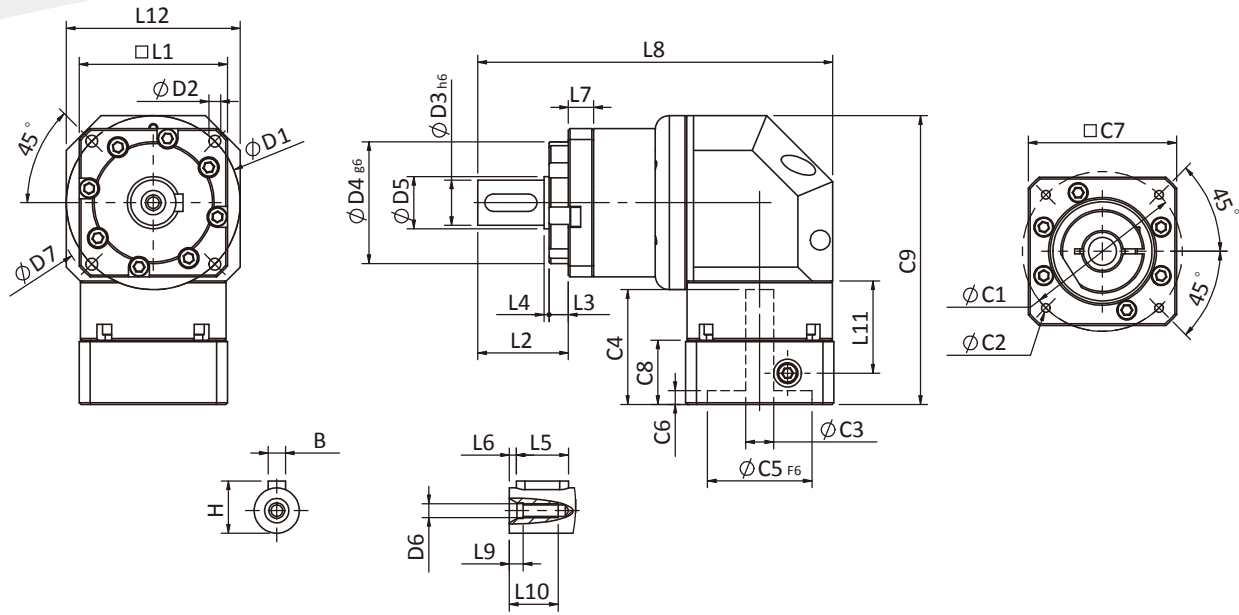


## PAER Single Stage Dimensions



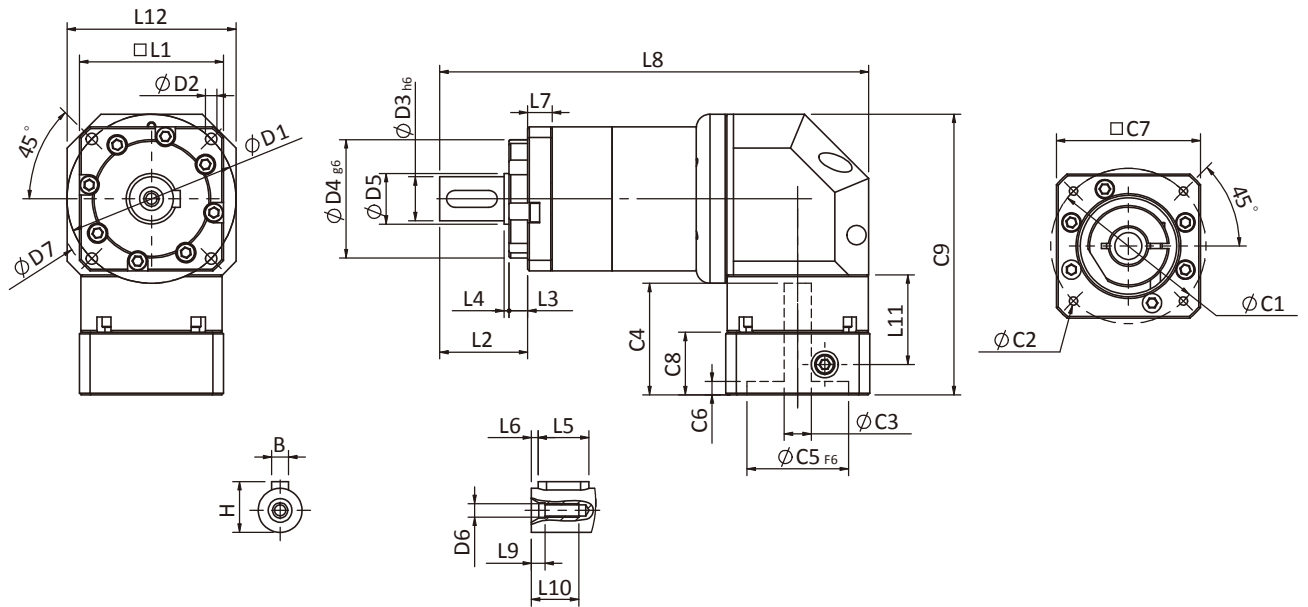
## Specifications

Unit:mm

| 尺寸 Dimensions                 | PAER42  | PAER60  | PAER90   | PAER115 |
|-------------------------------|---------|---------|----------|---------|
| D1                            | 50      | 70      | 100      | -       |
| D2                            | 3.4     | 5.5     | 6.5      | -       |
| D3 <sub>h6</sub>              | 13      | 16      | 22       | -       |
| D4 <sub>g6</sub>              | 35      | 50      | 80       | -       |
| D5                            | 15      | 20      | 35       | -       |
| D6                            | M4x0.7P | M5x0.8P | M8x1.25P | -       |
| D7                            | 56      | 80      | 118      | -       |
| L1                            | 42.6    | 60      | 90       | -       |
| L2                            | 26      | 37      | 48       | -       |
| L3                            | 5.5     | 7       | 10       | -       |
| L4                            | 1.5     | 1.5     | 1.5      | -       |
| L5                            | 15      | 25      | 32       | -       |
| L6                            | 2       | 2       | 3        | -       |
| L7                            | 7.3     | 10      | 12       | -       |
