

STH SERIES Hollow Rotary Index Tables

STHEL7 3-Stage & 4-Stage Specifications

| Frame Size | STHEL7 | | | | | | | | |
|---|----------------------|-------|-------------|-------|-------|-------|-------|-------------|-------|
| Stage | Units | Notes | 3-Stage | | | | | 4-Stage | |
| Ratio | -- | *1 | 12:1 | 16:1 | 20:1 | 28:1 | 40:1 | 60:1 | 80:1 |
| Nominal Torque | [Nm] | *2 | 43 | 58 | 84 | 85 | 61 | 61 | 85 |
| Maximum Acceleration Torque | [Nm] | -- | 86 | 115 | 152 | 170 | 122 | 122 | 170 |
| Emergency Stop Torque | [Nm] | -- | 180 | 234 | 240 | 240 | 204 | 240 | 240 |
| Nominal Input Speed | [rpm] | -- | 3000 | | | | | 3000 | |
| Maximum Input Speed | [rpm] | -- | 6000 | | | | | 6000 | |
| Maximum Axial Load | [N] | -- | 4000 | | | | | 4000 | |
| Maximum Radial Load | [N] | -- | 5000 | | | | | 5000 | |
| Maximum Tilting Moment Load | [Nm] | -- | 200 | | | | | 200 | |
| Maximum Surface Runout | [mm] | -- | 0.070 | | | | | 0.070 | |
| Moment of Inertia ($\leq \varnothing 8$) | [kgcm ²] | *3 | 1.280 | 0.811 | 0.597 | 0.412 | 0.314 | 0.112 | 0.093 |
| Moment of Inertia ($\leq \varnothing 14$) | [kgcm ²] | *3 | 1.355 | 0.886 | 0.672 | 0.487 | 0.389 | 0.157 | 0.138 |
| Moment of Inertia ($\leq \varnothing 19$) | [kgcm ²] | *3 | 1.544 | 1.075 | 0.862 | 0.676 | 0.578 | -- | -- |
| Efficiency | [%] | -- | 84 | 84 | 88 | 88 | 88 | 84 | 84 |
| Maximum Torsional Backlash | [arc-min] | -- | ≤ 3 | | | | | ≤ 4 | |
| Accuracy | [arc-sec] | -- | ± 60 | | | | | ± 60 | |
| Torsional Stiffness | [Nm/arc-min] | -- | 7.6 | | | | | 7.6 | |
| Noise Level | [dB] | -- | 72 | 72 | 65 | 65 | 65 | 65 | 65 |
| Maximum Ambient Temperature | $^{\circ}\text{C}$ | -- | 0-40 | | | | | 0-40 | |
| Permitted Housing Temperature | $^{\circ}\text{C}$ | -- | 90 | | | | | 90 | |
| Protection Class | -- | *4 | IP54 (IP65) | | | | | IP54 (IP65) | |
| Weight | [kg] | -- | 8.0 | | | | | 8.2 | |

