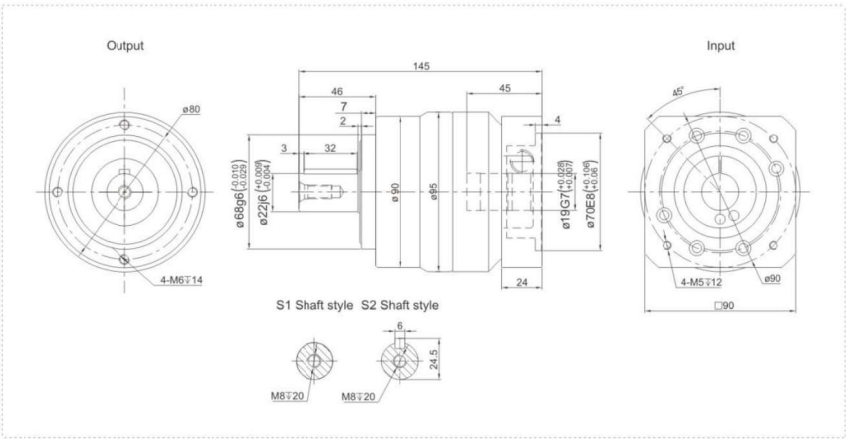


# TCE Series - Optimization of Performance and Cost

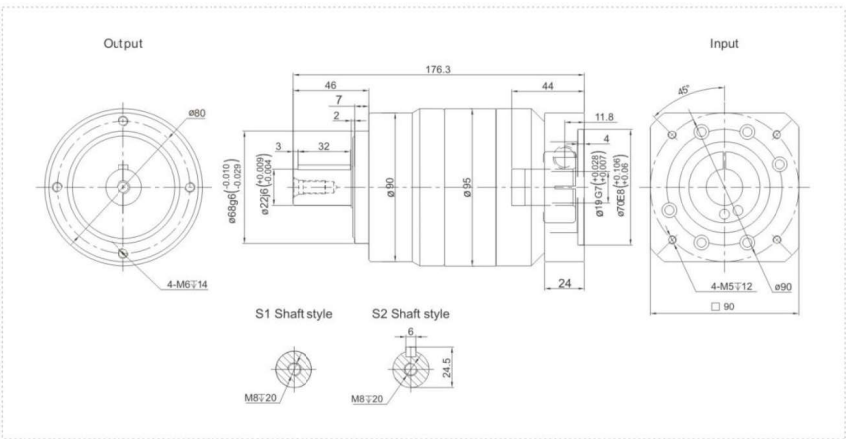


## TCE090 Series

TCE090 One Stage



TCE090 Two Stage



## Performance Data

TCE series planetary reducer has modular design compact structure with high reliability and efficiency. It is a perfect optimization of both performance and cost.

| TCE090                |             | 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    | 100                        | 110  | 150  | 140  | 135  | 120  | - | 100  | 100  | 110  | 150                        | 140  | 135  | 120  | 150  | 140  | 135  | 120  | 100  |  |
| Emergency Stop Torque | $T_2$ Nm    | $T_1 \times 3$             |      |      |      |      |      |   |      |      |      | $T_1 \times 3$             |      |      |      |      |      |      |      |      |  |
| Nominal Input Speed   | $S_1$ rpm   | 3000                       |      |      |      |      |      |   |      |      |      | 3000                       |      |      |      |      |      |      |      |      |  |
| Maximum Input Speed   | $S_2$ rpm   | 6000                       |      |      |      |      |      |   |      |      |      | 6000                       |      |      |      |      |      |      |      |      |  |
| Maximum Output Torque | $T_4$ Nm    | $T_1 \times 3 \times 60\%$ |      |      |      |      |      |   |      |      |      | $T_1 \times 3 \times 60\%$ |      |      |      |      |      |      |      |      |  |
| Maximum Radial Force  | $F_r$ N     | 3250                       |      |      |      |      |      |   |      |      |      | 3250                       |      |      |      |      |      |      |      |      |  |
| Maximum Axial Force   | $F_a$ N     | 1625                       |      |      |      |      |      |   |      |      |      | 1625                       |      |      |      |      |      |      |      |      |  |
| Torsional Rigidity    | - Nm/arcmin | 14                         |      |      |      |      |      |   |      |      |      | 14                         |      |      |      |      |      |      |      |      |  |
| Efficiency            | $\eta$ %    | $\geq 97$                  |      |      |      |      |      |   |      |      |      | $\geq 94$                  |      |      |      |      |      |      |      |      |  |
| Service Life          | - h         | 20000                      |      |      |      |      |      |   |      |      |      | 20000                      |      |      |      |      |      |      |      |      |  |
| Noise                 | - dB        | $\leq 60$                  |      |      |      |      |      |   |      |      |      | $\leq 60$                  |      |      |      |      |      |      |      |      |  |
| Weight                | - Kg        | 3.4                        |      |      |      |      |      |   |      |      |      | 5.2                        |      |      |      |      |      |      |      |      |  |
| Backlash              | P0          | -                          |      |      |      |      |      |   |      |      |      | -                          |      |      |      |      |      |      |      |      |  |
|                       | P1          | $\leq 3$                   |      |      |      |      |      |   |      |      |      | $\leq 5$                   |      |      |      |      |      |      |      |      |  |
|                       | P2          | $\leq 5$                   |      |      |      |      |      |   |      |      |      | $\leq 7$                   |      |      |      |      |      |      |      |      |  |
| Operating Temperature | - °C        | -20~90                     |      |      |      |      |      |   |      |      |      | -20~90                     |      |      |      |      |      |      |      |      |  |
| Lubrication           | -           | Synthetic Grease           |      |      |      |      |      |   |      |      |      | Synthetic grease           |      |      |      |      |      |      |      |      |  |
| Protection Class      | -           | IP65                       |      |      |      |      |      |   |      |      |      | IP65                       |      |      |      |      |      |      |      |      |  |
| Mounting Position     | -           | Any Direction              |      |      |      |      |      |   |      |      |      | Any Direction              |      |      |      |      |      |      |      |      |  |
| Moment of Inertia     | J           | 0.61                       | 0.48 | 0.47 | 0.45 | 0.45 | 0.44 | - | 0.44 | 0.47 | 0.47 | 0.47                       | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 |  |

Notes:

- Speed ratio ( $i = \text{Sin}/\text{Sout}$ )
- 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.