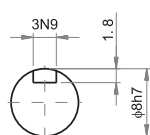
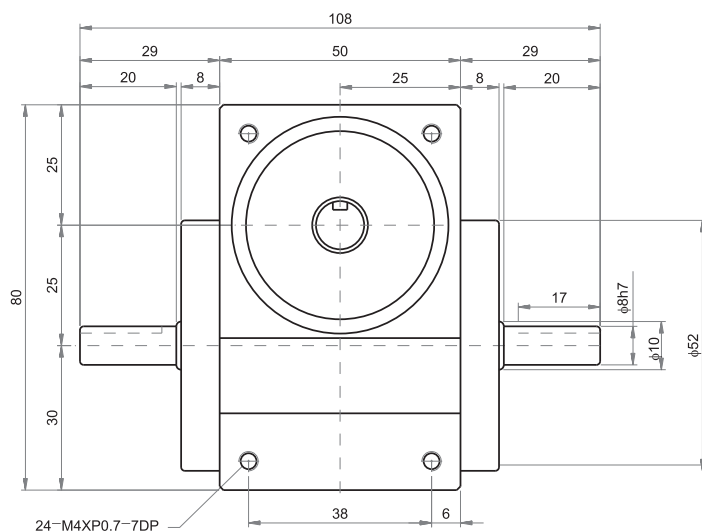


## Shaft Model

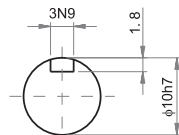
(25DS,32DS,45DS,60DS,70DS,80DS,110DS,140DS)



