motion.nl

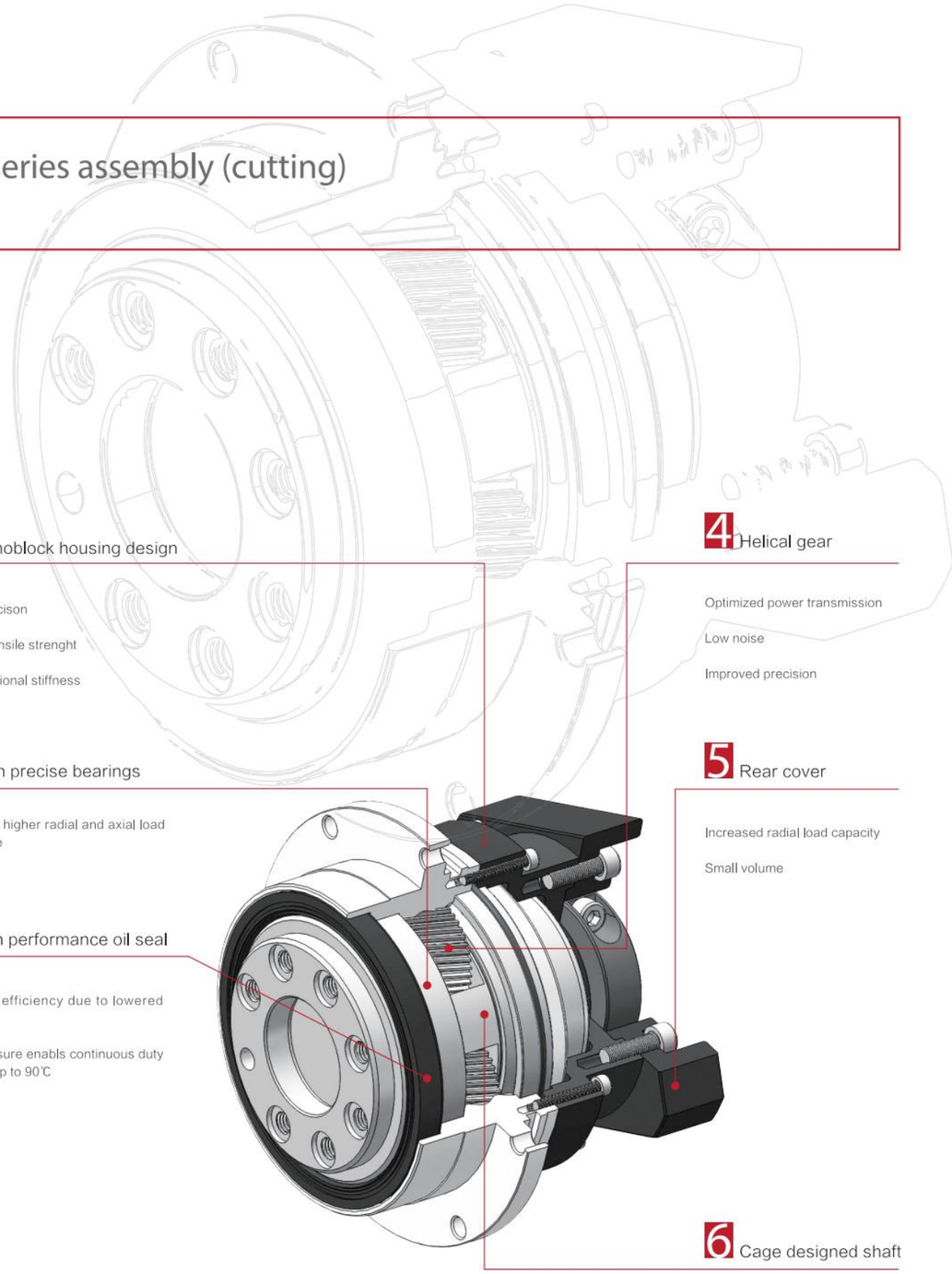
# ND SERIES

High precision planetary reducer

# ND series

We provide customers with high-precision, high rigidity, high torque precision planetary reducer.

## ND series assembly (cutting)



**3** Monoblock housing design

Higher precison

Ultimate tensile strenght

Higher torsional stiffness

**4** Helical gear

Optimized power transmission

Low noise

Improved precision

**2** High precise bearings

Ensuring a higher radial and axial load acceptance

**5** Rear cover

Increased radial load capacity

Small volume

**1** High performance oil seal

Increased efficiency due to lowered friction

IP65 enclosure enabls continuous duty operation up to 90℃

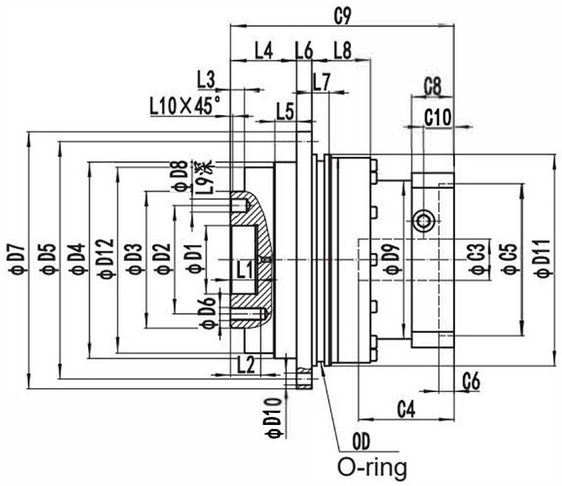
**6** Cage designed shaft

High torsional stiffness

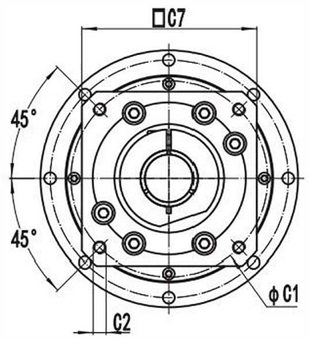
Optimized power transmission

Dimensions（Single， Ratio i =4 ~10）

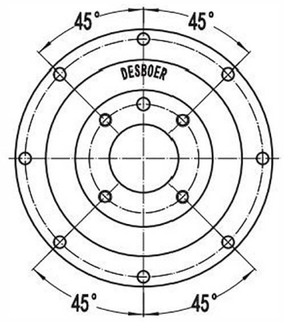
# ND047 *Series*




Input




Output




（Unit: mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ND047 | 12 | 20 | 28 | 47 | 67 | 4−M3 × 0.5P | 72 | 3 | 46 | 8−3.4 | 60 | 46.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 8 | 6 | 3 | 19.5 | 7 | 4 | 5 | 25 | 4 | | 0.5 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | OD | |
| | 46 | M4 × 0.7P | ≤11/≤12 | 31 | 30 | 4.3 | 40 | 18.7 | 75 | 10 | 56 × 2 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter

