

# CHKA SERIES PERFORMANCE

## (3-STAGE, RATIO I = 100~1,000)

Precision Planetary Gearbox



| MODEL NO.                      |           | STAGE | RATIO (1) | CHKA 285                     | CHKA 355 | CAKHA 450 |
|--------------------------------|-----------|-------|-----------|------------------------------|----------|-----------|
| Nominal Output Torque T(2N)    | Nm        | 3     | 100       | 3,345                        | 5,620    | 10,965    |
|                                |           |       | 125       | 3,345                        | 5,625    | 10,970    |
|                                |           |       | 140       | 3,345                        | 5,625    | 10,970    |
|                                |           |       | 175       | 3,345                        | 5,625    | 10,970    |
|                                |           |       | 200       | 3,345                        | 5,625    | 10,975    |
|                                |           |       | 250       | 3,345                        | 5,625    | 10,975    |
|                                |           |       | 350       | 3,345                        | 5,630    | 10,975    |
|                                |           |       | 500       | 3,345                        | 5,350    | 9,050     |
|                                |           |       | 700       | 2,555                        | 4,825    | 9,600     |
|                                |           |       | 1,000     | 1,650                        | 3,250    | 6,785     |
| Emergency Stop Torque T(2NOT)  | Nm        | 3     | 100~1,000 | 2 times T(2N)                |          |           |
| Max. Acceleration Torque T(2B) | Nm        | 3     | 100~1,000 | 1.5 times T(2N)              |          |           |
| No Load Running Torque(3)      | Nm        | 3     | 100~1,000 | 6                            | 6        | 13        |
| Backlash(2)                    | arcmin    | 3     | 100~1,000 | ≤ 2                          | ≤ 2      | ≤ 2       |
| Torsional Rigidity             | Nm/arcmin | 3     | 100~1,000 | 1,275                        | 2,500    | 5,100     |
| Nominal Input Speed n(1N)      | rpm       | 3     | 100~1,000 | 2,100                        | 2,100    | 2,000     |
| Max. Input Speed n(1B)         | rpm       | 3     | 100~1,000 | 4,000                        | 4,000    | 3,000     |
| Max. Axial Load F(2a)(4)       | N         | 3     | 100~1,000 | 39,200                       | 101,500  | 143,700   |
| Max. Bending Moment M(2k)(4)   | Nm        | 3     | 100~1,000 | 9,230                        | 29,100   | 63,300    |
| Service Life(4)                | hr        | 3     | 100~1,000 | 20,000                       |          |           |
| Operating Temp                 | °C        | 3     | 100~1,000 | -10°C~ 90°C                  |          |           |
| Degree of Gearbox Protection   |           | 3     | 100~1,000 | IP65                         |          |           |
| Lubrication                    |           | 3     | 100~1,000 | Synthetic lubrication grease |          |           |
| Mounting Position              |           | 3     | 100~1,000 | All directions               |          |           |
| Running Noise(3)               | dB(A)     | 3     | 100~1,000 | ≤ 72                         | ≤ 74     | ≤ 76      |
| Efficiency η                   | %         | 3     | 100~1,000 | ≥ 92%                        |          |           |

(1) Ratio ( $i=N[in]/N[out]$ ) (2) Backlash is measured at 2% of Nominal Output Torque T(2N). (3) These values are measured by gearbox with ratio = 10 (1-stage) or ratio = 100 (2-stage) at 3,000 rpm, without load. By ratio smaller than 10, the noise value would be 3-5dB higher. (4) Applied to the output flange center at 100 rpm. (5) Continuous operation is not recommended.