

### 减速机性能资料

| 规格          | 节数     | 速比    | GT075-FL  | GT090-FL     | GT110-FL  | GT140-FL  | GT170-FL  | GT210-FL  | GT240-FL  |       |
|-------------|--------|-------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-------|
|             |        |       | GT075-FL1 | GT090-FL1    | GT110-FL1 | GT140-FL1 | GT170-FL1 | GT210-FL1 | GT240-FL1 |       |
|             |        |       | GT075-FR1 | GT090-FR1    | GT110-FR1 | GT140-FR1 | GT170-FR1 | GT210-FR1 | GT240-FR1 |       |
|             |        |       | GT075-FH  | GT090-FH     | GT110-FH  | GT140-FH  | GT075-FH  | GT210-FH  | GT240-FH  |       |
|             |        |       | GT075-FC  | GT090-FC     | GT110-FC  | GT140-FC  | GT170-FC  | GT210-FC  | GT240-FC  |       |
| 额定输出力矩 T    | Nm     | 1     | 1         | 45           | 78        | 150       | 360       | 585       | 1300      | 2150  |
|             |        | 2     | 3         | 25           | 50        | 85        | 224       | 376       | 740       | 1210  |
|             |        |       | 4         | 33           | 75        | 120       | 270       | 450       | 860       | 1650  |
|             |        |       | 5         | 33           | 75        | 120       | 270       | 450       | 860       | 1650  |
|             |        |       | 6         | 33           | 75        | 120       | 270       | 450       | 860       | 1650  |
|             |        |       | 7         | 33           | 75        | 120       | 270       | 450       | 860       | 1650  |
|             |        |       | 8         | 33           | 75        | 120       | 270       | 450       | 860       | 1650  |
|             |        |       | 9         | 25           | 50        | 85        | 224       | 376       | 740       | 1210  |
|             |        | 10    | 25        | 50           | 85        | 270       | 376       | 740       | 1210      |       |
|             |        | 3     | 12        | 25           | 50        | 85        | 224       | 376       | 740       | 1210  |
|             | 15     |       | 25        | 50           | 85        | 224       | 376       | 740       | 1210      |       |
|             | 16     |       | 33        | 75           | 120       | 270       | 450       | 860       | 1650      |       |
|             | 20     |       | 33        | 75           | 120       | 270       | 450       | 860       | 1650      |       |
|             | 25     |       | 33        | 75           | 120       | 270       | 450       | 860       | 1650      |       |
|             | 28     |       | 33        | 75           | 120       | 270       | 450       | 860       | 1650      |       |
|             | 30     |       | 25        | 50           | 85        | 224       | 376       | 740       | 1210      |       |
|             | 35     |       | 33        | 75           | 120       | 270       | 450       | 860       | 1650      |       |
|             | 40     |       | 33        | 75           | 120       | 270       | 450       | 860       | 1650      |       |
|             | 45     |       | 33        | 75           | 120       | 270       | 450       | 860       | 1650      |       |
|             | 50     | 33    | 75        | 120          | 270       | 450       | 860       | 1650      |           |       |
| 60          | 33     | 75    | 120       | 270          | 450       | 860       | 1650      |           |           |       |
| 70          | 33     | 75    | 120       | 270          | 450       | 860       | 1650      |           |           |       |
| 80          | 33     | 75    | 120       | 270          | 450       | 860       | 1650      |           |           |       |
| 90          | 25     | 50    | 85        | 224          | 376       | 740       | 1210      |           |           |       |
| 100         | 25     | 50    | 85        | 224          | 376       | 740       | 1210      |           |           |       |
| 最大加速力矩 T    | Nm     | 1     | 1         | 1.5 倍额定输出力矩  |           |           |           |           |           |       |
| 最大输入转速      | rpm    | 1     | 1         | 6500         | 5500      | 4500      | 3500      | 3000      | 2200      | 2000  |
|             |        | 2     | 3~10      | 8000         | 6000      | 6000      | 4800      | 4800      | 3600      | 3600  |
|             |        | 3     | 12~100    | 8000         | 6000      | 6000      | 4800      | 4800      | 3600      | 3600  |
| 背隙          | arcmin | 1     | 1         | ≤ 6          | ≤ 6       | ≤ 6       | ≤ 6       | ≤ 6       | ≤ 6       | ≤ 6   |
|             |        | 2     | 3~10      | ≤ 8          | ≤ 8       | ≤ 8       | ≤ 8       | ≤ 8       | ≤ 8       | ≤ 8   |
|             |        | 3     | 12~100    | ≤ 10         | ≤ 10      | ≤ 10      | ≤ 10      | ≤ 10      | ≤ 10      | ≤ 10  |
| 输出轴容许径向力 Fr | N      | 1,2,3 | 1~100     | 1100         | 1700      | 2700      | 4800      | 6600      | 11500     | 16000 |
| 输出轴容许轴向力 Fa | N      | 1,2,3 | 1~100     | 550          | 850       | 1350      | 2400      | 3300      | 5750      | 8500  |
| 使用寿命        | hr     | 1,2,3 | 1~100     | 20000        |           |           |           |           |           |       |
| 使用效率 η      | %      | 1     | 1         | ≥ 98%        |           |           |           |           |           |       |
|             |        | 2,3   | 3~100     | ≥ 94%        |           |           |           |           |           |       |
| 使用温度        | °C     | 1,2,3 | 1~100     | -30°C~+100°C |           |           |           |           |           |       |
| 润滑          |        | 1,2,3 | 1~100     | 终身润滑         |           |           |           |           |           |       |
| 运转噪音        | dB(A)  | 1,2,3 | 1~100     | ≤ 72         | ≤ 76      | ≤ 77      | ≤ 78      | ≤ 79      | ≤ 83      | ≤ 84  |