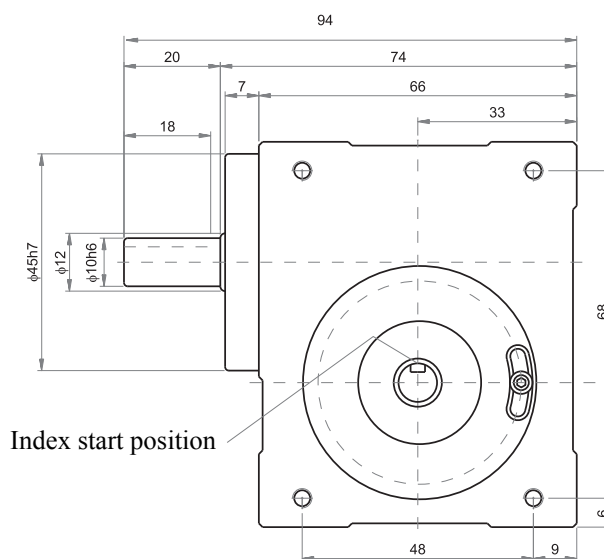
# 25DS



Input shaft



Output shaft



## Technical Parameter

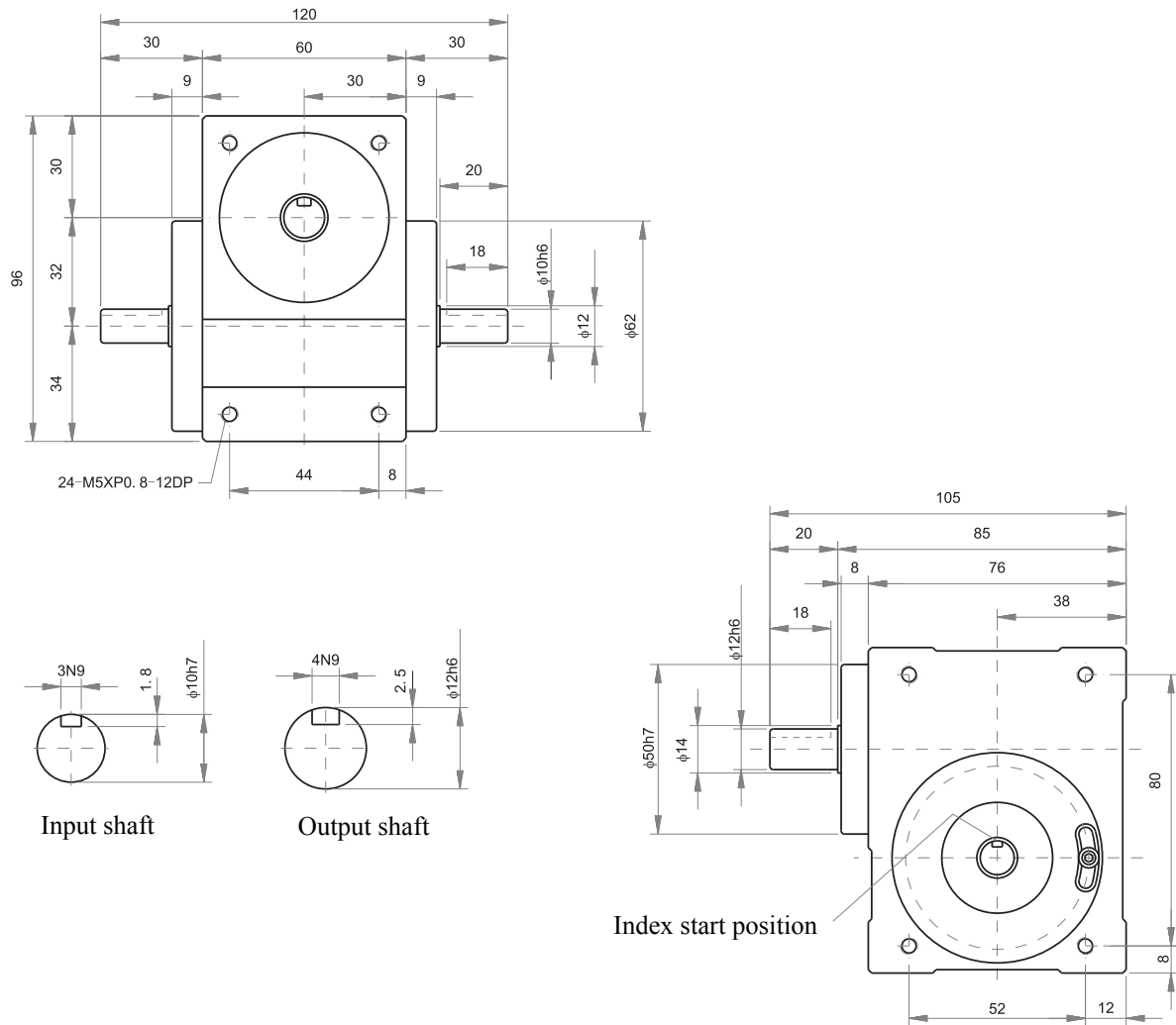
| Items                                 | Symbol | Unit  | Value              | Items                                        | Symbol | Unit  | Value | Items                      | Symbol | Unit               | Value                |
|---------------------------------------|--------|-------|--------------------|----------------------------------------------|--------|-------|-------|----------------------------|--------|--------------------|----------------------|
| Allowable thrust load on output shaft | C1     | kgf   | 15                 | Allowable thrust load on input shaft         | C3     | kgf   | 10    | GD2 of input shaft (Note1) | C6     | kgf·m <sup>2</sup> | 9.6×10 <sup>-5</sup> |
| Allowable radial load on output shaft | C2     | kgf   | 20                 | Max. repetitive bending force on input shaft | C4     | kgf   | 15    | Indexing accuracy          |        | sec.               | ± 75                 |
| Allowable torque on output shaft      | Ts     | kgf·m | Refer torque table | Max. repetitive torque on input shaft        | C5     | kgf·m | 2     | Weight                     |        | kg                 | 1.0                  |

Note1:GD2 of input shaft is a value in dwell range.

Note2: Value of C1 to C5 are those obtained for safety factor=2.

