



6D/6E/6R

SANDEX

6D/6E/6R Dimensions

(Unit : mm)

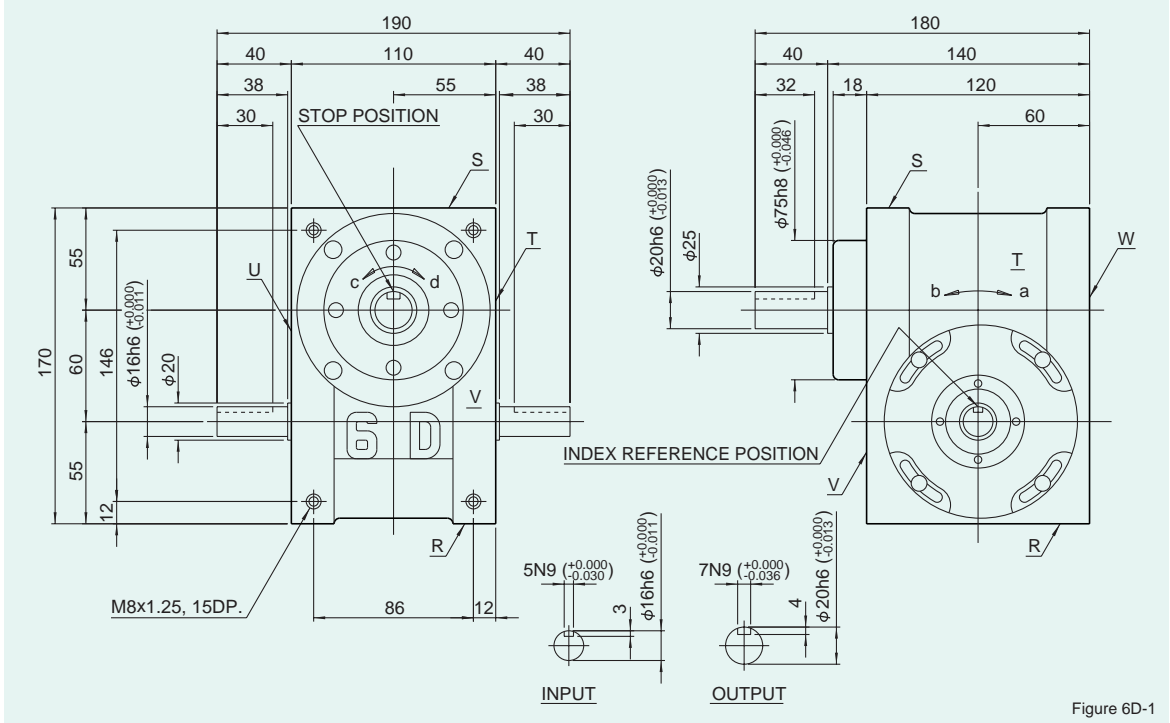
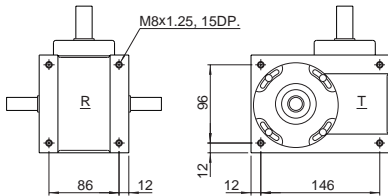


Figure 6D-1

Mounting hole locations

Figure 6D-2



Dimension of R, S, T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 6D-3

| Mounting position | 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------|-----|------|------|------|-----|-----|
| Location | | | | | | |
| Oil capacity (ℓ) | 0.5 | 0.37 | 0.35 | 0.35 | 0.3 | 0.3 |

Precautions

- Each point indicated in the mounting positions shown in Figure 6D-3 represents (starting at top) the oil plug (PT3/8), oil level (VA-01), and drain (PT1/4).
- The mounting positions correspond to code i for the indexing, oscillating, and roller drives.
- The oil levels indicated in Figure 6D-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 6D-1

| Item | Symbol | Unit | Value | Item | Symbol | Unit | Value | Item | Symbol | Unit | Value |
|---------------------------------|----------------|-------------------|--------------------------------|---|----------------|-------------------|-----------------------|-----------------------------|--------|------|-------|
| Output allowable axial load | P ₁ | N | 1764 | Input allowable axial load | P ₄ | N | 980 | Indexing accuracy (1 DWELL) | | sec | ±45 |
| Output allowable radial load | P ₂ | N | 1470 | Input maximum repetitive bending force | P ₅ | N | 931 | Indexing accuracy (2 DWELL) | | sec | ±90 |
| Output static torque | T _s | N·m | Refer to Torque Capacity Table | Input maximum repetitive allowable torque | P ₆ | N·m | 58.8 | Indexing accuracy (3 DWELL) | | sec | ±135 |
| Output torsional rigidity | K ₁ | N·m/rad | 1.37×10 ⁴ | Input torsional rigidity | K ₂ | N·m/rad | 4.12×10 ³ | Indexing accuracy (4 DWELL) | | sec | ±180 |
| Output inertia | J _o | kg·m ² | 3.4×10 ⁻⁴ | Input inertia | J ₁ | kg·m ² | 4.75×10 ⁻⁴ | Repetitive accuracy | | sec | 20 |
| Output allowable bending moment | P ₃ | N·m | 34.3 | | | | | Product weight | | kg | 10 |
| | | | | | | | | Housing color | | Gray | |

