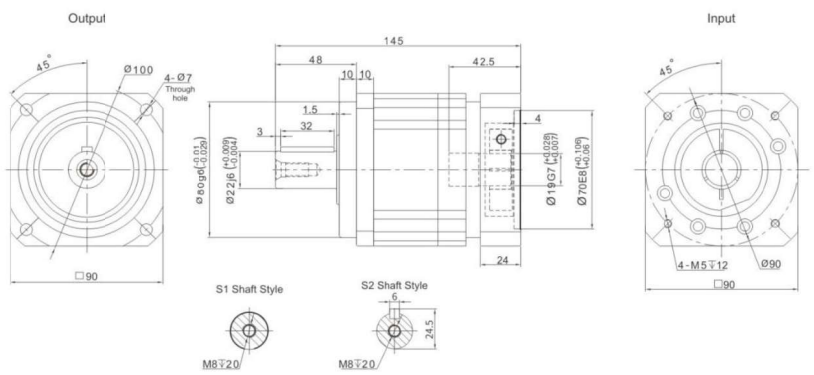
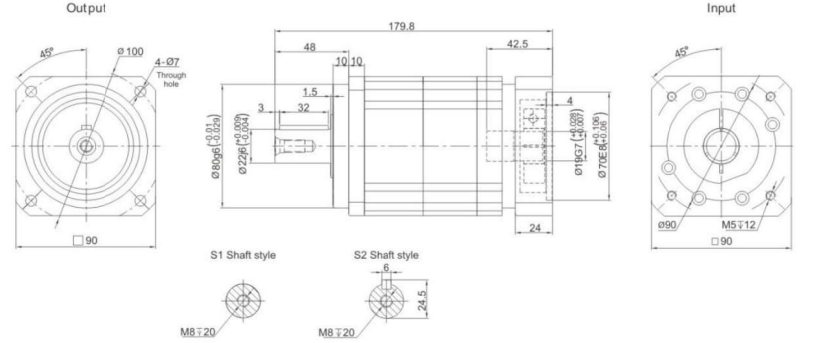
## TB090 Series

### TB090 One Stage




### TB090 Two Stage






## Performance Data

The TB series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TB090 | | | One Stage | | | | | | | | | | Two Stage | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Speed Ratio | | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 |
| Nominal Output Torque | $T_1$ | Nm | 130 | 140 | 160 | 148 | 140 | 123 | - | 102 | 130 | 140 | 160 | 148 | 140 | 123 | 160 | 148 | 140 | 123 | 102 |
| Emergency Stop Torque | $T_2$ | Nm | $T_1 \times 3$ | | | | | | | | $T_1 \times 3$ | | | | | | | | | | |
| Nominal Input Speed | $S_1$ | rpm | 4000 | | | | | | | | 4000 | | | | | | | | | | |
| Maximum Input Speed | $S_2$ | rpm | 8000 | | | | | | | | 8000 | | | | | | | | | | |
| Maximum Output Torque | $T_4$ | Nm | $T_1 \times 3 \times 60\%$ | | | | | | | | $T_1 \times 3 \times 60\%$ | | | | | | | | | | |
| Maximum Radial Force | $F_a$ | N | 3250 | | | | | | | | 3250 | | | | | | | | | | |
| Maximum Axial Force | $F_b$ | N | 1625 | | | | | | | | 1625 | | | | | | | | | | |
| Torsional Rigidity | - | Nm/arcmin | 14 | | | | | | | | 14 | | | | | | | | | | |
| Efficiency | $\eta$ | % | ≥97 | | | | | | | | ≥94 | | | | | | | | | | |
| Service Life | – | h | 20000 | | | | | | | | 20000 | | | | | | | | | | |
| Noise | – | dB | ≤60 | | | | | | | | ≤63 | | | | | | | | | | |
| Weight | – | Kg | 3.6 | | | | | | | | 4.5 | | | | | | | | | | |
| Backlash | P0 | arcmin | ≤1 | | | | | | | | ≤3 | | | | | | | | | | |
| | P1 | | ≤3 | | | | | | | | ≤5 | | | | | | | | | | |
| | P2 | | ≤5 | | | | | | | | ≤7 | | | | | | | | | | |
| Operating Temperature | – | ℃ | -20~90 | | | | | | | | -20~90 | | | | | | | | | | |
| Lubrication | – | | Synthetic Grease | | | | | | | | Synthetic Grease | | | | | | | | | | |
| Protection Class | – | | IP65 | | | | | | | | IP65 | | | | | | | | | | |
| Mounting Position | – | | Any Direction | | | | | | | | Any Direction | | | | | | | | | | |
| Moment of Inertia | J | kg.cm² | 0.61 | 0.48 | 0.47 | 0.45 | | 0.44 | | | 0.47 | | | | | | 0.44 | | | | |

Notes:

- Speed ratio (i=Sin/Sout)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For Continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, i=10.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.