# 高精度螺旋伞齿轮减速机

## High Precision Spirial Bevel Gearboxes

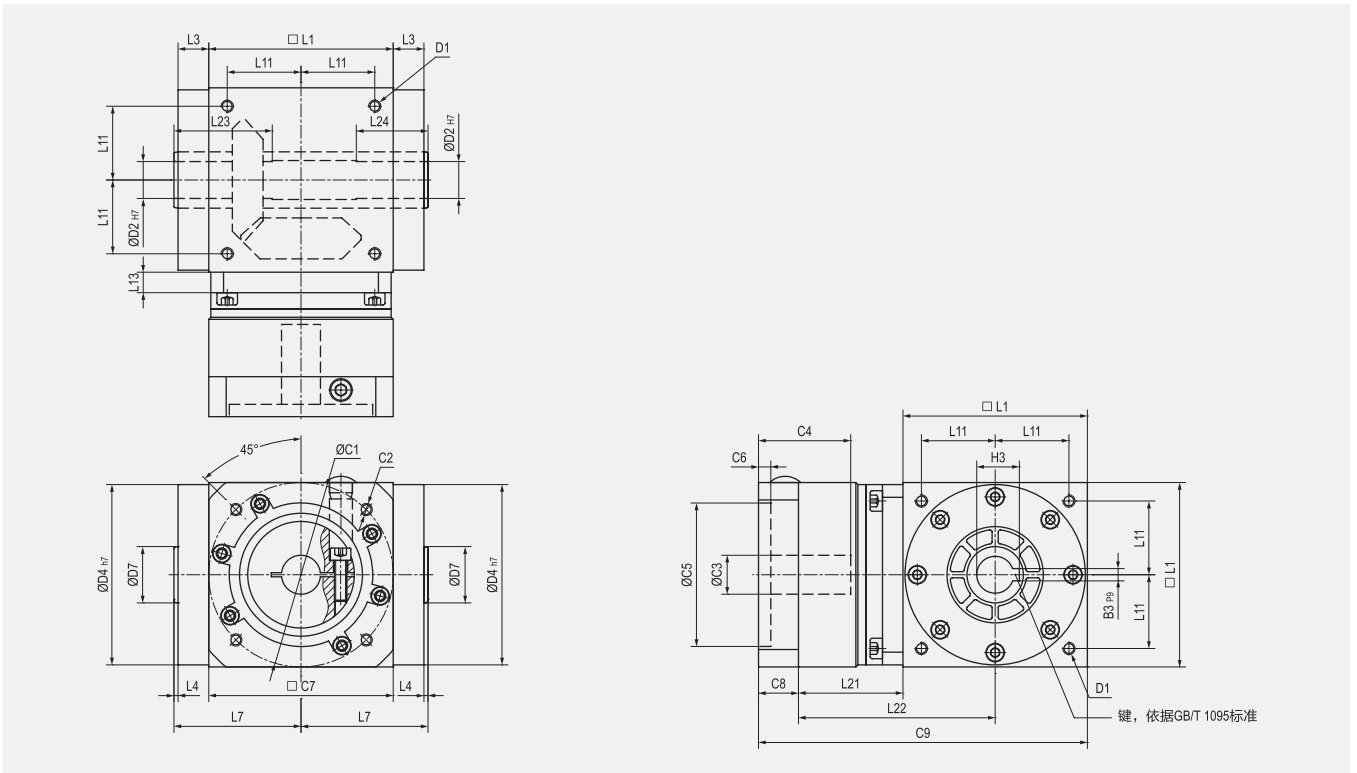
### 减速机性能资料

(单位 Unit: mm)

| 规格     | 节数                 | 速比   | GT075-FL  | GT090-FL  | GT110-FL  | GT140-FL  | GT170-FL  | GT210-FL  | GT240-FL  |       |
|--------|--------------------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
|        |                    |      | GT075-FL1 | GT090-FL1 | GT110-FL1 | GT140-FL1 | GT170-FL1 | GT210-FL1 | GT240-FL1 |       |
| 转动惯量 J | kg·cm <sup>2</sup> | 1    | 1.30      | 3.16      | 7.70      | 23.57     | 58.99     | 195.40    | 369.34    |       |
|        |                    | 2    | 3         | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 4         | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 5         | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 6         | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 7         | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 8         | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 9         | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    | 3    | 10        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 12        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 15        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 16        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 20        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 25        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 28        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 30        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 35        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 40        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 45        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
|        |                    |      | 50        | 0.15      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43 |
| 60     | 0.15               |      | 0.50      | 2.8       | 2.8       | 2.8       | 9.96      | 29.43     |           |       |
| 70     | 0.15               | 0.50 | 2.8       | 2.8       | 2.8       | 9.96      | 29.43     |           |           |       |
| 80     | 0.15               | 0.50 | 2.8       | 2.8       | 2.8       | 9.96      | 29.43     |           |           |       |
| 90     | 0.15               | 0.50 | 2.8       | 2.8       | 2.8       | 9.96      | 29.43     |           |           |       |
| 100    | 0.15               | 0.50 | 2.8       | 2.8       | 2.8       | 9.96      | 29.43     |           |           |       |

- (1) 减速比 (  $i=N_{in}/N_{out}$  ) ;
- (2) 背隙值是在 2% 额定力矩 T 的扭力值下测得;
- (3) 连续运转使用寿命为 10000 小时;
- (4) 噪音值将会随低减速比及高转速而升高;
- (5) 转动惯量与输入轴和马达直径有关;
- (6) 优先选用速比 1、3、4、5、7、10、12、15、20、25、28、30、40、50、70。