| L8                            | 102     | 143.6   | 194.5    | -       |
| L9                            | 4       | 4       | 4.5      | -       |
| L10                           | 14      | 16.5    | 20.5     | -       |
| L11                           | 26.5    | 36      | 40.7     | -       |
| L12                           | 50      | 70      | 98       | -       |
| C1 <sup>2</sup>               | 46      | 70      | 90       | -       |
| C2 <sup>2</sup>               | M4x0.7P | M5x0.8P | M6x1.0P  | -       |
| C3 <sup>2</sup>               | ≤8/≤11  | ≤14/≤19 | ≤19/≤24  | -       |
| C4 <sup>2</sup>               | 33      | 44      | 57       | -       |
| C5 <sup>2</sup> <sub>F6</sub> | 30      | 50      | 70       | -       |
| C6 <sup>2</sup>               | 4       | 4       | 6        | -       |
| C7 <sup>2</sup>               | 42.6    | 60      | 90       | -       |
| C8 <sup>2</sup>               | 18.5    | 20      | 26       | -       |
| C9 <sup>2</sup>               | 83      | 111.4   | 149.2    | -       |
| B                             | 5       | 5       | 6        | -       |
| H                             | 15      | 18      | 24.5     | -       |

★ C1~C9 are motor specific dimensions(metric std shown ).  
Size may vary according to motor flange.  
★ Specification subject to change without notice.