*1) Contact NIDEC-SHIMPO for special ratios

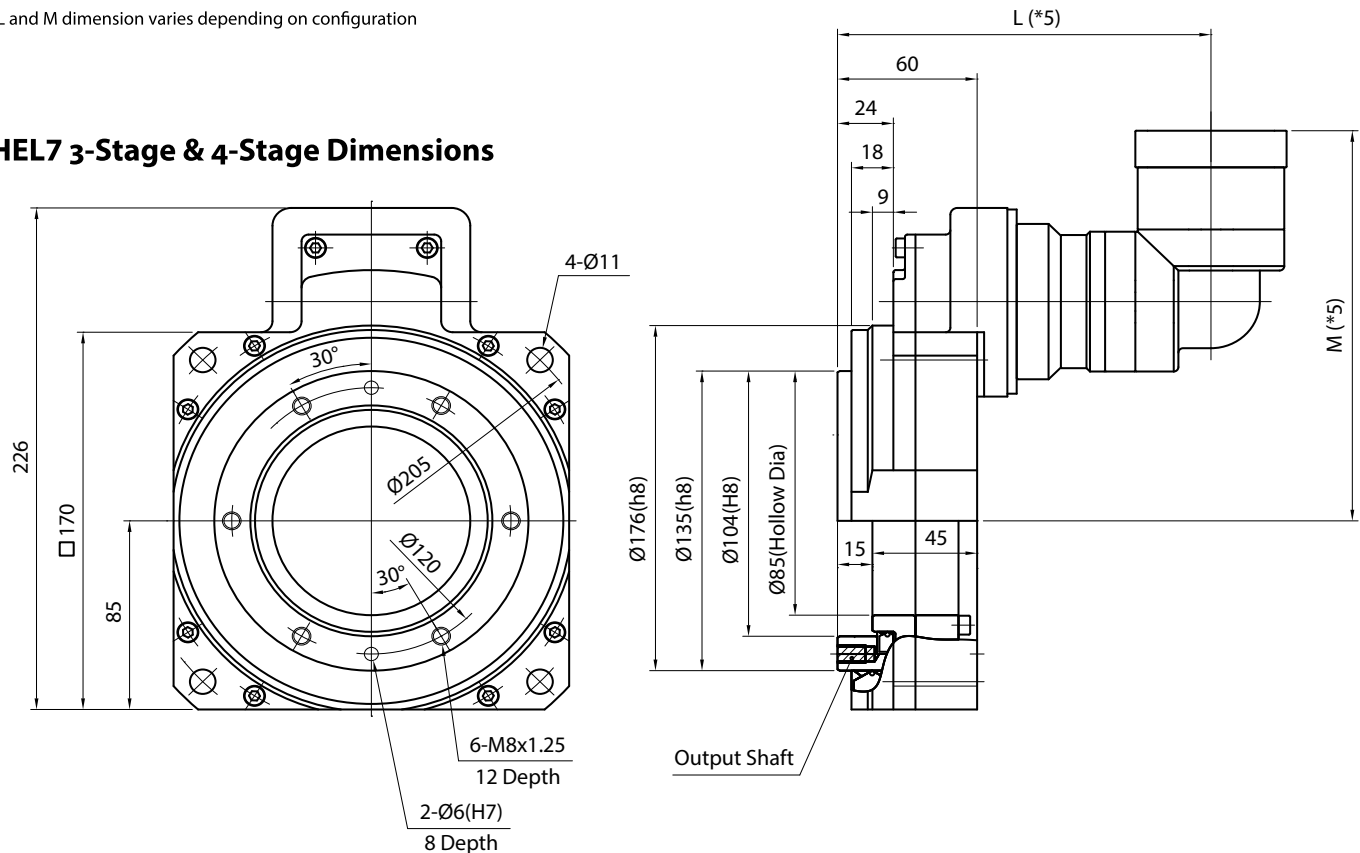
*2) At nominal input speed, service life is 20,000 hours

*3) Measured at input shaft

*4) IP65 (wash-down) is available as an option. Contact NIDEC-SHIMPO for more details and our food grade options

*5) L and M dimension varies depending on configuration

STHEL7 3-Stage & 4-Stage Dimensions



STHEL7 4-Stage Specifications

| Frame Size | STHEL7 | | | | | | | | |
|-------------------------------|----------------------|-------|-------------|-------|-------|-------|-------|-------|-------|
| Stage | Units | Notes | 4-Stage | | | | | | |
| Ratio | -- | *1 | 100:1 | 120:1 | 140:1 | 160:1 | 200:1 | 280:1 | 400:1 |
| Nominal Torque | [Nm] | *2 | 85 | 61 | 85 | 85 | 85 | 85 | 61 |
| Maximum Acceleration Torque | [Nm] | -- | 170 | 122 | 170 | 170 | 170 | 170 | 122 |
| Emergency Stop Torque | [Nm] | -- | 240 | 240 | 240 | 240 | 240 | 240 | 240 |
| Nominal Input Speed | [rpm] | -- | 3000 | | | | | | |
| Maximum Input Speed | [rpm] | -- | 6000 | | | | | | |
| Maximum Axial Load | [N] | -- | 4000 | | | | | | |
| Maximum Radial Load | [N] | -- | 5000 | | | | | | |
| Maximum Tilting Moment Load | [Nm] | -- | 200 | | | | | | |
| Maximum Surface Runout | [mm] | -- | 0.070 | | | | | | |
| Moment of Inertia (≤Ø 8) | [kgcm ²] | *3 | 0.085 | 0.072 | 0.077 | 0.066 | 0.064 | 0.063 | 0.062 |
| Moment of Inertia (≤Ø 14) | [kgcm ²] | *3 | 0.129 | 0.116 | 0.122 | 0.111 | 0.108 | 0.106 | 0.106 |
| Moment of Inertia (≤Ø 19) | [kgcm ²] | *3 | -- | -- | -- | -- | -- | -- | -- |
| Efficiency | [%] | -- | 84 | 84 | 84 | 84 | 84 | 84 | 84 |
| Maximum Torsional Backlash | [arc-min] | -- | ≤4 | | | | | | |
| Accuracy | [arc-sec] | -- | ±60 | | | | | | |
| Torsional Stiffness | [Nm/arc-min] | -- | 7.6 | | | | | | |
| Noise Level | [dB] | -- | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Maximum Ambient Temperature | °C | -- | 0-40 | | | | | | |
| Permitted Housing Temperature | °C | -- | 90 | | | | | | |
| Protection Class | -- | *4 | IP54 (IP65) | | | | | | |
| Weight | [kg] | -- | 8.2 | | | | | | |

*1) Contact NIDEC-SHIMPO for special ratios

*2) At nominal input speed, service life is 20,000 hours

*3) Measured at input shaft

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