

WTN

Hollow Rotary Platform  
系列中空旋转平台

FEATURES

产品特点

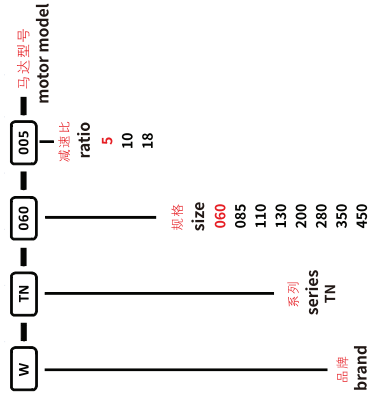
- » 相对DD马达、分割器优势、价格更低
- » 中空孔更大，配线、管方便
- » 体积更小，功率密度更大
- » 交叉轴承输出，承载更大
- » Competitive price
- » Larger hollow hole, convenient for wiring and piping
- » Compact size, greater power density
- » Crossed roller bearing output, with greater load-bearing capacity



INDICATION FOR MODEL

SELECTION

机种型号表示



GENERAL NOTICES

订货须知

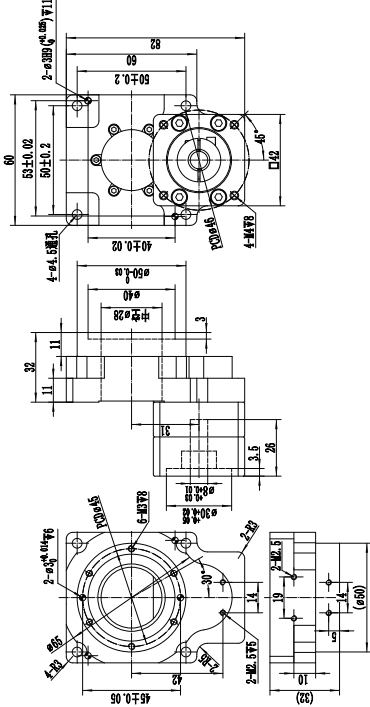
- 机种、型号、扭矩
- 减速比或出力轴转速
- 工况及连接方式
- 数量及安装时的机械名称
- 入力方式和入力转速
- 马达厂牌型号或法兰及马达轴尺寸
- Type, model and torque
- Ratio or output speed
- Working conditions and connection methods
- Quantity and installed machine name
- Input mode and input speed
- Motor brand model or flange and motor shaft size

## WTN060性能参数/Heavy-load type

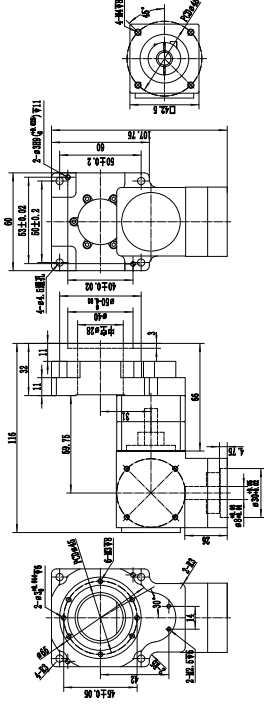
WTN060系列性能表/WTN060 series Performance data sheet

