

# GBPN-080 Series - Planetary Gearboxes

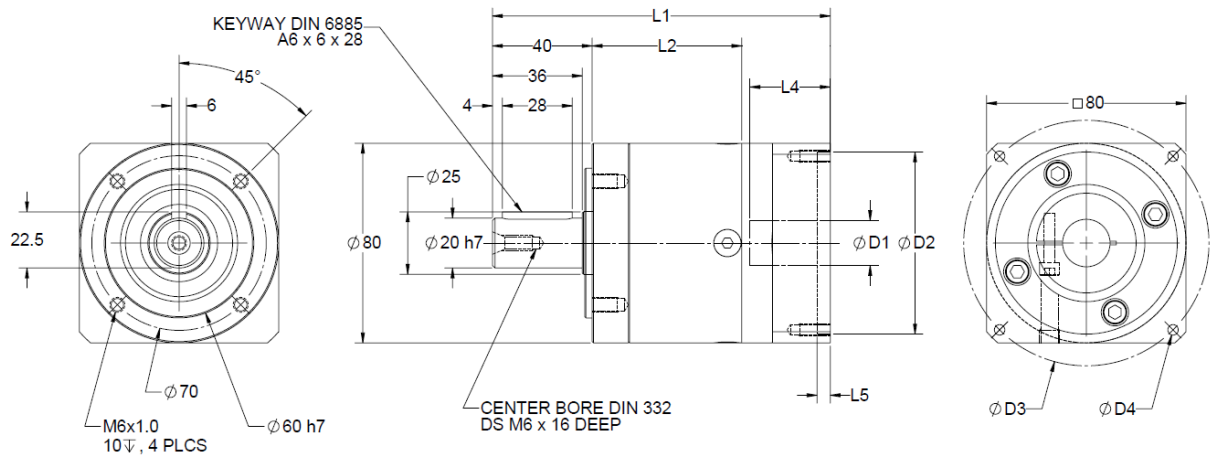
FEATURES

- **Compatible with NEMA Size 34 Motors**
- **Backlash as Low as 11 arc-min**
- **Gear Ratios from 3:1 512:1**
- **Long Design Life, Over 30,000 Hours**
- **Up to 96 Percent Efficiency**
- **Peak Input Speeds of Up to 7,000 RPM**
- **Lifetime Lubrication, High Durability**



DESCRIPTION

Planetary Gearboxes for NEMA 34 stepper motors, dc motors, or servo motors. The GBPN-080 Series Planetary Gears were designed to be high quality and reliable in-line planetary gears. They are available in many sizes with gear ratios ranging from 3:1 to 320:1. These planetary gearboxes come in a one-piece housing that produce consistent low backlash with permissible peak input speeds up to 7,000 RPM.



DIMENSIONS

ITEM	DESCRIPTION	MOTOR INTERFACE			
		AA341-500	AA341-625	BLK32-748	SMH80-748
D1	Input Shaft Diameter	12.7	15.875	19	19
L4	Max Shaft Length	32	32	35	35
D2	Pilot Diameter	73.02	73.02	70	70
L5	Pilot Depth	5.4	5.4	5.3	5.3
D3	Mounting Bolt Hole Circle	98.4	98.4	90	90
D4	Bolt Hole Size	M5x12	M5x12	M6x15	M6x15
L1	Overall Length (1-Stage)	135.5	135.5	138.5	143.2
L1	Overall Length (2-Stage)	153	153	155.5	160.2
L1	Overall Length (3-Stage)	170.5	170.5	173.5	178.2

**\*1-Stage Models:** Gear Ratios 3-8

**\*2-Stage Models:** Gear Ratios 9-40,64

**\*3-Stage Models:** Gear Ratios 60,80-512

Note: The above input dimensions for the gearbox match Anaheim Automation's 34Y, 34K, 34N, BLY34, BLK32, EMJ-08, and EMJ-10 series motors. Custom gearboxes are available. If the above dimensions do not match your motor interface, please refer to the Gearbox Mounting Form below and provide information on the motor you would like this gearbox to be mounted to and send it to [applications@anaheimautomation.com](mailto:applications@anaheimautomation.com) or fax it to (714) 992-0471.