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Extreme and win

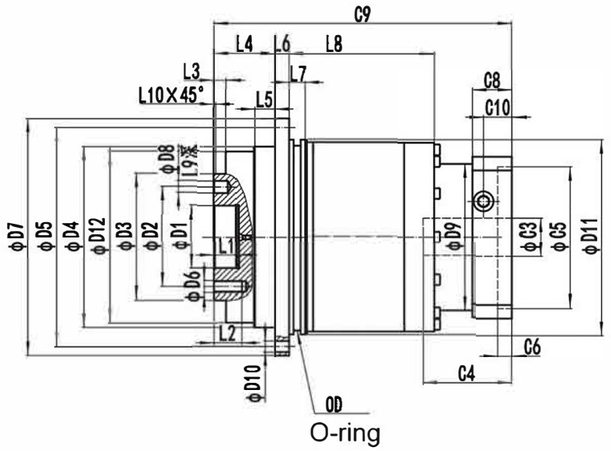
## — *Gearbox performance data*

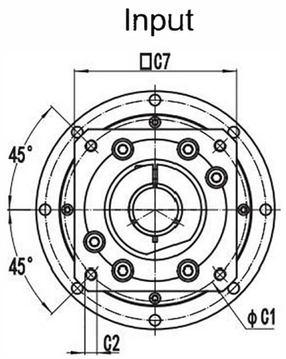
| Segment number | | Single segment | | | |
|---|---|---|---|---|---|
| Ratio | i | 4 | 5 | 7 | 10 |
| Rated output torque | Nm | 18 | 20 | 18 | 13 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | |
| Rated input speed | rpm | 5000 | | | |
| Max input speed | rpm | 10000 | | | |
| Ultraprecise backlash | arcmin | – | | | |
| Precise backlash | arcmin | ≤3 | | | |
| Standard backlash | arcmin | ≤5 | | | |
| Torsional rigidity | Nm/arcmin | 7 | | | |
| Max. bending moment | Nm | 42.5 | | | |
| Max. axial Force | N | 990 | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | |
| Efficiency | % | ≥97% | | | |
| Weight | kg | 0.7 | | | |
| Operating Temperature | ℃ | −10℃ ~ +90℃ | | | |
| Lubrication | | Synthetic grease | | | |
| Protection Class | | IP64 | | | |
| Mounting Position | | All directions | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB（A） | ≤56 | | | |
| Rotary inertia | Kg · cm² | 0.03 | | | |

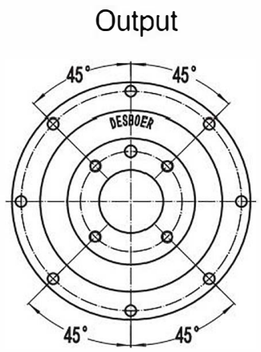
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Double， Ratio i =16～100）

# ND047A *Series*




（Unit：mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ND047A | 12 | 20 | 28 | 47 | 67 | 4−M×0.5P | 72 | 3 | 46 | 8−3.4 | 60 | 46.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | OD | |
| | 8 | 6 | 3 | 19.5 | 7 | 4 | 5 | 56 | 4 | 0.5 | 56×2 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C5* | C9* | | C10* | |
| | 46 | M5×0.8P | ≤11 | 29.7 | 30 | 4.3 | 40 | 18.7 | 105.4 | | 10 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter



## — *Gearbox performance data*

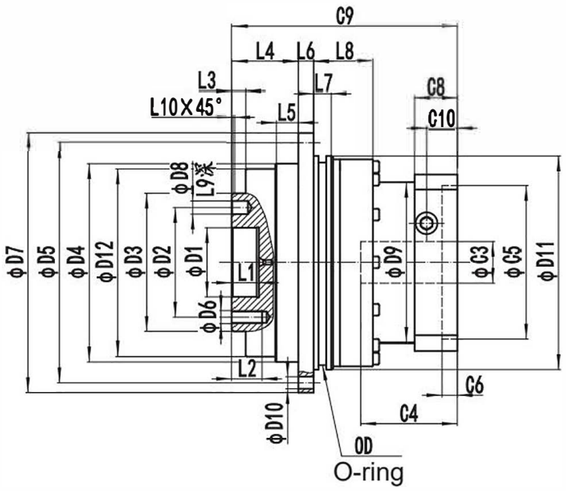
| Segment number | | Double segment | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ratio | i | 16 | 20 | 25 | 35 | 40 | 50 | 70 | 100 |
| Rated output torque | Nm | 18 | 18 | 20 | 18 | 18 | 20 | 18 | 13 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | | | | | |
| Rated input speed | rpm | 5000 | | | | | | | |
| Max input speed | rpm | 10000 | | | | | | | |
| Ultraprecise backlash | arcmin | – | | | | | | | |
| Precise backlash | arcmin | ≤5 | | | | | | | |
| Standard backlash | arcmin | ≤7 | | | | | | | |
| Torsional rigidity | Nm/arcmin | 7 | | | | | | | |
| Max. bending moment | Nm | 42.5 | | | | | | | |
| Max. axial Force | N | 990 | | | | | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | | | | | |
| Efficiency | % | ≥94% | | | | | | | |
| Weight | kg | 1 | | | | | | | |
| Operating Temperature | ℃ | −10℃～+90℃ | | | | | | | |
| Lubrication | | Synthetic grease | | | | | | | |
| Protection Class | | IP64 | | | | | | | |
| Mounting Position | | All directions | | | | | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB（A） | ≤56 | | | | | | | |
| Rotary inertia | Kg · cm² | 0.03 | | | | | | | |

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

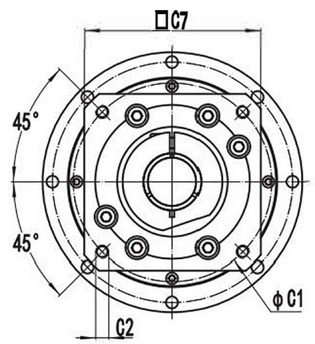
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Single， Ratio i =4 ~10）

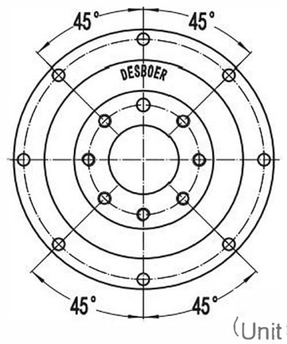
# ND064 *Series*




Input




Output




(Unit: mm)

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ND064 | 20 | 31.5 | 40 | 64 | 79 | 7-M5×0.8P | 86 | 5 | 56 | 8-4.5 | 70 | 63.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 8 | 8 | 3 | 19.5 | 7 | 4 | 7.7 | 27.7 | 6 | | 0.5 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | 0D | |
| | 70 | M5×0.8P | ≤14/≤16 | 36 | 50 | 8 | 60 | 19 | 87.2 | 14 | 66×2 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter

