OEM750X Specifications

	Parameter	Value
Power Input	DC	24–75 VDC @ 2.0 Arms (motor dependent)
Performance	Accuracy	±5 arc min (0.0833°) typical. Unloaded-bidirectional with Compumotor supplied motors. Other motors may exhibit different absolute accuracy. ±1 arc min (0.0167°) typical. Loaded-in addition to unloaded accuracy, per each frictional load equal to 1% rated torque.
	Repeatability	±5 arc sec (0.0014°) typical. Unloaded-one revolution returning to start point from same direction.
	Hysteresis	Less than 2 arc min (0.0334°) unloaded-bidirectional.
	Resolution	16 selectable choices: 200, 400, 1000, 2000, 5000, 10000, 12800, 18000, 20000, 21600, 25000, 25400, 25600, 36000, 50000, 50800
	Waveform	Selectable. Allows waveform shaping for optimum smoothness or relative accuracy. Pure sine; -4%, -6%, -8%, -10% 3rd harmonic.
RS-232C Interface	Connection	3-wire implementation (Tx, Rx, Gnd)
	Parameters	9,600 baud rate, 8 data bits, 1 stop bit, no parity
	Configurations	Up to 8 OEM750X units can be controlled from a single host RS-232C port in a daisy chain configuration
Inputs	Sequence Select Inputs	Three inputs to be used to select and run motion programs and for interactive machine control; Logic High = 2.0–5.0V; Logic Low = 0–0.8V
	Trigger Inputs	Logic High = 2.0–5.0V; Logic Low = 0–0.8V
	Limits and Home	Logic High = 2.0–5.0V; Logic Low = 0–0.8V
Encoder	A, B and Z Channel	Single-ended, active high; Logic Low = 0–0.8V; Logic High = 2.0–5.0V
	Max Frequency	160 kHz (pre-quadrature)
	Min Pulse Width (Z)	500 nsecs
Outputs	2 Programmable Outputs	Logic High = minimum of 4.26 V (source -24 mA) Logic Low = maximum of 0.44 V (sinks to 24 mA)
	Fault Output	Logic high = 5V, Logic low = .8V (output can sink up to 50mA from the load)
Amplifier	Type	20 kHz fixed frequency, variable duty cycle pulse width modulated (PWM) Current controlled, bipolar chopper
	Number of Phases	2
	Output Current	0.2–7.5 amps current per phase peak (selectable)
	Drive Supply Voltage	24–75 VDC (dependent on external power supply)
	Standby Current Reduction	25%, 50%, or 75% of selected motor current
	Nominal Chopping Frequency	20 kHz
	Maximum Stepping Rate	2 MHz maximum pulse rate; 50 rps maximum speed
Protective Circuits	Short Circuit*	Phase-to-phase, phase-to-ground
	Brownout	If DC supply drops below 24 VDC
	Overtemperature*	Drive will fault if heat plate exceeds 55°C
Environmental	Drive	Max allowable ambient temperature is 122°F (50°C). Fan cooling may be required if airflow is restricted Max allowable heatplate temperature is 55°C.
	Humidity	0 to 95%, Non-condensing
Physical	Drive Dimensions	5.0 x 3.6 x 1.6 in (127 x 91 x 41 mm)
	Weight	14 oz
Motor	Type	Two-phase hybrid permanent magnet, 1.8°
	Number of Leads	4, 6, or 8
	Inductance Range	0.2 mH–80 mH

* Drive shuts down in conditions listed. Power must be cycled to resume operations.