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Model #	Gear Ratio	Compatible NEMA Frame Size	Rated Output Torque (in-lbs)	Peak Input Speed (RPM)	Backlash (arcmin)	Efficiency (%)	Running Noise (dB)	L2 Length (mm)	Weight (lbs)
GBPN-0801-003-xxxxx-yyy	3	34	752	7000	<7	96	60	60	4.6
GBPN-0801-004-xxxxx-yyy	4	34	1018	7000	<7	96	60	60	4.6
GBPN-0801-005-xxxxx-yyy	5	34	974	7000	<7	96	60	60	4.6
GBPN-0801-008-xxxxx-yyy	8	34	443	7000	<7	96	60	60	4.6
GBPN-0802-009-xxxxx-yyy	9	34	1151	7000	<9	94	60	77	5.7
GBPN-0802-012-xxxxx-yyy	12	34	1062	7000	<9	94	60	77	5.7
GBPN-0802-015-xxxxx-yyy	15	34	974	7000	<9	94	60	77	5.7
GBPN-0802-016-xxxxx-yyy	16	34	1062	7000	<9	94	60	77	5.7
GBPN-0802-020-xxxxx-yyy	20	34	1062	7000	<9	94	60	77	5.7
GBPN-0802-025-xxxxx-yyy	25	34	974	7000	<9	94	60	77	5.7
GBPN-0802-032-xxxxx-yyy	32	34	1062	7000	<9	94	60	77	5.7
GBPN-0802-040-xxxxx-yyy	40	34	974	7000	<9	94	60	77	5.7
GBPN-0802-064-xxxxx-yyy	64	34	443	7000	<9	94	60	77	5.7
GBPN-0803-060-xxxxx-yyy	60	34	974	7000	<11	90	60	95	6.8
GBPN-0803-080-xxxxx-yyy	80	34	1062	7000	<11	90	60	95	6.8
GBPN-0803-100-xxxxx-yyy	100	34	1062	7000	<11	90	60	95	6.8
GBPN-0803-120-xxxxx-yyy	120	34	974	7000	<11	90	60	95	6.8
GBPN-0803-160-xxxxx-yyy	160	34	1062	7000	<11	90	60	95	6.8
GBPN-0803-200-xxxxx-yyy	200	34	974	7000	<11	90	60	95	6.8
GBPN-0803-256-xxxxx-yyy	256	34	1062	7000	<11	90	60	95	6.8
GBPN-0803-320-xxxxx-yyy	320	34	974	7000	<11	90	60	95	6.8
GBPN-0803-512-xxxxx-yyy	512	34	443	7000	<11	90	60	95	6.8

**Part numbers are based on the specifications of the motor being matched to the gearbox.**

-xxxxx denotes motor pilot, -yyy denotes input shaft diameter.

For more information contact an Anaheim Automation Applications Engineer for assistance.

*Radial Load for 20,000 hr lifetime:	169 lbs-force (750N)	*Axial Load for 20,000 hr lifetime:	225 lbs-force (1000N)
*Radial Load for 30,000 hr lifetime:	146 lbs-force (650N)	*Axial Load for 30,000 hr lifetime:	202 lbs-force (900N)
Operating Temperature:	-25° to 90°C	Running Noise:	60 dB
Torsional Stiffness:	1 Stage: 53 in-lb/arc-min; 2 Stage: 57.5 in-lb/arc-min; 3 Stage: 55.8 in-lb/arc-min	IP Rating:	IP54
Mounting Position:	Any	Lubrication:	Lifetime

\* Values reference output shaft speed  $n_2 = 100\text{RPM}$ , 100% duty cycle, application factor of 1, and  $T = 30^\circ\text{C}$  (86F) ambient temperature. Measured at the middle of the shaft.