| 特性/Specifications                          | 单位 /unit          | WTN060                         |    | WTN060+WVR042                        |     | WTN060+WRS042                  |           |
|--------------------------------------------|-------------------|--------------------------------|----|--------------------------------------|-----|--------------------------------|-----------|
| 接轴马达型号 Applicable motor models             |                   | 42型步进马达<br>42 stepper motor    |    | 50W~100W伺服电机<br>50W~100W servo motor |     | 电机轴径≤8<br>motor shaft diameter |           |
| 支撑旋转平台轴承 Bearing type                      |                   | 交叉滚子轴承(crossed roller bearing) |    |                                      |     |                                |           |
| 减速比 Ratio                                  |                   | 5                              | 10 | 18                                   | 25  | 40                             | 50 70 100 |
| 转动惯量 Inertial inertia                      | Kg.m <sup>2</sup> | 5.2                            |    | 4.6                                  | 1.2 | 3507×10 <sup>-7</sup>          |           |
| 额定输出扭矩 Rated output torque                 | N·m               | 5.2                            |    | 4.6                                  | 1.2 | 5.2                            |           |
| 额定输出转速 Rated output speed                  | rpm               |                                |    |                                      |     | 300                            |           |
| 角度传动精度 Angular transmission accuracy       | arcmin            |                                |    |                                      |     | <2                             |           |
| 反复定位精度 Repeat positioning accuracy         | arcsec            |                                |    |                                      |     | <15                            |           |
| 品牌 Backlash                                | arcmin            | <1                             |    |                                      |     | <3                             |           |
| 允许轴荷负载 Allowable axial load                | N                 |                                |    |                                      |     | 250                            |           |
| 允许倾性力矩 Allowable moment of inertia         | N·m               |                                |    |                                      |     | 5                              |           |
| 旋转平台平行度 Parallelism of rotation platform   | mm                |                                |    |                                      |     | 0.015                          |           |
| 旋转平台同心度 Concentricity of rotation platform | mm                |                                |    |                                      |     | 0.01                           |           |
| 输出端跳动 Output end face runout               | mm                |                                |    |                                      |     | 0.008                          |           |
| 噪音 Noise                                   | dB                | 65                             |    |                                      |     | 65                             |           |
| 使用寿命 Service life                          | h                 |                                |    |                                      |     | 20000                          |           |
| 防护等级 Protection level                      | IP                |                                |    |                                      |     | 40                             |           |
| 重量 Weight                                  | Kg                | 0.6                            |    |                                      |     | 1.2                            |           |
|                                            |                   |                                |    |                                      |     | 1.3                            |           |

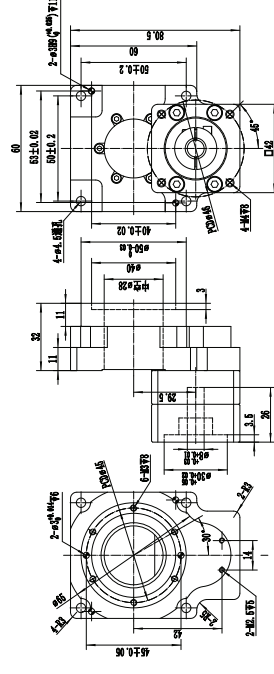
5/10比外形图 / Ratio 5/10 dimension



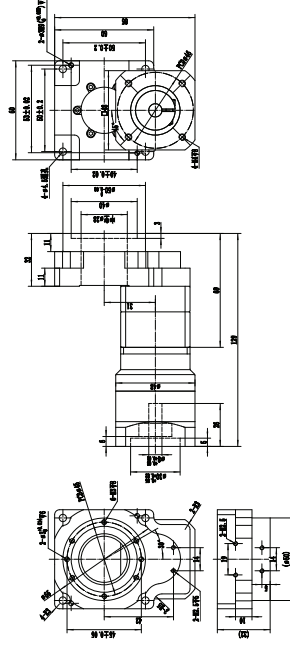
### 组合转角外形图 / Combined right-angle gearbox dimension



18比外形图 / Ratio 18 dimension



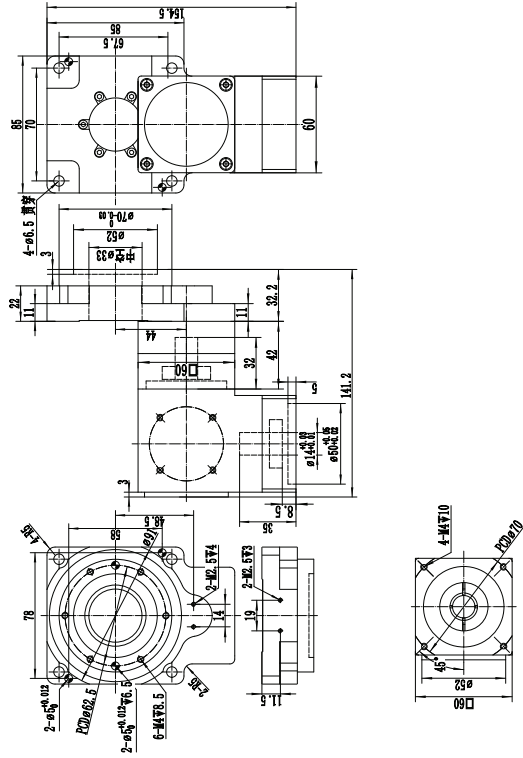
### 组合行星外形图 / Combined gearbox dimension