## PAER Double Stage Dimensions-1



## Specifications

Unit:mm

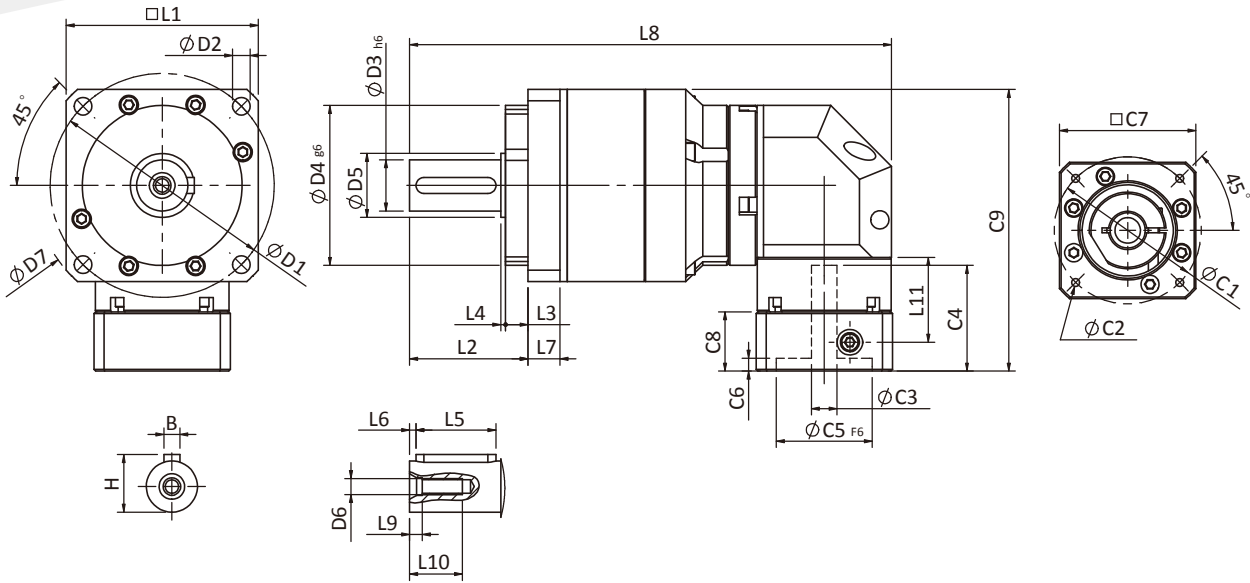
| 尺寸 Dimensions                 | PAER42    | PAER60  | PAER90   | PAER115 |
|-------------------------------|-----------|---------|----------|---------|
| D1                            | 50        | 70      | 100      | -       |
| D2                            | 3.4       | 5.5     | 6.5      | -       |
| D3 <sub>h6</sub>              | 13        | 16      | 22       | -       |
| D4 <sub>g6</sub>              | 35        | 50      | 80       | -       |
| D5                            | 15        | 20      | 35       | -       |
| D6                            | M4x0.7P   | M5x0.8P | M8x1.25P | -       |
| D7                            | 56        | 80      | 118      | -       |
| L1 <sup>1</sup>               | 42.6 (44) | 60      | 90       | -       |
| L2                            | 26        | 37      | 48       | -       |
| L3                            | 5.5       | 7       | 10       | -       |
| L4                            | 1.5       | 1.5     | 1.5      | -       |
| L5                            | 15        | 25      | 32       | -       |
| L6                            | 2         | 2       | 3        | -       |
| L7                            | 7.3       | 10      | 12       | -       |
| L8                            | 126.9     | 174.3   | 235.5    | -       |
| L9                            | 4         | 4       | 4.5      | -       |
| L10                           | 14        | 16.5    | 20.5     | -       |
| L11                           | 26.5      | 36      | 40.7     | -       |
| L12                           | 50        | 70      | 98       | -       |
| C1 <sup>2</sup>               | 46        | 70      | 90       | -       |
| C2 <sup>2</sup>               | M4x0.7P   | M5x0.8P | M6x1.0P  | -       |
| C3 <sup>2</sup>               | ≤8/≤11    | ≤14/≤19 | ≤19/≤24  | -       |
| C4 <sup>2</sup>               | 33        | 44      | 57       | -       |
| C5 <sup>2</sup> <sub>F6</sub> | 30        | 50      | 70       | -       |
| C6 <sup>2</sup>               | 4         | 4       | 6        | -       |
| C7 <sup>2</sup>               | 42.6      | 60      | 90       | -       |
| C8 <sup>2</sup>               | 18.5      | 20      | 26       | -       |
| C9 <sup>2</sup>               | 83        | 111.4   | 149.2    | -       |
| B                             | 5         | 5       | 6        | -       |
| H                             | 15        | 18      | 24.5     | -       |

\*1. L1=44 when gear ratios are 100, 200, and 300.

\*2. C1~C9 are motor specific dimensions (metric std shown).  
Sizes may vary according to the motor flange chosen.

★ Specification subject to change without notice.

