

# D-3180-P-1ES SPECIFICATIONS

## MOTOR CHARACTERISTICS @ 25° C

Specification	Units	Value
Peak Torque, $T_p$	oz-in	5.07
Motor Constant, $K_M$	oz-in / $\sqrt{W}$	0.286
Number of Poles		10
Weight	oz (nom)	3.5
Motor Inertia, $J_M$	oz-in-s <sup>2</sup>	$3.88 \times 10^{-4}$
Friction Torque, $T_F$	oz-in	0.10
Electrical Time Constant, $T_E$	ms	1.49
Mechanical Time Constant, $T_M$	ms	3.50
Temperature Rise, TPR <sup>1</sup>	°C / W	4.3
Ripple Torque, $T_R$	max. avg. to peak (%)	5

## MOTOR WINDING CONSTANTS

Specification	Units	Value
Torque Sensitivity, $K_T$	oz-in / amp	0.811
Back EMF, $K_E$	V per rad/s	1.10
Terminal Resistance, $R_M$	ohms (nom)	8.03
Terminal Inductance, $L_M$	mH (nom)	12
Voltage, Stalled at Peak Torque, $V_p$	volts	50.2
Amps at Peak Torque, $I_p$	amps	6.25

## MECHANICAL DIMENSIONS (INCHES)