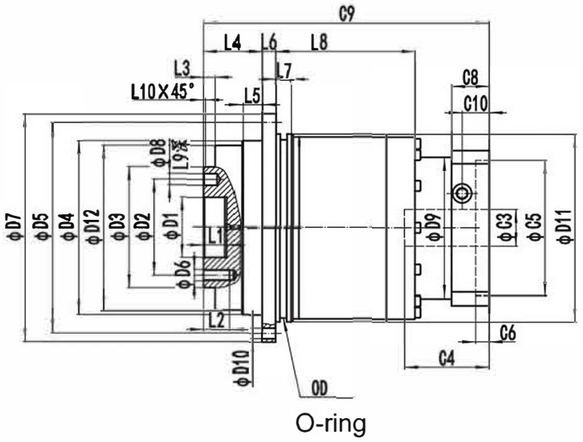
## — *Gearbox performance data*

| Segment number | | Single segment | | | |
|---|---|---|---|---|---|
| Ratio | i | 4 | 5 | 7 | 10 |
| Rated output torque | Nm | 45 | 55 | 45 | 35 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | |
| Rated input speed | rpm | 5000 | | | |
| Max input speed | rpm | 10000 | | | |
| Ultraprecise backlash | arcmin | – | | | |
| Precise backlash | arcmin | ≤3 | | | |
| Standard backlash | arcmin | ≤5 | | | |
| Torsional rigidity | Nm/arcmin | 13 | | | |
| Max. bending moment | Nm | 125 | | | |
| Max. axial Force | N | 1050 | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | |
| Efficiency | % | ≥97% | | | |
| Weight | kg | 1.2 | | | |
| Operating Temperature | ℃ | -10℃~+90℃ | | | |
| Lubrication | | Synthetic grease | | | |
| Protection Class | | IP64 | | | |
| Mounting Position | | All directions | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB (A) | ≤58 | | | |
| Rotary inertia | kg·cm² | 0.14 | 0.13 | | |

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm

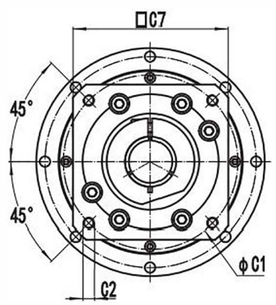
Dimensions（Double， Ratio i =16 ~100）

# ND064A *Series*

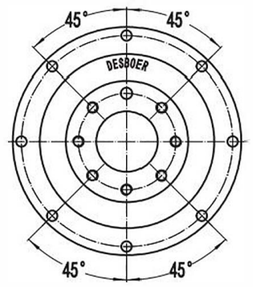



O-ring

Input




Output




（Unit: mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | 31.5 | 40 | 64 | 79 | 7−M5×0.8P | 86 | 5 | 56 | 8−4.5 | 70 | 63.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | OD | |
| ND064A | 8 | 8 | 3 | 19.5 | 7 | 4 | 7.7 | 61.7 | 6 | 0.5 | 66×2 | |
| | C1* | C2* | C2* | C4* | C5* | C6* | C7* | C5* | C9* | | C10* | |
| | 70 | M5×0.8P | ≤16 | 36 | 50 | 8 | 60 | 19 | 122 | | 14 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter



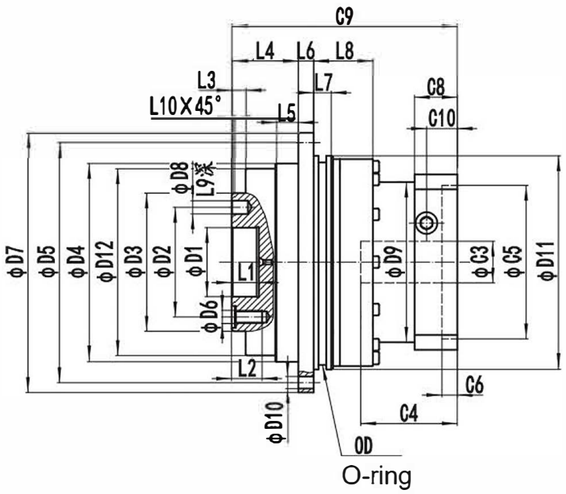
## — *Gearbox performance data*

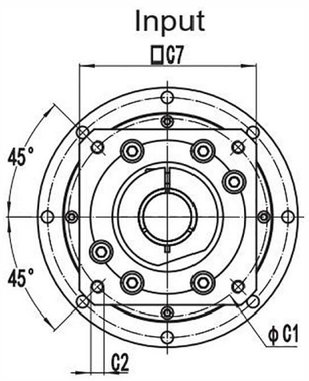
| Segment number | | Double segment | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ratio | i | 16 | 20 | 25 | 35 | 40 | 50 | 70 | 100 |
| Rated output torque | Nm | 45 | 45 | 55 | 45 | 45 | 55 | 45 | 35 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | | | | | |
| Rated input speed | rpm | 5000 | | | | | | | |
| Max input speed | rpm | 10000 | | | | | | | |
| Ultraprecise backlash | arcmin | – | | | | | | | |
| Precise backlash | arcmin | ≤5 | | | | | | | |
| Standard backlash | arcmin | ≤7 | | | | | | | |
| Torsional rigidity | Nm/arcmin | 13 | | | | | | | |
| Max. bending moment | Nm | 125 | | | | | | | |
| Max. axial Force | N | 1050 | | | | | | | |
| Service Life | hr | 30000(15000 under continuous operation) | | | | | | | |
| Efficiency | % | ≥94% | | | | | | | |
| Weight | kg | 1.6 | | | | | | | |
| Operating Temperature | ℃ | −10℃ ~ +90℃ | | | | | | | |
| Lubrication | | Synthetic grease | | | | | | | |
| Protection Class | | IP64 | | | | | | | |
| Mounting Position | | All directions | | | | | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB（A） | ≤58 | | | | | | | |
| Rotary inertia | Kg · cm² | 0.03 | | | | | | | |

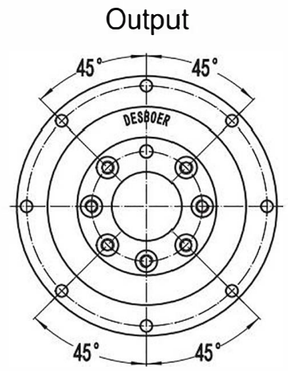
★ Maximum Output Torque $T_{2B}$=60% × $T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Single， Ratio i =4~10）