# 32DS

DS



## Technical Parameter

| Items                                 | Symbol | Unit  | Value              | Items                                        | Symbol | Unit  | Value | Items                      | Symbol | Unit               | Value               |
|---------------------------------------|--------|-------|--------------------|----------------------------------------------|--------|-------|-------|----------------------------|--------|--------------------|---------------------|
| Allowable thrust load on output shaft | C1     | kgf   | 20                 | Allowable thrust load on input shaft         | C3     | kgf   | 18    | GD2 of input shaft (Note1) | C6     | kgf-m <sup>2</sup> | 30x10 <sup>-4</sup> |
| Allowable radial load on output shaft | C2     | kgf   | 30                 | Max. repetitive bending force on input shaft | C4     | kgf   | 20    | Indexing accuracy          |        | sec.               | ±60                 |
| Allowable torque on output shaft      | Ts     | kgf-m | Refer torque table | Max. repetitive torque on input shaft        | C5     | kgf-m | 3     | Weight                     |        | kg                 | 1.4                 |

Note1:GD2 of input shaft is a value in dwell range.

Note2: Value of C1 to C5 are those obtained for safety factor=2.

Technical drawing of a mechanical part with dimensions and a label. The drawing shows a side view and a front view. Dimensions are given in millimeters (mm).

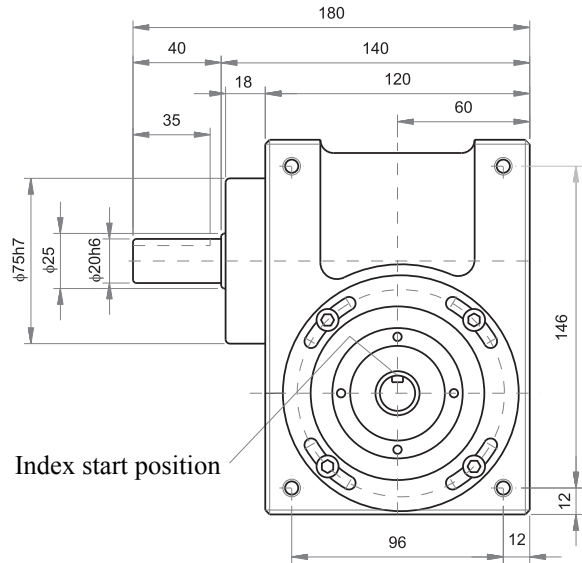
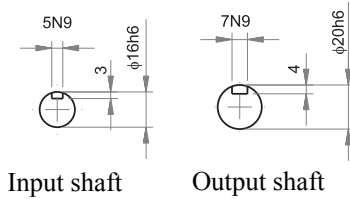
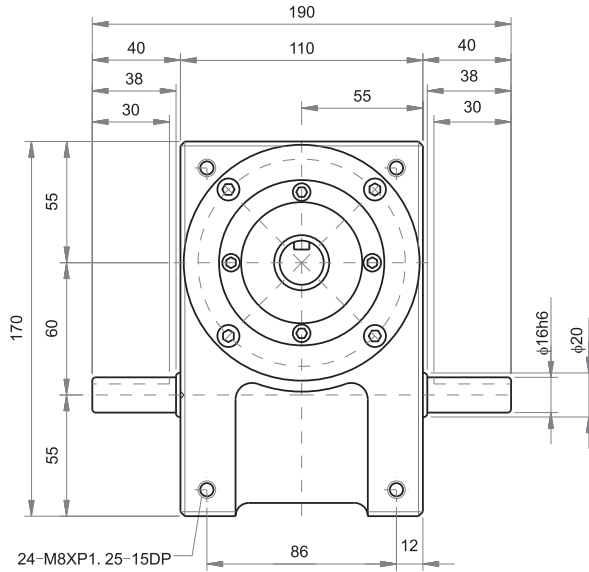
**Dimensions:**

- Overall width: 150
- Distance from left edge to center of the circular feature: 40
- Distance from center of the circular feature to the right edge: 110
- Distance from left edge to the start of the circular feature: 35
- Distance from the start of the circular feature to the right edge: 18
- Distance from the center of the circular feature to the right edge: 90
- Distance from the center of the circular feature to the right edge: 45
- Overall height: 110
- Distance from the bottom edge to the center of the circular feature: 10
- Distance from the center of the circular feature to the right edge: 70
- Distance from the center of the circular feature to the right edge: 10

