

卓尔不凡
青出于蓝
To be better
To be stronger



东莞市卓蓝自动化设备有限公司
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东莞市卓蓝自动化设备有限公司

智能动力系统

SR TECH



匠心铸造精密传动精品
*INGENUITY CASTING PRECISION
TRANSMISSION PRODUCTS*



智能动力系统

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ABOUT US

关于我们

东莞市卓蓝自动化设备有限公司坐落于有“世界工厂”之美称的广东省东莞市，是专业从事研发、生产和销售高精行星减速机、机器人专用减速机的厂家。是高精度行星传动领域解决方案的重要提供者。

各大高校的技术背景及卓蓝人高效务实的进取精神，构成了公司迅速成长、可持续发展的黄金结构。几年的发展，公司秉承“卓蓝”——卓尔不凡，青出于蓝而胜于蓝的理念，凝聚了一个极富行业经验及科学管理经验的领导核心。公司发展理念符合“工业4.0”和“中国制造2025”国家战略发展方向并将ISO9001质量管理体系的运行落实到公司的各个环节，以卓越的品质、价值和服务满足客户的需求。

我们相信我们追求成功的过程，就是与客户关系不断升华的过程。公司今天的成功依赖于众多客户长期的支持与帮助。面向未来，我们将为您做的更多.....

DongGuan ZhuoLan Automation Equipment Co.,Ltd. is located in dongguan, guangdong province, which is known as“world factory”. ZhuoLan is not only engaged in R&D, production and sales of high precision planetary reducer, robot special reducer but also a great solution provider in the high precision planetary transmission field.

The technical background of universities and the high-efficiency and pragmatic enterprising spirit of zhuo blue people constitute the golden structure which provides strong motivation to company's rapid growth and sustainable development. During several years of development, the company always adheres to the “zhuo blue ”spirits which is blue is better than blue and gathers a leadership core with rich industry experience and scientific management experience. Company development concept is in line with “industry 4.0”and“made in China 2025”National strategic development direction and we implement the operation of ISO9001 quality management system into every corner of the company, To meet the needs of customers with excellent quality, value and service.

We believe that our pursuit of success is the process of continuous improvement to customer relationship. Furthermore, The company's success depends on the long-term support and help of our customers. Looking to the future, We'll do more for you.....



Development History

发展历程



2012/2013

东莞市卓蓝自动化设备有限公司正式成立，公司拥有“卓蓝”“zhuolan”自主品牌，发明专利1项，实用新型专利2项，同时拥有6个软件著作权。

Dongguan zhuolan automation equipment co., Ltd. was formally established, with its own brand of "卓蓝" and "zhuolan". in the mean time the company has one invention patent, two utility model patents and six software Copyrights.

2014

引进高端人才团队研发斜齿精密行星减速机。

Introduce the high-end talent team to research and develop the precise helical gear planetary reducer..

2015/2016

公司获评为国家高新技术企业，东莞市万江区“倍增企业”

The company was rated as a national high-tech enterprise and a "Multiplier Enterprise" in Wanjiang District, Dongguan City

2017

引进高端人才团队研发谐波减速机，获得ISO9001:2015质量管理体系认证。

Introduce high-end talent team to develop harmonic reducer and obtain ISO9001: 2015 quality management system certification.

2018/2019

承接的大型项目敦煌追日计划——塔式熔盐日光发电镜场项目进入了《厉害了我的国》专题片；

公司成功通过并获得ISO 14000环境管理体系认证证书，获评东莞市“协同倍增企业”。

The large-scale project we carried on which dunhuang sun-chasing plan-tower molten salt solar power generation mirror field project was included in the special film "amazing my country".

The company has successfully passed and obtained the ISO 14000 environmental management system certification, and was awarded the "Collaborative multiplier enterprise" in Dongguan City".

2020

全面研制出智能动力系列产品，成功发明高精度行星差速机构。

A series of intelligent power products have been comprehensively developed, and a high-precision planetary differential mechanism has been successfully invented.

2021

卓蓝工业园奠基，开启卓蓝新的蓝图。

The foundation stone of Zhuolan Industrial Park was laid, opening a new blueprint for Zhuolan.

企业历程是企业所走过的历史足迹，回首过去，展望未来，我们一直在不断地创新、学习、并从中成长。风雨无阻，携手同行。

Corporate history is the historical footprint of enterprises, looking back and looking forward, We are constantly innovating, learning, and growing from it. Rain or shine, go hand in hand.

Advanced Manufacturing Platform

先进的制造平台



精益化的组装制程，追求完美品质意识，已深入卓蓝人心中。生产效率及品质严格以高标准执行。

从技术到实力，到产业配套，再到制造规模，卓蓝始终走在行业的最前端，继续保持着行业领先，并不断扩大行业优势。

The lean assembly process and the pursuit of perfect quality awareness have been deeply rooted in Zhuoran people. Production efficiency and quality are strictly implemented to high standards.

From technology to strength, to industrial support, to manufacturing scale, Zhuo Lan has always been at the forefront of the industry, continues to maintain industry leadership, and continues to expand its industry advantages.





Precision Testing Center

精密的检测中心



Provide a solid guarantee for innovative research and development

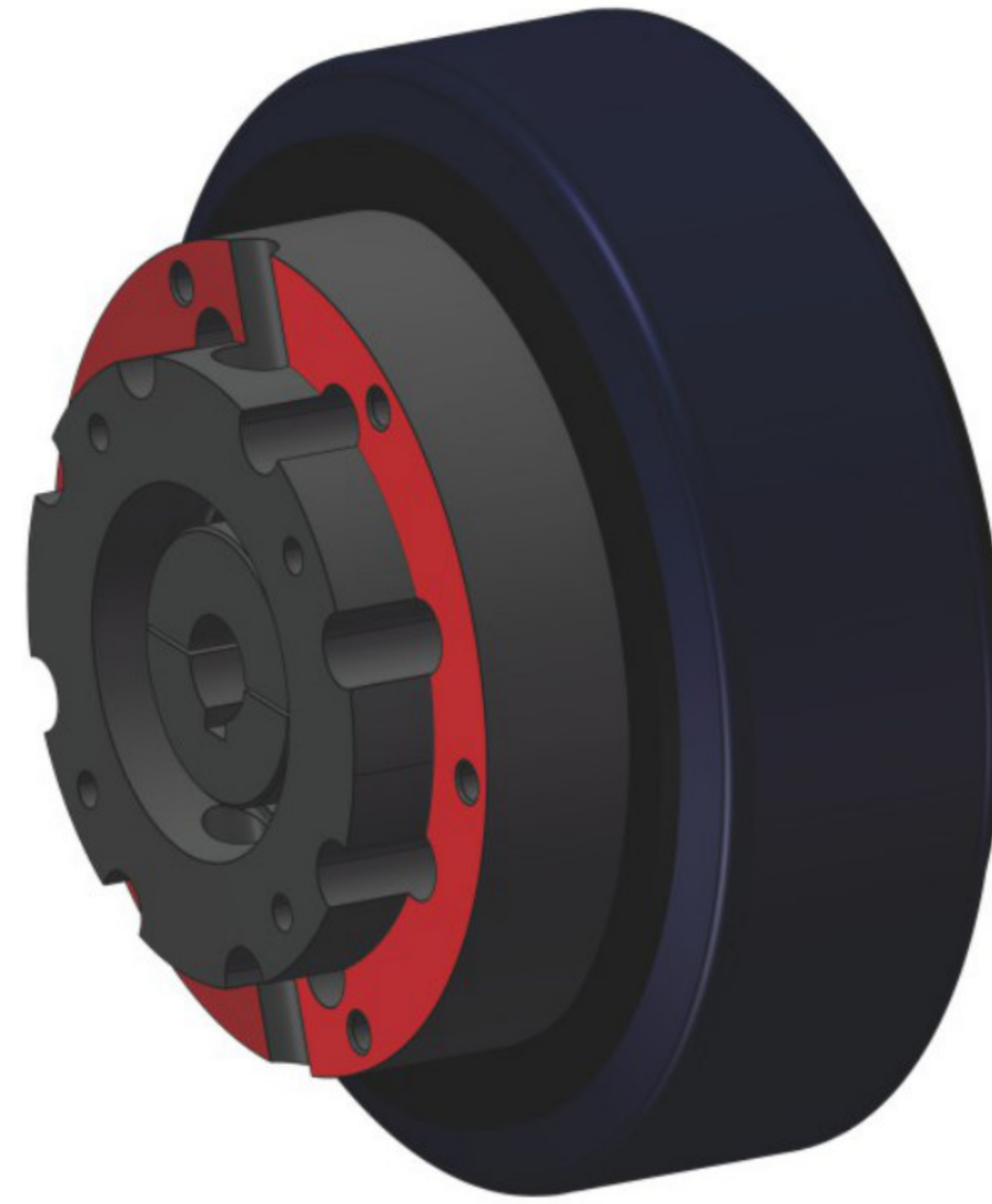
为创新研发提供坚实保障

我们有一支专业的品质管理团队，运用科学的品质管理标准，借助先进的检测设备，对产品各个环节的质量实行严格管控，确保为客户提供优质产品。

We have a professional quality management team, using scientific quality management standards, with advanced testing equipment, strict quality control of the quality of products in all aspects, to ensure that customers provide quality products.



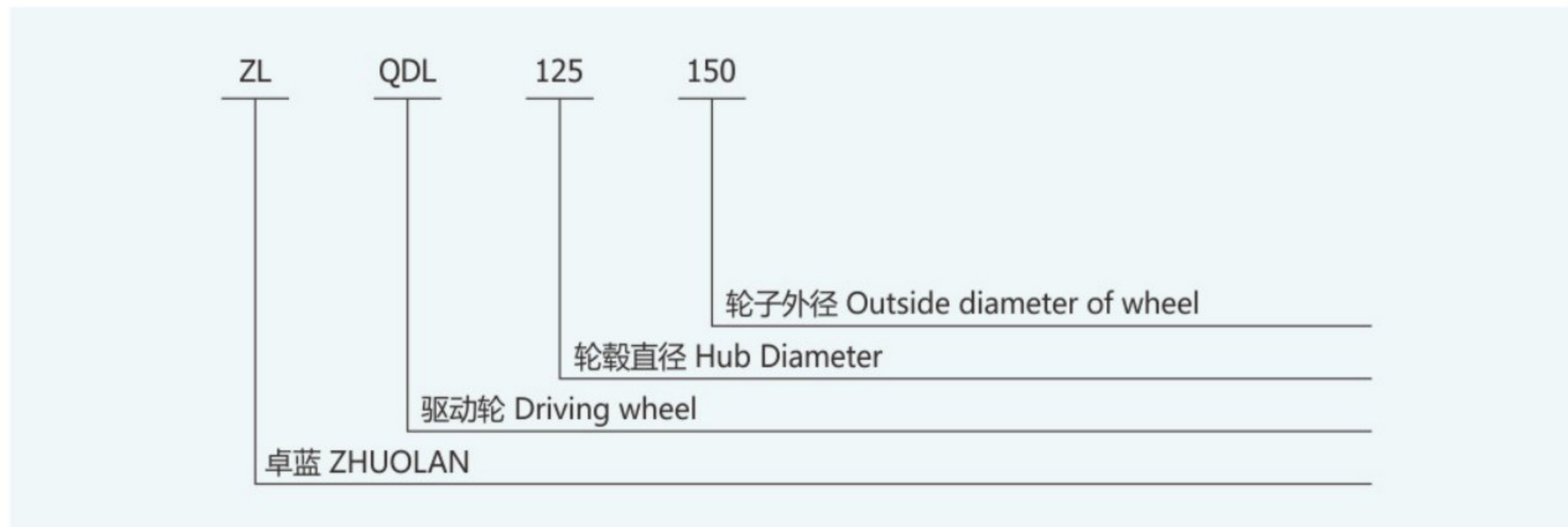
- ✓ QDL 95 (驱动轮Driving wheel)
- ✓ QDL 125 (驱动轮Driving wheel)
- ✓ QDL 150 (驱动轮Driving wheel)
- ✓ QDL 165 (驱动轮Driving wheel)
- ✓ QDL 300 (驱动轮Driving wheel)



