind turbine hydraulics.

Eaton's worldwide distributor network means you get the added assurance of Vickers superior service and support anywhere you need it — when you need it.

Vickers™ Power Units Product Range

Piston, Vane, Gear Pumps, pressures to 4,000 psi





GGP Gear Pumps

SAE AA, A, and B mount aluminum pumps in displacements ranging from .2 cid [33 cc] to 3.4 cid [55 cc]. A wide range of mount, shaft, and porting options meeting SAE, Metric, and NPTF standards are available.

Specifications: Speed Range (Max.): 2250 to 4000 RPM.

Rated Pressures: 207 – 241 bar (3000 to 3500 psi).

V/VQ

The V/VQ series vane pumps are the pioneers of cartridge-design vane pumps. They are well known for long operating life, outstanding efficiency, flexible configuration and easy serviceability.

The quiet 12-vane V series pumps are the most popular medium pressure industrial fixed pumps in the world.

For wind turbine equipment, the unique flex plate in the VQ pumps adds superior start-up capability in cold and harsh outdoor work environment.

That's why the VQ series pumps are widely adopted by world's leading mobile OEMs.

Specifications: Max. continuous pressure up to 3000 psi/210 bar.

Displacement up to 11.8 in³/rev [194 cc/rev]. Speeds up to 2700 rpm. Available in single, double, triple and thru-drive pump frames.

PVM

The M Series Piston Pump family was designed as a quiet, medium pressure pump for industrial applications. The cradle swashplate design pumps were created with low noise in mind. Design features reduce both the structure-borne and fluid-borne noise levels to market leading levels.

Specifications: Full 280 bar (4000 psi) continuous, 320 bar (4600 psi) intermittent pressure.

Electric motor speeds. Mineral oil-based and fire-resistant fluid compatibility. Displacements from 18 cc to 141 cc. Pressure compensation and pressure/flow compensation controls.

Accumulators

Eaton offers bladder, piston and diaphragm type accumulators in a wide range of sizes, bladder materials, port configurations and pressure ratings to provide optimum design flexibility.

Eaton also offers a complete line of accessories needed for proper installation and maintenance including safety shut-off blocks, clamps, repair kits, and charging and gauging units. There is also the assurance that the materials used in construction and manufacturing are controlled to exacting specifications and backed by Eaton's no-nonsense warranty. The warranty can be found at <http://hydraulic.eaton.com/products>.

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