**Labels:**

- Index start position (pointing to the center of the circular feature)

# 60DS



Index start position

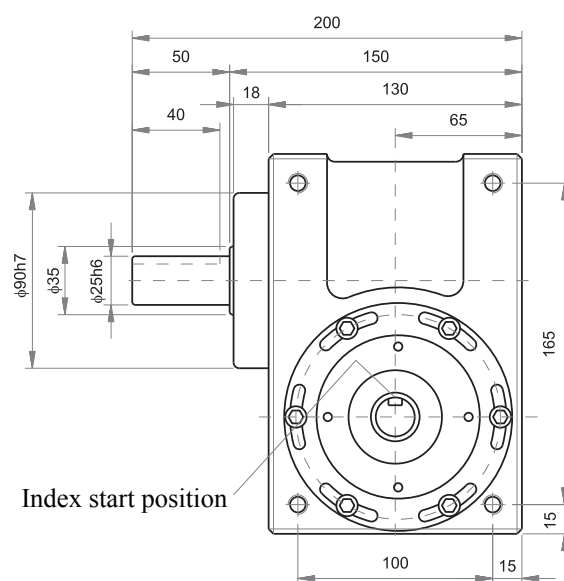
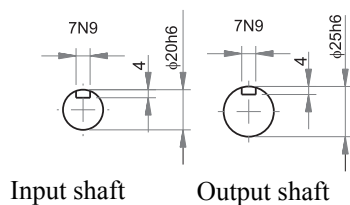
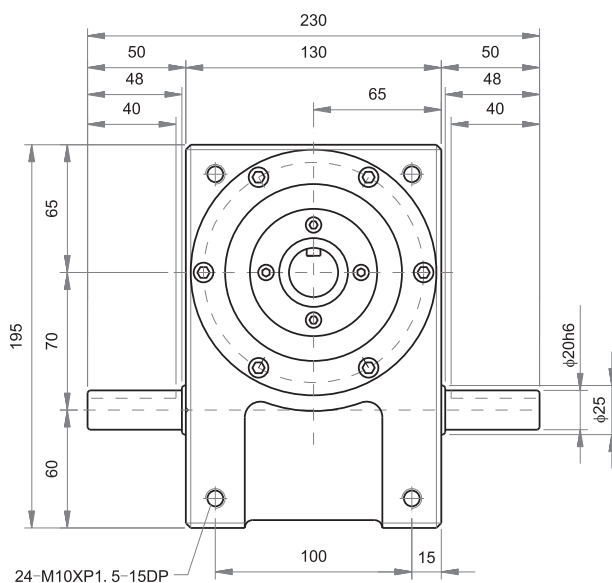
## Technical Parameter

| Items                                 | Symbol | Unit  | Value              | Items                                        | Symbol | Unit  | Value | Items                      | Symbol | Unit               | Value                |
|---------------------------------------|--------|-------|--------------------|----------------------------------------------|--------|-------|-------|----------------------------|--------|--------------------|----------------------|
| Allowable thrust load on output shaft | C1     | kgf   | 180                | Allowable thrust load on input shaft         | C3     | kgf   | 100   | GD2 of input shaft (Note1) | C6     | kgf-m <sup>2</sup> | 1.9×10 <sup>-3</sup> |
| Allowable radial load on output shaft | C2     | kgf   | 150                | Max. repetitive bending force on input shaft | C4     | kgf   | 95    | Indexing accuracy          |        | sec.               | ±30                  |
| Allowable torque on output shaft      | Ts     | kgf-m | Refer torque table | Max. repetitive torque on input shaft        | C5     | kgf-m | 6     | Weight                     |        | kg                 | 10                   |

Note1:GD2 of input shaft is a value in dwell range.

Note2: Value of C1 to C5 are those obtained for safety factor=2.

