



产品介绍 Product Profile

TA系列  
(TA Series)

- TA-L1
- TA-L2
- TA-L1-B
- TA-L2-B

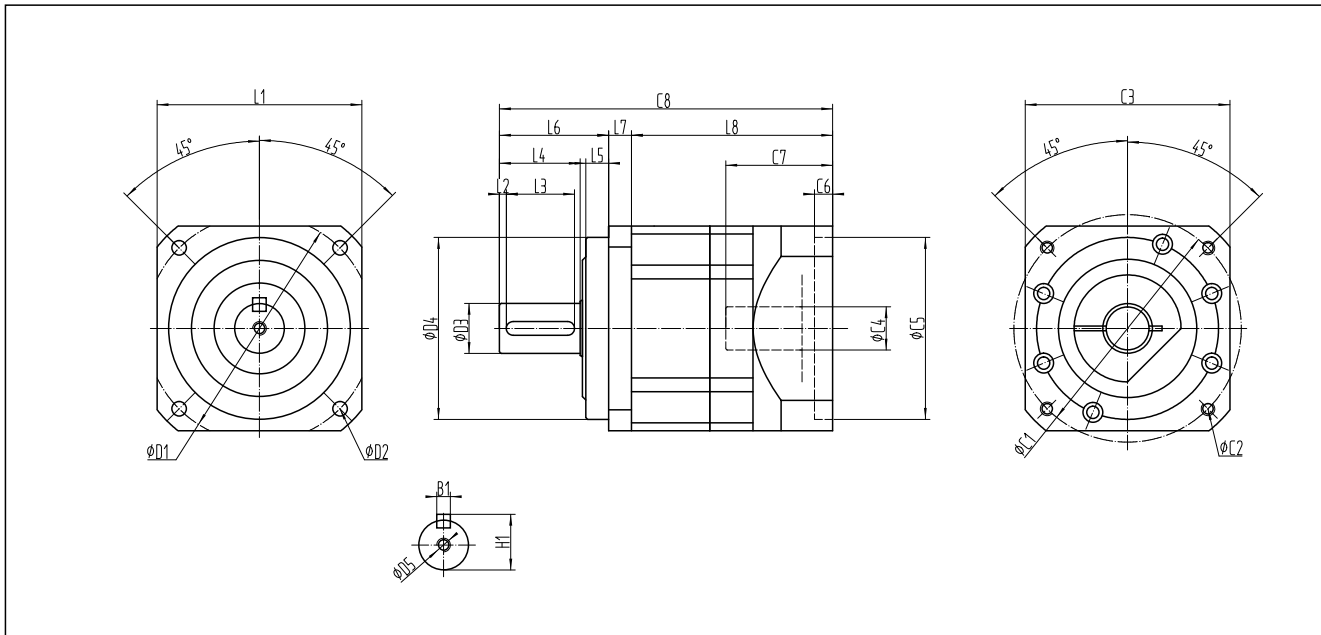


减速机性能资料 / gear box preformance information

| 技术参数 Technical data                           |                    | 节数 stage level | 速比 ratio | TA042                                         | TA060 | TA090 | TA090B | TA115 | TA115B | TA140 | TA180 | TA220 |
|-----------------------------------------------|--------------------|----------------|----------|-----------------------------------------------|-------|-------|--------|-------|--------|-------|-------|-------|
| 额定输出扭矩(norninal output torque)T2N             | Nm                 | L1             | 3        | 19                                            | 50    | 130   | 130    | 208   | 208    | 342   | 1020  | 1550  |
|                                               |                    |                | 4        | 20                                            | 50    | 140   | 140    | 290   | 290    | 542   | 1280  | 2160  |
|                                               |                    |                | 5        | 21                                            | 60    | 160   | 160    | 330   | 330    | 650   | 1250  | 2100  |
|                                               |                    |                | 6        | 16                                            | 48    | 120   | 120    | 240   | 240    | 410   | 980   | 1350  |
|                                               |                    |                | 7        | 19                                            | 50    | 140   | 140    | 300   | 300    | 550   | 1030  | 1580  |
|                                               |                    |                | 8        | 13                                            | 45    | 130   | 130    | 230   | 230    | 450   | 880   | 1260  |
|                                               |                    |                | 9        | 12                                            | 40    | 100   | 100    | 220   | 220    | 410   | 880   | 1450  |
|                                               |                    |                | 10       | 15                                            | 40    | 100   | 100    | 230   | 230    | 450   | 950   | 1530  |
|                                               |                    | L2             | 15       | 18                                            | 55    | 130   | 130    | 208   | 208    | 342   | 1050  | 1650  |
|                                               |                    |                | 20       | 20                                            | 50    | 140   | 140    | 290   | 290    | 542   | 1200  | 2050  |
|                                               |                    |                | 25       | 19                                            | 60    | 160   | 160    | 330   | 330    | 650   | 1200  | 2000  |
|                                               |                    |                | 30       | 18                                            | 55    | 150   | 150    | 310   | 310    | 600   | 1050  | 1600  |
|                                               |                    |                | 35       | 17                                            | 50    | 140   | 140    | 300   | 300    | 550   | 1020  | 1500  |
|                                               |                    |                | 40       | 18                                            | 45    | 120   | 120    | 230   | 230    | 500   | 1100  | 1350  |
|                                               |                    |                | 50       | 18                                            | 60    | 160   | 160    | 330   | 330    | 650   | 1000  | 1300  |
|                                               |                    |                | 70       | 16                                            | 50    | 140   | 140    | 300   | 300    | 550   | 1000  | 1200  |