组合转角外形图

Combined right-angle gearbox dimension

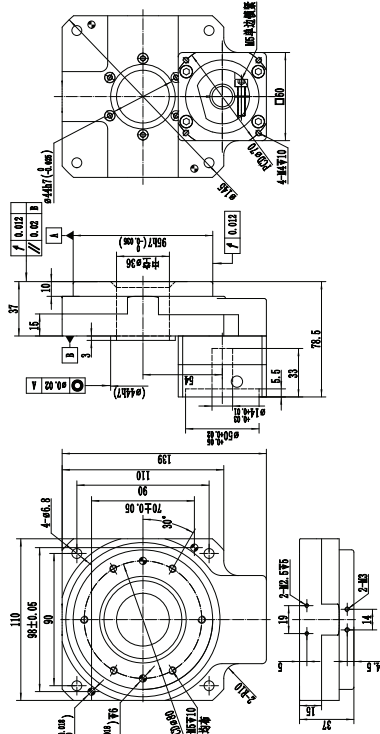


WTN110性能参数/Heavy-load type

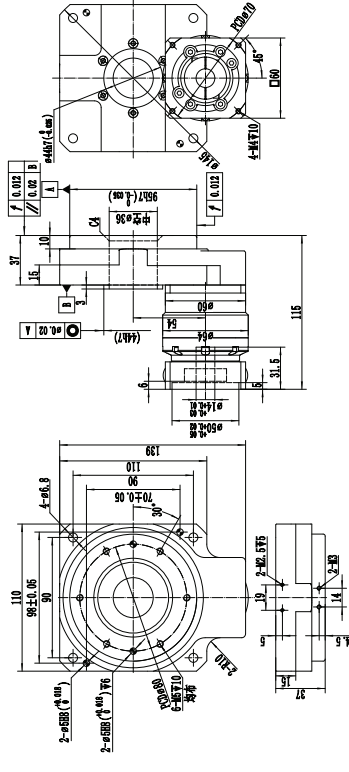
WTN110系列性能表/WTN110 series Performance data sheet

| 特性/Specifications                          | 单位/unit           | WTN110                       | WTN110-HWRB060                         | WTN110-WRS060                   |
|--------------------------------------------|-------------------|------------------------------|----------------------------------------|---------------------------------|
| 搭载马达型号/Applicable motor models             |                   | 57 型步进马达<br>57 stepper motor | 200W~400W伺服电机<br>200W~400W servo motor | 电机轴径≤14<br>motor shaft diameter |
| 支撑旋转平台轴承/Bearing type                      |                   |                              | 交叉滚子轴承/crossed roller bearing          |                                 |
| 减速比/Ratio                                  |                   | 10 30 40 50 70 100 10 30 50  |                                        |                                 |
| 转动惯量/Rotational inertia                    | Kg.m <sup>2</sup> |                              | 1483x10-6                              |                                 |
| 额定输出扭矩/Rated output torque                 | N.m               | 40                           | 40                                     | 40                              |
| 额定输出转速/Rated output speed                  | rpm               |                              | 300                                    |                                 |
| 角度传动精度/Angular transmission accuracy       | arcmin            |                              | <1.5                                   |                                 |
| 反复定位精度/Repeat positioning accuracy         | arcsec            |                              | <15                                    |                                 |
| 空载 Backlash                                | arcmin            |                              | <1                                     | <2                              |
| 允许轴向负载/Allowable axial load                | N                 |                              | 1000                                   |                                 |
| 允许惯性力矩/Allowable moment of inertia         | N.m               |                              | 25                                     |                                 |
| 旋转平台平行度/Parallelism of rotation platform   | mm                |                              | 0.02                                   |                                 |
| 旋转平台同心度/Concentricity of rotation platform | mm                |                              | 0.012                                  |                                 |
| 输出端轴向跳动/Output end face runout             | mm                |                              | 0.012                                  |                                 |
| 噪音/Noise                                   | dB                | 65                           | 60                                     | 65                              |
| 使用寿命/Service life                          | h                 |                              | 20000                                  |                                 |
| 防护等级/Protection level                      | IP                |                              | 40                                     |                                 |
| 重量/Weight                                  | Kg                | 2.2                          | 3.5                                    | 3.5                             |