# 70DS



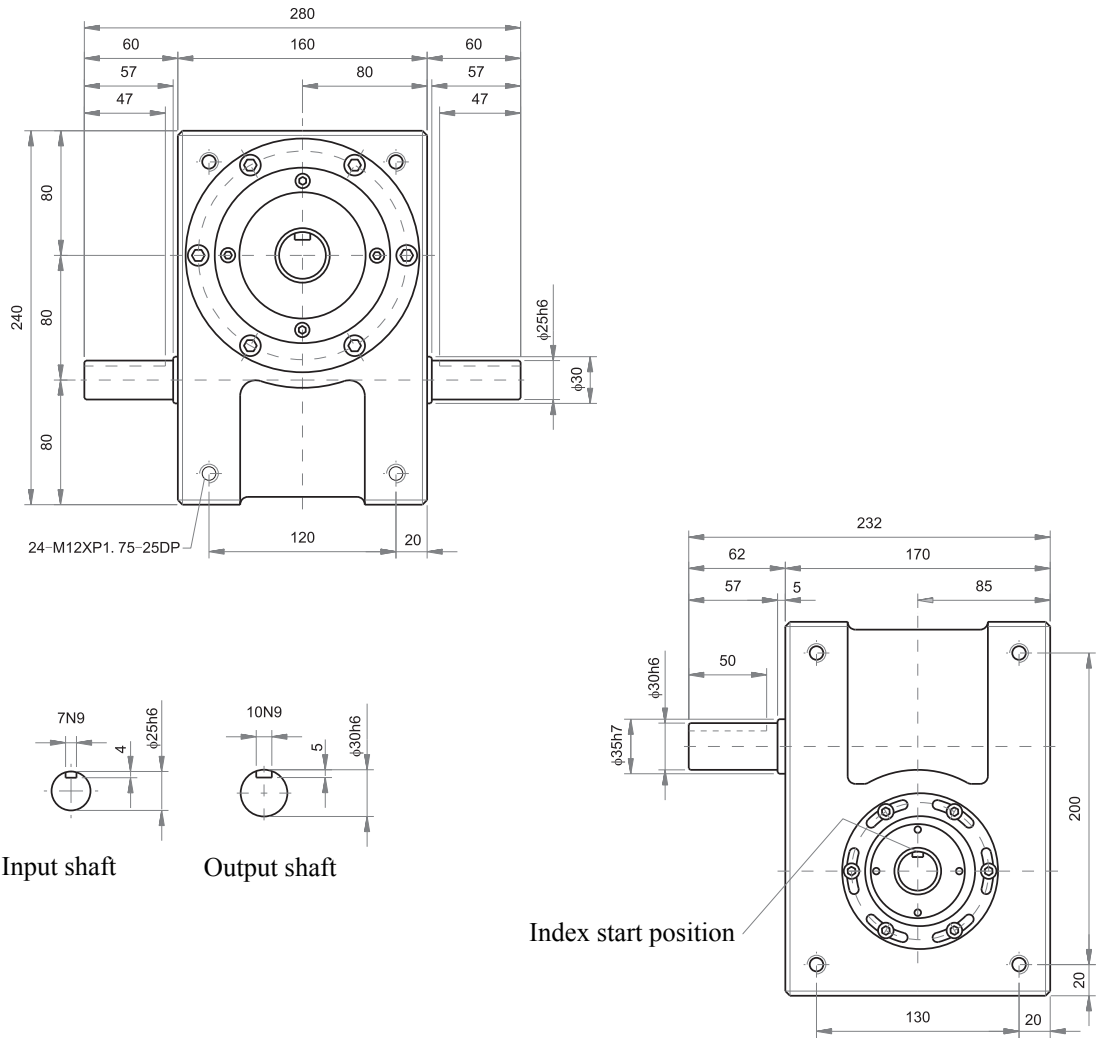
## Technical Parameter

| Items                                 | Symbol | Unit  | Value              | Items                                        | Symbol | Unit  | Value | Items                      | Symbol | Unit               | Value              |
|---------------------------------------|--------|-------|--------------------|----------------------------------------------|--------|-------|-------|----------------------------|--------|--------------------|--------------------|
| Allowable thrust load on output shaft | C1     | kgf   | 220                | Allowable thrust load on input shaft         | C3     | kgf   | 150   | GD2 of input shaft (Note1) | C6     | kgf-m <sup>2</sup> | 6x10 <sup>-3</sup> |
| Allowable radial load on output shaft | C2     | kgf   | 220                | Max. repetitive bending force on input shaft | C4     | kgf   | 110   | Indexing accuracy          |        | sec.               | ±30                |
| Allowable torque on output shaft      | Ts     | kgf-m | Refer torque table | Max. repetitive torque on input shaft        | C5     | kgf-m | 9.5   | Weight                     |        | kg                 | 16                 |

Note1: GD2 of input shaft is a value in dwell range.

Note2: Value of C1 to C5 are those obtained for safety factor=2.

