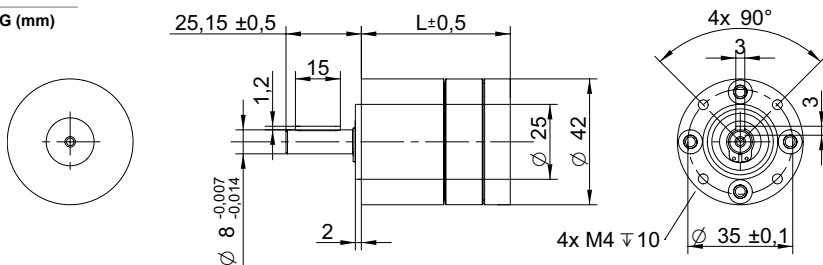


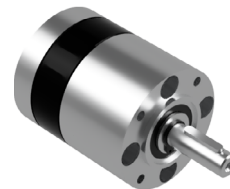
# HP42 | Ø 42 mm | PLANETARY GEARBOX



DRAWING (mm)



PHOTO



## MODEL NO. DESIGNATION

HP42 - GEAR RATIO

Example: HP42-004

## ACCESSORIES

● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

## PLANETARY GEARBOX DATA STAGE 1 TO 2

|                                  |     | 4:1  | 4.6:1 | 5.4:1 | 7:1  | 9:1  | 14:1 | 16:1 | 17:1 | 19:1 | 23:1 | 25:1 | 27.8:1 | 28.1:1 | 34:1 | 45:1 | 58:1 | C |
|----------------------------------|-----|------|-------|-------|------|------|------|------|------|------|------|------|--------|--------|------|------|------|---|
| Gear ratio                       |     | 4:1  | 4.6:1 | 5.4:1 | 7:1  | 9:1  | 14:1 | 16:1 | 17:1 | 19:1 | 23:1 | 25:1 | 27.8:1 | 28.1:1 | 34:1 | 45:1 | 58:1 |   |
| Gear stage                       |     | 1    | 1     | 1     | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2      | 2      | 2    | 2    | 2    |   |
| Max. nominal input speed         | rpm | 6000 | 6000  | 6000  | 6000 | 6000 | 7000 | 7000 | 7000 | 7000 | 7000 | 7000 | 7000   | 7000   | 7000 | 7000 | 7000 |   |
| Max. nominal torque <sup>1</sup> | Nm  | 2.6  | 2.6   | 2.6   | 2.6  | 2.6  | 6.7  | 6.7  | 6.7  | 6.7  | 6.7  | 6.7  | 6.7    | 6.7    | 6.7  | 6.7  | 6.7  |   |
| Peak torque <sup>1</sup>         | Nm  | 4.0  | 4.0   | 4.0   | 4.0  | 4.0  | 10   | 10   | 10   | 10   | 10   | 10   | 10     | 10     | 10   | 10   | 10   |   |
| Efficiency                       | %   | 80   | 80    | 80    | 80   | 80   | 75   | 75   | 75   | 75   | 75   | 75   | 75     | 75     | 75   | 75   | 75   |   |
| Length   L                       | mm  | 49.7 | 49.7  | 49.7  | 49.7 | 49.7 | 62.7 | 62.7 | 62.7 | 62.7 | 62.7 | 62.7 | 62.7   | 62.7   | 62.7 | 62.7 | 62.7 |   |
| Weight                           | g   | 280  | 280   | 280   | 280  | 280  | 390  | 390  | 390  | 390  | 390  | 390  | 390    | 390    | 390  | 390  | 390  |   |
| Backlash no load                 | °   | 0.9  | 0.9   | 0.9   | 0.9  | 0.9  | 1    | 1    | 1    | 1    | 1    | 1    | 1      | 1      | 1    | 1    | 1    |   |
| Radial load <sup>2</sup>         | N   | 160  | 160   | 160   | 160  | 160  | 240  | 240  | 240  | 240  | 240  | 240  | 240    | 240    | 240  | 240  | 240  |   |
| Shaft axial load                 | N   | 49   | 49    | 49    | 49   | 49   | 78   | 78   | 78   | 78   | 78   | 78   | 78     | 78     | 78   | 78   | 78   |   |

