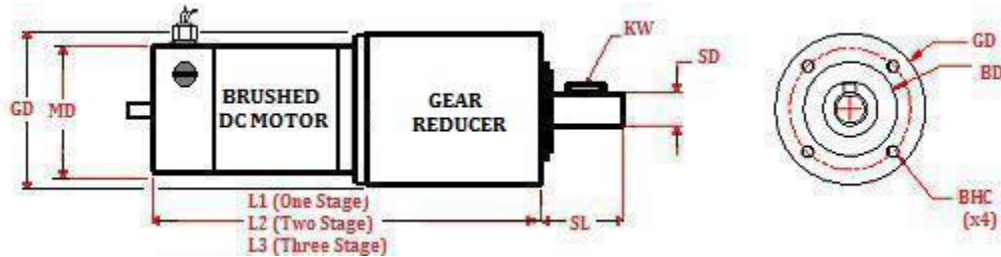


STANDARD PRODUCT

Date: 11/03/2009 **Prepared for:** Production
Planetary Gearmotor **Model Number:** MMP D33-455B-12V GP81-308



INTEGRAL BRAKES AND OPTICAL ENCODER OPTIONS AVAILABLE – SEE PAGES 2 AND 3 FOR DETAILS

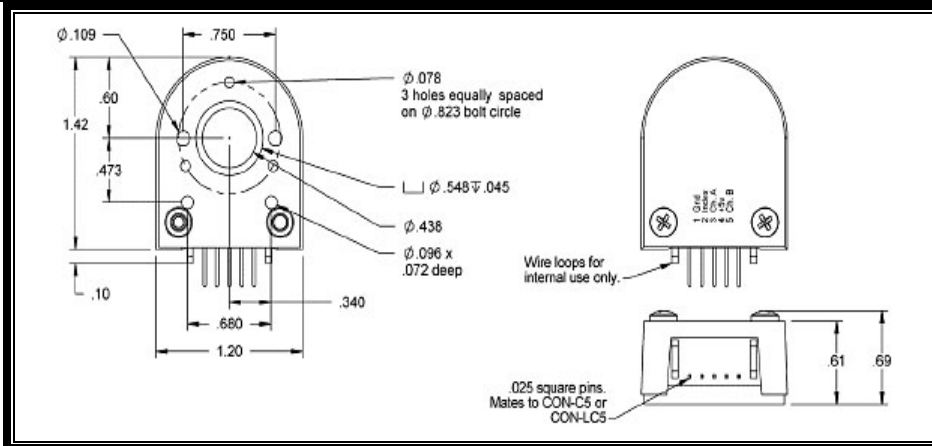
Dimensions: **Note:** The Center of the Output Shaft contains an M6 Threaded Hole, 25mm Deep
MD= 3.13" (80mm) **SL= 49mm (Usable Shaft Length = 40mm or 1.575")**
L (3) = 10.07" (256mm) **GD= 3.19" (81mm)**
KW= 6x6x28 mm **BD= 1.97" (50mm) Pilot is 5mm long**
SD= 0.748" (19mm + 0, -21µm) **BHC = M6 x 12mm deep (4ea) on a 65mm Ø BC**

DC MOTOR PERFORMANCE PARAMETERS:	Value	Units	Tolerance
RATED VOLTAGE D.C.	12.0	VOLTS	----
RATED CONTINUOUS CURRENT	21.2	AMPERE	----
RATED CONTINUOUS STALL TORQUE	100	OZ - IN	----
RATED SPEED	3000	RPM	+/- 15%
RATED CONTINUOUS POWER OUT	222	WATTS	+/- 15%
NO LOAD SPEED	3400	RPM	MAX
NO LOAD CURRENT	1.5	AMPS	MAX
BACK EMF CONSTANT (Ke)	3.5	V/KRPM	+/- 10%
TORQUE CONSTANT (Kt)	4.7	OZ -IN / A	+/- 10%
DC ARMATURE RESISTANCE AT 1.5 AMPS	0.20	OHMS	+/- 15%
ARMATURE TEMP	155	DEGR. C	MAX
PEAK TORQUE (motor-only)	850	OZ - IN	----
PLANETARY GERMOTOR OUTPUT PARAMETERS:	Value	Units	Tolerance
PLANETARY GEARHEAD RATIO - EXACT	307.54: 1		
GERMOTOR RATED CONTINUOUS TORQUE	1350	LB-IN.	MAX
GERMOTOR RATED PEAK TORQUE	2124++	LB-IN.	MAX
GEARHEAD SHAFT OUTPUT SPEED (@ F.L.)	10	RPM	----
GEARHEAD STANDARD BACKLASH	40	Arc Minutes	MAX
GEARHEAD EFFICIENCY	70%		
GERMOTOR TOTAL WEIGHT	12.4	LBS	MAX

**NOTE: TENV DESIGN; MEETS IP-54 STANDARD ~ TRUE PLANETARY GEARING ~ BALL BEARINGS – MAX RADIAL LOAD = 135 LBS
 ++ All Peak Torque Values are dependent upon duty. Kindly consult our Sales Offices for further details**