QDL Series

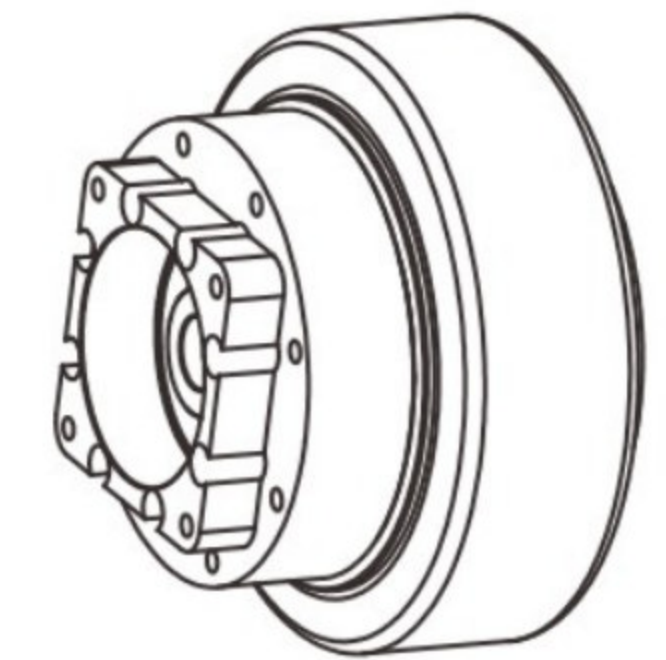
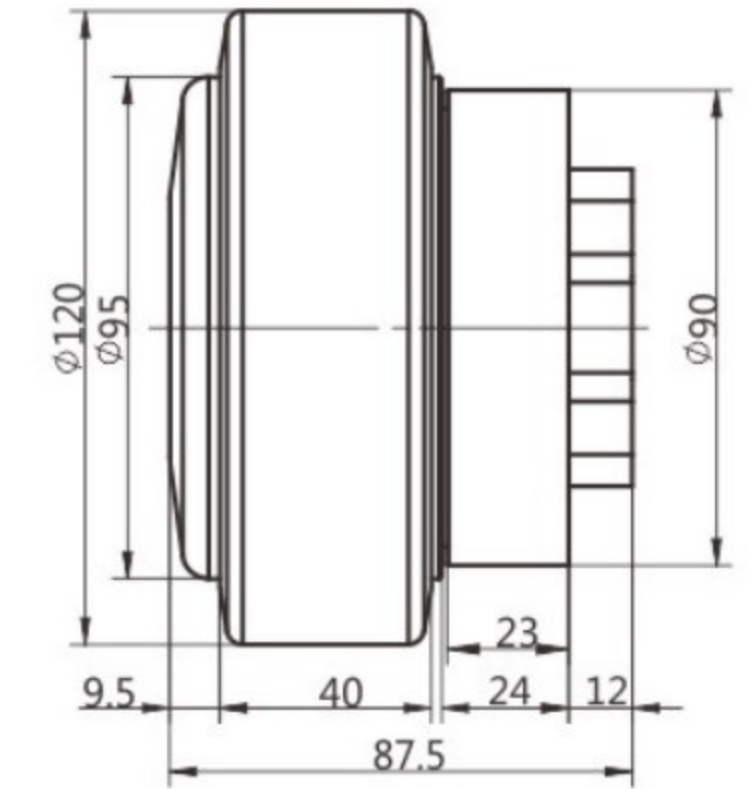
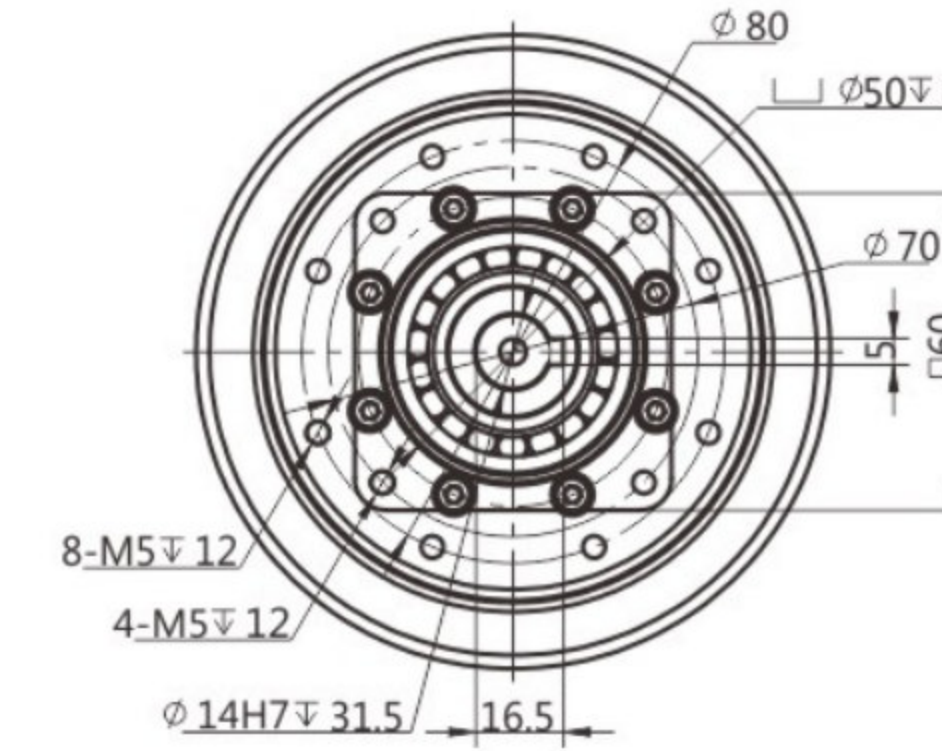
QDL系列型号说明

QDL series model description



QDL 95 Series

ZL-QDL-95-120-400



牵引电机参数
Parameter list of traction motor

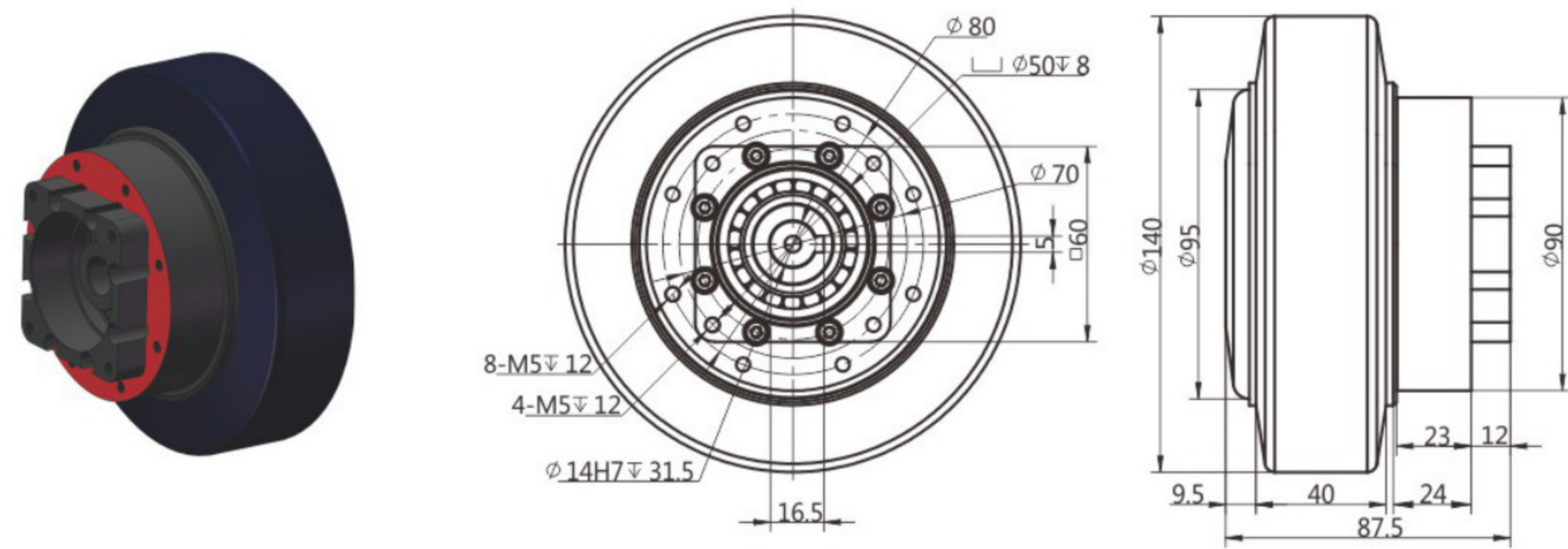
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 10.6 |
| 额定扭矩 Rated Torque | N·m | 1.27 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 150 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 70.7 | 56.5 | 45.2 | 40.4 | 40.4 | 28.3 | 22.6 | 16.1 |
| 牵引力 Traction | N | 304.8 | 381.0 | 476.3 | 450.0 | 450.0 | 450.0 | 495.0 | 322.5 |
| 牵引重量 Traction weight | 参考 Reference | 579.1 | 723.9 | 904.9 | 855.0 | 855.0 | 855.0 | 940.5 | 612.8 |

