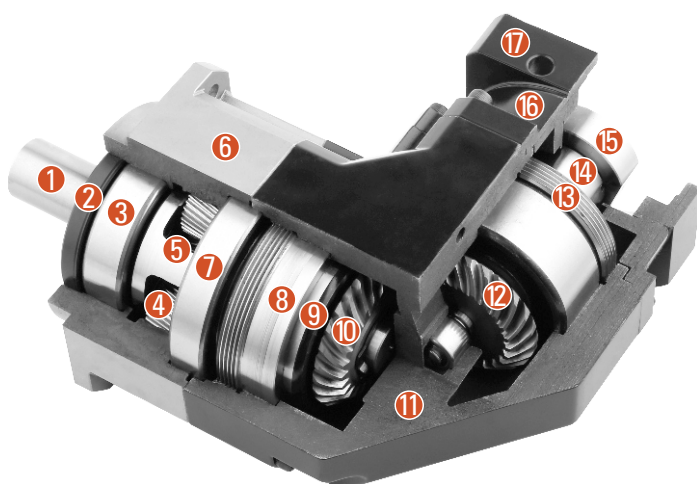


ZBR系列减速机-产品规格

ZBR SERIES GEAR BOX - PRODUCT SPECIFICATIONS

剖视图 Sectional Drawing



- ① 输出轴 Output shaft
- ② 油封 Oil seal
- ③ 输出轴前轴承 Output shaft front bearing
- ④ 行星轮 Planetary gear
- ⑤ 太阳轮 Solar wheel
- ⑥ 前盖 Front cover
- ⑦ 输出轴后轴承 Output shaft rear bearing
- ⑧ 调节螺母 Adjusting nut
- ⑨ 双列角接触轴承 Double row angular contact bearing
- ⑩ 输出锥齿轮 Output bevel gear
- ⑪ 直角箱体 Right angle box
- ⑫ 输入锥齿轮 Input bevel gear
- ⑬ 锁紧螺母 Lock nut
- ⑭ 输入联轴器 Input coupling
- ⑮ 锁紧器 Locking device
- ⑯ 后盖 Rear cover
- ⑰ 后盖垫片 Rear cover gasket

减速机性能资料 Reducer Performance Data

| 规格 Specifications | | 级数 Node Number | 减速比 Reduction Ratio | 060ZBR | 090ZBR | 115ZBR | 142ZBR | 180ZBR |
|-----------------------------------|-----------|----------------|---------------------|---------------|--------|--------|--------|--------|
| 额定输出力矩 T_{2N} | Nm | 1 | 3 | 36 | 90 | 195 | 342 | 588 |
| | | | 4 | 48 | 120 | 260 | 520 | 1040 |
| | | | 5 | 60 | 150 | 325 | 650 | 1200 |
| | | | 6 | 55 | 150 | 310 | 600 | 1100 |
| | | | 7 | 50 | 140 | 300 | 550 | 1100 |
| | | | 8 | 45 | 120 | 260 | 500 | 1000 |
| | | | 9 | 40 | 100 | 230 | 450 | 900 |
| | | | 10 | 40 | 100 | 230 | 450 | 900 |
| | | | 14 | 42 | 140 | 300 | 550 | 1100 |
| 20 | 40 | 100 | 230 | 450 | 900 | | | |
| 急停扭矩 T_{2TOT} | Nm | 1 | 3~200 | 3倍额定输出力矩 | | | | |
| 额定输入转速 n_{1N} | rpm | 1 | 3~200 | 5000 | 4000 | 4000 | 3000 | 3000 |
| 最大输入转速 n_{1B} | rpm | 1 | 3~200 | 10000 | 8000 | 8000 | 6000 | 6000 |
| 超精密背隙 P0 | arcmin | 1 | 3~20 | - | ≤2 | ≤2 | ≤2 | ≤2 |
| 精密背隙 P1 | arcmin | 1 | 3~20 | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 |
| 标准背隙 P2 | arcmin | 1 | 3~20 | ≤6 | ≤6 | ≤6 | ≤6 | ≤6 |
| 扭转刚性 | Nm/arcmin | 1 | 3~200 | 7 | 14 | 25 | 50 | 145 |
| 容许径向力 F_{2R} | N | 1 | 3~200 | 1530 | 3250 | 6700 | 9400 | 14500 |
| 容许轴向力 F_{2A18} | N | 1 | 3~200 | 630 | 1300 | 3000 | 4000 | 6200 |
| 容许轴向力 F_{2A28} | N | 1 | 3~200 | 765 | 1625 | 3350 | 4700 | 7250 |
| 使用寿命 | hr | 1 | 3~200 | 20000* | | | | |
| 效率 η | % | 1 | 3~20 | ≥95% | | | | |
| 重量 | Kg | 1 | 3~20 | 2.1 | 6.4 | 13 | 24.5 | 51 |
| 使用温度 | °C | 1 | 3~200 | -10°C ~ +90°C | | | | |
| 润滑 | | 1 | 3~200 | 合成润滑油脂 | | | | |
| 防护等级 | | 1 | 3~200 | IP65 | | | | |
| 安装方向 | | 1 | 3~200 | 任意方向 | | | | |
| 噪音值 距离1m ($n_1=3000$ rpm,无负载) | dB(A) | 1 | 3~200 | ≤63 | ≤65 | ≤68 | ≤70 | ≤72 |

