

FEATURES

- **Compatible with NEMA 23 Motors**
- **Backlash as Low as 10 arc-min**
- **Thirteen Gear Ratios From 3 to 64**
- **Patented Precision Clamping System**
- **Lifetime Lubrication**
- **High Durability**
- **30,000 Hours Design Life**
- **96% Efficient**



DESCRIPTION

The GBPN-064x-FS Series Planetary Gearbox offers you the precision you need at the prices you want! This Planetary Gearbox is designed with the highest torque density possible for motion control, automation, and robotic applications requiring a compact solution. This planetary gearbox series is an ideal match for the NEMA23 frame size as well as your servo, stepper, brushless, AC or DC motors. Built with design goal of offering a cost-effective product without sacrificing quality, you will find that this Planetary Gearbox offers you an extraordinary value.

SPECIFICATIONS

| Model # | Gear Ratio | Rated Output Torque (oz-in) | Max Output Torque (oz-in) | Rated Input Speed (RPM) | Max Input Speed (RPM) | Stages | Backlash Maximum (arcmin) | L2 Length (mm) | Weight (lbs) |
|---------------------------|------------|-----------------------------|---------------------------|-------------------------|-----------------------|--------|---------------------------|----------------|--------------|
| GBPN-0641-FS-003-xxxx-yyy | 3 | 3965 | 6372 | 4000 | 13000 | 1 | <10 | 45 | 2.4 |
| GBPN-0641-FS-004-xxxx-yyy | 4 | 5381 | 8658 | 4000 | 13000 | 1 | <10 | 45 | 2.4 |
| GBPN-0641-FS-005-xxxx-yyy | 5 | 5664 | 9062 | 4000 | 13000 | 1 | <10 | 45 | 2.4 |
| GBPN-0641-FS-008-xxxx-yyy | 8 | 2549 | 4106 | 4000 | 13000 | 1 | <10 | 45 | 2.4 |
| GBPN-0642-FS-009-xxxx-yyy | 9 | 6230 | 9912 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |
| GBPN-0642-FS-012-xxxx-yyy | 12 | 6230 | 9912 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |
| GBPN-0642-FS-015-xxxx-yyy | 15 | 6230 | 9912 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |
| GBPN-0642-FS-016-xxxx-yyy | 16 | 6230 | 9912 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |
| GBPN-0642-FS-020-xxxx-yyy | 20 | 6230 | 9912 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |
| GBPN-0642-FS-025-xxxx-yyy | 25 | 5664 | 9062 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |
| GBPN-0642-FS-032-xxxx-yyy | 32 | 6230 | 9912 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |
| GBPN-0642-FS-040-xxxx-yyy | 40 | 5664 | 9062 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |
| GBPN-0642-FS-064-xxxx-yyy | 64 | 2549 | 4106 | 4000 | 13000 | 2 | <12 | 58 | 3.1 |

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

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

Refer to *Matching the Gearbox to Your Motor* on the second page for more information, or contact an Anaheim Automation Applications Engineer for assistance.