QDL 95 Serices

ZL-QDL-95-140-400



牵引电机参数
Parameter list of traction motor

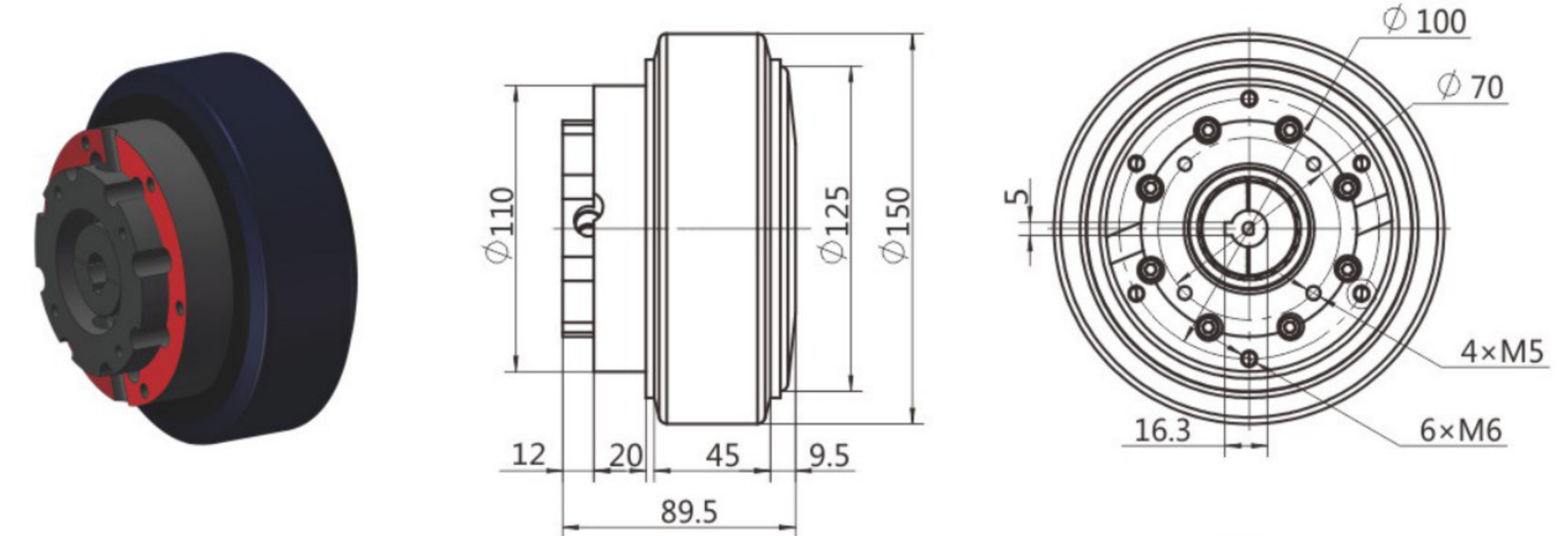
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 10.6 |
| 额定扭矩 Rated Torque | N·m | 1.27 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| | | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 |
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 82.4 | 65.9 | 52.8 | 47.1 | 37.7 | 33.0 | 26.4 | 18.8 |
| 牵引力 Traction | N | 261.3 | 326.6 | 408.2 | 385.7 | 424.3 | 385.7 | 424.3 | 276.4 |
| 牵引重量 Traction weight | 参考 Reference | 496.4 | 620.5 | 775.6 | 732.9 | 806.1 | 732.9 | 806.1 | 525.2 |

QDL 125 Serices

ZL-QDL-125-150-400



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N·m | 1.27 |
| 防护等级 Protection level | IP | 65 |

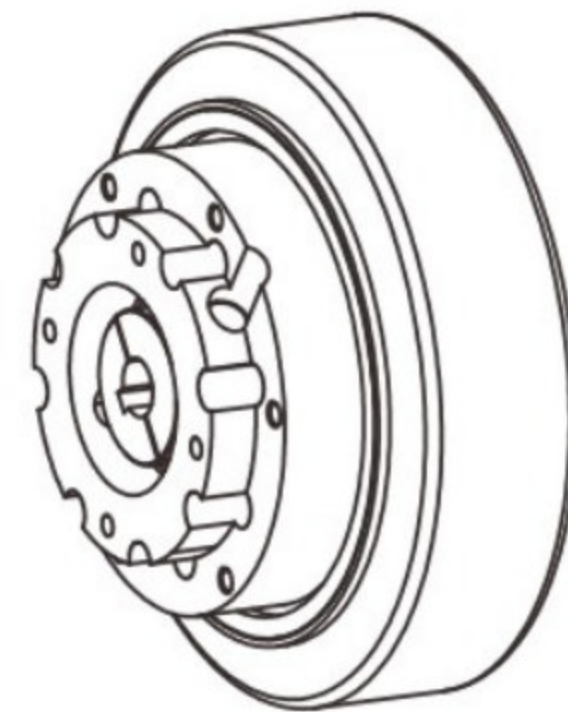
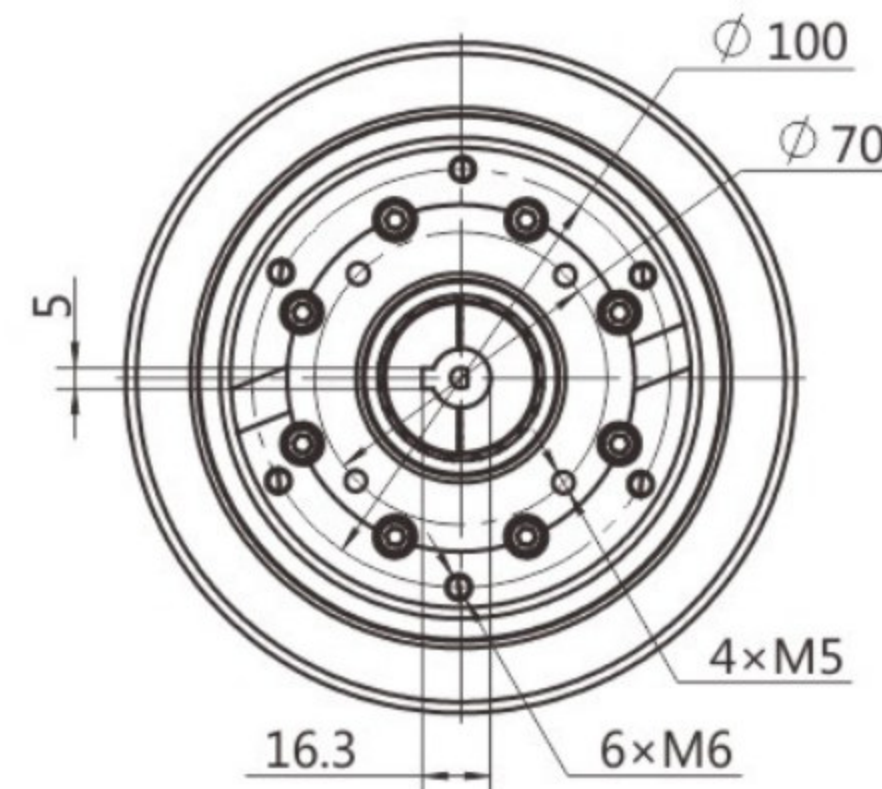
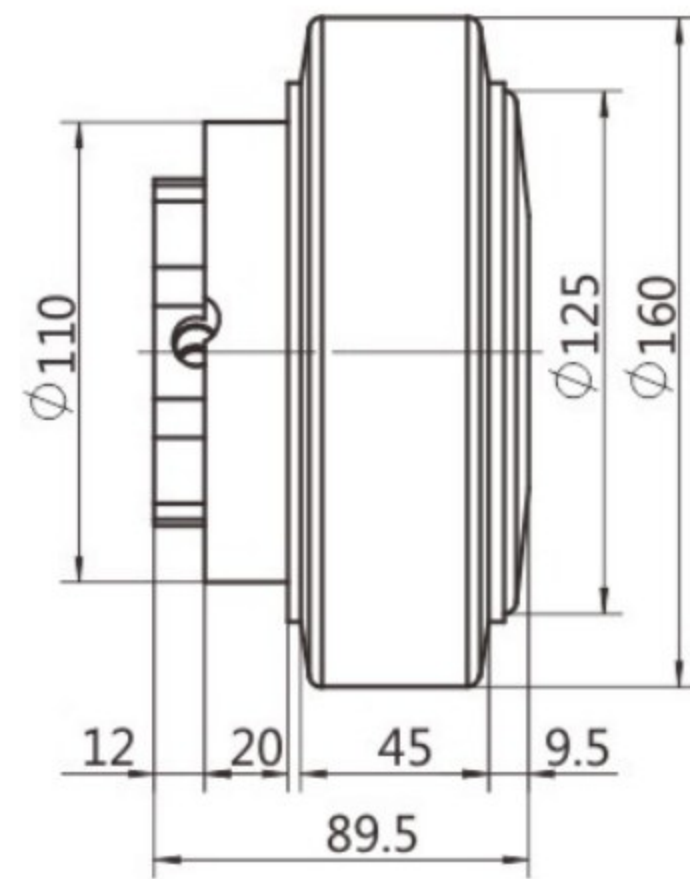
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|------|-------|------|-------|-------|
| | | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 |
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 88.3 | 70.7 | 56.5 | 50.5 | 40.4 | 35.3 | 28.3 | 20.2 |
| 牵引力 Traction | N | 243.8 | 304.8 | 381 | 360 | 396 | 360 | 396 | 258 |
| 牵引重量 Traction weight | 参考 Reference | 463.3 | 579.1 | 723.9 | 684 | 752.4 | 684 | 752.4 | 490.2 |

QDL

QDL 125 Serices

ZL-QDL-125-160-400



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N-m | 1.27 |
| 防护等级 Protection level | IP | 65 |

