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Find the *Copley Controls Corp Accelus Panel ASP-090-09* at our website: *Click HERE*

Accelus™ Panel

DIGITAL SERVOAMPLIFIER
for BRUSHLESS or BRUSH MOTORS

RoHS

Control Modes
- Gearing, Position, Velocity, Torque

Command Interface
- Stepper commands
- ±10V velocity/torque command
- PWM velocity/torque command
- Master encoder [Gearing]

Communications
- RS232

Feedback
- Digital Quad A/B encoder
- Digital Halls

I/O - Digital
- 6 inputs, 2 outputs

Dimensions: mm [in]
- 168 x 99 x 31 [6.6 x 3.9 x 1.2]



MODEL	IC	IP	VDC
ASP-055-18	6	18	55
ASP-090-09	3	9	90
ASP-090-18	6	18	90
ASP-090-36	12	36	90
ASP-180-09	3	9	180
ASP-180-18	6	18	180

DESCRIPTION

Accelus is a 100% digital servoamplifier in a panel-mount package with a family of power options to 12A continuous and 36A peak. This new series offers sinusoidal commutation of brushless motors in torque, velocity, or position modes and fast, easy set up with CME 2™ software.

CME 2™ software communicates with Accelus through an RS-232 link for complete amplifier setup. Auto-phasing and auto-tuning algorithms in CME 2™ slash set up times for fast system commissioning and eliminate "re-wire and try" so common in brushless motor installations. CME 2™ automates current loop tuning, as well as motor, Hall, and encoder phasing. A powerful oscilloscope and signal generator display amplifier performance for fine tuning thereafter. Amplifier control parameters are saved in non-volatile flash memory. OEM's can inventory one part, and configure amplifiers on-site to each axis in a machine.

Advanced field-oriented-control ensures the highest motor torque over a wide speed range, minimizing motor heating and maximizing efficiency. Digital control algorithms transform stator currents into direct and quadrature components. The torque-producing quadrature current is controlled by the current loop, and the direct component is driven to zero eliminating losses from current that doesn't produce torque. Space-vector modulation produces higher speeds than sine-pwm modulation from the same power supply.

Accelus works with motion controllers that close position-loops using incremental encoder feedback and process the position error in a PID filter to produce an amplifier command for torque, force, or velocity. Only one ±10V analog, or a one or two-wire digital PWM/DIR control signal is required. All commutation is done in the amplifier.

In position-mode, Accelus accepts two-wire digital step-motor control signals (CW/CCW, or Count/Direction), or operates as a slave from a master encoder. The ratio between input position pulses and motor position is programmable.

Velocity control is derived from motor encoder signals. Velocity mode is useful not only for speed-setpoint applications, but enables operation with PLC's or controllers that output position-error signals with no PID filtering.

All amplifier circuits are DC coupled and operate from unregulated transformer-isolated DC power supplies, or regulated switching power supplies.

The panel-mount package is compatible with the mounting footprint of Copley's 5xx1 series trapezoidal brushless amplifiers, offering an easy upgrade to sinusoidal commutation with digital control.

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