### GT-FH 系列尺寸 (单节, 减速比 i=1)



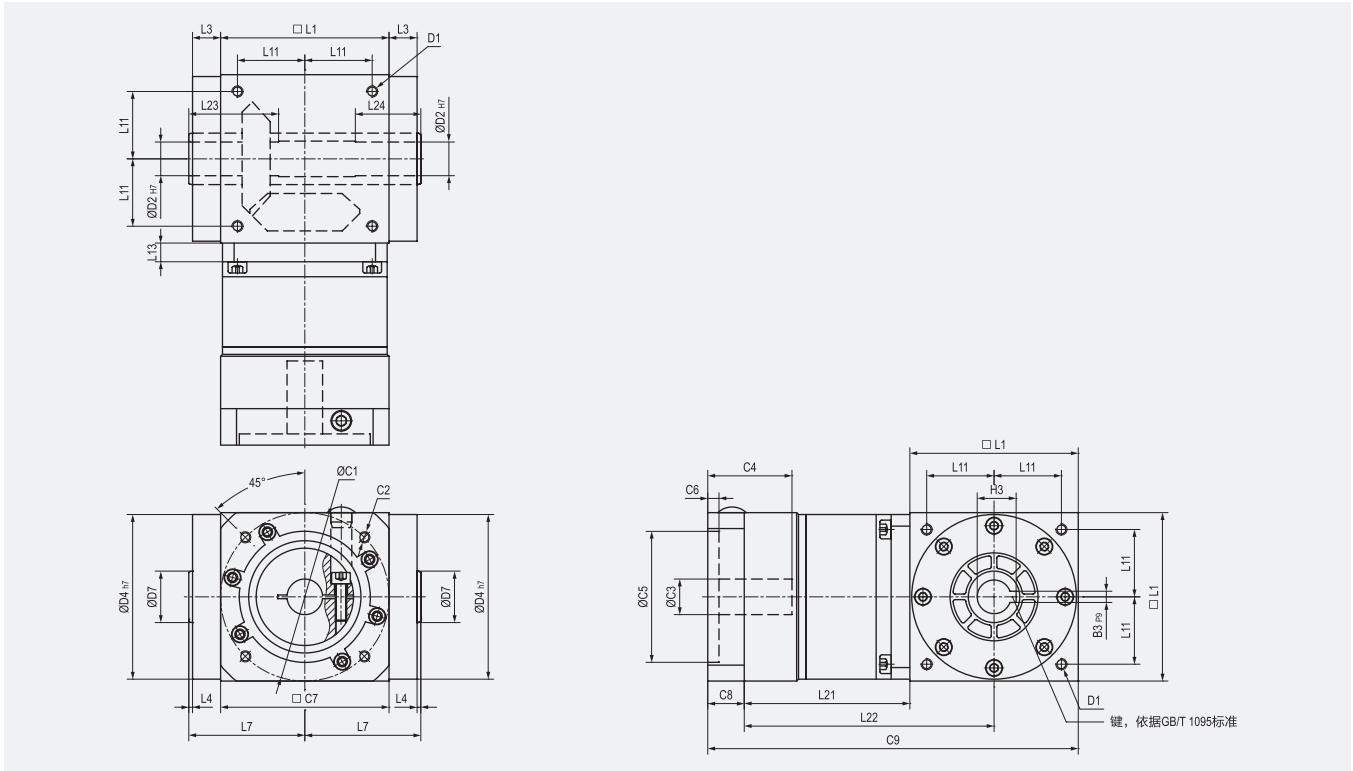
(单位 Unit: mm)

| 尺寸               | GT075-FH | GT090-FH | GT110-FH | GT140-FH | GT170-FH | GT210-FH | GT240-FH |
|------------------|----------|----------|----------|----------|----------|----------|----------|
| D1               | M6       | M6       | M8       | M10      | M12      | M16      | M16      |
| D2 <sub>H7</sub> | 14       | 18       | 22       | 32       | 40       | 50       | 55       |
| D4 <sub>h7</sub> | 73       | 88       | 108      | 135      | 165      | 205      | 235      |
| D7               | 24.5     | 27.5     | 39.5     | 49.5     | 54.5     | 69.5     | 84.5     |
| L1               | 75       | 90       | 110      | 140      | 170      | 210      | 240      |
| L3               | 14.5     | 15       | 15       | 15       | 15       | 20       | 25       |
| L4               | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| L7               | 54       | 62       | 72       | 87       | 102      | 127      | 147      |
| L11              | 30       | 36       | 44       | 55       | 67       | 85       | 95       |
| L13              | 10       | 10       | 12       | 12       | 15       | 15       | 20       |
| L21              | 42.5     | 51       | 51       | 59       | 68       | 68       | 91       |
