## TF Series - High-end Design and Premium Performance

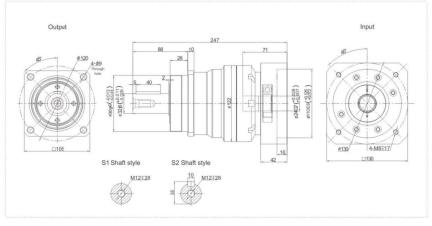


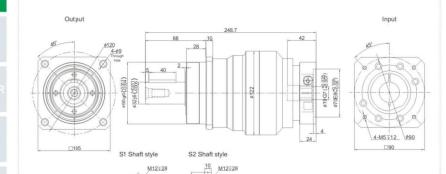
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## TF100 Series

TF100 One Stage

TF100 Two Stage





M12∓28

## Performance Data

The TF series reducer targets those applications requiring extremely smooth operation even at high axial or radial load at high speed. The enhanced load bearing capacity guarantees its design precision at almost any demanding condition.

| TF100                 |                |           |                                      |     |     | On  | e St | age |   |            | Two Stage         |     |     |     |     |     |     |     |     |     |     |
|-----------------------|----------------|-----------|--------------------------------------|-----|-----|-----|------|-----|---|------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Speed Ratio           |                | ì         | 3                                    | 4   | 5   | 6   | 7    | 8   | 9 | 10         | 15                | 20  | 25  | 30  | 35  | 40  | 50  | 60  | 70  | 80  | 100 |
| Nominal Output Torque | Т,             | Nm        | 210                                  | 290 | 333 | 310 | 300  | 260 | - | 235        | 210               | 290 | 333 | 310 | 300 | 260 | 333 | 310 | 300 | 260 | 23  |
| Emergency Stop Torque | T <sub>2</sub> | Nm        | T,×3                                 |     |     |     |      |     |   |            | T <sub>1</sub> ×3 |     |     |     |     |     |     |     |     |     |     |
| Nominal Input Speed   | S,             | rpm       | 4000                                 |     |     |     |      |     |   | 4000       |                   |     |     |     |     |     |     |     |     |     |     |
| Maximum Input Speed   | S₂             | rpm       | 8000                                 |     |     |     |      |     |   |            | 8000              |     |     |     |     |     |     |     |     |     |     |
| Maximum Output Torque | T4             | Nm        | T,×3×60%                             |     |     |     |      |     |   |            | T,×3×60%          |     |     |     |     |     |     |     |     |     |     |
| Maximum Radial Force  | F.             | N         | 9200                                 |     |     |     |      |     |   |            | 9200              |     |     |     |     |     |     |     |     |     |     |
| Maximum Axial Force   | F <sub>b</sub> | N         | 5820                                 |     |     |     |      |     |   |            | 5820              |     |     |     |     |     |     |     |     |     |     |
| Tersional Rigidity    | -              | Nm/arcmin | 25                                   |     |     |     |      |     |   | 25         |                   |     |     |     |     |     |     |     |     |     |     |
| Efficiency            | η              | %         | ≽97                                  |     |     |     |      |     |   |            | ≥94               |     |     |     |     |     |     |     |     |     |     |
| Service Life          | -              | h         | 30000                                |     |     |     |      |     |   | 30000      |                   |     |     |     |     |     |     |     |     |     |     |
| Noise                 | -              | dB        | ≤63                                  |     |     |     |      |     |   | ≤63        |                   |     |     |     |     |     |     |     |     |     |     |
| Weight                | -              | Kg        | 8.9                                  |     |     |     |      |     |   | 8.1        |                   |     |     |     |     |     |     |     |     |     |     |
| Backlash              | PO             |           | ≤1                                   |     |     |     |      |     |   | ≤3         |                   |     |     |     |     |     |     |     |     |     |     |
|                       | P1             | arcmin    | <b>≤</b> 3                           |     |     |     |      |     |   | <b>≤</b> 5 |                   |     |     |     |     |     |     |     |     |     |     |
|                       | P2             |           | <b>≤</b> 5                           |     |     |     |      |     |   |            | ≤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              | ka.cm²    | 3.25 2.74 2.71 2.65 2.62 2.58 - 2.57 |     |     |     |      |     |   |            | 0.47 0.44         |     |     |     |     |     |     |     |     |     |     |

## Notes:

- ♦ 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.

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