10比外形图 / Ratio 10 dimension

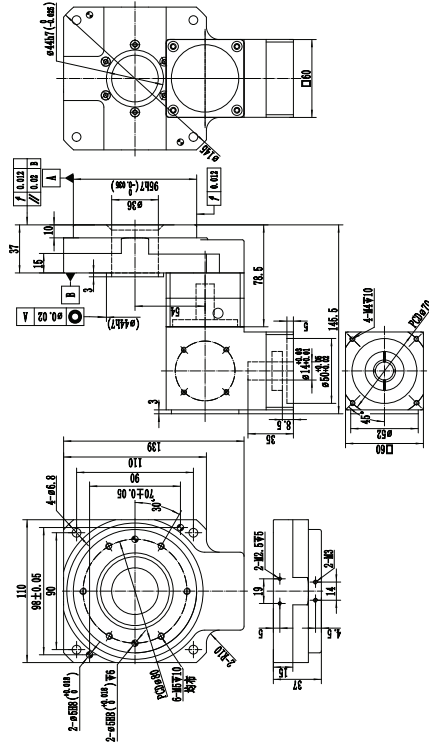


组合行星外形图 / Combined gearbox dimension



组合转角外形图

Combined right-angle gearbox dimension

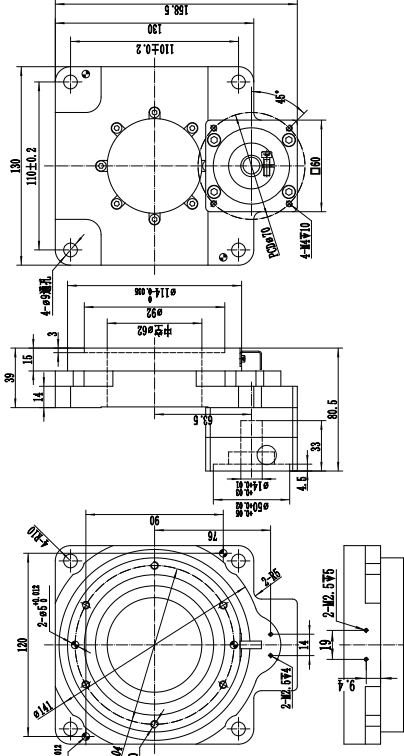


## WTN130性能参数/Heavy-load type

WTN130系列性能表/WTN130 series Performance data sheet

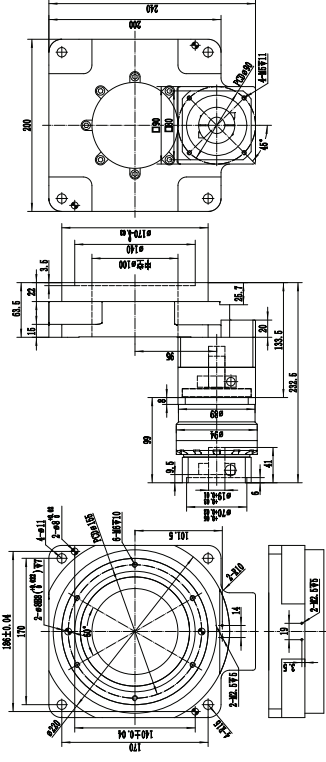
| 特性/Specifications                          | 单位/unit           | WTN130                        | WTN130-HWRB060                         | WTN130-WRS060                   |
|--------------------------------------------|-------------------|-------------------------------|----------------------------------------|---------------------------------|
| 电机/马达型号/Available motor models             |                   | 57型步进马达<br>57 stepper motor   | 200W~400W伺服电机<br>200W~400W servo motor | 电机轴径≤14<br>motor shaft diameter |
| 支撑旋转平台轴承/Bearing type                      |                   | 交叉滚子轴承/crossed roller bearing | 交叉滚子轴承/crossed roller bearing          |                                 |
| 减速比/Ratio                                  |                   | 10 18 30 40 50 70 100         | 30 40 50 70 100                        | 10 30 50                        |
| 转动惯量/rotational inertia                    | Kg.m <sup>2</sup> |                               | 8155x10-6                              |                                 |
| 额定输出扭矩/related output torque               | N.m               | 32 20                         | 32                                     | 32                              |
| 额定输出转速/related output speed                | rpm               |                               | 200                                    |                                 |
| 角度传动精度/Angular transmission accuracy       | arcmin            |                               | <1.5                                   |                                 |
| 反定位精度/Reset positioning accuracy           | arcsec            |                               | <15                                    |                                 |
| 齿隙/Backlash                                | arcmin            |                               | <1                                     |                                 |
| 允许轴间负载/Allowable axial load                | N                 |                               | 2000                                   |                                 |
| 允许惯性力矩/Allowable moment of inertia         | N.m               |                               | 50                                     |                                 |
| 旋转平台平行度/Parallelism of rotation platform   | mm                |                               | 0.02                                   |                                 |
| 旋转平台同心度/Concentricity of rotation platform | mm                |                               | 0.012                                  |                                 |
| 输出轴端面跳动/Output end face runout             | mm                |                               | 0.012                                  |                                 |
| 噪音/Noise                                   | dB                | 65                            | 60                                     | 65                              |
| 使用寿命/Service life                          | h                 |                               | 20000                                  |                                 |
| 防护等级/Protection level                      | IP                |                               | 40                                     |                                 |
| 重量/Weight                                  | Kg                | 2.8                           | 4.3                                    | 4.1                             |