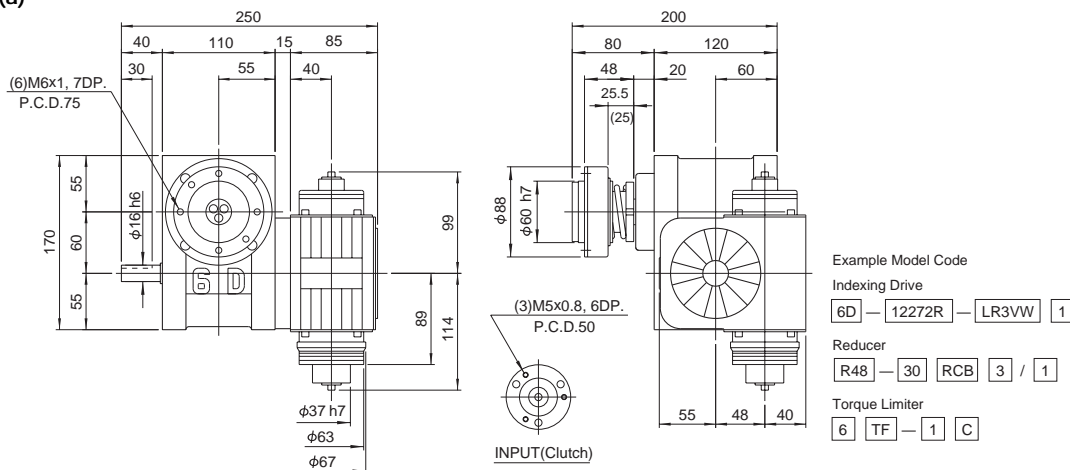
Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

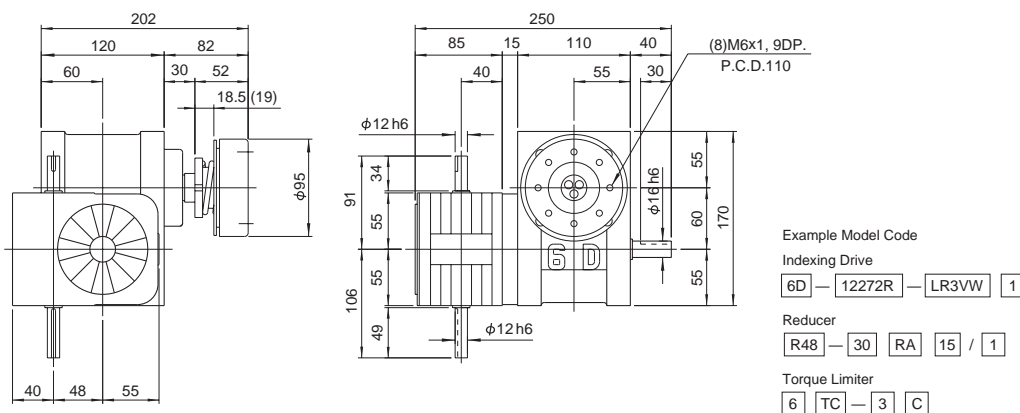
Mounted accessories

Figure 6D-3

6D(a)



6D(b)

