

Joint Actuator Detail Specifications (Cont.) Model:PA10-7C

| | | W2 | W1/E2 | E1/S3 | S2/S1 | NOTES |
|---------------------------|------------------------------|--------------------|-------|-------|-------|--------------------------------------|
| Rated Torque | T_{nm} [Nm] | 0.36 | 0.29 | 2.0 | 4.6 | |
| Max. Instantaneous Torque | T_{max} [Nm] | ---- | 0.44 | 3.0 | 6.9 | |
| Rated Speed | R_{nl} [rpm] | 3000 | 3000 | 1000 | 500 | |
| Rated Voltage | V_m [V] | 100 | | | | |
| Motor Classification | | AC Brushless Servo | | | | |
| Motor Constant | K_m [Nm/W ^{1/2}] | 0.242 | 0.037 | 0.168 | 0.361 | $K_m=K_{tt}/R_{tt}^{1/2}$ |
| Torque Constant | K_{tt} [Nm/A] | 0.375 | 0.144 | 0.86 | 1.19 | $K_{tt}=(K_b/1000) \times (60/2\pi)$ |
| Inverse Power constant | K_b [V/Krpm] | 39.3 | 8.72 | 51.9 | 71.7 | |
| Coil Resistance | R_{tt} [ohm] | 2.4 | 1.74 | 4.46 | 2.52 | |
| Coil Inductance | L_{tt} [mH] | 2.37 | 2.08 | 7.9 | 8.73 | |
| Number of Poles | P [poles] | 10 | 6 | 10 | 12 | |