

OEM750 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/per each frictional load equal to 1% rated torque. Loaded-in addition to unloaded accuracy. |
| | 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. |
| 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 |
| | Max Stepping Rate |
| | 2 MHz max pulse rate: 50 rps max speed |
| | Step Input |
| | High-going pulse, 200 nsec min width; max pulse rate is 2 MHz; User-supplied driver for the step and direction inputs should be capable of providing a minimum of 6.5 mA to maximum of 15 mA |
| | Direction Input |
| | Logic High = positive (CW) rotation—3.5–5.0V Logic Low = negative (CCW) rotation—0–0.4V User-supplied driver for the step and direction inputs should be capable of providing a minimum of 6.5 mA to a maximum of 15 mA. The direction input must be stable for at least 200 µsec before the drive receives the first pulse |
| | Fault Output |
| | Open-Collector/Emitter, Vce = 70 VDC, Vce sat = 0.3 VDC, Ic = 10 mA (max) Maximum dissipation = 55 mW Conducting = normal operation Non conduction = drive fault |
| Protective Circuits | Short Circuit* |
| | Phase-to-phase, phase-to-ground |
| | Undervoltage |
| | If DC supply drops below 24 VDC |
| | Overtemperature* |
| | The drive will fault if heat plate exceeds 55°C |
| Environmental | Drive Temp |
| | 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 |
| | 12 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 or drive reset to resume operations.

Drives & Drive/Controllers