# ND090 *Series*




（Unit: mm）

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ND090 | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
| | 31.5 | 50 | 63 | 90 | 109 | 7−M6 × 1P | 118 | 6 | 77 | 8−5.5 | 95 | 89.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 12 | 12.5 | 6 | 30 | 10 | 7 | 8 | 27.8 | 7 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | 0D | |
| | 90 | M6 × 1P | ≤19/≤24 | 44 | 70 | 6 | 80 | 19.5 | 103.3 | 14 | 90 × 3 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter

## — *Gearbox performance data*

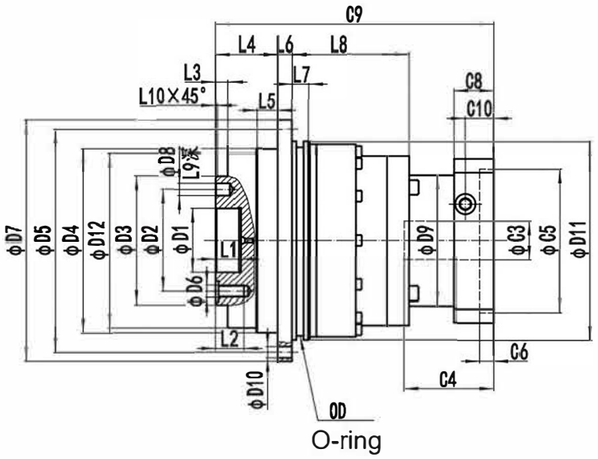
| Segment number | | Single segment | | | |
|---|---|---|---|---|---|
| Ratio | i | 4 | 5 | 7 | 10 |
| Rated output torque | Nm | 120 | 150 | 130 | 95 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | |
| Rated input speed | rpm | 4000 | | | |
| Max input speed | rpm | 8000 | | | |
| Ultraprecise backlash | arcmin | ≤1 | | | |
| Precise backlash | arcmin | ≤3 | | | |
| Standard backlash | arcmin | ≤5 | | | |
| Torsional rigidity | Nm/arcmin | 31 | | | |
| Max. bending moment | Nm | 235 | | | |
| Max. axial Force | N | 2850 | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | |
| Efficiency | % | ≥97% | | | |
| Weight | kg | 3.0 | | | |
| Operating Temperature | ℃ | −10℃ ~ +90℃ | | | |
| Lubrication | | Synthetic grease | | | |
| Protection Class | | IP64 | | | |
| Mounting Position | | All directions | | | |
| Noise Level (N1 =3000rpm,Non-Loaded) | dB（A） | ≤60 | | | |
| Rotary inertia | kg · cm² | 0.51 | 0.47 | 0.45 | 0.44 |

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

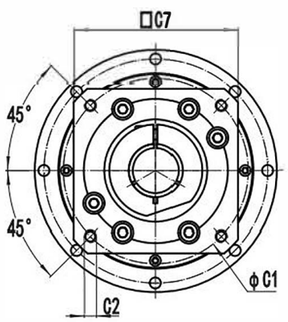
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Double， Ratio i =16~100）

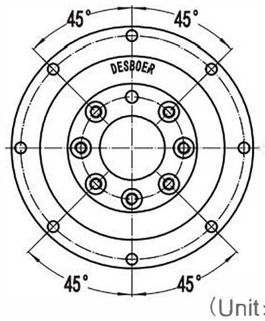
# ND090 *Series*




Input




Output




（Unit：mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ND090 | 31.5 | 50 | 63 | 90 | 109 | 7−M6×1P | 118 | 6 | 56 | 8−5.5 | 95 | 89.2 |
| | L1 | L2 | L3 | L8 | L8 | L6 | L7 | L8 | L9 | | L10 | |
| | 12 | 12.5 | 6 | 30 | 10 | 7 | 8 | 66.8 | 7 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | 0D | |
| | 70 | M5×0.8P | ≤14/≤16 | 37 | 50 | 8 | 60 | 19 | 140.3 | 14 | 90×3 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter



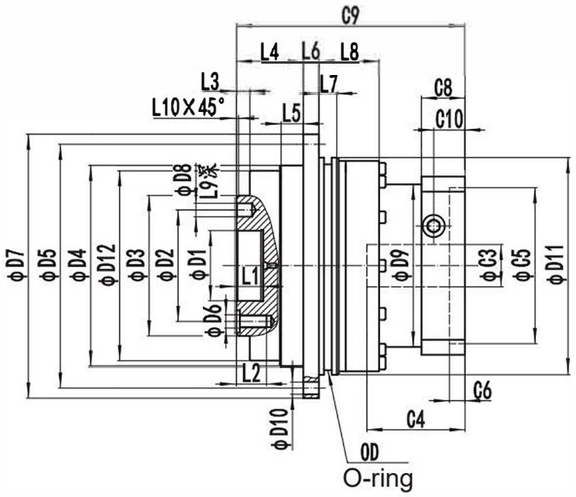
## — *Gearbox performance data*

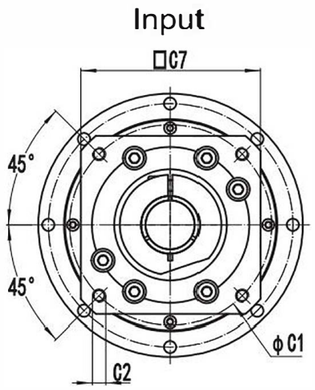
| Segment number | | Double segment | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ratio | i | 16 | 20 | 25 | 35 | 40 | 50 | 70 | 100 |
| Rated output torque | Nm | 120 | 120 | 150 | 130 | 120 | 150 | 130 | 95 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | | | | | |
| Rated input speed | rpm | 4000 | | | | | | | |
| Max input speed | rpm | 8000 | | | | | | | |
| Ultraprecise backlash | arcmin | – | | | | | | | |
| Precise backlash | arcmin | ≤5 | | | | | | | |
| Standard backlash | arcmin | ≤7 | | | | | | | |
| Torsional rigidity | Nm/arcmin | 31 | | | | | | | |
| Max. bending moment | Nm | 235 | | | | | | | |
| Max. axial Force | N | 2850 | | | | | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | | | | | |
| Efficiency | % | ≥94% | | | | | | | |
| Weight | kg | 3.7 | | | | | | | |
| Operating Temperature | ℃ | −10℃~+90℃ | | | | | | | |
| Lubrication | | Synthetic grease | | | | | | | |
| Protection Class | | IP64 | | | | | | | |
| Mounting Position | | All directions | | | | | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB（A） | ≤60 | | | | | | | |
| Rotary inertia | kg·cm² | 0.13 | | | | | | | |

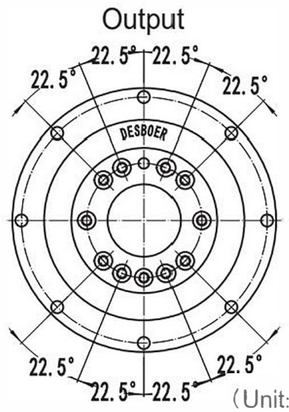
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

▲ Measured in the shaft center when the flange speed is 100rpm

# ND110*Series*




（Unit: mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ND110 | 40 | 63 | 80 | 110 | 135 | 11−M6×1P | 145 | 6 | 99 | 8−5.5 | 120 | 109.2 |
| | L1 | L2 | L3 | L3 | L5 | L6 | L3 | L3 | L9 | | L10 | |
| | 12 | 12.5 | 6 | 29 | 10 | 8 | 10 | 38 | 7 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | 0D | |
| | 130 | M8×1.25P | ≤35 | 60.5 | 110 | 10 | 115 | 28 | 129.5 | 20.5 | 110×3 | |

*Dimensions based on servo-motor,please contact us for custom made order.