|                                               |                    |                | 80       | 10                                            | 43    | 110   | 110    | 230   | 230    | 410   | 960   | 980   |
|                                               |                    |                | 100      | 10                                            | 40    | 100   | 100    | 230   | 230    | 450   | 950   | 1100  |
| 急停扭矩(emergency torque)T2NOT                   | Nm                 | L1*L2          | 3~100    | 2.5倍额定输出扭矩 2.5 times of nominal output torque |       |       |        |       |        |       |       |       |
| 额定输入转速(norninal input speed)n <sub>in</sub>   | rpm                | L1*L2          | 3~100    | 4000                                          | 5000  | 4000  | 4000   | 4000  | 4000   | 3000  | 2000  | 2000  |
| 最大输入转速(maximum input speed)n <sub>IB</sub>    |                    | L1*L2          | 3~100    | 6000                                          | 10000 | 8000  | 8000   | 8000  | 8000   | 6000  | 4500  | 4000  |
| 回程高精度间隙P1 low backlash                        | arcmin             | L1             | 3~10     | ≤3                                            | ≤3    | ≤3    | ≤3     | ≤3    | ≤3     | ≤3    | ≤3    | ≤3    |
|                                               |                    | L2             | 12~100   | ≤5                                            | ≤5    | ≤5    | ≤5     | ≤5    | ≤5     | ≤5    | ≤5    | ≤5    |
| 回程标准间隙P2 standard backlash                    | arcmin             | L1             | 3~10     | ≤7                                            | ≤5    | ≤5    | ≤5     | ≤5    | ≤5     | ≤5    | ≤7    | ≤7    |
|                                               |                    | L2             | 12~100   | ≤9                                            | ≤8    | ≤8    | ≤8     | ≤8    | ≤8     | ≤8    | ≤9    | ≤9    |
| 扭转刚性 torsional stiffness                      | Nm/arcmin          | L1*L2          | N        | 3                                             | 7     | 14    | 14     | 25    | 25     | 50    | 140   | 210   |
| 最大径向力(Maximum radial force)F <sub>2RMAX</sub> | N                  | L1*L2          | 3~100    | 780                                           | 1200  | 2450  | 2450   | 4000  | 4000   | 9000  | 14500 | 50000 |
| 最大轴向力(Maximum axial force)F <sub>2AMAX</sub>  | N                  | L1*L2          | 3~100    | 330                                           | 1050  | 2200  | 2200   | 4000  | 4000   | 8300  | 7200  | 28000 |
| 工作效率 efficiency                               | %                  | L1             | 3~10     | ≥97                                           | ≥97   | ≥97   | ≥97    | ≥97   | ≥97    | ≥97   | ≥97   | ≥97   |
|                                               |                    | L2             | 12~100   | ≥94                                           | ≥94   | ≥94   | ≥94    | ≥94   | ≥94    | ≥94   | ≥94   | ≥94   |
| 工作寿命 life time                                | h                  | L1*L2          | 3~100    | ≥20000 小时(hour)                               |       |       |        |       |        |       |       |       |
| 环境温度 operating temperature                    | ℃                  | L1*L2          | 3~100    | -10℃ ~ +90℃                                   |       |       |        |       |        |       |       |       |
| 润滑方式 lubrication                              |                    | L1*L2          | 3~100    | 终身润滑 Lifetime lubrication                     |       |       |        |       |        |       |       |       |
| 防护等级 IP degree                                |                    | L1*L2          | 3~100    | IP65                                          |       |       |        |       |        |       |       |       |