| L22              | 80       | 96       | 106      | 129      | 153      | 173      | 211      |
| L23              | 32       | 35       | 40       | 50       | 55       | 65       | 80       |
| L24              | 32       | 35       | 40       | 50       | 55       | 65       | 80       |
| C1               | 70       | 90       | 90       | 145      | 200      | 200      | 215      |
| C2               | M5       | M6       | M6       | M8       | M12      | M12      | M12      |
| C3               | 14       | 19       | 19       | 22       | 35       | 35       | 42       |
| C4               | 34       | 45       | 45       | 73.5     | 81       | 81       | 84       |
| C5               | 50       | 70       | 70       | 110      | 114.3    | 114.3    | 180      |
| C6               | 6        | 6        | 6        | 8        | 8        | 8        | 8        |
| C7               | 65       | 90       | 90       | 130      | 180      | 180      | 190      |
| C8               | 17       | 19.5     | 19.5     | 40       | 53       | 53       | 38       |
| C9               | 134.5    | 160.5    | 180.5    | 239      | 291      | 331      | 369      |
| B3 <sub>P9</sub> | 5        | 6        | 6        | 10       | 12       | 14       | 16       |
| H3               | 16.3     | 20.8     | 24.8     | 35.3     | 43.3     | 53.8     | 59.3     |