# Parameter

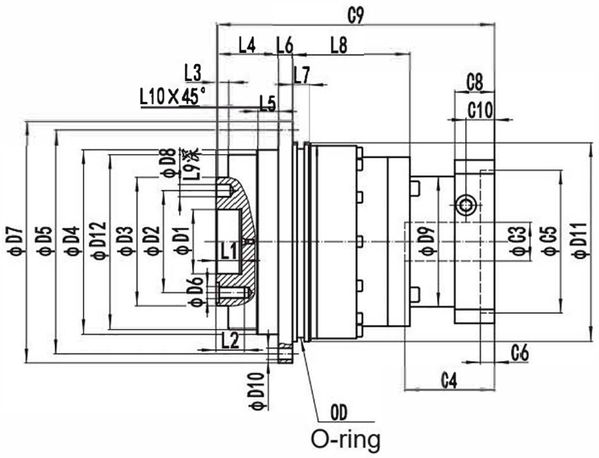
## *Gearbox performance data*

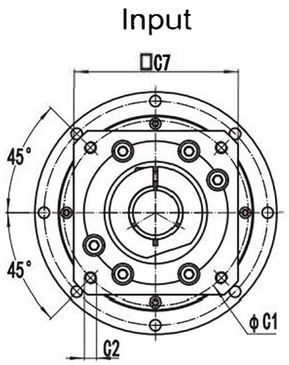
| Segment number | | Single segment | | | |
|---|---|---|---|---|---|
| Ratio | i | 4 | 5 | 7 | 10 |
| Rated output torque | Nm | 250 | 310 | 280 | 210 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | |
| Rated input speed | rpm | 4000 | | | |
| Max input speed | rpm | 8000 | | | |
| Ultraprecise backlash | arcmin | ≤1 | | | |
| Precise backlash | arcmin | ≤3 | | | |
| Standard backlash | arcmin | ≤5 | | | |
| Torsional rigidity | Nm/arcmin | 82 | | | |
| Max. bending moment | Nm | 430 | | | |
| Max. axial Force | N | 2990 | | | |
| Service Life | hr | 30000(15000 under continuous operation) | | | |
| Efficiency | % | ≥97% | | | |
| Weight | kg | 5.6 | | | |
| Operating Temperature | ℃ | −10℃～+90℃ | | | |
| Lubrication | | Synthetic grease | | | |
| Protection Class | | IP64 | | | |
| Mounting Position | | All directions | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB（A） | ≤63 | | | |
| Rotary inertia | kg·cm² | 2.87 | 2.71 | 2.62 | 2.57 |

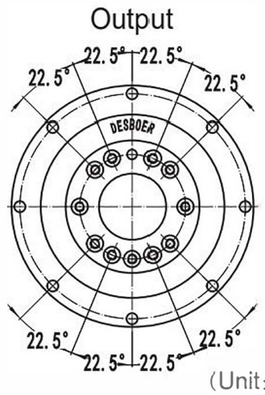
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Double， Ratio i =16 ~100）

# ND110 *Series*




（Unit：mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ND110 | 40 | 63 | 80 | 110 | 135 | 11−M6×1P | 145 | 6 | 82 | 8−5.5 | 120 | 109.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 12 | 12.5 | 6 | 29 | 10 | 8 | 10 | 90 | 7 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | 0D | |
| | 100 | M6×1P | ≤19/≤24 | 49 | 80 | 10 | 90 | 24.5 | 167.5 | 18 | 110×3 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter

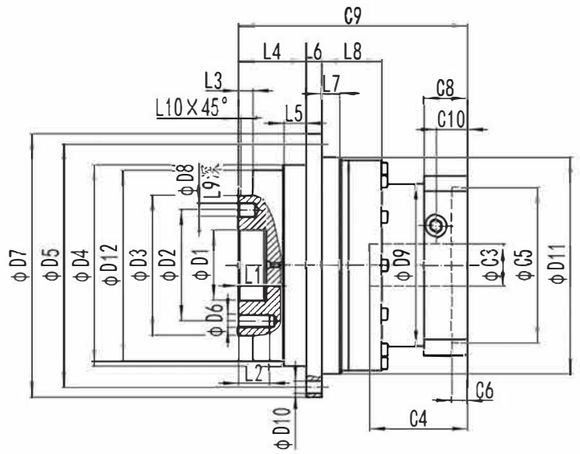
## — *Gearbox performance data*

| Segment number | | Double segment | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ratio | i | 16 | 20 | 25 | 35 | 40 | 50 | 70 | 100 |
| Rated output torque | Nm | 250 | 250 | 310 | 280 | 250 | 310 | 280 | 210 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | | | | | |
| Rated input speed | rpm | 4000 | | | | | | | |
| Max input speed | rpm | 8000 | | | | | | | |
| Ultraprecise backlash | arcmin | ≤3 | | | | | | | |
| Precise backlash | arcmin | ≤5 | | | | | | | |
| Standard backlash | arcmin | ≤7 | | | | | | | |
| Torsional rigidity | Nm/arcmin | 82 | | | | | | | |
| Max. bending moment | Nm | 430 | | | | | | | |
| Max. axial Force | N | 2990 | | | | | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | | | | | |
| Efficiency | % | ≥94% | | | | | | | |
| Weight | kg | 7.3 | | | | | | | |
| Operating Temperature | ℃ | −10℃ ~ +90℃ | | | | | | | |
| Lubrication | | Synthetic grease | | | | | | | |
| Protektion Class | | IP64 | | | | | | | |
| Mounting Position | | All directions | | | | | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB（A） | ≤63 | | | | | | | |
| Rotary inertia | kg · cm² | 0.47 | | | | | 0.44 | | |

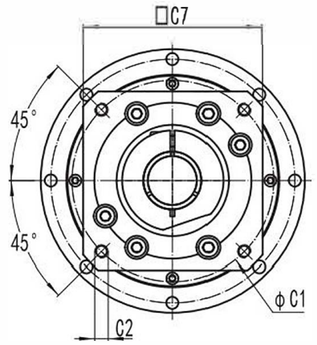
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Single， Ratio i =4～10）

