

**GT/GT6 Common Specifications**

| Specifications             | GT(GT6)-L5   | GT(GT6)-L8     | GT(GT6)-U5          | GT(GT6)-U8          |
|----------------------------|--|----------------|---------------------|---------------------|
| <b>Input Power</b>         |  |                |                     |                     |
| Voltage                    | 95-132 VAC   | 95-132 VAC     | 95-132, 190-265 VAC | 95-132, 190-265 VAC |
| Phase                      | 1Ø   | 1Ø             | 1Ø                  | 1Ø                  |
| Frequency                  | 50/60 Hz   | 50/60 Hz       | 50/60 Hz            | 50/60 Hz            |
| 24V Keep Alive (Optional)  | 24 VDC +/- 20%   | 24 VDC +/- 20% | 24 VDC +/- 20%      | 24 VDC +/- 20%      |
| <b>Output Power</b>        |  |                |                     |                     |
| Bus Voltage                | 170 VDC  | 170 VDC        | 74 VDC              | 74 VDC              |
| Switching Frequency        | 20kHz  | 20kHz          | 20kHz               | 20kHz               |
| Continuous Current (Apk)   | 5 Amps   | 8 Amps         | 5 Amps              | 7.5 Amps            |
| <b>Performance</b>         |  |                |                     |                     |
| Accuracy                   | +/-5 arc min (0.0833°) unloaded bi-directional with Compumotor motors<br>+/- 1 arc min (0.0167°) loaded in addition to unloaded accuracy |                |                     |                     |
| Repeatability              | +/- 5 arc sec (0.0014°), typical unloaded  |                |                     |                     |
| Hysteresis                 | Less than 2 arc min (0.0334°) unloaded   |                |                     |                     |
| Resolution                 | User defined integer value between 200 and 128,000 steps   |                |                     |                     |
| Waveform                   | User defined, pure sine, -20% to 10%, continuously variable 3rd harmonic   |                |                     |                     |
| <b>Command Inputs - GT</b> |  |                |                     |                     |
| Position Mode              | Step and Direction/CW & CCW/Encoder Tracking   |                |                     |                     |
| Velocity Mode              | +/- 10 V   |                |                     |                     |
| <b>Inputs – GT</b>         |  |                |                     |                     |
| Enable, Reset, User Fault  | 5-24VDC Selectable, 1/3 1/3 1/3 voltage switching threshold  |                |                     |                     |
| Neg/Pos Limits             | 5-24VDC Selectable, 1/3 1/3 1/3 voltage switching threshold  |                |                     |                     |
| <b>Inputs – GT6</b>        |  |                |                     |                     |
| 8 Program., Enable, Reset  | 5-24VDC Selectable, 1/3 1/3 1/3 voltage switching threshold  |                |                     |                     |
| <b>Outputs – GT</b>        |  |                |                     |                     |
| Fault, At Limit, Stall     | Open collector, 300mA sink capability  |                |                     |                     |
| Analog Monitors            | +/- 10 V scalable, 8 bit (not to be used as control functions)   |                |                     |                     |
| Step & Direction           | Programmable up to 128,000 counts/rev  |                |                     |                     |
| Relay                      | Normally open, dry contact   |                |                     |                     |
| <b>Outputs – GT6</b>       |  |                |                     |                     |
| 6 Programmable             | Open collector, 300mA sink capability  |                |                     |                     |
| Analog Monitors            | +/- 10 V scalable, 8 bit (not to be used as control functions)   |                |                     |                     |
| Step & Direction           | Programmable up to 128,000 counts/rev  |                |                     |                     |
| Relay                      | Normally open, dry contact   |                |                     |                     |
| <b>Communications</b>      |  |                |                     |                     |
| Type                       | RS232/RS485 (4-wire), 8 bit binary protocol  |                |                     |                     |
| Baud Rate                  | Fixed at 9600  |                |                     |                     |
| Daisy Chain – GT6          | Up to 99   |                |                     |                     |
| <b>Environmental</b>       |  |                |                     |                     |
| Temperature                | Still air: 113°F(45°C), moving air: 122°F (50°C)   |                |                     |                     |
| Humidity                   | 0-95%, non-condensing  |                |                     |                     |
| Shock/Vibration            | Shock:15G half-sine @ 11 msec/ vibration: 2G, 10-2000 Hz   |                |                     |                     |
| <b>Protection</b>          |  |                |                     |                     |
| Short Circuit              | Phase-to-phase, phase-to-ground  |                |                     |                     |
| Brownout                   | AC drops below 85 VAC  |                |                     |                     |
| Over Temperature           | Shutdown fault at 131°F (55°C)   |                |                     |                     |
| <b>Standards</b>           | UL, cUL, CE (LVD), CE ( EMC)   |                |                     |                     |
| <b>Physical</b>            |  |                |                     |                     |
| Compumotor motors          | O, R, T, and E Series motors   |                |                     |                     |
| Non-Compumotor motors      | 4,6, or 8-lead, 2-phase hybrid permanent magnet motor, 1.8°  |                |                     |                     |
| Inductance                 | 0.5mH minimum; 5 to 50 mH recommended, 100mH max   |                |                     |                     |
| <b>Connectors</b>          |  |                |                     |                     |
| Serial                     | 9-pin D-shell (male)   |                |                     |                     |
| Motor and power            | Barrier screw terminal   |                |                     |                     |
| Command and I/O            | 50-pin High density Amp Champ - .050 Series II (with screw attachment)   |                |                     |                     |
| +24VDC/Relay               | 4-pin removable terminal block   |                |                     |                     |

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