## PAER Double Stage Dimensions-2



## Specifications

Unit:mm

| 尺寸 Dimensions                 | PAER60T | PAER90T  | PAER115T  |
|-------------------------------|---------|----------|-----------|
| D1                            | 70      | 100      | 130       |
| D2                            | 5.5     | 6.5      | 9         |
| D3 <sub>h6</sub>              | 16      | 22       | 32        |
| D4 <sub>g6</sub>              | 50      | 80       | 110       |
| D5                            | 20      | 35       | 44        |
| D6                            | M5x0.8P | M8x1.25P | M12x1.75P |
| D7                            | 80      | 118      | 148       |
| L1                            | 60      | 90       | 115       |
| L2                            | 37      | 48       | 65        |
| L3                            | 7       | 10       | 12        |
| L4                            | 1.5     | 1.5      | 2         |
| L5                            | 25      | 32       | 40        |
| L6                            | 2       | 3        | 5         |
| L7                            | 10      | 12       | 16        |
| L8                            | 150.6   | 190.6    | 268.1     |
| L9                            | 4       | 4.5      | 6         |
| L10                           | 16.5    | 20.5     | 30        |
| L11                           | 26.5    | 36       | 40.7      |
| C1 <sup>2</sup>               | 46      | 70       | 90        |
| C2 <sup>2</sup>               | M4x0.7P | M5x0.8P  | M6x1.0P   |
| C3 <sup>2</sup>               | ≤8/≤11  | ≤14/≤19  | ≤19/≤24   |
| C4 <sup>2</sup>               | 33      | 44       | 57        |
| C5 <sup>2</sup> <sub>F6</sub> | 30      | 50       | 70        |
| C6 <sup>2</sup>               | 4       | 4        | 6         |
| C7 <sup>2</sup>               | 42.6    | 60       | 90        |
| C8 <sup>2</sup>               | 18.5    | 20       | 26        |
| C9 <sup>2</sup>               | 88      | 121.4    | 157.7     |
| B                             | 5       | 6        | 10        |
| H                             | 18      | 24.5     | 35        |

\*2. C1~C9 are motor specific dimensions (metric std shown).  
 Sizes may vary according to the motor flange chosen.

★ Specification subject to change without notice.