| 安装方向 mounting position                        |                    | L1*L2          | 3~100    | 任何方向 All position                             |       |       |        |       |        |       |       |       |
| 噪音 noise level                                | dB                 | L1*L2          | 3~100    | ≤63                                           | ≤60   | ≤64   | ≤64    | ≤67   | ≤67    | ≤72   | ≤70   | ≤70   |
| 转动惯量(Moment of Inertia)J1                     | kg.cm <sup>2</sup> | L1             | 3        | 0.03                                          | 0.16  | 0.61  | 0.61   | 3.25  | 3.25   | 9.21  | 28.98 | 69.61 |
|                                               |                    |                | 4        | 0.03                                          | 0.14  | 0.48  | 0.48   | 2.74  | 2.74   | 7.54  | 23.67 | 54.37 |
|                                               |                    |                | 5        | 0.03                                          | 0.13  | 0.47  | 0.47   | 2.71  | 2.71   | 7.42  | 23.29 | 53.27 |
|                                               |                    |                | 6        | 0.03                                          | 0.13  | 0.45  | 0.45   | 2.65  | 2.65   | 7.25  | 22.75 | 51.72 |
|                                               |                    |                | 7        | 0.03                                          | 0.13  | 0.45  | 0.45   | 2.62  | 2.62   | 7.25  | 22.48 | 50.97 |
|                                               |                    |                | 8        | 0.03                                          | 0.13  | 0.44  | 0.44   | 2.58  | 2.58   | 7.07  | 22.59 | 50.84 |
|                                               |                    |                | 9        | 0.03                                          | 0.13  | 0.44  | 0.44   | 2.57  | 2.57   | 7.04  | 22.53 | 50.63 |
|                                               |                    |                | 10       | 0.03                                          | 0.13  | 0.44  | 0.44   | 2.57  | 2.57   | 7.14  | 22.51 | 50.56 |
|                                               |                    | L2             | 15       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.47  | 0.47   | 7.03  | 7.42  | 23.29 |
|                                               |                    |                | 20       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.47  | 0.47   | 2.71  | 7.42  | 23.29 |
|                                               |                    |                | 25       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.47  | 0.47   | 2.71  | 7.42  | 23.29 |
|                                               |                    |                | 30       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.47  | 0.47   | 2.71  | 7.42  | 23.29 |
|                                               |                    |                | 35       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.47  | 0.47   | 2.71  | 7.42  | 23.29 |
|                                               |                    |                | 40       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.47  | 0.47   | 2.71  | 7.42  | 23.29 |
|                                               |                    |                | 50       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.47  | 0.47   | 2.71  | 7.42  | 23.29 |
|                                               |                    |                | 70       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.44  | 0.44   | 2.57  | 7.03  | 22.51 |
|                                               |                    |                | 80       | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.44  | 0.44   | 2.57  | 7.03  | 22.51 |
|                                               |                    |                | 100      | 0.03                                          | 0.03  | 0.13  | 0.13   | 0.44  | 0.44   | 2.57  | 7.03  | 22.51 |

