

# OMEGA SERIES DIGITAL PWM BRUSHLESS SERVO AMPLIFIERS

- **Digital current loops** Current loop bandwidths up to 3 kHz.
- **Digitally tuned** All parameters set digitally. No potentiometers to adjust. DSP control for the ultimate in high performance.
- **Silent operation** 25 kHz PWM standard.
- **Complete isolation** Complete optical isolation between signal and power stage.
- **Wide operating voltage** 30-370 VDC for Amplifier modules versions. All stand-alone and multi-axis versions can be ordered for operation from either 110-130 VAC or 208-240 VAC (single or 3-phase, 50/60 Hz).  
Note: SMA9807 Stand-Alone is single phase input power only.
- **Direct AC operation** No transformer required for stand-alone units or multi-axis chassis. The SMB9815 and SMC9815 stand-alone units and multi-axis chassis include DC power supply, cooling fans, soft-start circuitry and a regen clamp with dumping resistor. The SMA9807 stand-alone unit includes DC power supply.
- **Fault protection** Short from output to output, short from output to ground, amplifier RMS over current, amplifier under/over voltage, amplifier over temperature, motor over temperature.
- **RS-232 or RS-485** High speed (115.2K baud) serial communication interface for set-up and tuning. RS-485 multidrop with up to 31 amplifiers installed.
- **Software configurable** Glentek's Windows™ based MotionMaestro™ software provides ease of set-up and tuning with no previous programming experience required. This software is Windows™ 95/98/2000 and NT compatible.
- **Non-volatile memory** All parameters and positions are stored in non-volatile memory for reliable start up. In addition, up to two different configurations can be stored at one time.
- **Dedicated inputs** +/- limits, inhibit, fault, motor over temp & reset.
- **Dedicated outputs** Analog monitor, fault and divided encoder.
- **Three basic models** Covering almost all servo needs, the Omega Series includes a full feature current/velocity amplifier, a 2-phase input current amplifier, and a pulse following amplifier.
- **Encoder output divider** The frequency of the encoder output can be divided from the input by any integer 1-8. Note: Non-standard frequency divisors can be ordered on request.
- **Encoder feedback** Accepts encoder signals up to 4.3 Mhz. Special versions are also available that decode Sanyo Denki, Tamagawa and Yaskawa reduced wire encoders.
- **Status indicator** 7-segment display indicates amplifier status and diagnostics.
- **Sinusoidal commutation** For the ultimate in efficiency and smooth motion. Commutates from almost any resolution linear or rotary encoder.
- **External logic supply (SMC98XX models only)** 24 to 48VDC, 600mA @ 24VDC Powers all amplifier logic and encoders.



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# OMEGA SERIES DIGITAL PWM BRUSHLESS SERVO AMPLIFIERS

- *SMT construction* Provides ultra compact size, cost competitive package and high reliability.
- *CE compliant* All servo amplifiers are CE marked.
- *Parametric filtering* Provides control engineers advanced filtering to eliminate unwanted system mechanical resonances.



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