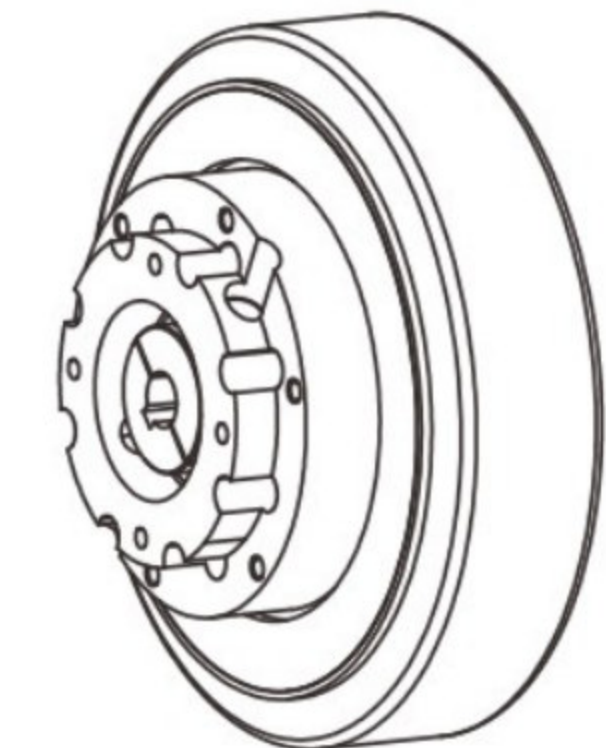
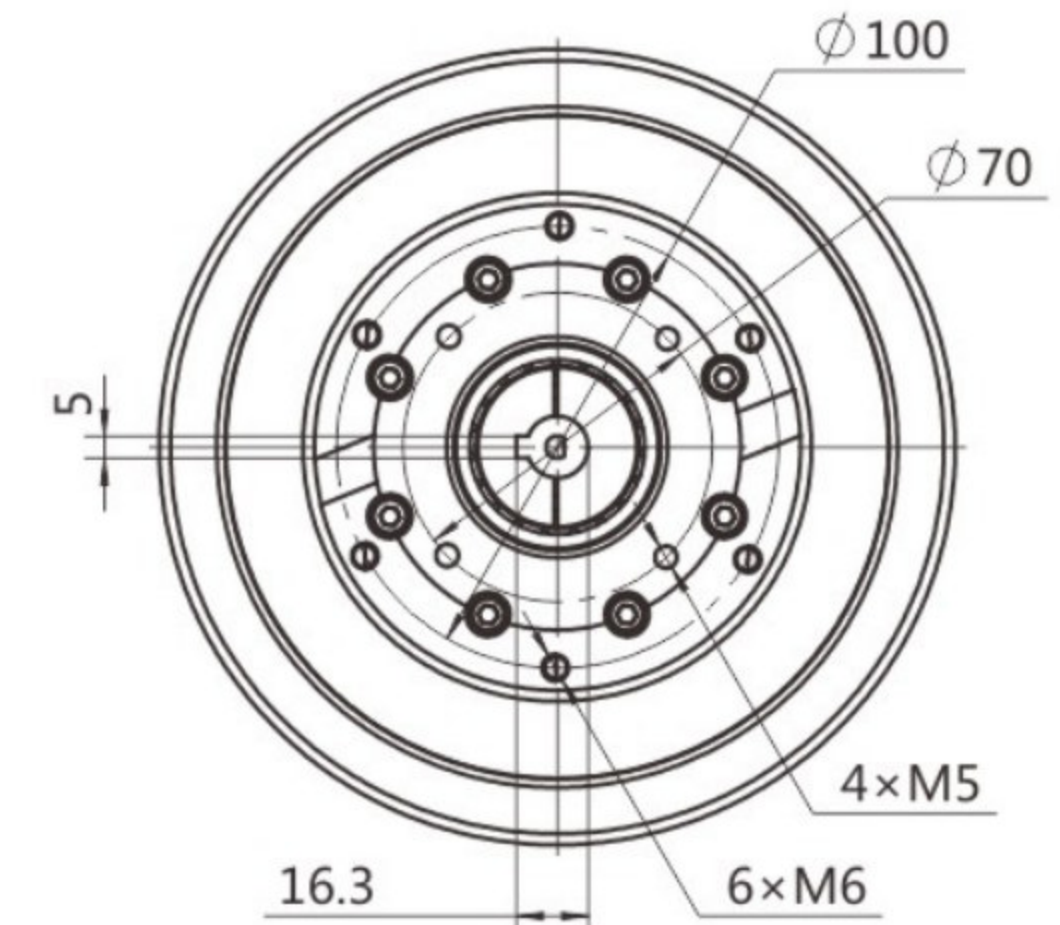
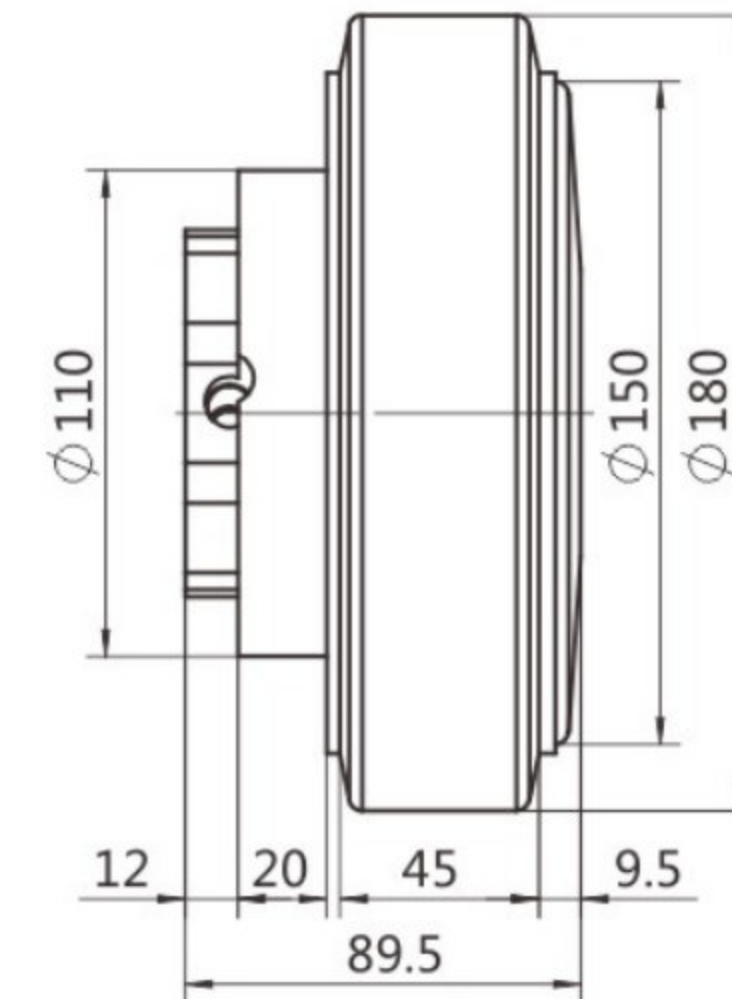
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 350 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 94.2 | 75.4 | 60.3 | 53.8 | 43.1 | 37.7 | 30.1 | 21.5 |
| 牵引力 Traction | N | 228.6 | 285.8 | 357.2 | 337.5 | 371.3 | 337.5 | 371.3 | 241.9 |
| 牵引重量 Traction weight | 参考 Reference | 434.3 | 542.9 | 678.7 | 641.3 | 705.4 | 641.3 | 705.4 | 459.6 |

QDL

QDL 150 Serices

ZL-QDL-150-180-400



牵引电机参数
Parameter list of traction motor

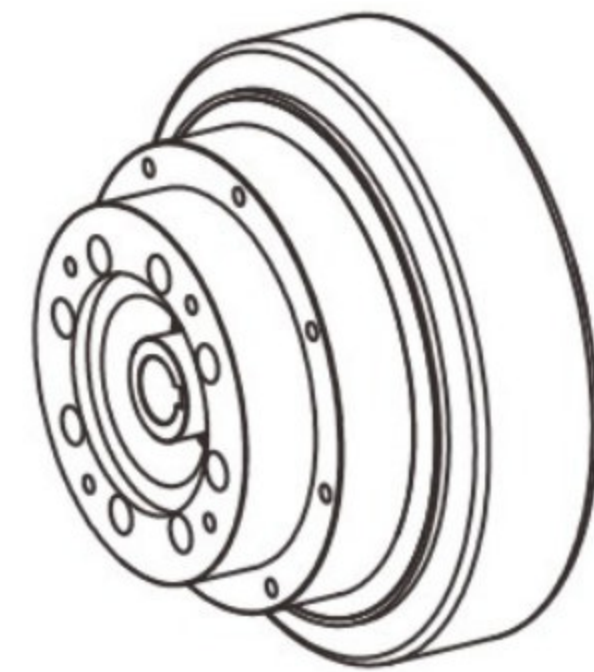
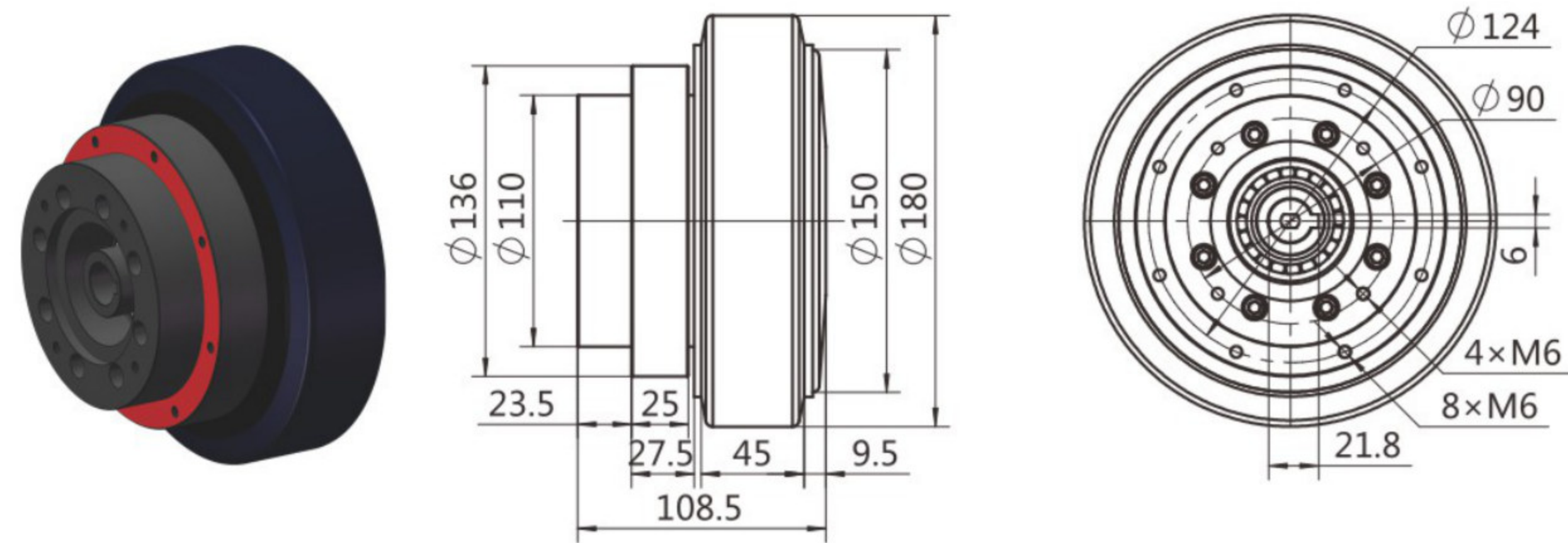
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N-m | 1.27 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|------|------|------|------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 400 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 106 | 84.8 | 67.8 | 60.6 | 48.4 | 42.4 | 33.9 | 24.2 |
| 牵引力 Traction | N | 203.2 | 254 | 317.5 | 300 | 330 | 300 | 330 | 215 |
| 牵引重量 Traction weight | 参考 Reference | 386.1 | 482.6 | 603.3 | 570 | 627 | 570 | 627 | 408.5 |