# 80DS



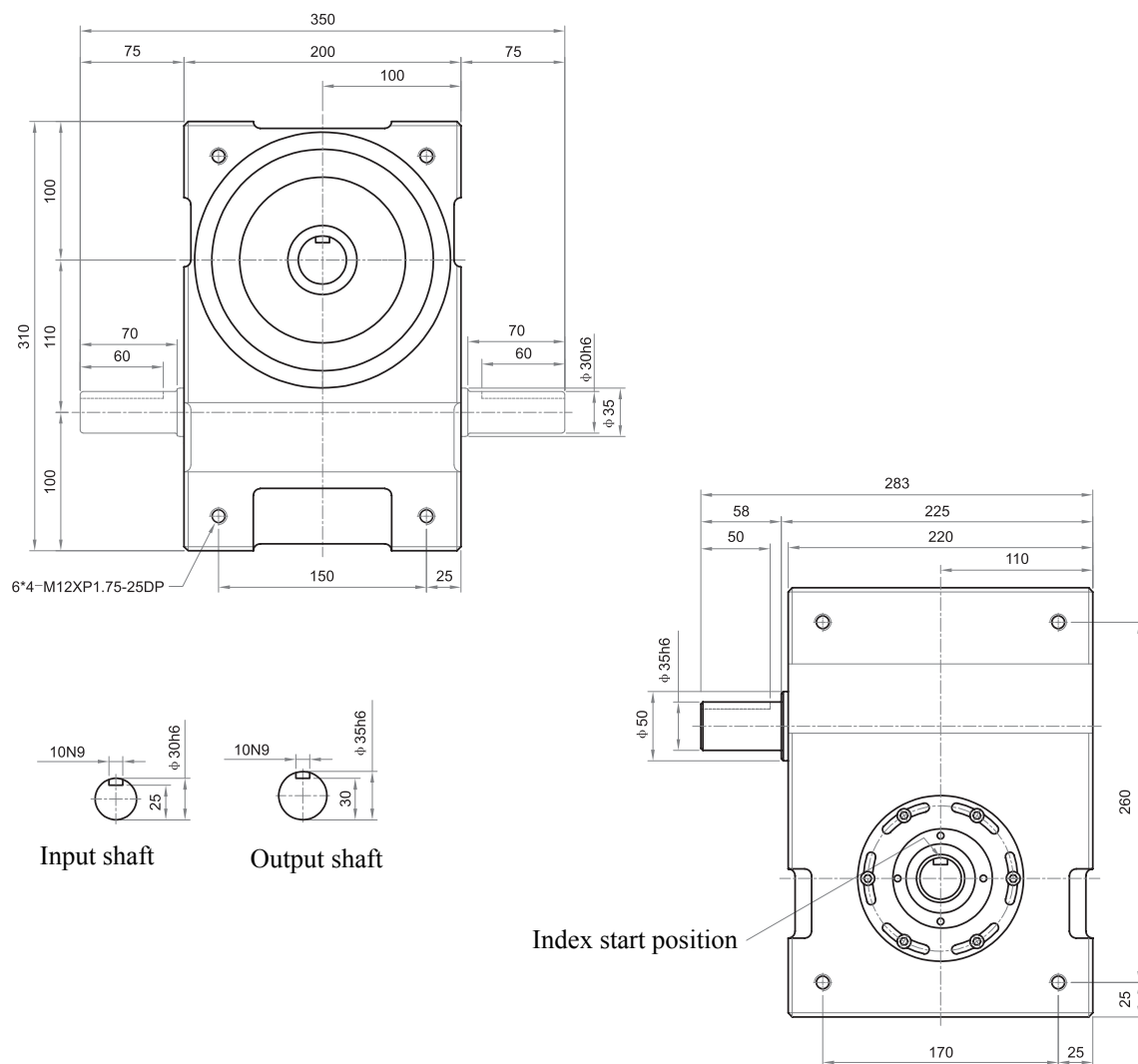
## Technical Parameter

| Items                                 | Symbol | Unit  | Value              | Items                                        | Symbol | Unit  | Value | Items                      | Symbol | Unit               | Value              |
|---------------------------------------|--------|-------|--------------------|----------------------------------------------|--------|-------|-------|----------------------------|--------|--------------------|--------------------|
| Allowable thrust load on output shaft | C1     | kgf   | 220                | Allowable thrust load on input shaft         | C3     | kgf   | 210   | GD2 of input shaft (Note1) | C6     | kgf·m <sup>2</sup> | 9×10 <sup>-3</sup> |
| Allowable radial load on output shaft | C2     | kgf   | 220                | Max. repetitive bending force on input shaft | C4     | kgf   | 190   | Indexing accuracy          |        | sec.               | ± 30               |
| Allowable torque on output shaft      | Ts     | kgf·m | Refer torque table | Max. repetitive torque on input shaft        | C5     | kgf·m | 18.5  | Weight                     |        | kg                 | 29                 |

Note1:GD2 of input shaft is a value in dwell range.

Note2: Value of C1 to C5 are those obtained for safety factor=2.