10/18比外形图 / Ratio 10/18 dimension



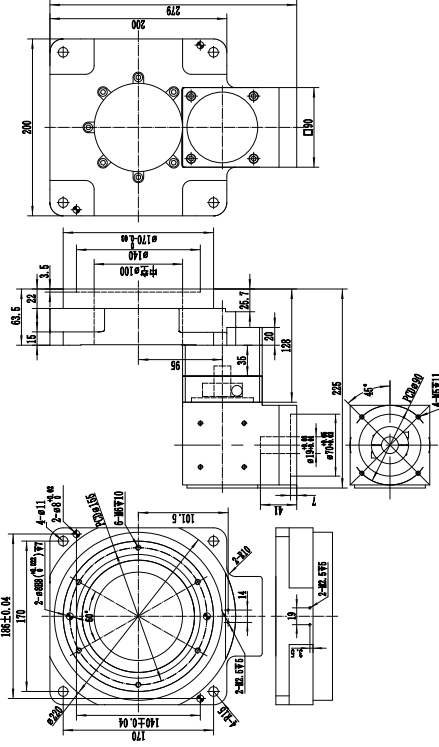


### 组合行星外形图 / Combined gearbox dimension



### 组合转角外形图

### Combined right-angle gearbox dimension

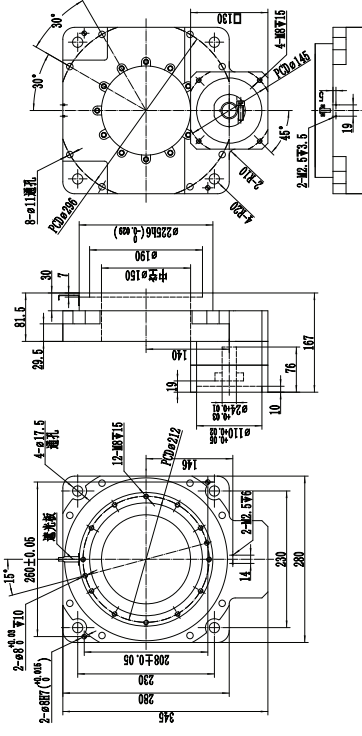


### WTN280性能参数/Heavy-load type

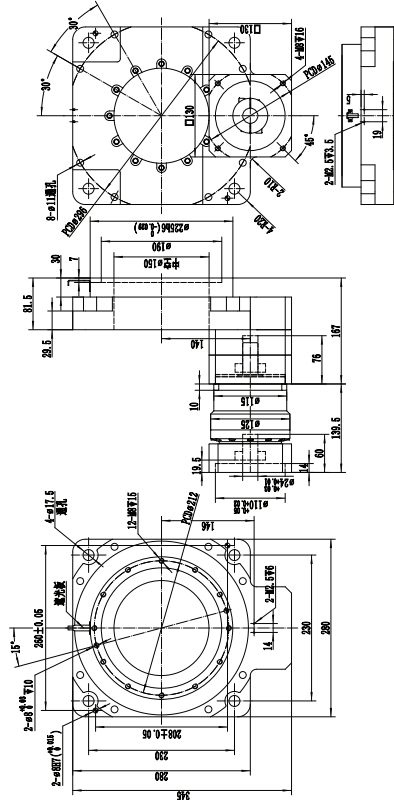
WTN280系列性能表/WTN280 series Performance data sheet