外形尺寸图表 / out line dimension sheet

TA-L1



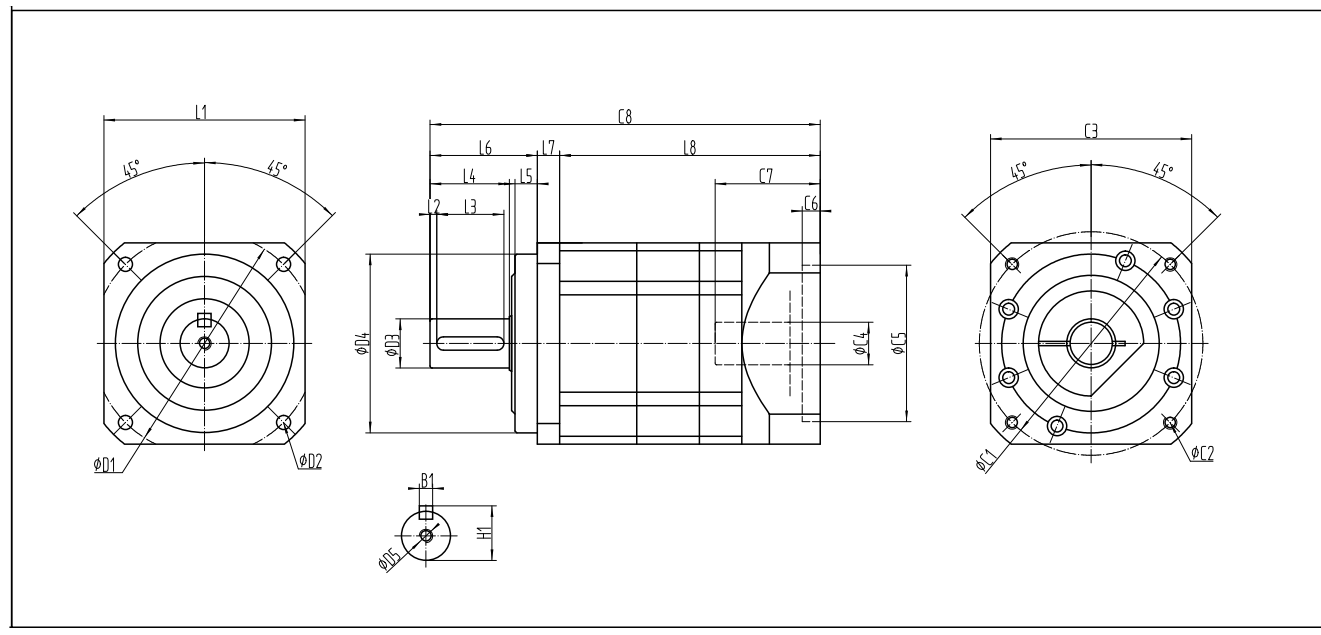
| 尺寸 | TA042 | TA060 | TA090 | TA115  | TA140  | TA180  | TA220  |
|----|-------|-------|-------|--------|--------|--------|--------|
| D1 | 50    | 70    | 100   | 130    | 165    | 215    | 250    |
| D2 | 3.4   | 5.5   | 6.5   | 9      | 11     | 13     | 17     |
| D3 | 13    | 16    | 22    | 32     | 40     | 55     | 75     |
| D4 | 35    | 50    | 80    | 110    | 130    | 160    | 180    |
| D5 | M4*8  | M5*12 | M8*16 | M12*24 | M16*32 | M20*40 | M20*40 |
| L1 | 42    | 60    | 90    | 115    | 140    | 180    | 220    |
| L2 | 3     | 3     | 3     | 5      | 5      | 6      | 7      |
| L3 | 14    | 20    | 30    | 40     | 65     | 70     | 90     |
| L4 | 19.5  | 28.5  | 35.5  | 51     | 82     | 82     | 105    |
| L5 | 5.5   | 7     | 10    | 12     | 13.5   | 20     | 30     |
| L6 | 26    | 37    | 48    | 65     | 98.5   | 105    | 138    |
| L7 | 4     | 8     | 10    | 10     | 12     | 15     | 20     |
| L8 | 61.5  | 68    | 88.5  | 114    | 146.5  | 164    | 200    |
| C1 | 46    | 70    | 90    | 145    | 200    | 200    | 215    |
| C2 | M4*8  | M4*8  | M5*10 | M8*16  | M12*24 | M12*24 | M12*24 |
| C3 | 46    | 60    | 90    | 130    | 180    | 180    | 200    |
| C4 | 8     | 14    | 19    | 24     | 35     | 35     | 42     |
| C5 | 30    | 50    | 70    | 110    | 114.3  | 114.3  | 180    |
| C6 | 5     | 6     | 6     | 6      | 8      | 7      | 8      |
| C7 | 27.5  | 32.5  | 47    | 62.5   | 81.5   | 85     | 109    |
| C8 | 91.5  | 113   | 146.5 | 189    | 257    | 284    | 358    |
| B1 | 5     | 5     | 6     | 10     | 12     | 16     | 20     |
| H1 | 15    | 18    | 24.5  | 35.5   | 43     | 59     | 79.5   |