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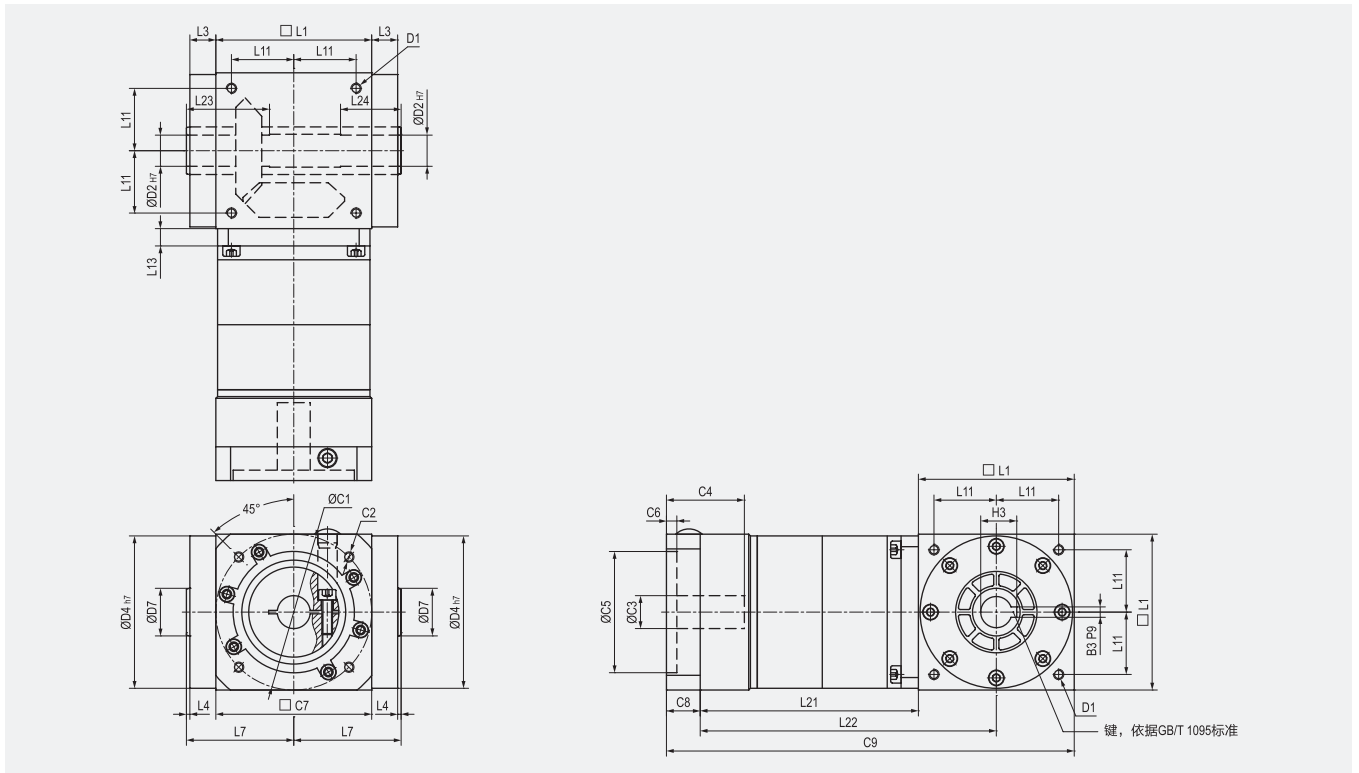
### GT-FH 系列尺寸 (双节, 减速比 i=3~10)



(单位 Unit: mm)