# 110DS



## Technical Parameter

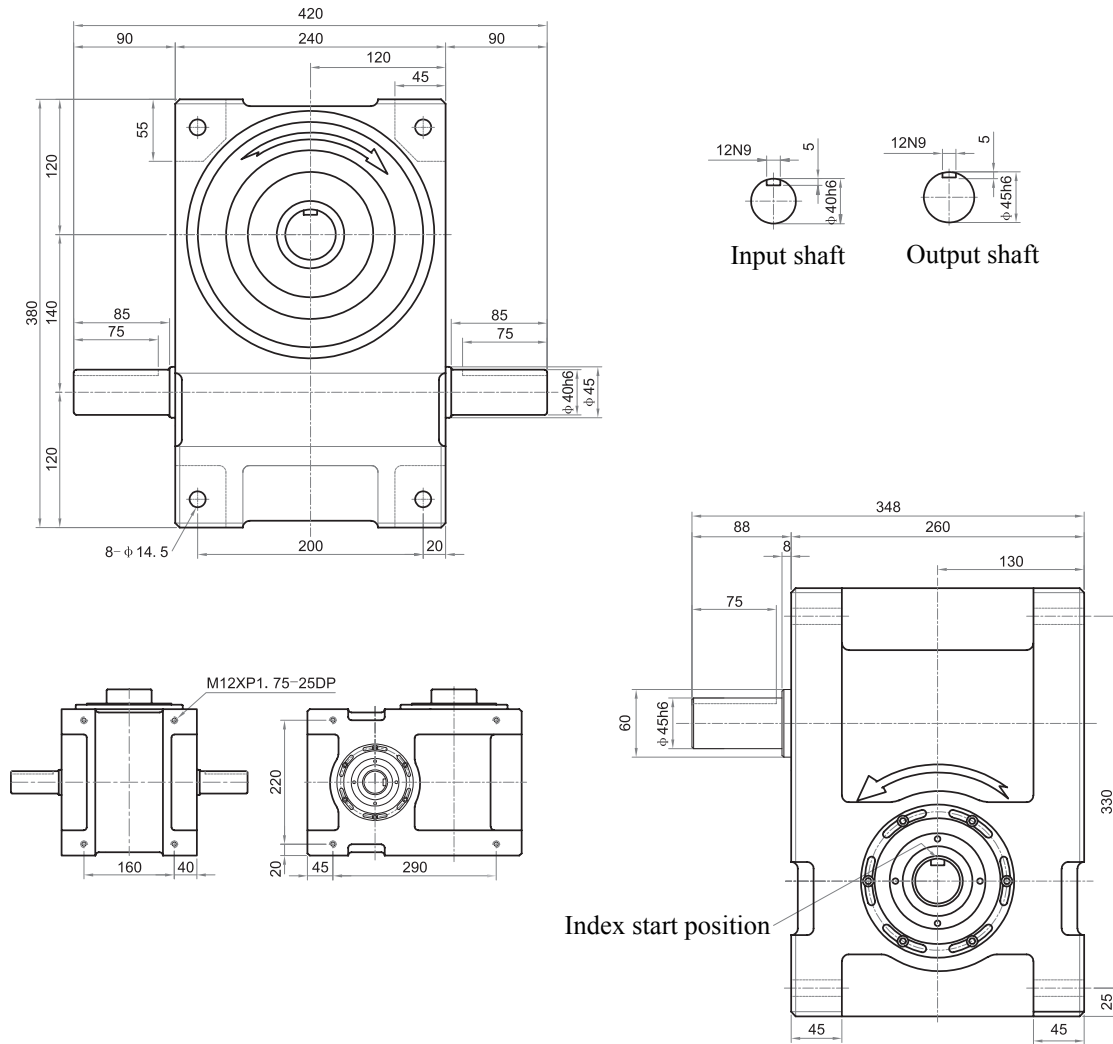
| Items                                 | Symbol | Unit  | Value              | Items                                        | Symbol | Unit  | Value | Items                      | Symbol | Unit               | Value                |
|---------------------------------------|--------|-------|--------------------|----------------------------------------------|--------|-------|-------|----------------------------|--------|--------------------|----------------------|
| Allowable thrust load on output shaft | C1     | kgf   | 500                | Allowable thrust load on input shaft         | C3     | kgf   | 360   | GD2 of input shaft (Note1) | C6     | kgf-m <sup>2</sup> | $2.8 \times 10^{-2}$ |
| Allowable radial load on output shaft | C2     | kgf   | 550                | Max. repetitive bending force on input shaft | C4     | kgf   | 290   | Indexing accuracy          |        | sec.               | $\pm 30$             |
| Allowable torque on output shaft      | Ts     | kgf-m | Refer torque table | Max. repetitive torque on input shaft        | C5     | kgf-m | 32    | Weight                     |        | kg                 | 51                   |

Note1:GD2 of input shaft is a value in dwell range.

Note2: Value of C1 to C5 are those obtained for safety factor=2.

# 140DS

DS



## Technical Parameter

| Items                                 | Symbol | Unit  | Value              | Items                                        | Symbol | Unit  | Value | Items                      | Symbol | Unit               | Value |
|---------------------------------------|--------|-------|--------------------|----------------------------------------------|--------|-------|-------|----------------------------|--------|--------------------|-------|
| Allowable thrust load on output shaft | C1     | kgf   | 730                | Allowable thrust load on input shaft         | C3     | kgf   | 440   | GD2 of input shaft (Note1) | C6     | kgf-m <sup>2</sup> | 0.11  |
| Allowable radial load on output shaft | C2     | kgf   | 860                | Max. repetitive bending force on input shaft | C4     | kgf   | 560   | Indexing accuracy          |        | sec.               | ± 30  |
| Allowable torque on output shaft      | Ts     | kgf-m | Refer torque table | Max. repetitive torque on input shaft        | C5     | kgf-m | 75    | Weight                     |        | kg                 | 120   |

Note1:GD2 of input shaft is a value in dwell range.

Note2: Value of C1 to C5 are those obtained for safety factor=2.