

Simple Pump

Existing Design Operated on 24 VDC

4615 W. PRIME PARKWAY, McHENRY, ILLINOIS 60050-7001

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TYPICAL GEARMOTOR PERFORMANCE DATA

M4300 GIL 200 OPERATED ON 24 VOLTS D.C.

GEARMOTOR DATA

<u>TORQUE</u>	<u>SPEED</u>	<u>CURRENT</u>	<u>HP</u>	<u>EFF</u>
0.0	143.7	2.43	.000	.00
50.0	139.4	6.39	.110	53.68
100.0	135.2	10.36	.214	64.27
150.0	130.9	14.32	.311	67.53
200.0	126.6	18.28	.401	68.22
250.0	122.4	22.24	.485	67.73
300.0	118.1	26.20	.561	66.58
350.0	113.8	30.16	.631	65.03
400.0	109.6	34.13	.694	63.23
159.0	130.1	15.03	.328	67.78

(PRIMARY LOAD POINT)

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

153.6	130.6	14.60	.318	67.64
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(CONTINUOUS DUTY RATING - FORMFACTOR = 1.00)

Stall Torque = 1683.14 In-Lbs (For Reference Only)

Stall Current = 135.79 Amps (For Reference Only)

MOTOR DESIGN DATA and CONSTANTS

WINDING - T/C :	Ke = 5.4672 V/Krpm	+/- 10.0 %
C/S :	Kt = 7.3971 In-Oz/Amp	+/- 10.0 %
GA :	Ra = .1010 Ohms	+/- 7.5 %
BARS :	Rt = .1767 Ohms	+/- 12.5 %
FILL :		
Gear Ratio = 30.0 : 1	Friction Torque (Nom) = 10.0000 In-Oz	
Efficiency = 91.0 %	Friction Torque (Max) = 15.0000 In-Oz	
Box Friction = 8.0 In-Oz	Ja (Inertia) = .0411 In-Oz-Sec ²	
	La (Inductance) = .4720 MHenry	
	Te (Elec Time Const) = 2.6703 MSec	
	Tm (Mech Time Const) = 18.8191 MSec	
	Theoretical Accel at Stall = 24184 Rads/Sec ²	
	Bandwidth = 8.46 Hz	

ENGINEERING APPROVAL :

DATE :