RAE Corporation

Customer Copy

RAE Corporation 3130318
SIMPLE PUMP - ORIGINAL DESIGN -

4615 W. PRIME PARKWAY, McHENRY, ILLINOIS 60050-7001
(815) 385-3500 FAX (815) 344-1580

TYPICAL GEARMOTOR PERFORMANCE DATA

M4300 GIL 200 OPERATED ON 12 VOLTS D.C.

GEARMOTOR DATA

TORQUE	SPEED	CURRENT	HP	EFF
0.0	70.5	2.43	.000	.00
25.0	68.4	4.41	.027	38.15
50.0	66.3	6.39	.052	51.03
75.0	64.1	8.38	.076	56.56
100.0	62.0	10.36	.098	58.96
125.0	59.9	12.34	.119	59.74
150.0	57.7	14.32	.137	59.57
175.0	55.6	16.30	.154	58.79
200.0	53.5	18.28	.169	57.61
159.0	57.0	15.03	.143	59.34

(PRIMARY LOAD POINT)

--- THIS DESIGN IS INTERMITTENT DUTY RATED ---

153.6	57.4	14.60	.140	59.49

(CONTINUOUS DUTY RATING - FORMFACTOR = 1.00)

Stall Torque = 826.21 In-Lbs (For Reference Only)
Stall Current = 67.89 Amps (For Reference Only)

MOTOR DESIGN DATA and CONSTANTS

WINDING - T/C :
C/S :
GA :
BARS :
FILL :

Ke = 5.4672 V/Krpm +/- 10.0 %
Kt = 7.3971 In-Oz/Amp +/- 10.0 %
Ra = .1010 Ohms +/- 7.5 %
Rt = .1767 Ohms +/- 12.5 %

Gear Ratio = 30.0 : 1
Efficiency = 91.0 %
Box Friction = 8.0 In-Oz

Friction Torque (Nom) = 10.0000 In-Oz
Friction Torque (Max) = 15.0000 In-Oz
Ja (Inertia) = .0411 In-Oz-Sec2
La (Inductance) = .4720 MHenry
Te (Elec Time Const) = 2.6703 MSec
Tm (Mech Time Const) = 18.8191 MSec
Theoretical Accel at Stall = 11971 Rads/Sec2
Bandwidth = 8.46 Hz

ENGINEERING APPROVAL :

DATE :