QDL 150 Serices

ZL-QDL-150-180-750



牵引电机参数
Parameter list of traction motor

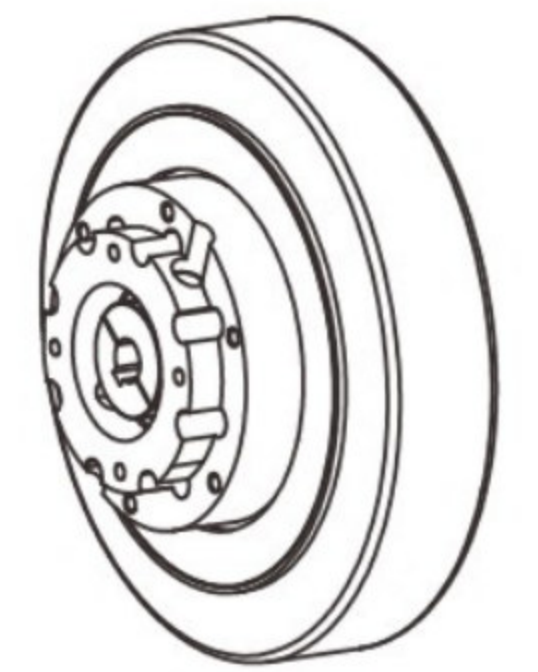
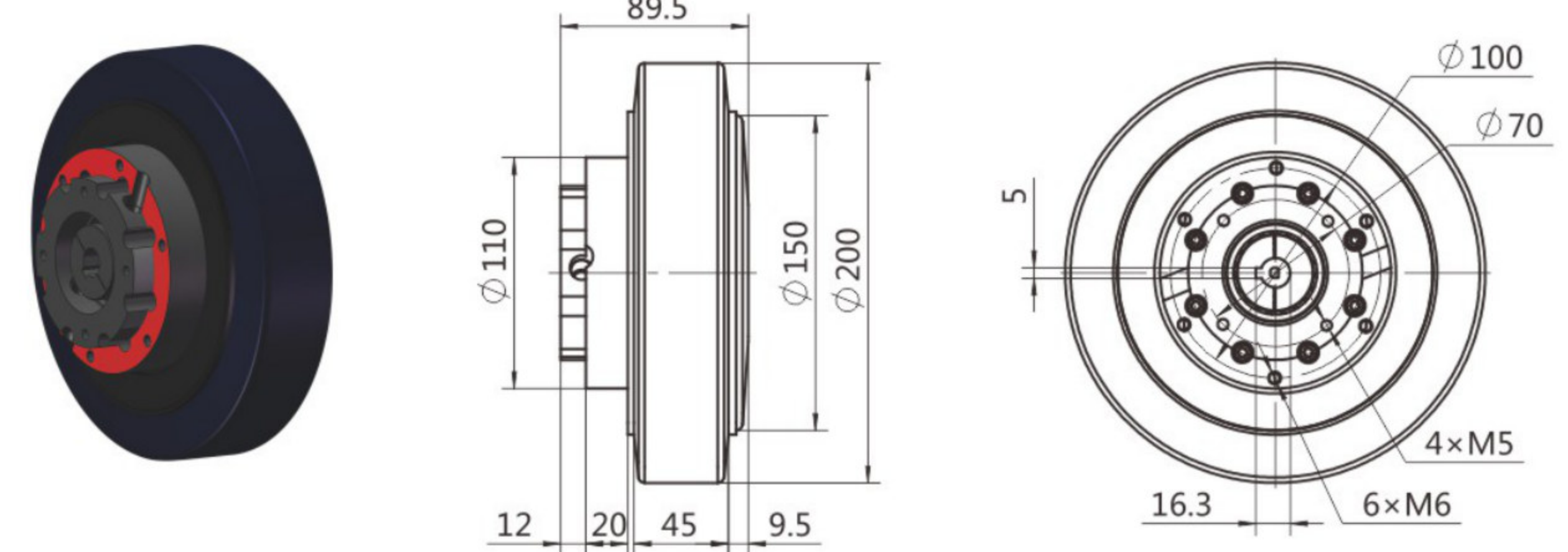
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 22.4 |
| 额定扭矩 Rated Torque | N·m | 2.39 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|--------|--------|------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 96 | 96 | 105 | 96 | 105 | 96 | 105 | 71.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 400 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 106 | 84.8 | 67.8 | 60.6 | 48.4 | 42.4 | 33.9 | 24.2 |
| 牵引力 Traction | N | 382.4 | 478 | 597.5 | 669.2 | 836.5 | 956 | 1050 | 715 |
| 牵引重量 Traction weight | 参考 Reference | 726.6 | 908.2 | 1135.3 | 1271.5 | 1589.4 | 1816.4 | 1995 | 1358.5 |

QDL 150 Serices

ZL-QDL-150-200-400



牵引电机参数
Parameter list of traction motor

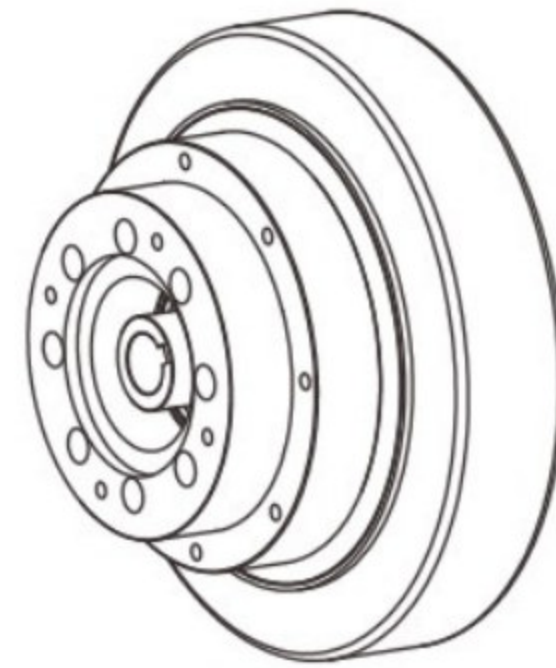
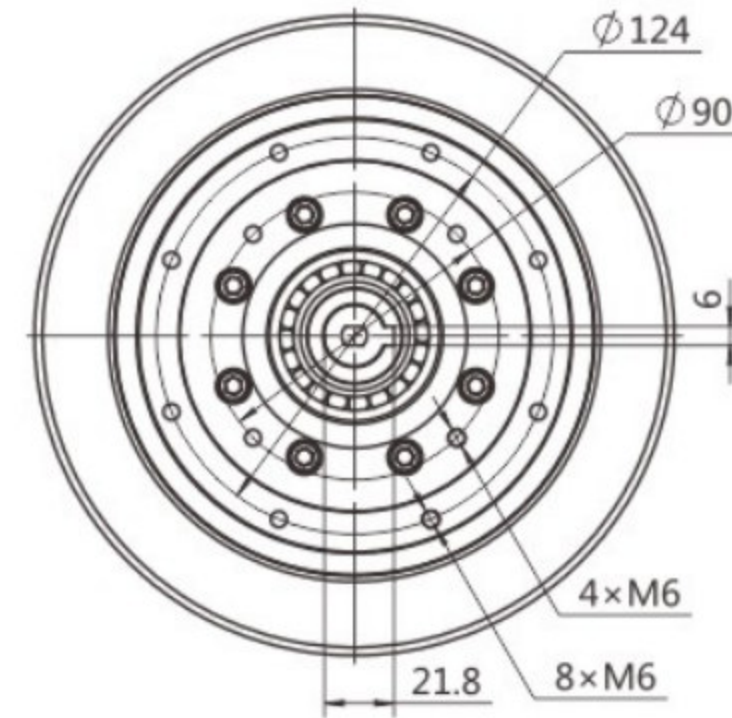
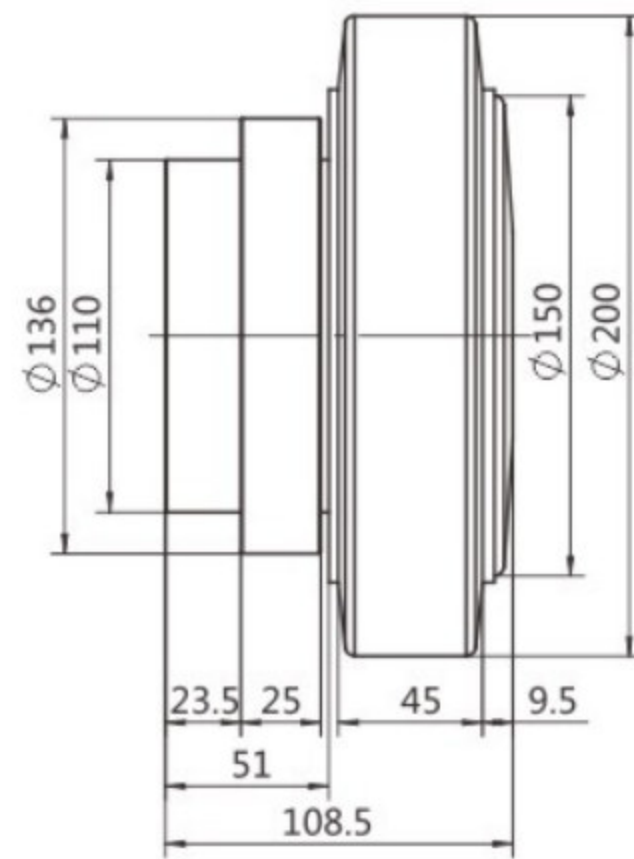
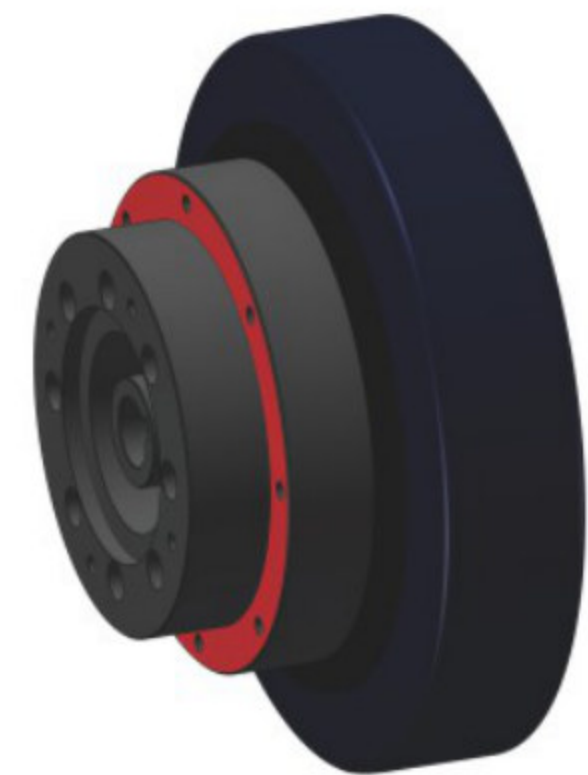
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N·m | 1.27 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|------|-------|------|-------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 450 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 350 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 117.8 | 94.2 | 75.4 | 67.3 | 53.8 | 47.1 | 37.7 | 26.9 |
| 牵引力 Traction | N | 182.9 | 228.6 | 285.8 | 270 | 297 | 270 | 297 | 193.5 |
| 牵引重量 Traction weight | 参考 Reference | 347.5 | 434.3 | 542.9 | 513 | 564.3 | 513 | 564.3 | 367.7 |

