

an an a

Leading Power Management Technologies for Defense & Aerospace Applications

Inverters & Variable Frequency Drives





Inverters & Variable Frequency Drives

Calnetix Technologies offers high-performance, power dense and energy efficient variable speed drives and inverters for power generation and power conversion. Calnetix has adopted traditional silicon and silicon carbide (SiC) technologies in its power conversion systems at power levels ranging from 10 kW to over 1 MW.

Calnetix Vericycle[™] Bidirectional Drives and Enercycle[™] Inverters are the ideal choice for any type of highspeed rotating machinery or power conversion needs in defense and aerospace applications. Calnetix offers both off the-shelf and custom solutions that are cost effective, robust and delivered on time by leveraging its existing technology and advanced engineering capabilities.

From electric motor to export power applications, Calnetix's inverters adjust to the needs of the application and help increase the overall efficiency of the system. Calnetix currently offers the following variable speed drive inverter solutions:

Products		
» Vericycle™ 75 – 0-480 VAC, 60 A, 0-2000 Hz		» Vericycle SiC 300 – 0-480 V, 3PH, 0-2000 Hz
» Vericycle™ 300 – 0-480 VAC, 220 A, 0-1000 Hz		» Vericycle SiC 600 - 0-480 V, 3PH, 0-2000 Hz
» Vericycle™ 450 – 0-480 VAC, 400 A, 0-600 Hz		» Electrocycle™ DC-150 - 36-52 VDC, 150 A (Max)
» Vericycle™ 600 - 0-480 VAC, 575 A, 0-1000 Hz		» Enercycle™ DC-400 - 270VDC, 400A (Max)
» Vericycle [™] DC-1200 – 0-	48 V, 1,200 A, 0-600 Hz	» Enercycle™ DC-1000 -600-750 VDC, 1000A (Max)
DC-400	Enercycle™ DC-1000	Vericycle™ 300
15.0kg / 11.4L	108kg / 44L	349kg / 721L

Calnetix drives technology provides the following advantages:

Advantages

- » Enables system level design optimization
- » High temperature operation (up to 105°C)
- » Low total harmonic distortion (THD)
- » Sensorless space vector modulation
- » Active or passive front end
- » Power densities exceeding 15 kW/L and 8 kW/kg
- » High durability for harsh environments
- » Low-impedance and high-speed machine drives
- » Bidirectional operation
- » High reliability and long operating life
- » Configurable for new applications