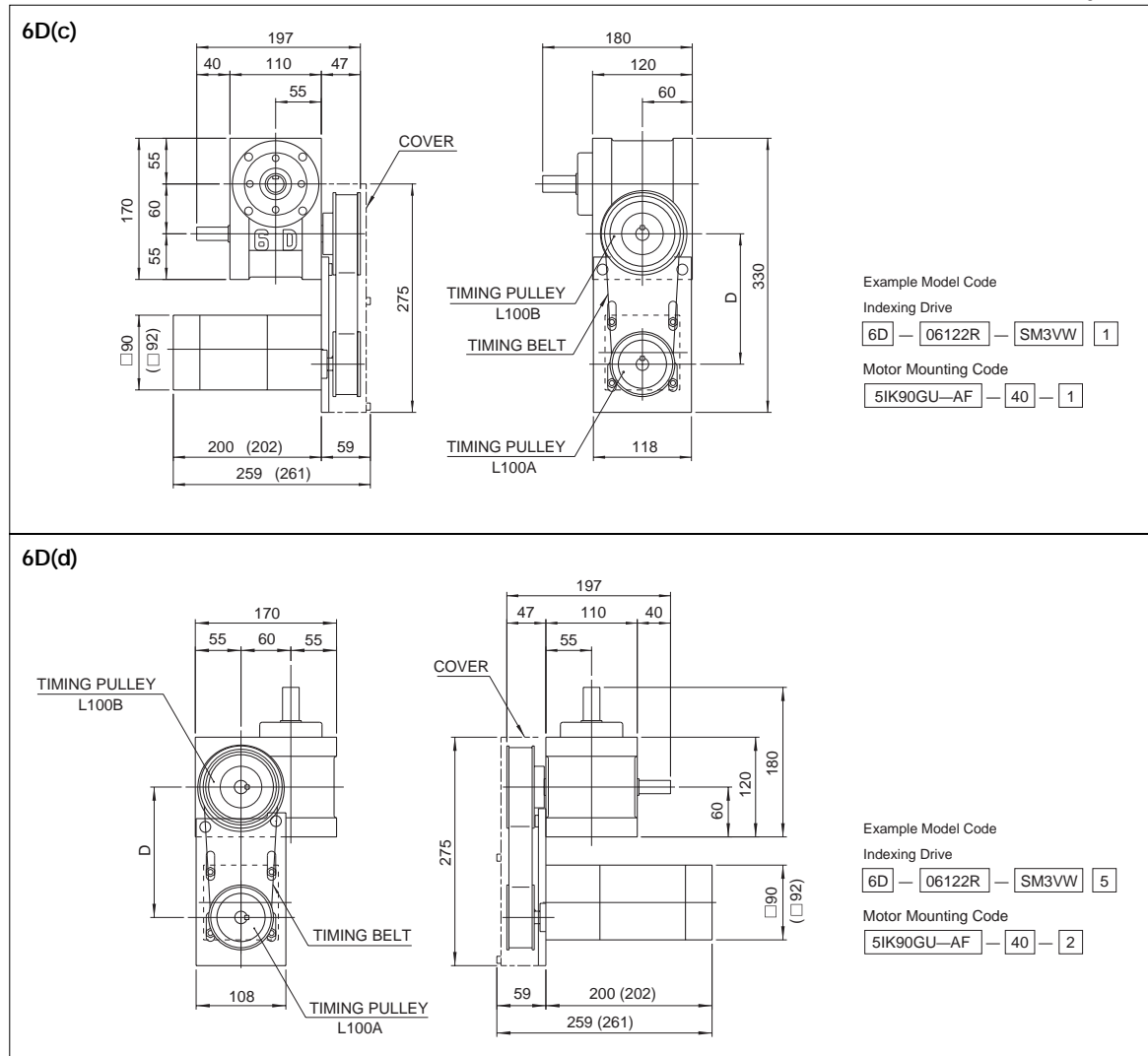


Precautions

- Models 6D,6E, and 6R can be equipped with reducer R48.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- Models 6D, 6E, and 6R can be equipped with torque limiters 6TF and 6TC.
- Torque limiter TC-types require a collar for mounting.
- Reducer R48 requires a collar for mounting.

Mounted accessories

Figure 6D-4



Induction motor specifications

Table 6D-2

| Motor model | Output power (W) | Frequency (Hz) | Voltage (V) | Current (A) | Starting torque (N·m) | Rated torque (N·m) | Rotating speed (rpm) | Capacitor (μF) | Gear head model | |
|-----------------|------------------|----------------|-------------|-------------|-----------------------|--------------------|------------------------------|----------------|-------------------|-----|
| | | | | | | | | | Ball bearing type | |
| Oriental Motors | 5IK90GU-AF | 90 | 50 60 | 100 | 2.0 | 0.45 | 0.68 1300 0.57 1550 | 25.0 | 5GU | □KB |
| Panasonic | M9IC90G4L | 90 | 50 60 | 100 | 1.6 1.7 | 0.637 0.519 | 1325 1625 | 25.0 | M9GD | □B |

Timing transmission specifications

Table 6D-4

| Timing pulley reduction ratio | Pulley A Number of teeth | Pulley B Number of teeth | D | Belt Number |
|-------------------------------|--------------------------|--------------------------|-------|------------------|
| 1.5 | 20 | 30 | 146.8 | 210L 56 teeth |

*Pulley gear ratio is 1.5. Make note of this when selecting gear ratios for the gear head.