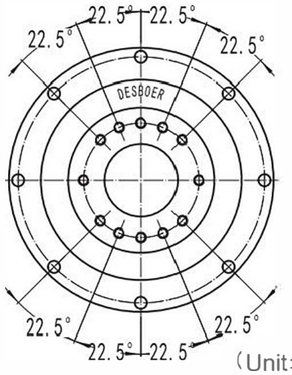
# NDV110 *Series*




Input




Output




（Unit: mm）

| NDV110 | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 40 | 63 | 80 | 110 | 135 | 11−M6×1P | 145 | 6 | 99 | 8−5.5 | 120 | 109.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 12 | 12.5 | 6 | 29 | 10 | 8 | 10 | 49 | 7 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C9* | C9* | C10* | OD | |
| | 145 | M8×1.25P | ≤35 | 66.5 | 110 | 10 | 130 | 35.5 | 146 | 28 | – | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter



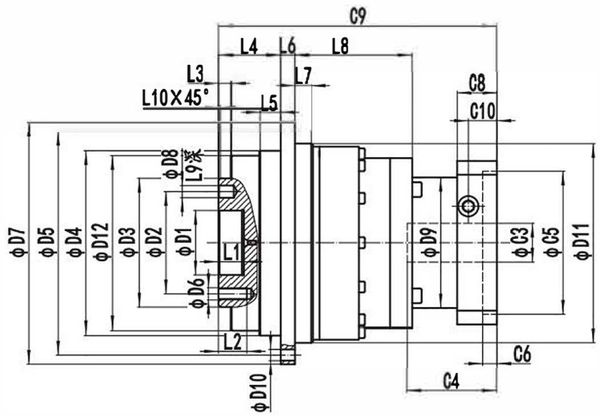
## — *Gearbox performance data*

| Segment number | | Single segment | | | |
|---|---|---|---|---|---|
| Ratio | i | 4 | 5 | 7 | 10 |
| Rated output torque | Nm | 250 | 310 | 280 | 210 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | |
| Rated input speed | rpm | 4000 | | | |
| Max input speed | rpm | 8000 | | | |
| Ultraprecise backlash | arcmin | ≤1 | | | |
| Precise backlash | arcmin | ≤3 | | | |
| Standard backlash | arcmin | ≤5 | | | |
| Torsional rigidity | Nm/arcmin | 82 | | | |
| Max. bending moment | Nm | 480 | | | |
| Max. axial Force | N | 4070 | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | |
| Efficiency | % | ≥97% | | | |
| Weight | kg | 5.6 | | | |
| Operating Temperature | ℃ | −10℃～+90℃ | | | |
| Lubrication | | Synthetic grease | | | |
| Protection Class | | IP64 | | | |
| Mounting Position | | All directions | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB（A） | ≤63 | | | |
| Rotary inertia | Kg · cm² | 2.87 | 2.71 | 2.62 | 2.57 |

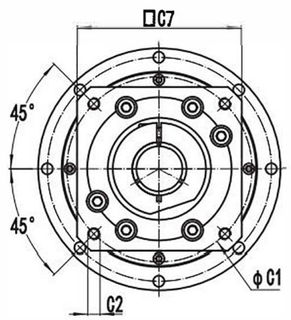
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Double， Ratio i =16~100）

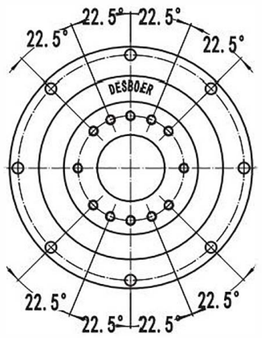
# NDV110*Series*




Input




Output




（Unit：mm）

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NDV110 | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
| | 40 | 63 | 80 | 110 | 135 | 11-M6×1P | 145 | 6 | 82 | 8-5.5 | 120 | 109.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 12 | 12.5 | 6 | 29 | 10 | 8 | 10 | 100.5 | 7 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | OD | |
| | 115 | M8×1.25P | ≤19/≤24 | 58 | 95 | 8 | 115 | 33.5 | 187 | 27.5 | – | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter

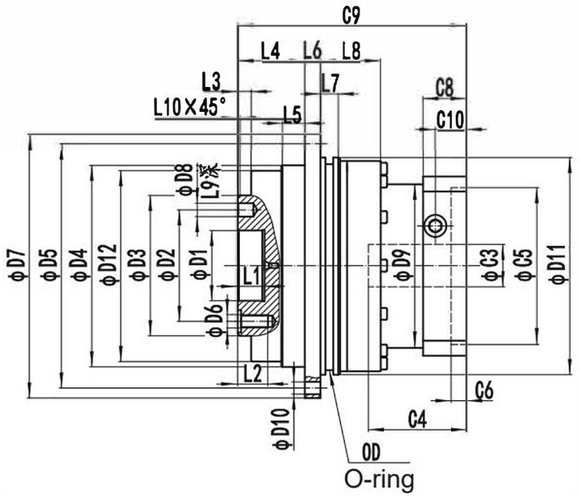
## — *Gearbox performance data*

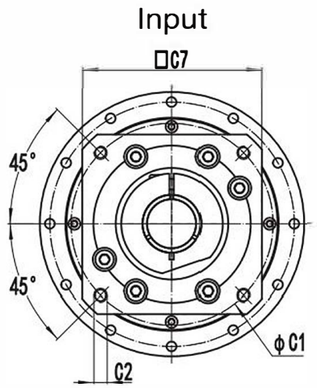
| Segment number | | Double segment | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ratio | i | 16 | 20 | 25 | 35 | 40 | 50 | 70 | 100 |
| Rated output torque | Nm | 250 | 250 | 310 | 280 | 250 | 310 | 280 | 210 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | | | | | |
| Rated input speed | rpm | 4000 | | | | | | | |
| Max input speed | rpm | 8000 | | | | | | | |
| Ultraprecise backlash | arcmin | ≤3 | | | | | | | |
| Precise backlash | arcmin | ≤5 | | | | | | | |
| Standard backlash | arcmin | ≤7 | | | | | | | |
| Torsional rigidity | Nm/arcmin | 82 | | | | | | | |
| Max. bending moment | Nm | 480 | | | | | | | |
| Max. axial Force | N | 4070 | | | | | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | | | | | |
| Efficiency | % | ≥94% | | | | | | | |
| Weight | kg | 7.3 | | | | | | | |
| Operating Temperature | ℃ | -10℃ ~ +90℃ | | | | | | | |
| Lubrication | | Synthetic grease | | | | | | | |
| Protection Class | | IP64 | | | | | | | |
| Mounting Position | | All directions | | | | | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB ( A ) | ≤63 | | | | | | | |
| Rotary inertia | Kg · cm² | 0.47 | | | | | 0.44 | | |