| 特性/Specifications                          | 单位/unit           | WTN280 | 110/130步进马达<br>110/130 stepper motor | 1000W~3000W伺服电机<br>1000W~3000W servo motor | 电机轴径≤24<br>motor shaft diameter | WTN280+WVRB115 |
|--------------------------------------------|-------------------|--------|--------------------------------------|--------------------------------------------|---------------------------------|----------------|
| 安装底座平台轴承 Bearing type                      |                   |        |                                      | 交叉滚子轴承 crossed roller bearing              |                                 |                |
| 减速比 Ratio                                  |                   | 10     |                                      | 30 40 50 70 100                            |                                 |                |
| 转动惯量 Inertional inertia                    | Kg.m <sup>2</sup> |        |                                      | 14600x10-5                                 |                                 |                |
| 额定输出扭矩 Rated output torque                 | N.m               | 180    |                                      | 180                                        |                                 |                |
| 急停扭矩 Emergency stop Torque                 | rpm               |        |                                      |                                            |                                 |                |
| 额定输出转速 Rated output speed                  | rpm               |        |                                      | 200                                        |                                 |                |
| 角周传动精度 Angular transmission accuracy       | arcmin            |        |                                      | <1                                         |                                 |                |
| 位置定位精度 Poset positioning accuracy          | arcsec            |        |                                      | <10                                        |                                 |                |
| 反馈 Backlash                                | arcmin            | <1     |                                      |                                            | <2                              |                |
| 允许轴间负载 Allowable axial load                | N                 |        |                                      | 7000                                       |                                 |                |
| 允许惯量力矩 Allowable moment of inertia         | N.m               |        |                                      | 200                                        |                                 |                |
| 旋转平台平行度 Parallelism of rotation platform   | mm                |        |                                      | 0.030                                      |                                 |                |
| 旋转平台同心度 Concentricity of rotation platform | mm                |        |                                      | 0.015                                      |                                 |                |
| 输出端跳动 Output end run out                   | mm                |        |                                      | 0.015                                      |                                 |                |
| 噪音 Noise                                   | dB                | 71     |                                      |                                            | 65                              |                |
| 使用寿命 Service life                          | h                 |        |                                      | 20000                                      |                                 |                |
| 防护等级 Protection level                      | IP                |        |                                      | 40                                         |                                 |                |
| 重量 Weight                                  | Kg                | 18     |                                      |                                            |                                 | 25.8           |