减速机转动惯量 Moment Of Inertia Of The Reducer

| 规格 Specifications | | 级数 Node Number | 减速比 Reduction Ratio | 060ZBR | 090ZBR | 115ZBR | 142ZBR | 180ZBR |
|-------------------|--------------------|----------------|---------------------|--------|--------|--------|--------|--------|
| 转动惯量 J_1 | Kg·cm ² | 1 | 3~10 | 0.35 | 2.25 | 6.84 | 23.4 | 68.9 |
| | | | 14 | 0.07 | 1.87 | 6.25 | 21.8 | 65.6 |
| | | | 20 | 0.07 | 1.87 | 6.25 | 21.8 | 65.6 |

1. 减速比($i=N_1/N_{out}$)

2. 最大加速力矩 $T_{2B}=60\%$ of T_{2TOT}

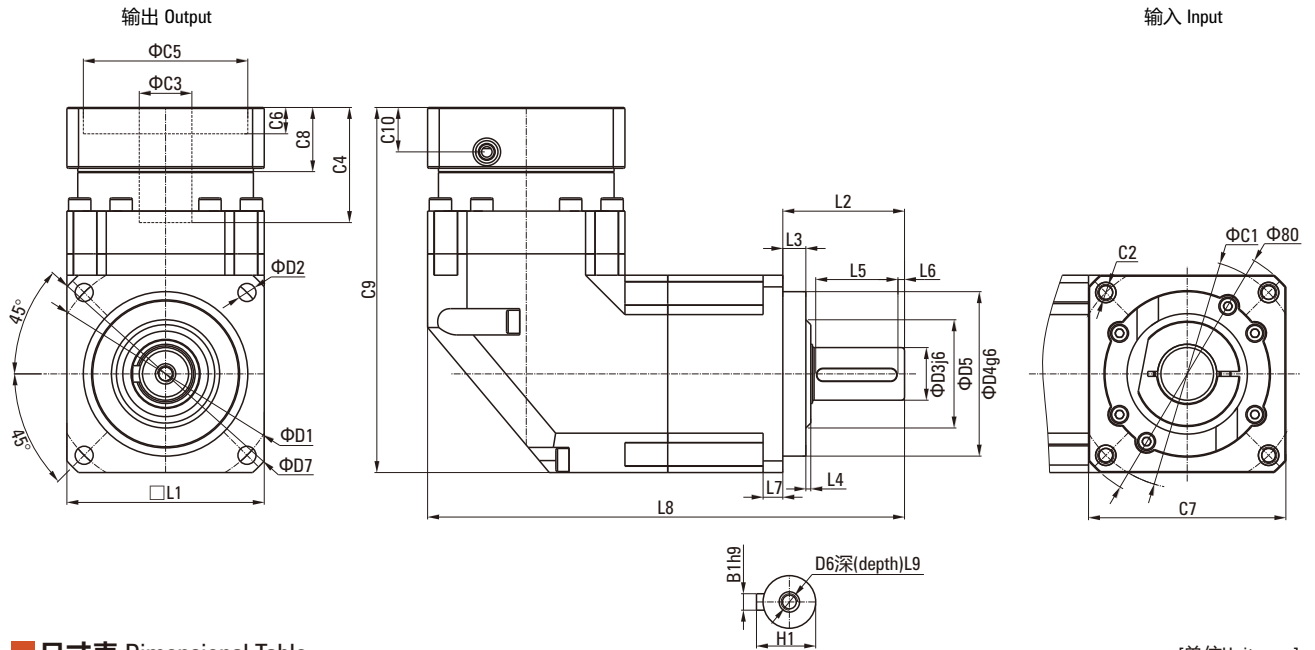
3. 输出转速100rpm时, 作用于输出轴中心位置。

*连续运转, 使用寿命为10000hrs

尺寸(单级, 减速比 $i=3\sim 20$)

DIMENSIONS (SINGLE SEGMENT, REDUCTION RATIO $i=3\sim 20$)

尺寸图 Dimensional Drawing



尺寸表 Dimensional Table

[单位Unit: mm]

| 尺寸Size | 060ZBR | 090ZBR | 115ZBR | 142ZBR | 180ZBR |
|-------------------------------|----------|----------|-----------|----------|-----------|
| D1 | 70 | 100 | 130 | 165 | 215 |
| D2 | 5.5 | 6.6 | 9 | 11 | 13 |
| D3 ^{h8} | 16 | 22 | 32 | 40 | 55 |