注1:减速机出力轴可以为客户定制大小和长短。  
注2:输入尺寸依据各品牌伺服马达或步进马达可以有所变动。

Note 1: The reducer output shaft size and length can be customized for customers.  
Note 2: Input sizes can be subject to changed according to the brand servo motors or stepper motors sizes.

外形尺寸图表 / out line dimension sheet

TA-L2



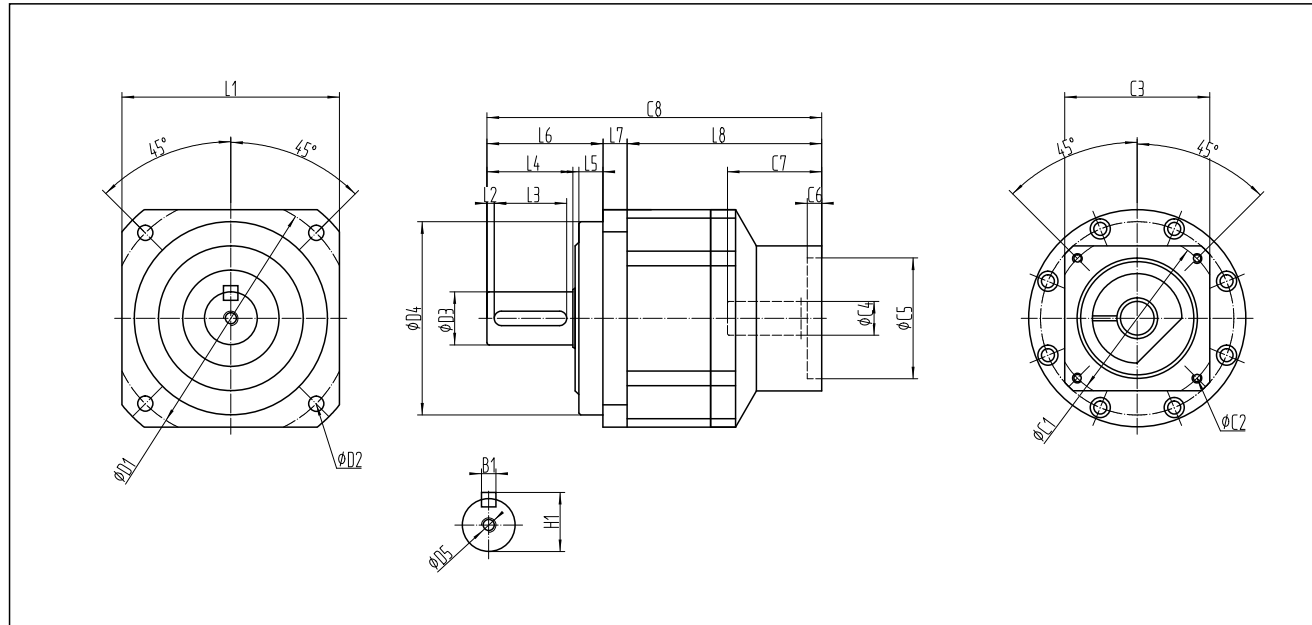
| 尺寸 | TA042 | TA060 | TA090 | TA115  | TA140  | TA180  | TA220  |
|----|-------|-------|-------|--------|--------|--------|--------|
| D1 | 50    | 70    | 100   | 130    | 165    | 215    | 250    |
| D2 | 3.4   | 5.5   | 6.5   | 9      | 11     | 13     | 17     |
| D3 | 13    | 16    | 22    | 32     | 40     | 55     | 75     |
| D4 | 35    | 50    | 80    | 110    | 130    | 160    | 180    |
| D5 | M4*8  | M5*12 | M8*16 | M12*24 | M16*32 | M20*40 | M20*40 |
| L1 | 42    | 60    | 90    | 115    | 140    | 180    | 220    |
| L2 | 3     | 3     | 3     | 5      | 5      | 6      | 7      |
| L3 | 14    | 20    | 30    | 40     | 65     | 70     | 90     |
| L4 | 19.5  | 28.5  | 35.5  | 51     | 82     | 82     | 105    |
| L5 | 5.5   | 7     | 10    | 12     | 13.5   | 20     | 30     |
| L6 | 26    | 37    | 48    | 65     | 98.5   | 105    | 138    |
| L7 | 4     | 8     | 10    | 10     | 12     | 15     | 20     |
| L8 | 82    | 88    | 116.5 | 151    | 200    | 220    | 249    |
| C1 | 46    | 70    | 90    | 145    | 200    | 200    | 215    |
| C2 | M4*8  | M4*8  | M5*10 | M8*16  | M12*24 | M12*24 | M12*24 |
| C3 | 46    | 60    | 90    | 130    | 180    | 180    | 200    |
| C4 | 8     | 14    | 19    | 24     | 35     | 35     | 42     |
| C5 | 30    | 50    | 70    | 110    | 114.3  | 114.3  | 180    |
| C6 | 5     | 6     | 6     | 6      | 8      | 7      | 8      |
| C7 | 27.5  | 32.5  | 47    | 62.5   | 81.5   | 85     | 109    |
| C8 | 112   | 133   | 174.5 | 226    | 310.5  | 340    | 407    |
| B1 | 5     | 5     | 6     | 10     | 12     | 16     | 20     |
| H1 | 15    | 18    | 24.5  | 35.5   | 43     | 59     | 79.5   |