## 10比外形图 / Ratio 10 dimension



组合行星外形图 / Combined gearbox dimension



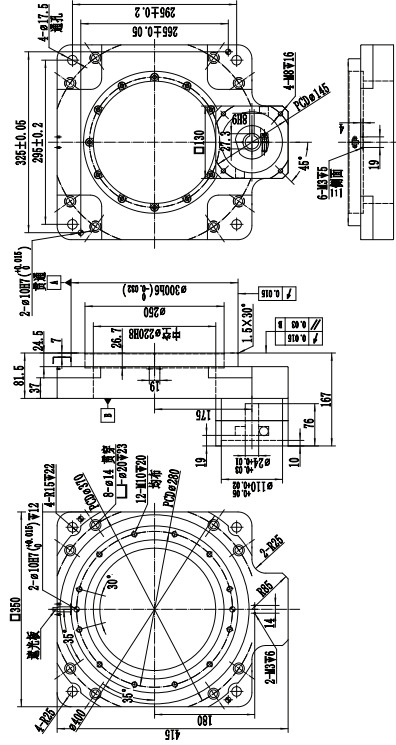
WTN350性能参数/Heavy-load type

WTN350系列性能表/WTN350 series Performance data sheet

| 特性/Specifications                          | 单位/unit           | WTN350                        | WTN350+WVRB115                             |
|--------------------------------------------|-------------------|-------------------------------|--------------------------------------------|
| 减速机型号/Aplicable motor models               |                   | 130型步进马达<br>130 stepper motor | 1000W~4400W伺服电机<br>1000W~3000W servo motor |
| 支持旋转平台轴承/Bearing type                      |                   | 交叉滚子轴承                        | 交叉滚子轴承                                     |
| 减速比/Ratio                                  |                   | 10 18                         | 30 40 50 70 100                            |
| 转动惯量/Rotational inertia                    | Kg.m <sup>2</sup> |                               | 25500X10-5                                 |
| 额定输出扭矩/Rated output torque                 | N.m               | 320 260                       | 320                                        |
| 急停扭矩/Emergency stop Torque                 | rpm               |                               | 3倍额定输出扭矩/rated output torque               |
| 额定输出转速/Rated output speed                  | rpm               |                               | 150                                        |
| 角度传动精度/Angular transmission accuracy       | arcmin            | <1                            | <1                                         |
| 重复定位精度/Repeat positioning accuracy         | arcsec            | <10                           | <10                                        |
| 齿隙/Backlash                                | arcmin            | <1                            | <1.5                                       |
| 允许轴负载/Allowable axial load                 | N                 |                               | 9000                                       |
| 允许侧向力矩/Allowable moment of inertia         | N.m               |                               | 300                                        |
| 旋转平台平行度/Parallelism of rotation platform   | mm                |                               | 0.03                                       |
| 旋转平台同心度/Concentricity of rotation platform | mm                |                               | 0.015                                      |
| 输出端圆跳动/output end face runout              | mm                |                               | 0.015                                      |
| 噪音/Noise                                   | dB                | 73                            | 66                                         |
| 使用寿命/Service life                          | h                 |                               | 20000                                      |
| 防护等级/Protection level                      | IP                |                               | 40                                         |
| 重量/Weight                                  | Kg                | 25.5                          | 33.3                                       |

10/18比电机轴24外形图

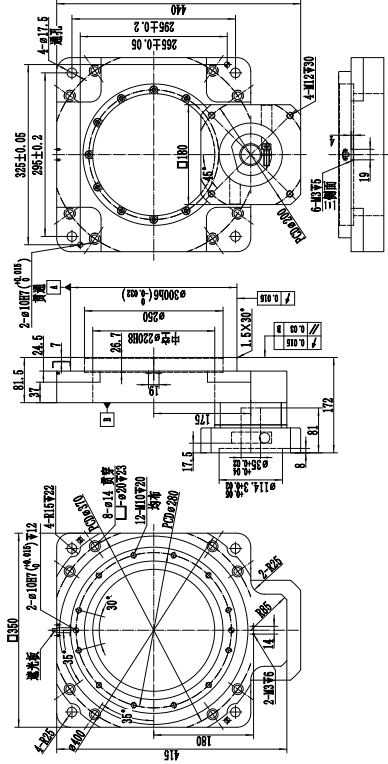
Ratio 10/18 dimension(motor shaft OD 24mm)



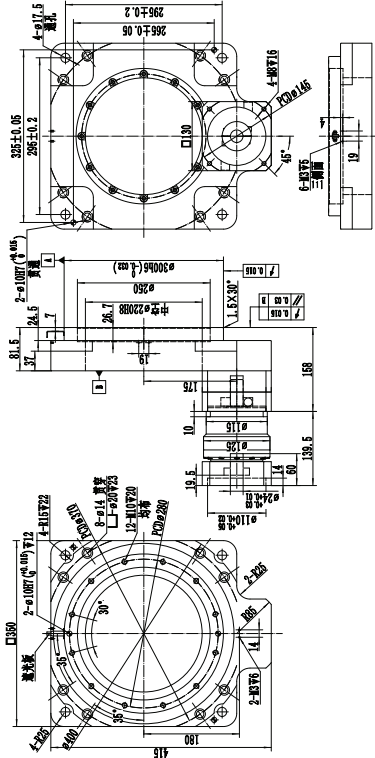


10/18比电机轴35外形图

Ratio 10/18 dimension(motor shaft OD 35mm)



