

Six-Axis Drive Rack with Fiber-Optic Interface for Brush, Brushless, and Stepper Motors

3U plug-in amplifiers

19 inch rack-mount design

Drive brush, brushless, or stepper motors with the same amplifier

Up to 30 A peak output

PWM or linear amplifiers

Fiber-optic interface

The XR3 six-axis drive rack with field replaceable, front-mounted, 3U plug-in amplifiers support both linear and PWM topologies. The XR3 can control any combination of brushless, DC brush, or stepper motors at up to 320 VDC operating voltage and 30 A peak current capability. Both the current loop and servo-loop are digitally closed to ensure the highest level of positioning accuracy and rate stability. This processing capability allows the XR3 to provide loop closure rates up to 20 kHz and to handle both digital and analog I/O processing, data collection, process control, and encoder multiplication tasks in real time.

Standard features include per-axis brake control logic, auxiliary encoder feedback, analog I/O expansion, 16 opto-isolated inputs, 16 opto-isolated outputs, up to 12 high-speed differential outputs, 3 PSO (Position Synchronized Output) external sync inputs, 3 TTL or isolated PSO outputs, 1 opto-isolated data-acquisition input, and 2 STO (Safe Torque Off) sense inputs. The XR3 supports open-loop control, standard square-wave encoder feedback, analog input feedback control, and absolute encoder feedback.

Options for the XR3 include three different levels of integrated encoder multiplication including options that support dual-loop encoder feedback, drive-rack cooling, rack or slide-type mounting, and multi-axis Position Synchronized Output (PSO) I/O for low-latency, position-based process control.

The XR3 contains two configurable power supply sections to support a variety of motors with different operating voltages. When only one motor voltage is required, the power supply sections are joined together for even higher power capability.

For further information please contact Steve McLane at 412-967-6854 (direct), or via e-mail at smclane@aerotech.com.

More information on the XR3 Drive Rack can be found at:

<https://www.aerotech.com/product-catalog/drives-and-drive-racks/xr3.aspx>

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