QDL 150 Serices

ZL-QDL-150-200-750



牵引电机参数
Parameter list of traction motor

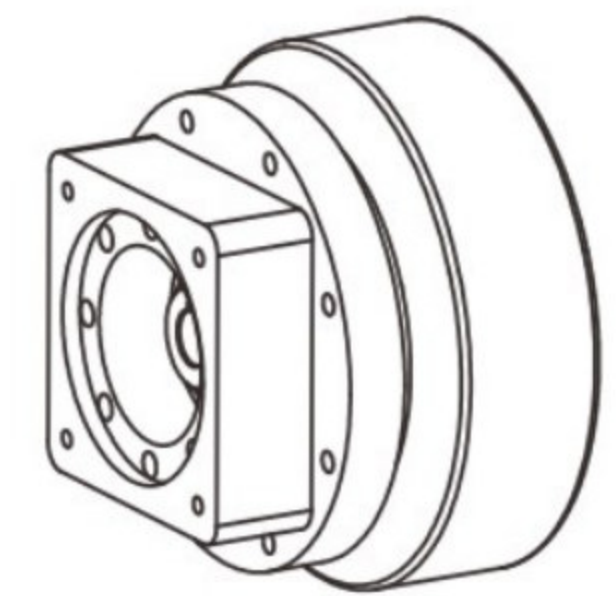
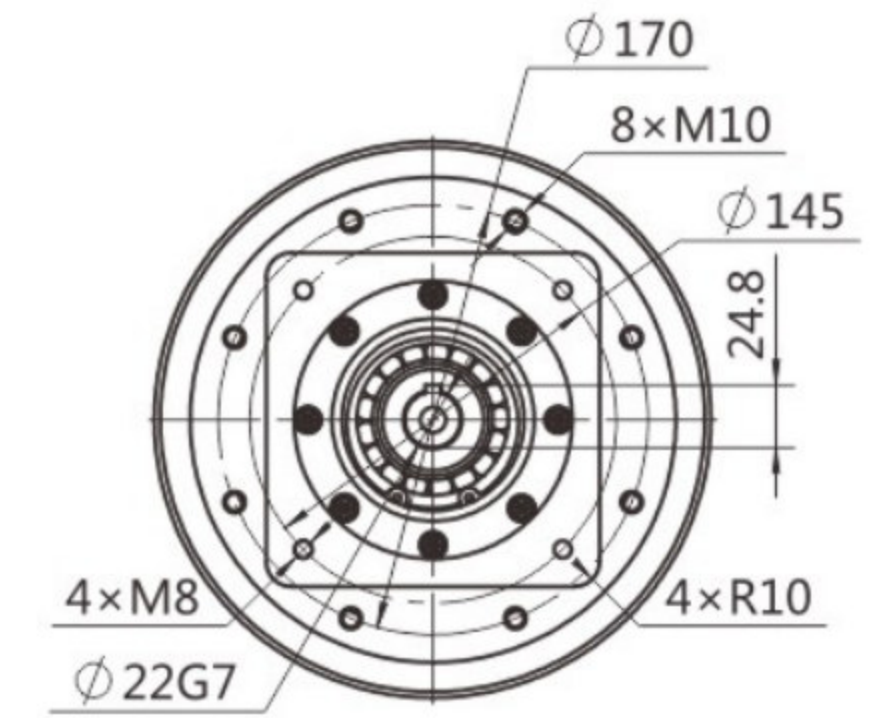
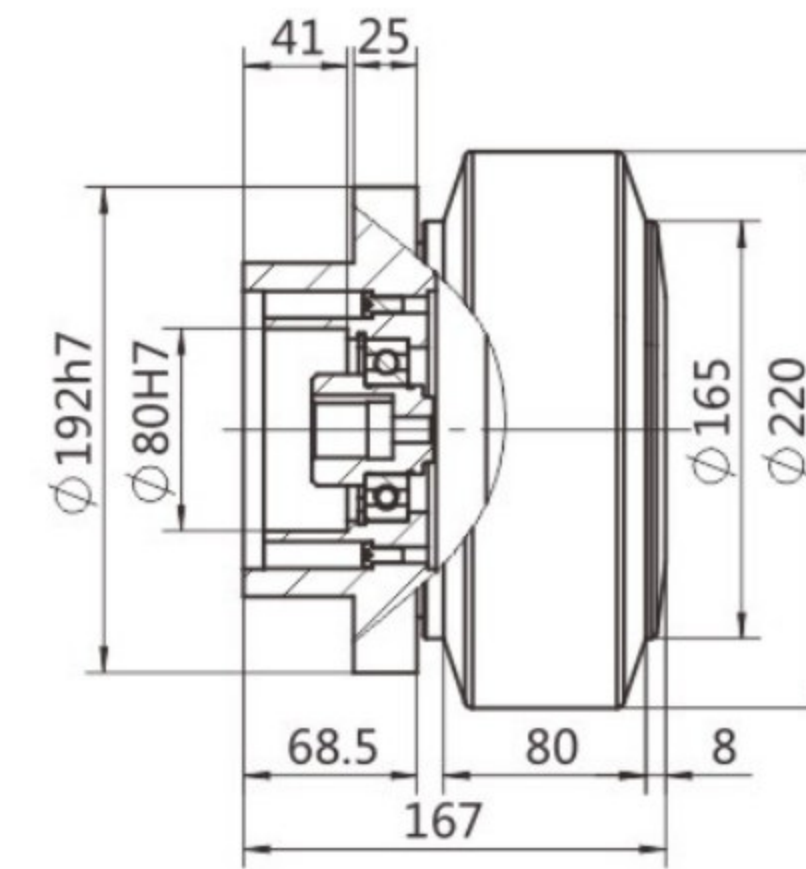
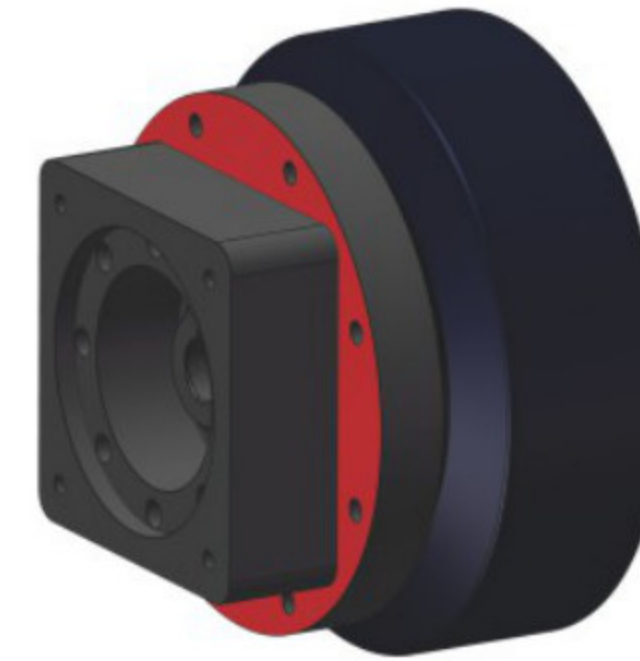
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 22.4 |
| 额定扭矩 Rated Torque | N·m | 2.39 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|--------|--------|--------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 96 | 96 | 105 | 96 | 105 | 96 | 105 | 71.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 450 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 350 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 117.8 | 94.2 | 75.4 | 67.3 | 53.8 | 47.1 | 37.7 | 26.9 |
| 牵引力 Traction | N | 344.2 | 430.2 | 537.8 | 602.3 | 752.8 | 860.4 | 945 | 643.5 |
| 牵引重量 Traction weight | 参考 Reference | 653.9 | 817.4 | 1021.7 | 1144.3 | 1430.4 | 1634.8 | 1795.5 | 1222.7 |

QDL 165 Serices

ZL-QDL-165-220-1500



牵引电机参数
Parameter list of traction motor

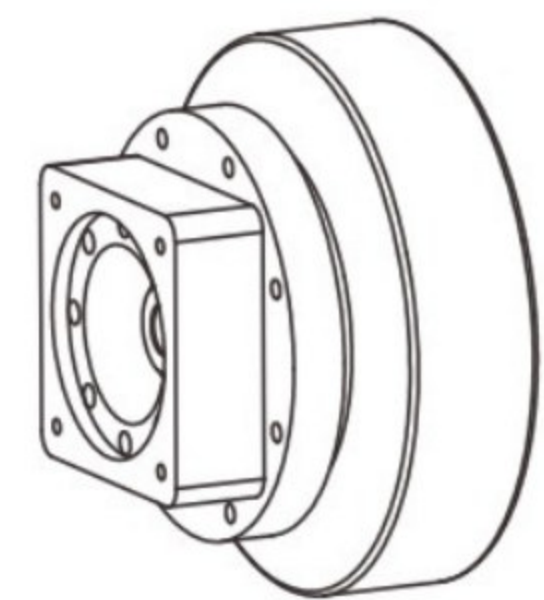
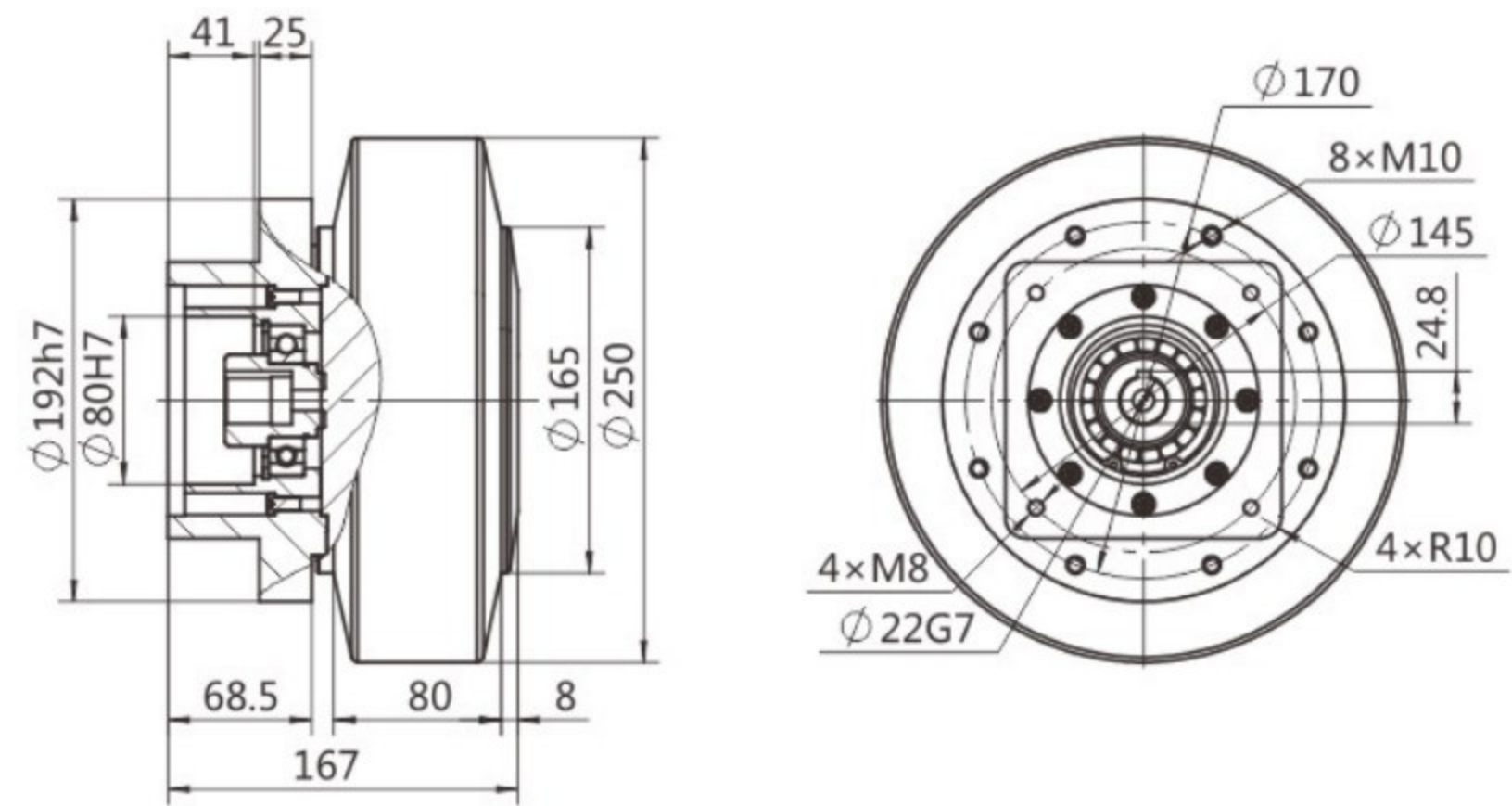
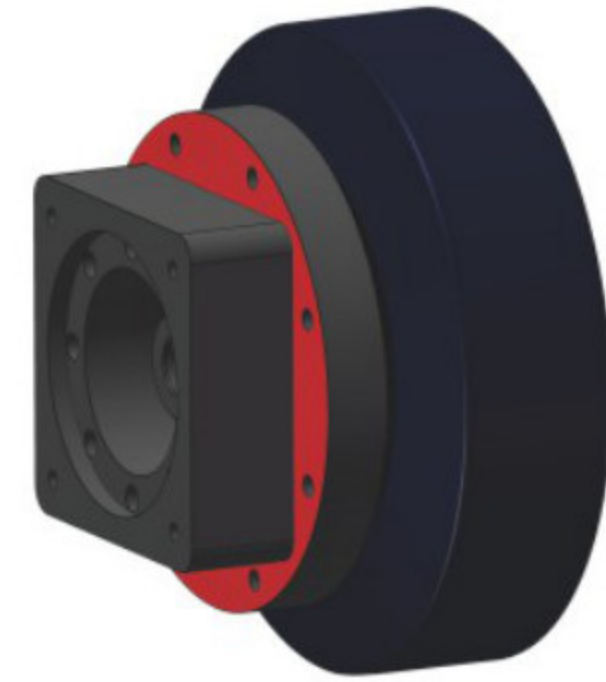
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 39 |
| 额定扭矩 Rated Torque | N·m | 4.77 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|--------|--------|------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 250 | 250 | 264 | 250 | 264 | 250 | 264 | 177 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1120 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 129.5 | 103.6 | 82.9 | 74 | 59.2 | 51.8 | 41.4 | 29.6 |
| 牵引力 Traction | N | 624.4 | 780.5 | 975.7 | 1092.8 | 1366 | 1561.1 | 1951 | 1448.2 |
| 牵引重量 Traction weight | 参考 Reference | 1186.4 | 1483 | 1853.8 | 2076.3 | 2595.3 | 2966.1 | 3708 | 2751 |