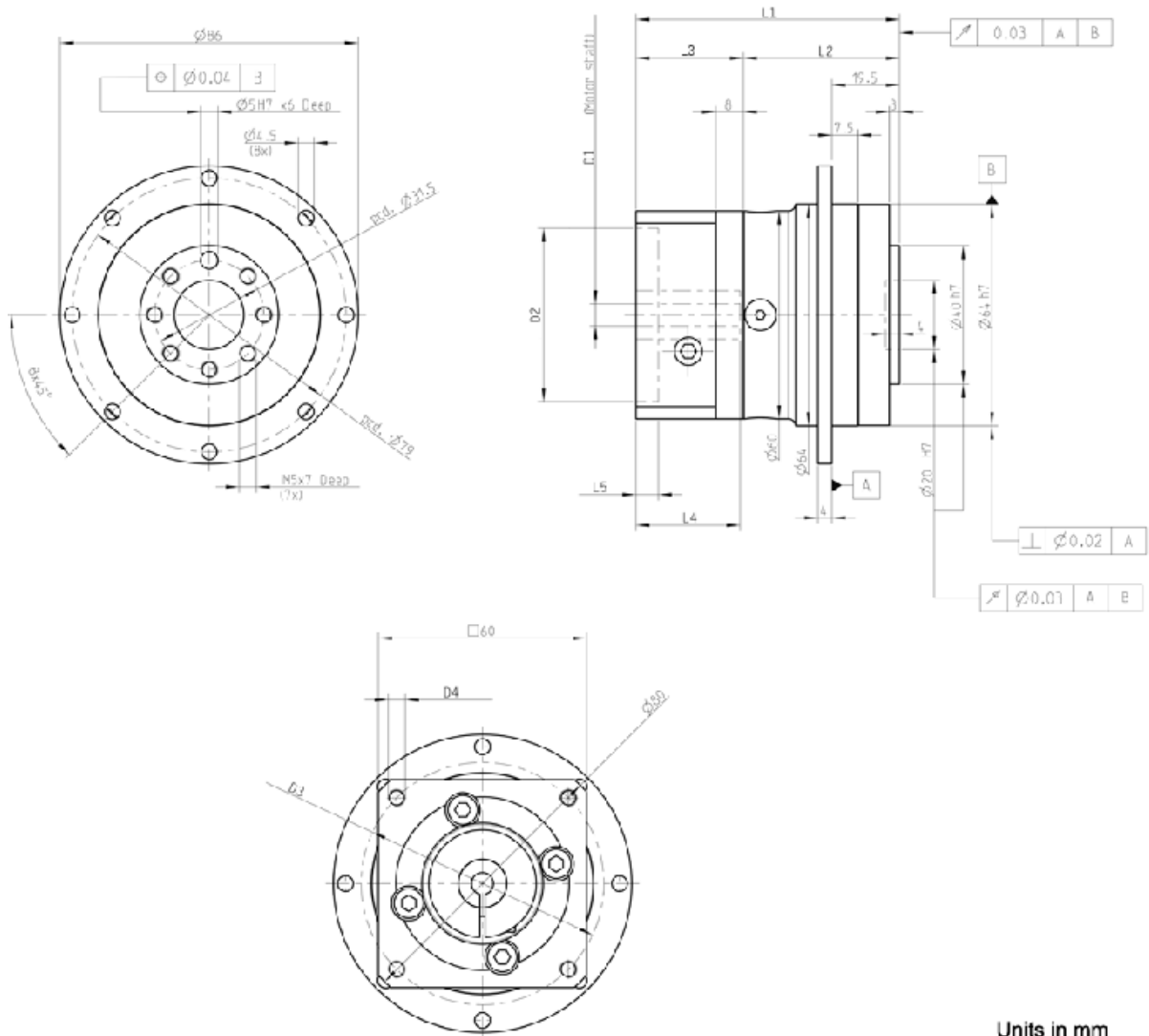
| | | | |
|------------------------|--|--------------|-----------------|
| Radial Load: | 124 lbs - Force | Axial Load: | 270 lbs - Force |
| Operating Temperature: | -13° C - 194°F | Iso Output: | 9409 |
| Efficiency: | 94-96% | IP Rating: | IP 54/55 |
| Lubrication: | Synthetic Grease Kluberplex BEM 34-132" | Noise Level: | 58 dBA |

Matching the Gearbox to Your Motor

There are a few details that you need to consider before purchasing a gearbox. The gearbox must be manufactured to match the motor's bolt hole circle, pilot diameter, shaft diameter, and shaft length. This is handled by a code in the last two sections of the part number. For instance, in the part number GBPN-0641-FS-003-AA231-250, the "AA231" is for an Anaheim Automation NEMA 23 Motor pilot and the shaft length. The "250" is for the shaft diameter of 0.250". For non-standard requirements, contact Anaheim Automation, Inc.

| Parameter | Range | Typical |
|----------------------|--------------|-------------------------------|
| Input Shaft Diameter | 6mm to 14mm | "250" - 6.35mm shaft diameter |
| Input Shaft Length | 35mm max | "AA231" - 20.57mm |
| Pilot | 30mm to 50mm | "AA231" - 38.09mm |
| Bolt Hole Circle | 30mm to 70mm | "AA231" - 66.55mm |

DIMENSIONS



Units in mm

| ITEM | DESCRIPTION | MOTOR INTERFACE | | | |
|------|---------------------------|-----------------|-----------|-----------|-----------|
| | | AA231-250 | BLK24-551 | EMJ60-551 | SMH60-551 |
| D1 | Input Shaft Diameter | 6.35 | 14 | 14 | 14 |
| L4 | Max Shaft Length | 35 | 30.5 | 30.5 | 30.5 |
| D2 | Pilot Diameter | 38.1 | 50 | 50 | 50 |
| L5 | Pilot Depth | 3.4 | 3.5 | 3.5 | 3.5 |
| D3 | Mounting Bolt Hold Circle | 66.7 | 70 | 70 | 70 |
| D4 | Bolt Hole Size | M5X12 | M5X12 | M5X12 | M5X12 |
| L1 | Overall Length (1-Stage) | 69 | 69.2 | 69.2 | 69.2 |
| L1 | Overall Length (2-Stage) | 82 | 82.2 | 82.2 | 82.2 |

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

***2-Stage Models:** Gear Ratios 9-64