| D4 ^{g6} | 50 | 80 | 110 | 130 | 160 |
| D5 | 45 | 65 | 95 | 75 | 95 |
| D6 | M5×0.8P | M8×1.25P | M12×1.75P | M16×2P | M20×2.5P |
| D7 | 80 | 116 | 152 | 185 | 240 |
| L1 | 60 | 90 | 115 | 142 | 180 |
| L2 | 37 | 48 | 65 | 97 | 105 |
| L3 | 7 | 10 | 12 | 15 | 20 |
| L4 | 1.5 | 1.5 | 2 | 3 | 3 |
| L5 | 25 | 32 | 40 | 63 | 70 |
| L6 | 2 | 3 | 5 | 5 | 6 |
| L7 | 6 | 8 | 10 | 12 | 15 |
| L8 | 145 | 203 | 259 | 333 | 394 |
| L9 | 12.5 | 19 | 28 | 36 | 42 |
| C1 ^d | 70 | 100 | 130 | 165 | 215 |
| C2 ^d | M5×0.8P | M6×1P | M8×1.25P | M10×1.5P | M12×1.75P |
| C3 ^d | *≤14/≤16 | ≤19/≤24 | ≤32 | ≤38 | ≤48 |
| C4 ^d | 30 | 40 | 50 | 60 | 85 |
| C5 ^d _{GS} | 50 | 80 | 110 | 130 | 180 |
| C6 ^d | 8 | 4 | 5 | 6 | 6 |
| C7 ^d | 60 | 90 | 115 | 142 | 190 |
| C8 ^d | 19 | 17 | 19.5 | 22.5 | 29 |
| C9 ^d | 111.5 | 152.5 | 191.5 | 235.5 | 303.5 |
| C10 ^d | 13.5 | 10.75 | 13 | 15 | 20.75 |
| B1 ^{h9} | 5 | 6 | 10 | 12 | 16 |
| H1 | 18 | 24.5 | 35 | 43 | 59 |

*070ZBR 5,10 减速比提供C3≤16可选。