QDL 165 Serices

ZL-QDL-165-250-1500



牵引电机参数
Parameter list of traction motor

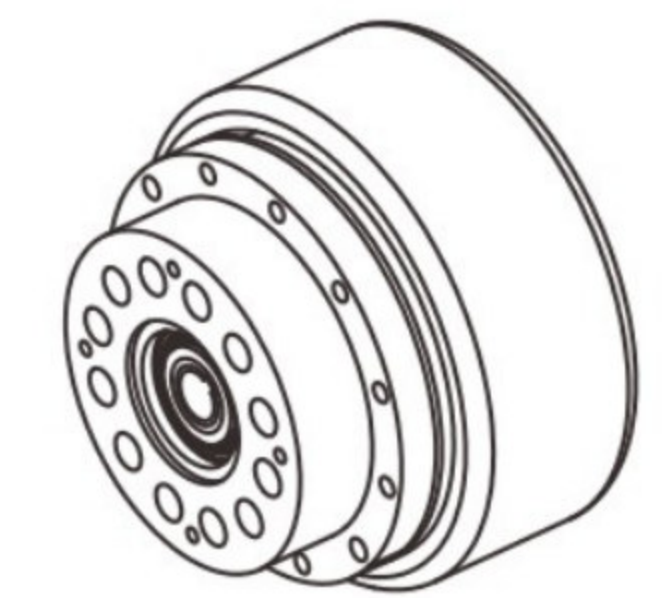
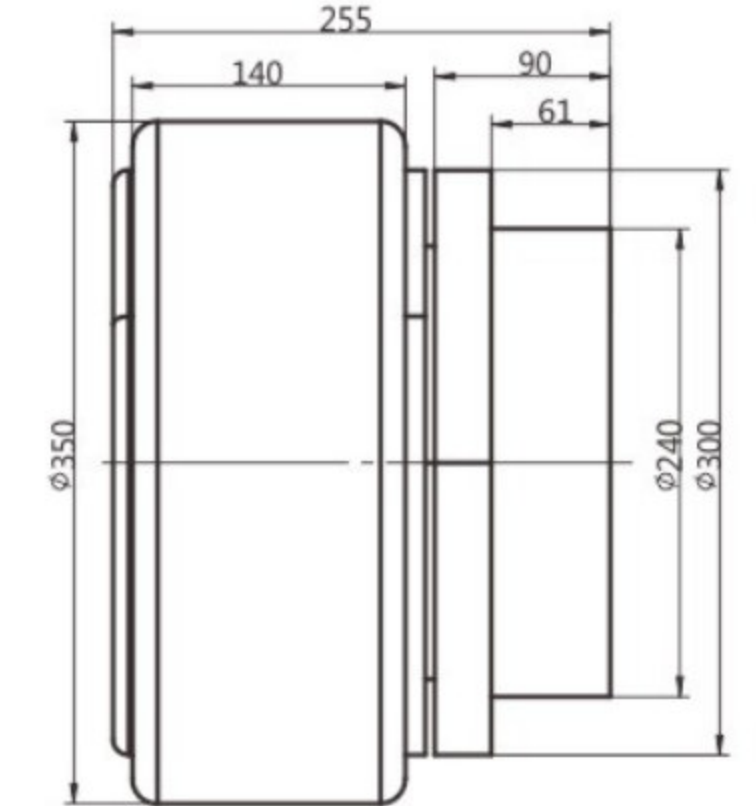
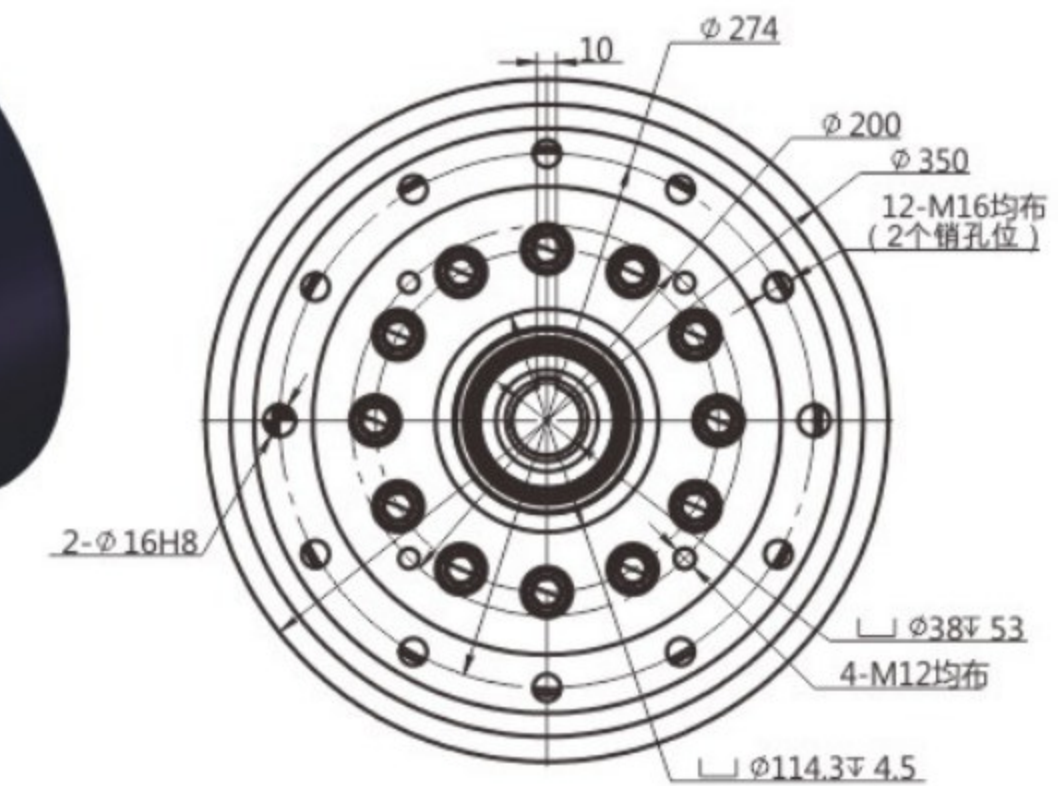
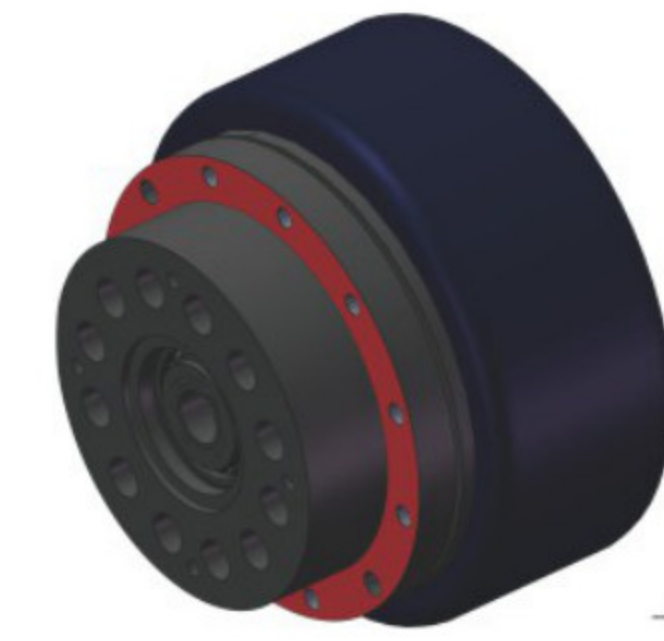
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 39 |
| 额定扭矩 Rated Torque | N·m | 4.77 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|--------|--------|------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 250 | 250 | 264 | 250 | 264 | 250 | 264 | 177 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1150 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 750 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 147.2 | 117.8 | 94.2 | 84.1 | 67.3 | 58.9 | 47.1 | 33.6 |
| 牵引力 Traction | N | 549.5 | 686.9 | 858.6 | 961.6 | 1202 | 1373.8 | 1717 | 1274.4 |
| 牵引重量 Traction weight | 参考 Reference | 1044.1 | 1305 | 1631.3 | 1827.1 | 2283.9 | 2610.1 | 3263 | 1911.6 |