## PAER Specifications Table

| Specifications                   | Stage         | Ratio   | PAER-42              | PAER-60  | PAER-90   | PAER-115                |                        |
|----------------------------------|---------------|---|----------------------|--|---|-------------------------|------------------------|
| Nominal Output Torque $T_{2N}$   | 1             | 3   | 9                    | 28   | 85  | 135                     |                        |
|                                  |               | 4   | 10                   | 32   | 80  | 180                     |                        |
|                                  |               | 5   | 11                   | 35   | 95  | 215                     |                        |
|                                  |               | 7   | 10                   | 28   | 85  | 220                     |                        |
|                                  |               | 8   | 10                   | 32   | 80  | 210                     |                        |
|                                  |               | 9   | 9                    | 25   | 75  | 210                     |                        |
|                                  |               | 10  | 11                   | 35   | 95  | 210                     |                        |
|                                  |               | 12  | 10                   | 32   | 80  | -                       |                        |
|                                  |               | 14  | 10                   | 28   | 85  | 220                     |                        |
|                                  |               | 15  | 11                   | 35   | 95  | -                       |                        |
|                                  | 2             | Stage   | Ratio                | PAER-42  | PAER-60/<br>PAER-60T                            | PAER-90/<br>PAER-90T    | PAER-115T              |
|                                  |               | 20  | 10                   | 32   | 80  | 240                     |                        |
|                                  |               | 25  | 11                   | 35   | 95  | 240                     |                        |
|                                  |               | 30  | 11                   | 34   | 90  | 230                     |                        |
|                                  |               | 35  | 11                   | 35   | 95  | 240                     |                        |
|                                  |               | 40  | 10                   | 32   | 80  | 240                     |                        |
|                                  |               | 50  | 11                   | 35   | 95  | 240                     |                        |
|                                  |               | 60  | 11                   | 35   | 95  | 240                     |                        |
|                                  |               | 70  | 11                   | 35   | 95  | 240                     |                        |
|                                  |               | 80  | 11                   | 35   | 95  | 240                     |                        |
| 100                              | 8             | 35  | 95                   | 240  |   |                         |                        |
| 120                              | 11            | 35  | 95                   | 240  |   |                         |                        |
| 140                              | -             | 28  | 85                   | 220  |   |                         |                        |
| 200                              | 8             | 21  | 65                   | 190  |   |                         |                        |
| 300                              | 8             | 21  | 65                   | 190  |   |                         |                        |
| Emergency Stop Torque $T_{2NOT}$ | N • m         | (2.5 times of Nominal Output Torque)<br>*Max. Output Torque $T_{2B}$ =60% of Emergency Stop Torque) |                      |  |   |                         |                        |
| Nominal Input Speed $n_{1N}$     | rpm           | 1,2   | 3-300                | 4500   | 4000  | 3000                    | 2500                   |
| Max. Input Speed $n_{1max}$      | rpm           | 1,2   | 3-300                | 7500   | 7000  | 6000                    | 5000                   |
| Standard Backlash P2             | arcmin        | 1<br>2  | 3-16<br>20-300       | $\leq 18$<br>$\leq 20$                         | $\leq 15$<br>$\leq 17$                          | $\leq 13$<br>$\leq 15$  | $\leq 11$<br>$\leq 13$ |
| Torsional Rigidity               | N • m /arcmin | 1,2   | 3-300                | 1.5  | 4.0   | 8.5                     | 17                     |
| Max. Radial Load $F_{2RB}^1$     | N             | 1,2   | 3-300                | 760  | 1250  | 2030                    | 4200                   |
| Max. Axial Load $F_{2AB}^1$      | N             | 1,2   | 3-300                | 410  | 700   | 1200                    | 2600                   |
| Operating Temp.                  | °C            | 1,2   | 3-300                | -10°C ~ +90°C                                  |   |                         |                        |
| Service Life                     | hr            | 1,2   | 3-300                | 20,000 (10,000 Continuous operation)           |   |                         |                        |
| Efficiency                       | %             | 1<br>2  | 3-16<br>20-300       | $\geq 95\%$<br>$\geq 90\%$                     |   |                         |                        |
| Weight                           | kg            | 1<br>2  | 3-16<br>20-300       | 1.1<br>1.3                                     | 2.6<br>3.2/3.0                                  | 6.5<br>8.7/7.1          | 13.4<br>15.1           |
| Mounting Position                | -             | 1,2   | 3-300                | Any direction                                  |   |                         |                        |
| Noise Level <sup>2</sup>         | dBA/1m        | 1,2   | 3-300                | 66   | 68  | 70                      | 73                     |
| Protection Class                 | -             | 1,2   | 3-300                | IP 65  |   |                         |                        |
| Lubrication                      | -             | 1,2   | 3-300                | Synthetic Lubricant                            |   |                         |                        |
| Inertia (J1)                     |               |   |                      |  |   |                         |                        |
| Stage                            | Ratio         | unit  | PAER-42 ( $\phi 8$ ) | PAER-60 ( $\phi 14$ )                          | PAER-90 ( $\phi 19$ )                           | PAER-115 ( $\phi 24$ )  |                        |
| 1                                | 3, 4, 5, 7    | Kg • cm <sup>2</sup>  | 0.07                 | 0.40   | 2.0   | 2.7                     |                        |
|                                  | Other ratios  |   | 0.05                 | 0.30   | 1.5   | 2.2                     |                        |
| 2                                | 20, 25, 35    |   | 0.07                 | 0.40/0.07                                      | 2.30/0.40                                       | 2.2                     |                        |
|                                  | Other ratios  |   | 0.05                 | 0.30/0.05                                      | 1.50/0.30                                       | 1.5                     |                        |
| Stage                            | Ratio         | unit  | PAER-42 ( $\phi 8$ ) | PAER-60 ( $\phi 14$ )<br>PAER-60T ( $\phi 8$ ) | PAER-90 ( $\phi 19$ )<br>PAER-90T ( $\phi 14$ ) | PAER-115T ( $\phi 19$ ) |                        |

\* 1. Applied to the output shaft center @100rpm.  
\* 2. Measured at 3000 rpm with no load. These values are measured by gearbox with ratio = 10 (1-stage) or ratio = 100 (2-stage) at nominal input speed or 3000 rpm (if nominal input speed is higher than 3000 rpm) with no load.  
※The above figures/specifications are subject to change without prior notice.

Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty.