

MPS / MPN

Technical Data

- Low noise
- Compact size and optimized weight
- Economic value with quality
- Optimized inertia moment
- Stable temperature rise
- High efficiency transmission
- Optimized design with special lubricant for long service life
- Flexible mounting dimensions

PRECISION PLANETARY GEAR REDUCERS
MPS / MPN TECHNICAL DATA

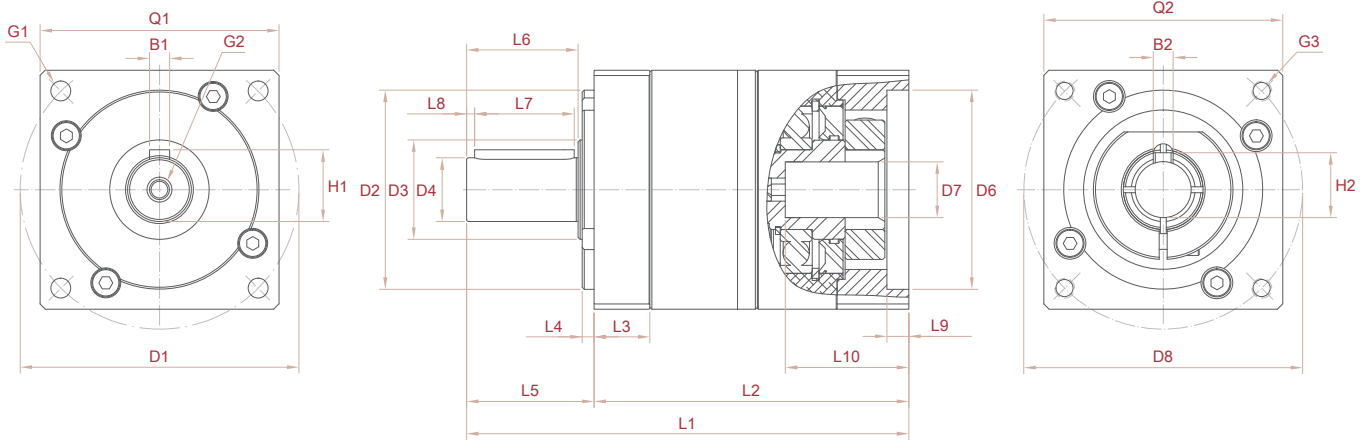
| Model / Size | | Stages | 42 (NEMA 17) | 60 (NEMA 23) | 90 (NEMA 34) |
|----------------------|-----------|--------|--------------|------------------|--------------|
| Full load efficiency | % | 1 | | 96 | |
| | | 2 | | 92 | |
| Standard Backlash | arcmin | 1 | <12 | <12 | <12 |
| | | 2 | <15 | <15 | <15 |
| Precision Backlash | arcmin | 1 | <6 | <6 | <6 |
| | | 2 | <8 | <8 | <8 |
| Noise | dB(A) | | 58 | 62 | 64 |
| Lifetime | hr | | | 20000 | |
| Max radial load | N | | 300 | 1200 | 2450 |
| Max axial load | N | | 110 | 1050 | 2200 |
| Nominal Input Speed | rpm | 1,2 | 4000 | 4000 | 3000 |
| Max input speed | rpm | | 12000 | 10000 | 8000 |
| Torsional stiffness | Nm/arcmin | | 0.9 | 2.2 | 8 |
| Weight | kg | 1 | 0.5 | 1.2 | 3.2 |
| | | 2 | 0.9 | 1.6 | 4.5 |
| Operating temp. | °C | | | -25 ~ 90 | |
| Degree of protection | | | | IP 64 | |
| Lubrication | | | | Life lubrication | |
| Mounting direction | | | | Any | |