注1:减速机出力轴可以为客户定制大小和长短。  
注2:输入尺寸依据各品牌伺服马达或步进马达可以有所变动。

Note 1: The reducer output shaft size and length can be customized for customers.  
Note 2: Input sizes can be subject to changed according to the brand servo motors or stepper motors sizes.

## 外形尺寸图表 / out line dimension sheet

### TA-L1-B



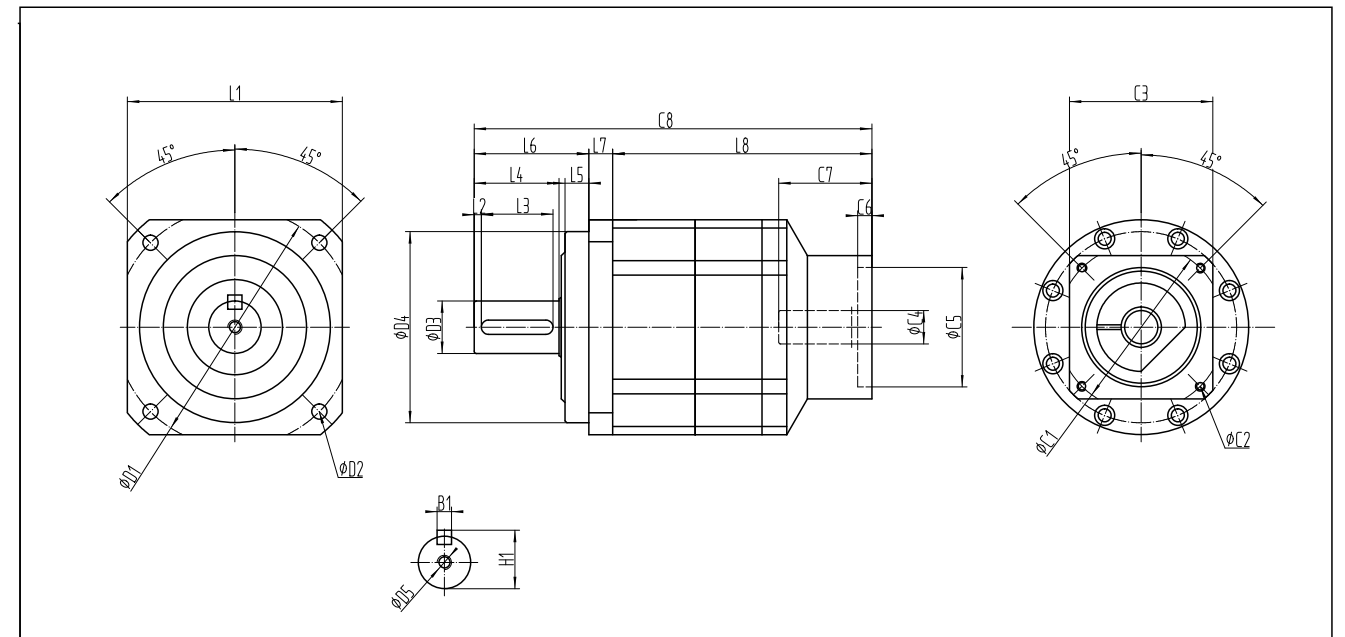
| 尺寸 | TA090B | TA115B | TA140B |
|----|--------|--------|--------|
| D1 | 100    | 130    | 165    |
| D2 | 6.5    | 9      | 11     |
| D3 | 22     | 32     | 40     |
| D4 | 80     | 110    | 130    |
| D5 | M8*16  | M12*24 | M16*32 |
| L1 | 90     | 115    | 140    |
| L2 | 3      | 5      | 5      |
| L3 | 30     | 40     | 65     |
| L4 | 35.5   | 51     | 82     |
| L5 | 10     | 12     | 13.5   |
| L6 | 48     | 65     | 98.5   |
| L7 | 10     | 10     | 12     |
| L8 | 80.5   | 101    | 139    |
| C1 | 70     | 90     | 145    |
| C2 | M4*8   | M6*12  | M8*16  |
| C3 | 60     | 80     | 130    |
| C4 | 14     | 19     | 24     |
| C5 | 50     | 70     | 110    |
| C6 | 6      | 6      | 11     |
| C7 | 39     | 49.5   | 74     |
| C8 | 138.5  | 176    | 249.5  |
| B1 | 6      | 10     | 12     |
| H1 | 24.5   | 35.5   | 43     |

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Note 1: The reducer output shaft size and length can be customized for customers.  