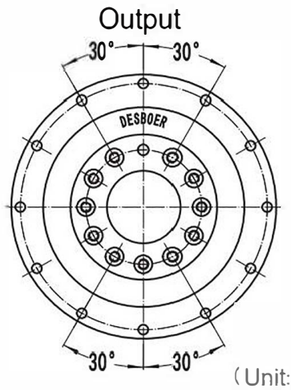
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Single， Ratio i =4~10）

# NDV140*Series*




（Unit: mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NDV140 | 50 | 80 | 100 | 140 | 168 | 11-M8×1.25P | 179 | 8 | 123 | 12-6.6 | 152 | 139.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 12 | 17 | 6 | 38 | 14.6 | 10 | 12 | 64 | 7 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C9* | C9* | C10* | OD | |
| | 145 | M8×1.25P | ≤42 | 68 | 130 | 10 | 130 | 30.5 | 158 | 21.5 | 145×3 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter



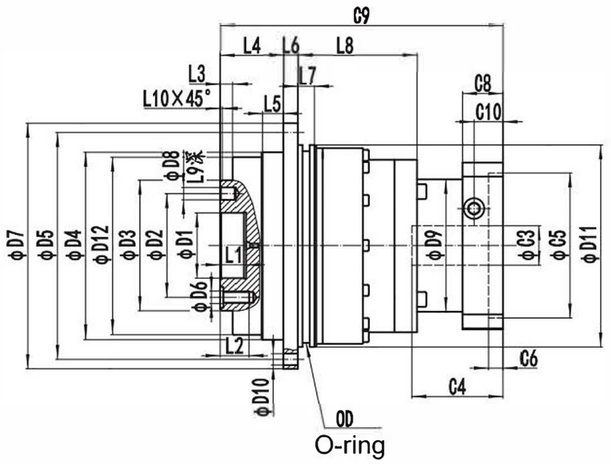
## — *Gearbox performance data*

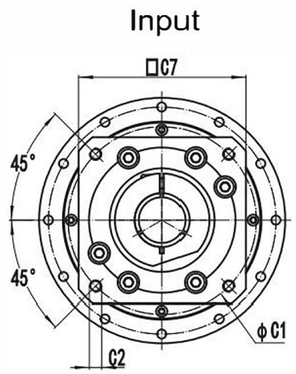
| Segment number | | Single segment | | | |
|---|---|---|---|---|---|
| Ratio | i | 4 | 5 | 7 | 10 |
| Rated output torque | Nm | 530 | 610 | 520 | 420 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | |
| Rated input speed | rpm | 3000 | | | |
| Max input speed | rpm | 6000 | | | |
| Ultraprecise backlash | arcmin | ≤1 | | | |
| Precise backlash | arcmin | ≤3 | | | |
| Standard backlash | arcmin | ≤5 | | | |
| Torsional rigidity | Nm/arcmin | 151 | | | |
| Max. bending moment | Nm | 1310 | | | |
| Max. axial Force | N | 8530 | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | |
| Efficiency | % | ≥97% | | | |
| Weight | kg | 11.9 | | | |
| Operating Temperature | ℃ | -10℃~+90℃ | | | |
| Lubrication | | Synthetic grease | | | |
| Protection Class | | IP64 | | | |
| Mounting Position | | All directions | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB（A） | ≤65 | | | |
| Rotary inertia | Kg·cm² | 7.54 | 7.42 | 7.14 | 7.03 |

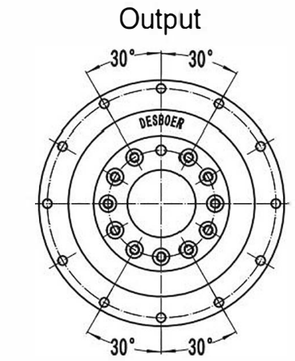
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Double， Ratio i =16~100）

# NDV140*Series*




（Unit：mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NDV140 | 50 | 80 | 100 | 140 | 168 | 11-M8×1.25P | 179 | 8 | 109 | 12-6.6 | 152 | 139.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 12 | 17 | 6 | 38 | 14.6 | 10 | 12 | 115 | 7 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | OD | |
| | 130 | M8×1.25P | ≤55 | 60 | 95 | 10 | 115 | 27.5 | 215 | 20 | 145×3 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter



## — *Gearbox performance data*

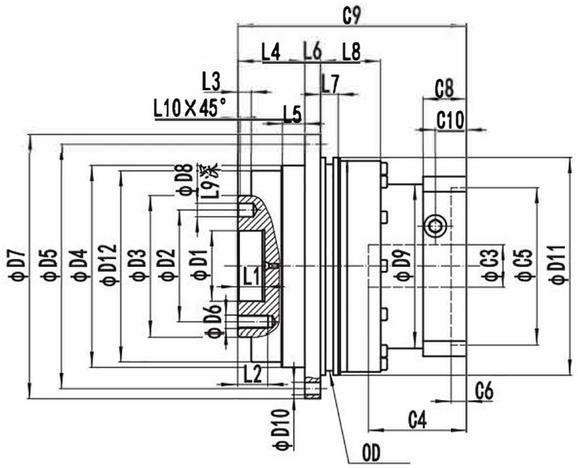
| Segment number | | Double segment | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ratio | i | 16 | 20 | 25 | 35 | 40 | 50 | 70 | 100 |
| Rated output torque | Nm | 530 | 530 | 610 | 520 | 530 | 610 | 520 | 420 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | | | | | |
| Rated input speed | rpm | 3000 | | | | | | | |
| Max input speed | rpm | 6000 | | | | | | | |
| Ultraprecise backlash | arcmin | ≤3 | | | | | | | |
| Precise backlash | arcmin | ≤5 | | | | | | | |
| Standard backlash | arcmin | ≤7 | | | | | | | |
| Torsional rigidity | Nm/arcmin | 151 | | | | | | | |
| Max. bending moment | Nm | 1310 | | | | | | | |
| Max. axial Force | N | 8530 | | | | | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | | | | | |
| Efficiency | % | ≥94% | | | | | | | |
| Weight | kg | 15.9 | | | | | | | |
| Operating Temperature | ℃ | -10℃~+90℃ | | | | | | | |
| Lubrication | | Synthetic grease | | | | | | | |
| Protection Class | | IP64 | | | | | | | |
| Mounting Position | | All directions | | | | | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB ( A ) | ≤65 | | | | | | | |
| Rotary inertia | Kg · cm² | 2.71 | | | | | 2.57 | | |