OPTION 1: OPTICAL "KIT" ENCODER

Consult our Sales Office for Pricing



Interconnects / Functions

Pin Number	Function	Color
Pin 1	Ground	Brown
Pin 2	Index	Violet
Pin 3	Channel A	Blue
Pin 4	+ 5 Volts	Orange
Pin 5	Channel B	Yellow

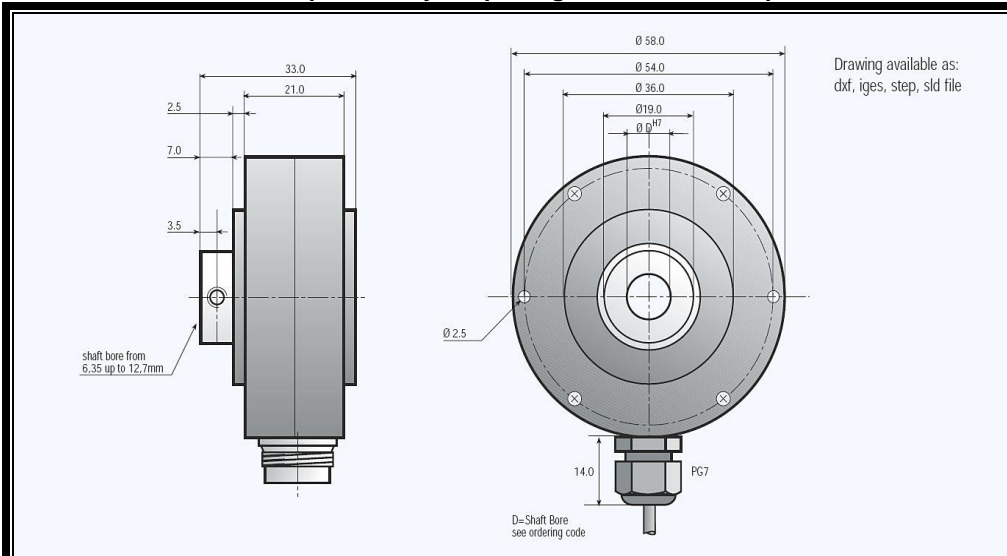
****Encoder Resolutions available: 32 PPR, 100 PPR, 250 PPR, 500 PPR, 1024 PPR
(Use Suffix "EU-xxx" after model # to designate the Encoder and its resolution)**

The Standard "Kit" Encoder Option, mounted integrally to the back of the Motor, includes an Index Pulse, and 12" Long Flying Leads with Connector – Mounted and tested before shipping.

Option 2: "IP-65" Optical Encoder, 1000 PPR STD

Consult our Sales Office for Pricing

Features Index Pulse, Complementary Output Signals, IP-65 Rated protection for harsh environments, 6 FT Long Cable.



**Ei-1000
Interconnects/Functions:**

Function:	Wire Color
0 Volts	White
+ Volts	Brown
A	Green
B	Yellow
0	Grey
A-	Pink
B-	Blue
0-	Red

****Encoder Resolution 1000 PPR available from stock, but many other resolutions available. Consult our sales office for details.**

(Use Suffix "Ei-xxx" after model # to designate the Encoder and its resolution)

MIDWEST MOTION PRODUCTS

Design, Manufacturing & Distribution — Motion Control Equipment

10761 Ahern Avenue S. E. Watertown, MN. 55388

Phone: 952-955-2626 eFax: 480-247-4096

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email: sales@midwestmotion.com



OPTION 3: INTEGRAL BRAKE OPTION

Consult our Sales Office for Pricing

MMP's "Mid Sized" Gearmotors and Motors, including the MMP D33 Series, MMP S27 Series and MMP B86 (Brushless) Series, most are sufficiently served by a I5 In-Lb Brake.

The Standard Brake / Cover Dimensions are as follows:

Typical dimensions 2.5" Diameter by 2.0" Long, with 24" Leadwires
Typical Brake Current = 400 mA

Use Suffix "BR-015" after model # to designate the Brake and its Torque

IMPORTANT NOTE: IF THE BRAKE IS TO BE ENERGIZED BY A VOLTAGE LEVEL OTHER THAN THE SPECIFIED OPERATING VOLTAGE OF THE MOTOR, PLEASE SPECIFY THE BRAKE OPERATING VOLTAGE SEPARATELY. IF NOT OTHERWISE NOTED, IT IS ASSUMED THAT THE BRAKE'S COIL VOLTAGE WILL MATCH THAT OF THE MOTOR.

Please specify "**BR-015**" for Standard "Holding" Brake (not to be used for Dynamic Braking)... This Part Number Suffix also identifies a "Failsafe" type brake – the brake engages in the ABSENCE of input power to the coil.

For a "Power ON" brake, or a brake that is engaged with POWER APPLIED, please specify the Part Number Suffix "**BR-015n**".

Both of the above mentioned brakes are integrally mounted to the back of the motor, and are equipped with mounting holes and a shaft extension for an encoder.

The rear surface of the Standard Brake doubles as an Encoder Mounting Surface. Most MMP Brake Motors and Gearmotors are designed to include Encoder Compatibility.

For additional details and assistance with configuring the model number for Brake and Encoder Options, please feel free to contact our Sales Offices.

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