| Model / Size | | Stages | Ratio | 42 | 60 | 90 |
|-----------------------|----|--------|------------------------------------|----|----|-----|
| Nominal output torque | Nm | 1 | 3 | 13 | 34 | 102 |
| | | | 4 | 18 | 48 | 138 |
| | | | 5 | 16 | 46 | 130 |
| | | | 7 | 10 | 30 | 90 |
| | | | 9 | 7 | 22 | 80 |
| | | | 10 | 6 | 17 | 60 |
| | | 2 | 12 | 20 | 56 | 140 |
| | | | 15 | 20 | 56 | 140 |
| | | | 16 | 26 | 60 | 150 |
| | | | 20 | 26 | 60 | 150 |
| | | | 25 | 16 | 46 | 130 |
| | | | 30 | 18 | 48 | 132 |
| | | | 40 | 24 | 58 | 145 |
| | | | 50 | 16 | 46 | 130 |
| | | | 70 | 10 | 30 | 90 |
| 100 | 6 | 17 | 60 | | | |
| MAX output torque | | | 2.5 times of nominal output torque | | | |

| Model / Size | | Stages | Ratio | 42 | 60 | 90 |
|-------------------------|-------------------|--------|-------------|----|-----|-----|
| Mass Moments of Inertia | g-cm ² | 1 | 3 | 21 | 140 | 800 |
| | | | 4,5 | 18 | 90 | 500 |
| | | | 7,9,10 | 17 | 60 | 400 |
| | | 2 | 12,15,21,30 | 23 | 120 | 750 |
| | | | 20,28,40 | 20 | 80 | 450 |
| | | | 25,35,50 | 16 | 70 | 400 |
| | | | 49,70,100 | 20 | 80 | 450 |

MPS

Profile Dimensions



| Model / Size | | | MPS-42 | MPS-60 | MPS-90 | | |
|---------------------------------|---|-----|---------|-------------|---------|----------------|---------|
| Overall length | 1 | L1 | 90 | 111 | 144 | | |
| | 2 | | 113.5 | 138 | 178.5 | | |
| | 3 | | 137 | 165 | 213 | | |
| Body length | 1 | L2 | 64 | 79 | 103 | | |
| | 2 | | 87.5 | 106 | 137.5 | | |
| | 3 | | 111 | 133 | 172 | | |
| Output flange | | Q1 | □42 | □60 | □90 | | |
| Input flange | | Q2 | □42 | □60 | □90 | | |
| Output | | | | | | | |
| Flange thickness | | L3 | 9.5 | 14 | 20 | | |
| Pilot length | | L4 | 2.5 | 3 | 3 | | |
| Output shaft length | | L5 | 26 | 32 | 41 | | |
| Shaft shoulder to the shaft end | | L6 | 22.5 | 28 | 37 | | |
| Key length | | L7 | 18 | 25 | 30 | | |
| Key length to the shaft end | | L8 | 2 | 2 | 2.5 | | |
| Mounting hole circle | | D1 | Ø50 | Ø70 | Ø100 | | |
| Pilot diameter | | D2 | Ø35 g6 | Ø50 g6 | Ø80 g6 | | |
| Shaft shoulder diameter | | D3 | Ø15 | Ø17 | Ø35 | | |
| Output shaft diameter | | D4 | Ø13 h7 | Ø16 h7 | Ø22 h7 | | |
| Key width | | B1 | 5 | 5 | 6 | | |
| Key height | | H1 | 15 | 18 | 24.5 | | |
| Mounting hole | | G1 | Ø4.2 | Ø5.2 | Ø6.8 | | |
| Center screw hole x depth | | G2 | M4 x 10 | M5 x 12 | M6 x 16 | | |
| Input | | | | | | | |
| Pilot depth | | L9 | 3 | 5.5 | 5.5 | | |
| Motor shaft length | | L10 | 25 | 30 | 40 | | |
| Pilot diameter | | D6 | Ø30 G7 | Ø22 G7 | Ø50 G7 | Ø38.1 G7 | Ø70 G7 |
| Input shaft diameter | | D7 | Ø8 | Ø5 | Ø14 | Ø6.35 | Ø19 |
| Mounting hole circle | | D8 | Ø46 | Ø43.84(□31) | Ø70 | Ø66.67(□47.14) | Ø90 |
| Mounting thread x depth | | G3 | M4 x 10 | Ø3.3 | M5 x 12 | M4 x 10 | M6 x 12 |
| Key width | | B2 | 3 | — | 5 | — | 6 |
| Key height | | H2 | 9.4 | — | 16.3 | — | 21.8 |