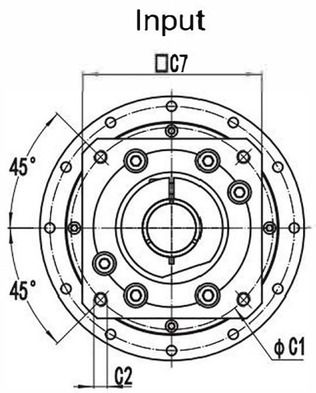
★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

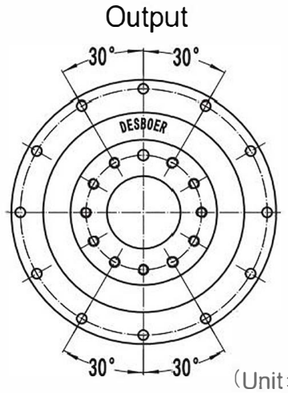
▲ Measured in the shaft center when the flange speed is 100rpm

Dimensions（Single， Ratio i =4~10）

# NDV200 *Series*




（Unit：mm）

| NDV200 | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 80 | 125 | 160 | 200 | 233 | 11–M10×1.5P | 247 | 10 | 176 | 12–9 | 212 | 199.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 16 | 22.5 | 8 | 50 | 15 | 12 | 15 | 71 | 9 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | OD | |
| | 200 | M12×1.75P | ≤55 | 85 | 114.3 | 6 | 180 | 32 | 202 | 20.5 | 200×5 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter



## — *Gearbox performance data*

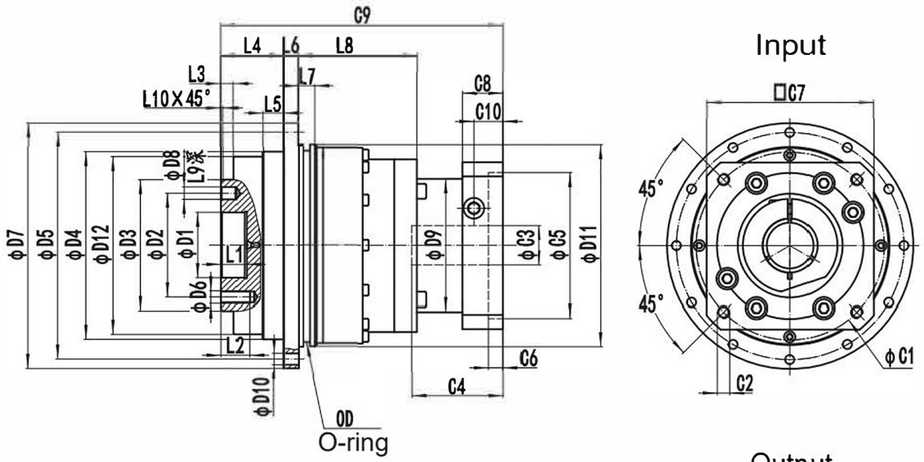
| Segment number | | Single segment | | | |
|---|---|---|---|---|---|
| Ratio | i | 4 | 5 | 7 | 10 |
| Rated output torque | Nm | 1040 | 1140 | 1040 | 850 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | |
| Rated input speed | rpm | 3000 | | | |
| Max input speed | rpm | 6000 | | | |
| Ultraprecise backlash | arcmin | ≤1 | | | |
| Precise backlash | arcmin | ≤3 | | | |
| Standard backlash | arcmin | ≤5 | | | |
| Torsional rigidity | Nm/arcmin | 440 | | | |
| Max. bending moment | Nm | 3530 | | | |
| Max. axial Force | N | 17000 | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | |
| Efficiency | % | ≥97% | | | |
| Weight | kg | 31.6 | | | |
| Operating Temperature | ℃ | −10℃ ~ +90℃ | | | |
| Lubrication | | Synthetic grease | | | |
| Protection Class | | IP64 | | | |
| Mounting Position | | All directions | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB ( A ) | ≤67 | | | |
| Rotary inertia | Kg · cm² | 25.03 | 23.29 | 22.48 | 22.51 |

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$

▲ Measured in the shaft center when the flange speed is 100rpm

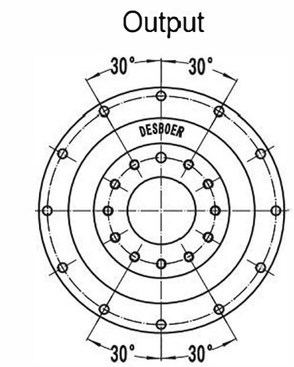
Dimensions（Double， Ratio i =16~100）

# NDV200 *Series*










（Unit: mm）

| | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NDV200 | 80 | 125 | 160 | 200 | 233 | 11-M10×1.5P | 247 | 10 | 127 | 12-9 | 212 | 199.2 |
| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | | L10 | |
| | 16 | 22.5 | 8 | 50 | 15 | 12 | 15 | 145 | 10 | | 1 | |
| | C1* | C2* | C3* | C4* | C5* | C6* | C7* | C8* | C9* | C10* | OD | |
| | 200 | M12×1.75P | ≤42 | 64 | 114.3 | 7 | 180 | 27 | 260 | 17 | 200×5 | |

*Dimensions based on servo-motor,please contact us for custom made order.





# Parameter

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Extreme and win

## — *Gearbox performance data*

| Segment number | | Double segment | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ratio | i | 16 | 20 | 25 | 35 | 40 | 50 | 70 | 100 |
| Rated output torque | Nm | 1040 | 1040 | 1140 | 1040 | 1040 | 1140 | 1040 | 850 |
| Emergency stop torque | Nm | Three times of Maximum Output Torque | | | | | | | |
| Rated input speed | rpm | 3000 | | | | | | | |
| Max input speed | rpm | 6000 | | | | | | | |
| Ultraprecise backlash | arcmin | ≤3 | | | | | | | |
| Precise backlash | arcmin | ≤5 | | | | | | | |
| Standard backlash | arcmin | ≤7 | | | | | | | |
| Torsional rigidity | Nm/arcmin | 440 | | | | | | | |
| Max. bending moment | Nm | 3530 | | | | | | | |
| Max. axial Force | N | 17000 | | | | | | | |
| Service Life | hr | 30000 (15000 under continuous operation) | | | | | | | |
| Efficiency | % | ≥94% | | | | | | | |
| Weight | kg | 36.9 | | | | | | | |
| Operating Temperature | ℃ | -10℃ ~ +90℃ | | | | | | | |
| Lubrication | | Synthetic grease | | | | | | | |
| Protection Class | | IP64 | | | | | | | |
| Mounting Position | | All directions | | | | | | | |
| Noise Level (N1=3000rpm,Non-Loaded) | dB ( A ) | ≤67 | | | | | | | |
| Rotary inertia | Kg · cm² | 7.42 | | | | | 7.03 | | |

★ Maximum Output Torque $T_{2B}=60\% \times T_{2NOT}$
▲ Measured in the shaft center when the flange speed is 100rpm