Allowable torque with gear head

Table 6D-3

| Rotating speed (rpm) | 200 | 120 | 100 | 60 | 50 | 30 | 20 | 15 | 10 |
|-----------------------|------------|------|------|------|-------|-------|-------|-------|-------|
| 50Hz Gear ratio | 7.5 | 12.5 | 15 | 25 | 30 | 50 | 75 | 100 | 150 |
| 60Hz Gear ratio | 9 | 15 | 18 | 30 | 36 | 60 | 90 | 120 | 180 |
| Allowable torque(N·m) | 5IK90GU-AF | 4.1 | 6.2 | 7.4 | 11.2 | 13.5 | 20 | 20 | 20 |
| | M9IC90G4L | 3.43 | 5.68 | 6.76 | 10.88 | 13.03 | 19.60 | 19.60 | 19.60 |

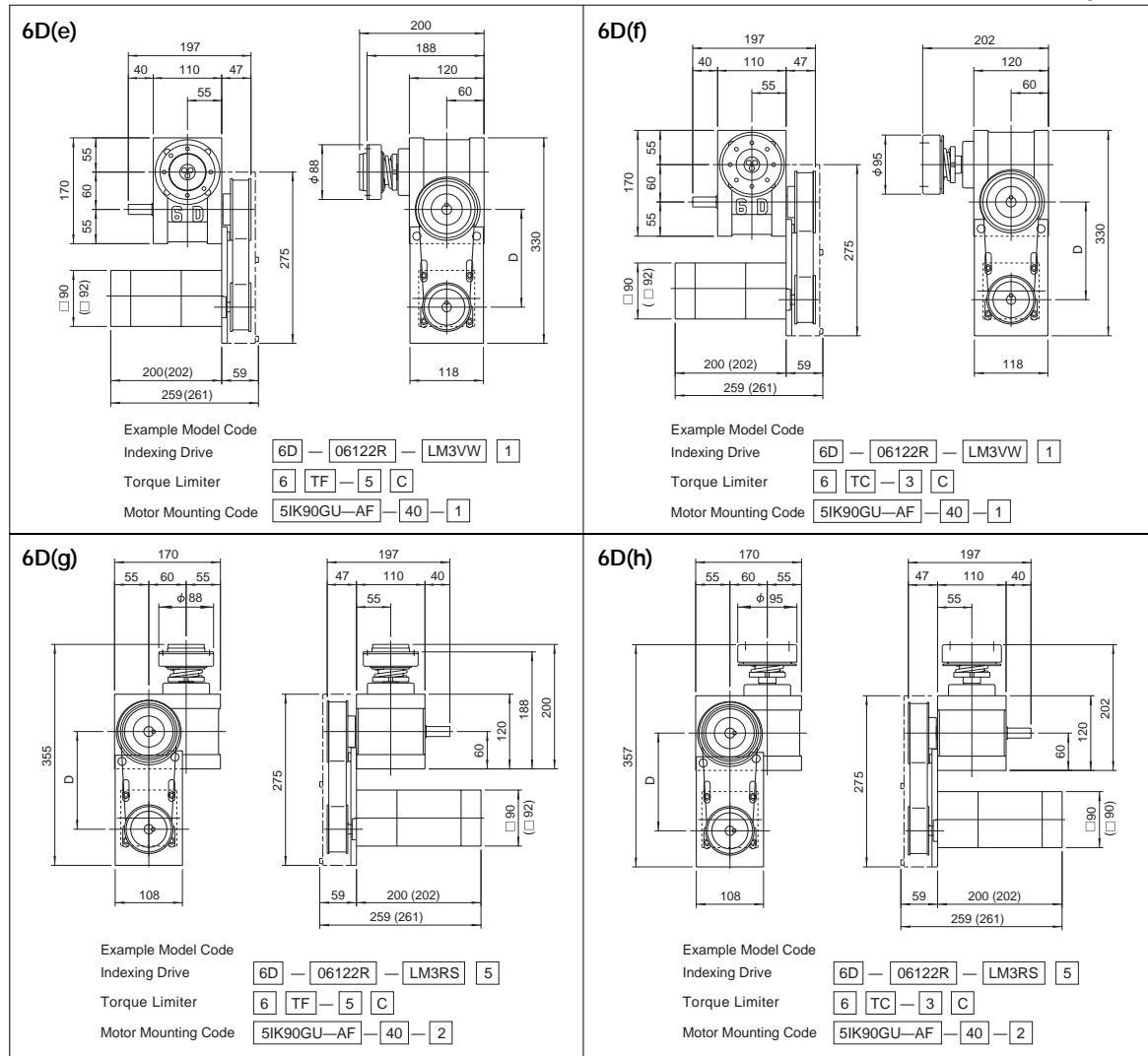
Precautions

(1N·m≒0.102kgf·m)

- The mounting base of the motor mounts on the sides T or U of the indexing drive as shown in Figure 6D-(c),(d).
- Figure 6D-(c),(d) shows the opposite of when mounted on side U.
- Dimensions in parenthesis indicate Panasonic motor.
- When ordering, always specify the gear reduction ratio along with the indexing drive code number.
- Note: For details on the induction motor, refer to the brochure for Oriental Motors (or Panasonic).

Mounted accessories

Figure 6D-5



Precautions

- Models 6D, 6E, and 6R can be equipped with torque limiters 6TF and 6TC.
- Torque limiter TC-types require a collar for mounting.