| 尺寸   | GT075-FH | GT090-FH | GT110-FH | GT140-FH | GT170-FH | GT210-FH | GT240-FH |
|------|----------|----------|----------|----------|----------|----------|----------|
| D1   | M6       | M6       | M8       | M10      | M12      | M16      | M16      |
| D2H7 | 14       | 18       | 22       | 32       | 40       | 50       | 55       |
| D4h7 | 73       | 88       | 108      | 135      | 165      | 205      | 235      |
| D7   | 24.5     | 27.5     | 39.5     | 49.5     | 54.5     | 69.5     | 84.5     |
| L1   | 75       | 90       | 110      | 140      | 170      | 210      | 240      |
| L3   | 14.5     | 15       | 15       | 15       | 15       | 20       | 25       |
| L4   | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| L7   | 54       | 62       | 72       | 87       | 102      | 127      | 147      |
| L11  | 30       | 36       | 44       | 55       | 67       | 85       | 95       |
| L13  | 10       | 10       | 12       | 12       | 15       | 15       | 20       |
| L21  | 71       | 88.5     | 88.5     | 110      | 124.5    | 124.5    | 164      |
| L22  | 108.5    | 133.5    | 143.5    | 180      | 209.5    | 229.5    | 284      |
| L23  | 32       | 35       | 40       | 50       | 55       | 65       | 80       |
| L24  | 32       | 35       | 40       | 50       | 55       | 65       | 80       |
| C1   | 70       | 90       | 90       | 145      | 200      | 200      | 215      |
| C2   | M5       | M6       | M6       | M8       | M12      | M12      | M12      |
| C3   | 14       | 19       | 19       | 22       | 35       | 35       | 42       |
| C4   | 34       | 45       | 45       | 73.5     | 81       | 81       | 84       |
| C5   | 50       | 70       | 70       | 110      | 114.3    | 114.3    | 180      |
| C6   | 6        | 6        | 6        | 8        | 8        | 8        | 8        |
| C7   | 65       | 90       | 90       | 130      | 180      | 180      | 190      |
| C8   | 17       | 19.5     | 19.5     | 40       | 53       | 53       | 38       |
| C9   | 163      | 198      | 218      | 290      | 347.5    | 387.5    | 442      |
| B3P9 | 5        | 6        | 6        | 10       | 12       | 14       | 16       |
| H3   | 16.3     | 20.8     | 24.8     | 35.3     | 43.3     | 53.8     | 59.3     |

### GT-FH 系列尺寸 (三节, 减速比 i=12~100)



(单位 Unit: mm)

| 尺寸               | GT075-FH | GT090-FH | GT110-FH | GT140-FH | GT170-FH | GT210-FH | GT240-FH |
|------------------|----------|----------|----------|----------|----------|----------|----------|
| D1               | M6       | M6       | M8       | M10      | M12      | M16      | M16      |
| D2 <sub>H7</sub> | 14       | 18       | 22       | 32       | 40       | 50       | 55       |
| D4 <sub>h7</sub> | 73       | 88       | 108      | 135      | 165      | 205      | 235      |
| D7               | 24.5     | 27.5     | 39.5     | 49.5     | 54.5     | 69.5     | 84.5     |
| L1               | 75       | 90       | 110      | 140      | 170      | 210      | 240      |
| L3               | 14.5     | 15       | 15       | 15       | 15       | 20       | 25       |
| L4               | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| L7               | 54       | 62       | 72       | 87       | 102      | 127      | 147      |
| L11              | 30       | 36       | 44       | 55       | 67       | 85       | 95       |
| L13              | 10       | 10       | 12       | 12       | 15       | 15       | 20       |
| L21              | 99.5     | 126      | 126      | 161      | 181      | 181      | 237      |
| L22              | 137      | 171      | 181      | 231      | 266      | 286      | 357      |
| L23              | 32       | 35       | 40       | 50       | 55       | 65       | 80       |
| L24              | 32       | 35       | 40       | 50       | 55       | 65       | 80       |
| C1               | 70       | 90       | 90       | 145      | 200      | 200      | 215      |
| C2               | M5       | M6       | M6       | M8       | M12      | M12      | M12      |
| C3               | 14       | 19       | 19       | 22       | 35       | 35       | 42       |
| C4               | 34       | 45       | 45       | 73.5     | 81       | 81       | 84       |
| C5               | 50       | 70       | 70       | 110      | 114.3    | 114.3    | 180      |
| C6               | 6        | 6        | 6        | 8        | 8        | 8        | 8        |
| C7               | 65       | 90       | 90       | 130      | 180      | 180      | 190      |
| C8               | 17       | 19.5     | 19.5     | 40       | 53       | 53       | 38       |
| C9               | 191.5    | 235.5    | 255.5    | 341      | 404      | 444      | 515      |
| B3 <sub>P9</sub> | 5        | 6        | 6        | 10       | 12       | 14       | 16       |
| H3               | 16.3     | 20.8     | 24.8     | 35.3     | 43.3     | 53.8     | 59.3     |