



Meet the New Kid on the Blok

DriveBlok AC motor control package helps protect your investment and the environment.

More and more consumers are seeking heating and cooling systems that offer better efficiency and lower costs. And it's no wonder, with the world's increasing demand for new energy sources, concerns about global warming, and fuel costs continuing to rise. Many consumers are turning to geothermal solutions for their heating and cooling needs, creating a demand for such products as geothermal heat pumps.

Suppliers of geothermal heat pump products are turning to the Parker family of motion control components to help meet the needs of this growing market. Among these products is the DriveBlok AC motor control package, which takes compressor control to the next stage. Through extensive R&D, Parker has packed a ton of features into a very small electronic component. The DriveBlok controls standard compressor motors and offers heat pump manufacturers some very tangible benefits – that in turn drive consumer interest.



How It Works

The constant starting and stopping of an AC motor causes large transient voltage and current inrushes that decrease energy efficiency. The **Motor Starting Parameters** feature is a series of settings to control how much current is applied to the motor when the drive is starting. This manages the initial electrical surge. As the motor starts running, integrated **Acceleration Parameters** manage the rotational speed of the motor as it accelerates to the desired speed. Additionally, **S-Curve Acceleration** eases the stress on the system mechanics. Once the motor is running, the **Sensorless Flux Vector Mode** technology provides a very high level of motor-velocity control. The DriveBlok incorporates **Jump Speed** settings to avoid rotational speeds that might cause unfavorable vibration in the compressor and/or the entire system.

Motor protection is made easy with the **Motor Load Limit** monitoring technology. This circuitry's primary purpose is to collect and monitor important motor operational data, such as current, voltages, torque output, speed and motor temperature. If any of these parameters exceed the user-defined limit, the drive will shut down to protect the motor from being damaged. The DriveBlok also has intelligent stopping through the **Stop Mode** feature. This allows the user to select a controlled stop or a *coast-to-stop*.

All through this operation is a special **Efficiency Mode** function. This allows the DriveBlok to reduce the amount of flux or magnetic field applied to the motor when not required by the load. When enabled, power and noise are reduced.

Environmentally Friendly

The DriveBlok can receive multiple forms of command signal: 4 – 20mA current command or 0-10VDC voltage command. This is supplemented by digital inputs that can be activated to “force” the motor to one of seven predefined RPM set points.

The robust and maintenance-free design protects your investment, while the system’s efficiency and performance saves your customers money and helps protect the environment.

When application development demands power and energy savings, Parker is your single-source solution. Contact Parker today to get “plugged in”!

www.parkermotion.com/heatpumps