组合行星外形图 / Combined gearbox dimension

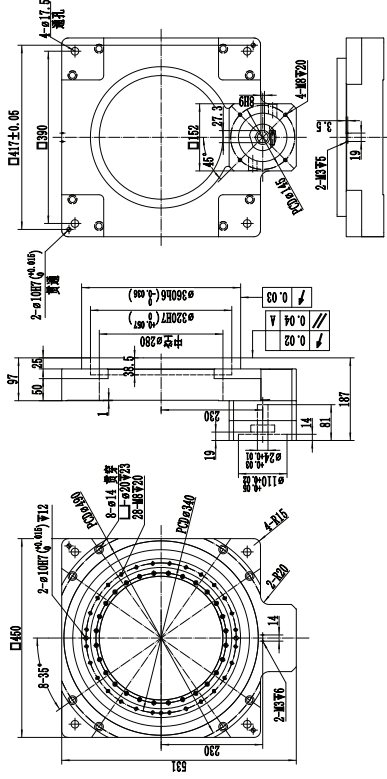


WTN450性能参数/Heavy-load type

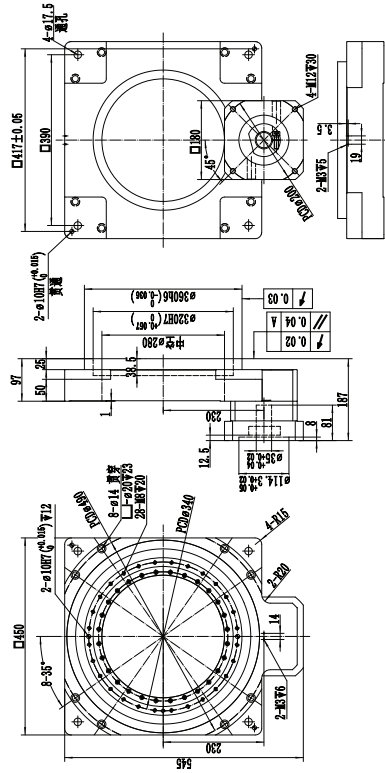
WTN450系列性能表/WTN450 series Performance data sheet

| 特性/Specifications                          | 单位/unit           | WTN450                           | WTN450+WVRB115                             |
|--------------------------------------------|-------------------|----------------------------------|--------------------------------------------|
| 搭载马达型号/Applicable motor models             |                   | 130步进马达<br>130 stepper motor     | 1000W~5500W伺服电机<br>1000W~5500W servo motor |
| 支撑旋转平台轴承/Bearing type                      |                   | 交叉滚子轴承<br>crossed roller bearing | 交叉滚子轴承<br>crossed roller bearing           |
| 减速比/Ratio                                  |                   | 10                               | 30 40 50 70 100                            |
| 转动惯量/Rotational inertia                    | Kg.m <sup>2</sup> |                                  | 80500X10-5                                 |
| 额定输出扭矩/Rated output torque                 | N.m               | 400                              | 400                                        |
| 急停扭矩/Emergency stop Torque                 | rpm               |                                  | 3倍额定输出扭矩<br>Rated output torque            |
| 额定输出转速/Rated output speed                  | rpm               | 150                              |                                            |
| 角速度传动精度/Angular transmission accuracy      | arcmin            | <1                               |                                            |
| 反复定位精度/Repeat positioning accuracy         | arcmin            | <10                              |                                            |
| 齿隙/Backlash                                | arcmin            | <1                               |                                            |
| 允许轴负载/Allowable axial load                 | N                 | 11000                            |                                            |
| 允许侧倾力矩/Allowable moment of inertia         | N.m               | 400                              |                                            |
| 旋转平台平行度/Parallelism of rotation platform   | mm                | 0.040                            |                                            |
| 旋转平台同心度/Concentricity of rotation platform | mm                | 0.02                             |                                            |
| 输出端圆跳动/output end face runout              | mm                | 0.02                             |                                            |
| 噪音/Noise                                   | dB                | 75                               | 66                                         |
| 使用寿命/Service life                          | h                 | 20000                            |                                            |
| 防护等级/Protection level                      | IP                | 49                               |                                            |
| 重量/Weight                                  | Kg                | 49                               | 56.8                                       |

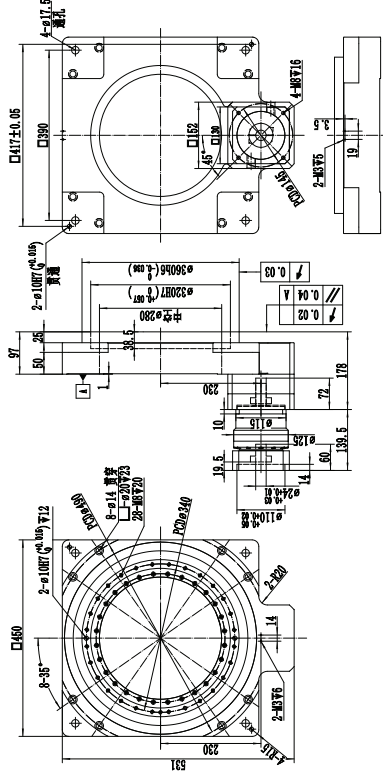
电机轴24外形图 / Dimension(motor shaft OD 24mm)



电机轴35外形图 / Dimension (motor shaft OD 35mm)



组合行星外形图 / Combined gearbox dimension



## INTERNAL STRUCTURE

### 如何选用减速机

Installation and Usage