## PLANETARY GEARBOX DATA STAGE 3

|                                  |     | 67:1 | 70:1 | 81:1 | 84:1 | 91:1 | 98:1 | 102:1 | 106:1 | 115:1 | 123:1 | 128:1 | 137:1 | 145:1 | 166:1 | 176:1 | 192:1 | 232:1 | 302:1 | 393:1 | C |
|----------------------------------|-----|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|
| Gear ratio                       |     | 67:1 | 70:1 | 81:1 | 84:1 | 91:1 | 98:1 | 102:1 | 106:1 | 115:1 | 123:1 | 128:1 | 137:1 | 145:1 | 166:1 | 176:1 | 192:1 | 232:1 | 302:1 | 393:1 |   |
| Gear stage                       |     | 3    | 3    | 3    | 3    | 3    | 3    | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     |   |
| Max. nominal input speed         | rpm | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 | 8000  | 8000  | 8000  | 8000  | 8000  | 8000  | 8000  | 8000  | 8000  | 8000  | 8000  | 8000  | 8000  |   |
| Max. nominal torque <sup>1</sup> | Nm  | 13   | 13   | 13   | 13   | 13   | 13   | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 13    | 13    |   |
| Peak torque <sup>1</sup>         | Nm  | 20   | 20   | 20   | 20   | 20   | 20   | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    |   |
| Efficiency                       | %   | 70   | 70   | 70   | 70   | 70   | 70   | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    | 70    |   |
| Length   L                       | mm  | 76.0 | 76.0 | 76.0 | 76.0 | 76.0 | 76.0 | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  | 76.0  |   |
| Weight                           | g   | 500  | 500  | 500  | 500  | 500  | 500  | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 500   |   |
| Backlash no load                 | °   | 1.1  | 1.1  | 1.1  | 1.1  | 1.1  | 1.1  | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   |   |
| Radial load <sup>2</sup>         | N   | 290  | 290  | 290  | 290  | 290  | 290  | 290   | 290   | 290   | 290   | 290   | 290   | 290   | 290   | 290   | 290   | 290   | 290   | 290   |   |
| Shaft axial load                 | N   | 110  | 110  | 110  | 110  | 110  | 110  | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   |   |

## OTHER GEARBOX DATA

|                            |       |                                 |   |
|----------------------------|-------|---------------------------------|---|
| Service life               | h     | 1000                            | C |
| Performance tolerances     | %     | 15                              |   |
| Operating temperature      | °C    | -30 to 100                      |   |
| Relative humidity          | %     | 20 to 85                        |   |
| Noise level <sup>3</sup>   | dB(A) | Depending on motor model        |   |
| IP rating                  |       | IP42                            |   |
| Manufacturing standard     |       | ISO 9001   ISO 14001   ISO 5001 |   |
| CE label   UL label        |       | No   No                         |   |
| Shaft press fit force max. | N     | 310                             |   |
| Radial play                | mm    | 0.05                            |   |
| Thrust play                | mm    | 0.3                             |   |
| Bearing type               |       | Ball bearing                    |   |
| Shaft material             |       | Steel                           |   |
| Housing material           |       | Steel                           |   |
| Direction of rotation      |       | CW and CCW                      |   |

## MOTOR COMPATIBILITY<sup>4</sup>

Compatible motor types: Brushed DC motors, brushless DC motors, and stepping motors.

## EXAMPLE GEAR MOTOR DATA FOR COMPATIBLE MODEL

|                |           |
|----------------|-----------|
| Motor model    | BR4260-12 |
| Gearbox        | HP42-058  |
| Gear ratio     | 58:1      |
| Nominal speed  | rpm 72    |
| Nominal torque | Nm 2.4    |
| Nominal power  | W 18      |

## NOTES

1. Available in higher torque options. Contact us for more information.
2. 10 mm from flange.
3. Contact us for more detailed information.
4. Transmotec offers a range of different compatible motors. Visit [www.transmotec.com](http://www.transmotec.com) for more information.