Note 2: Input sizes can be subject to changed according to the brand servo motors or stepper motors sizes.

## 外形尺寸图表 / out line dimension sheet

### TA-L2-B



| 尺寸 | TA090B | TA115B | TA140B |
|----|--------|--------|--------|
| D1 | 100    | 130    | 165    |
| D2 | 6.5    | 9      | 11     |
| D3 | 22     | 32     | 40     |
| D4 | 80     | 110    | 130    |
| D5 | M8*16  | M12*24 | M16*32 |
| L1 | 90     | 115    | 140    |
| L2 | 3      | 5      | 5      |
| L3 | 30     | 40     | 65     |
| L4 | 35.5   | 51     | 82     |
| L5 | 10     | 12     | 13.5   |
| L6 | 48     | 65     | 98.5   |
| L7 | 10     | 10     | 12     |
| L8 | 108.5  | 138    | 192.5  |
| C1 | 70     | 90     | 145    |
| C2 | M4*8   | M6*12  | M8*16  |
| C3 | 60     | 80     | 130    |
| C4 | 14     | 19     | 24     |
| C5 | 50     | 70     | 110    |
| C6 | 6      | 6      | 11     |
| C7 | 39     | 49.5   | 74     |
| C8 | 166.5  | 213    | 303    |
| B1 | 6      | 10     | 12     |
| H1 | 24.5   | 35.5   | 43     |

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注2:输入尺寸依据各品牌伺服马达或步进马达可以有所变动。

Note 1: The reducer output shaft size and length can be customized for customers.  
Note 2: Input sizes can be subject to changed according to the brand servo motors or stepper motors sizes.