QDL 300 Serices

ZL-QDL-300-350-7500



牵引电机参数
Parameter list of traction motor

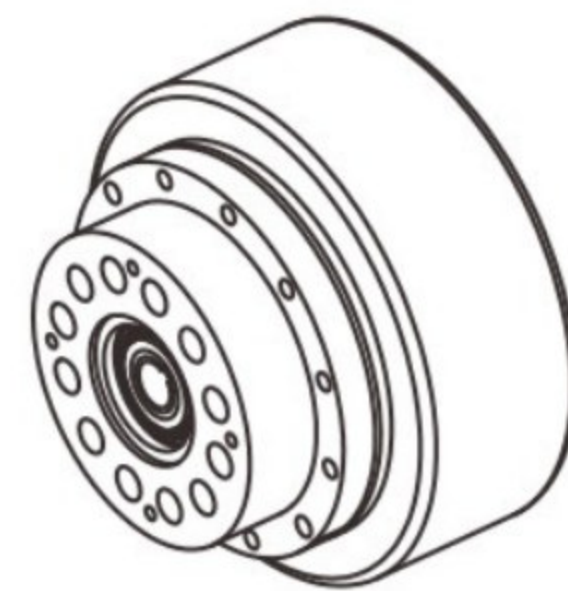
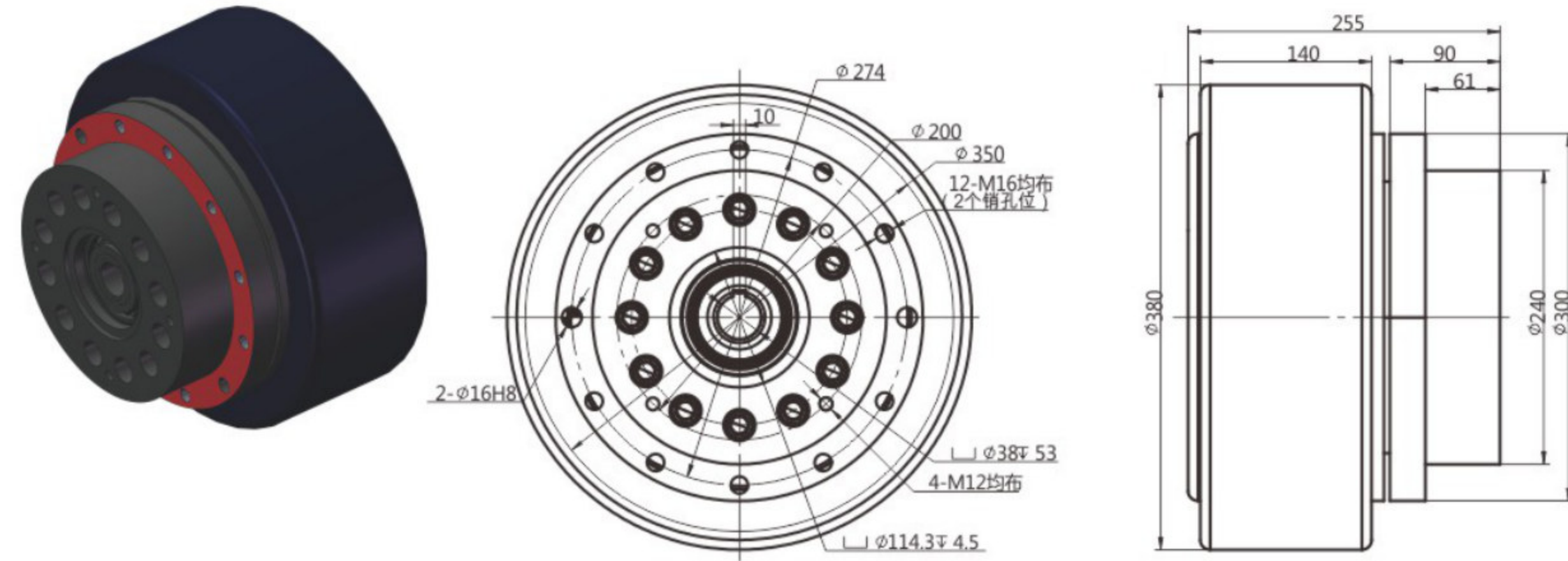
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 7500 |
| 电机电压 Motor voltage | V | 72 |
| 电机转速 Motor speed | rpm | 2000 |
| 电机电流 Motor current | A | 135±10% |
| 额定扭矩 Rated Torque | N·m | 35 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|--------|--------|--------|---------|---------|---------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 1300 | 1300 | 1100 | 1300 | 1100 | 1300 | 1100 | 800 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 2500 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 137.4 | 109.9 | 87.9 | 78.5 | 62.8 | 55.0 | 44.0 | 31.4 |
| 牵引力 Traction | N | 2880.0 | 3600.0 | 4500.0 | 5040.0 | 5657.1 | 6685.7 | 5657.1 | 4114.3 |
| 牵引重量 Traction weight | 参考 Reference | 5472.0 | 6840.0 | 8550.0 | 9576.0 | 10748.6 | 12702.9 | 10748.6 | 7817.1 |

QDL 300 Series

ZL-QDL-300-380-7500



牵引电机参数
Parameter list of traction motor

| | | |
|-----------------------|-----|------------------|
| 类型 Type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 7500 |
| 电机电压 Motor voltage | V | 72 |
| 电机转速 Motor speed | rpm | 2000 |
| 电机电流 Motor current | A | 135±10% |
| 额定扭矩 Rated Torque | N·m | 35 |
| 防护等级 Protection level | IP | 65 |

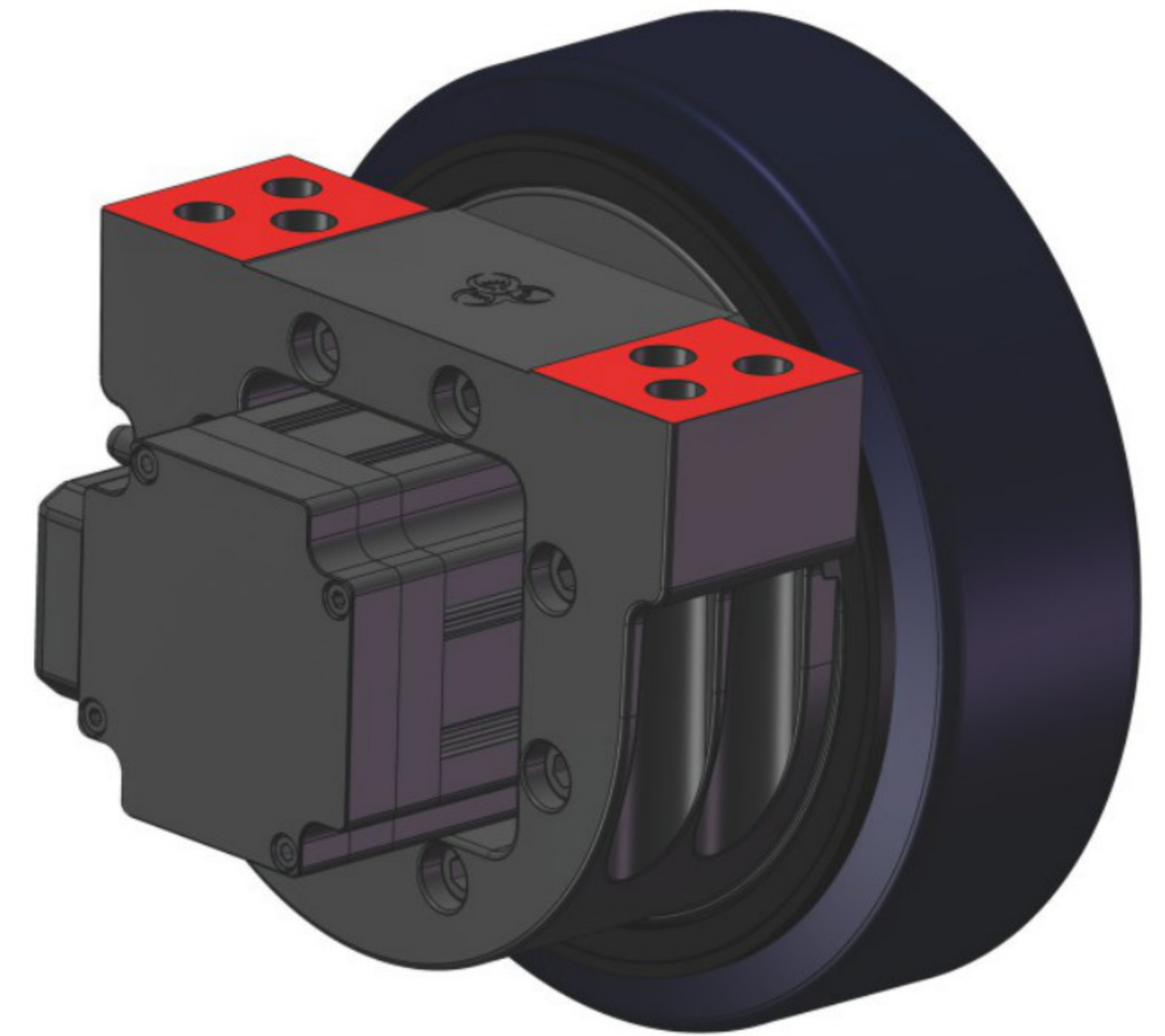
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|--------|--------|--------|--------|---------|--------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 1300 | 1300 | 1100 | 1300 | 1100 | 1300 | 1100 | 800 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 3000 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 149.2 | 119.3 | 95.5 | 85.2 | 68.2 | 59.7 | 47.7 | 34.1 |
| 牵引力 Traction | N | 2652.6 | 3315.8 | 4144.7 | 4642.1 | 5210.5 | 6157.9 | 5210.5 | 3789.5 |
| 牵引重量 Traction weight | 参考 Reference | 5040.0 | 6300.0 | 7875.0 | 8820.0 | 9900.0 | 11700.0 | 9900.0 | 7200.0 |

- ✓ XZS 95
- ✓ XZS 125
- ✓ XZS 150
- ✓ XZS 165

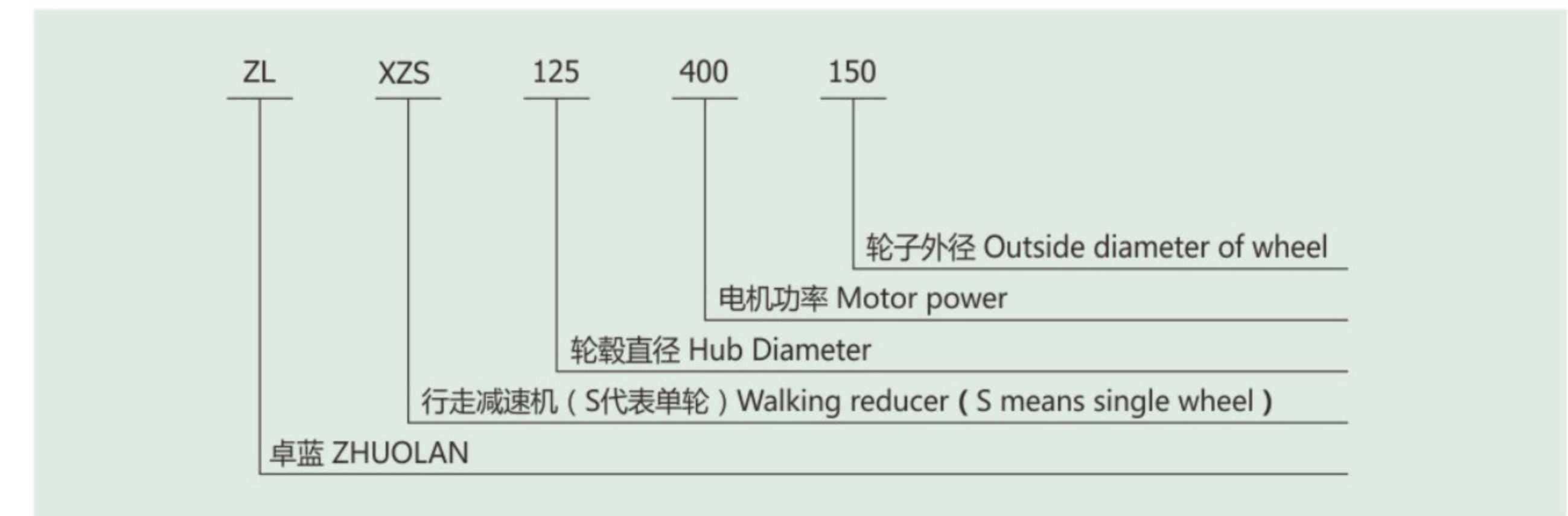
XZS

Series



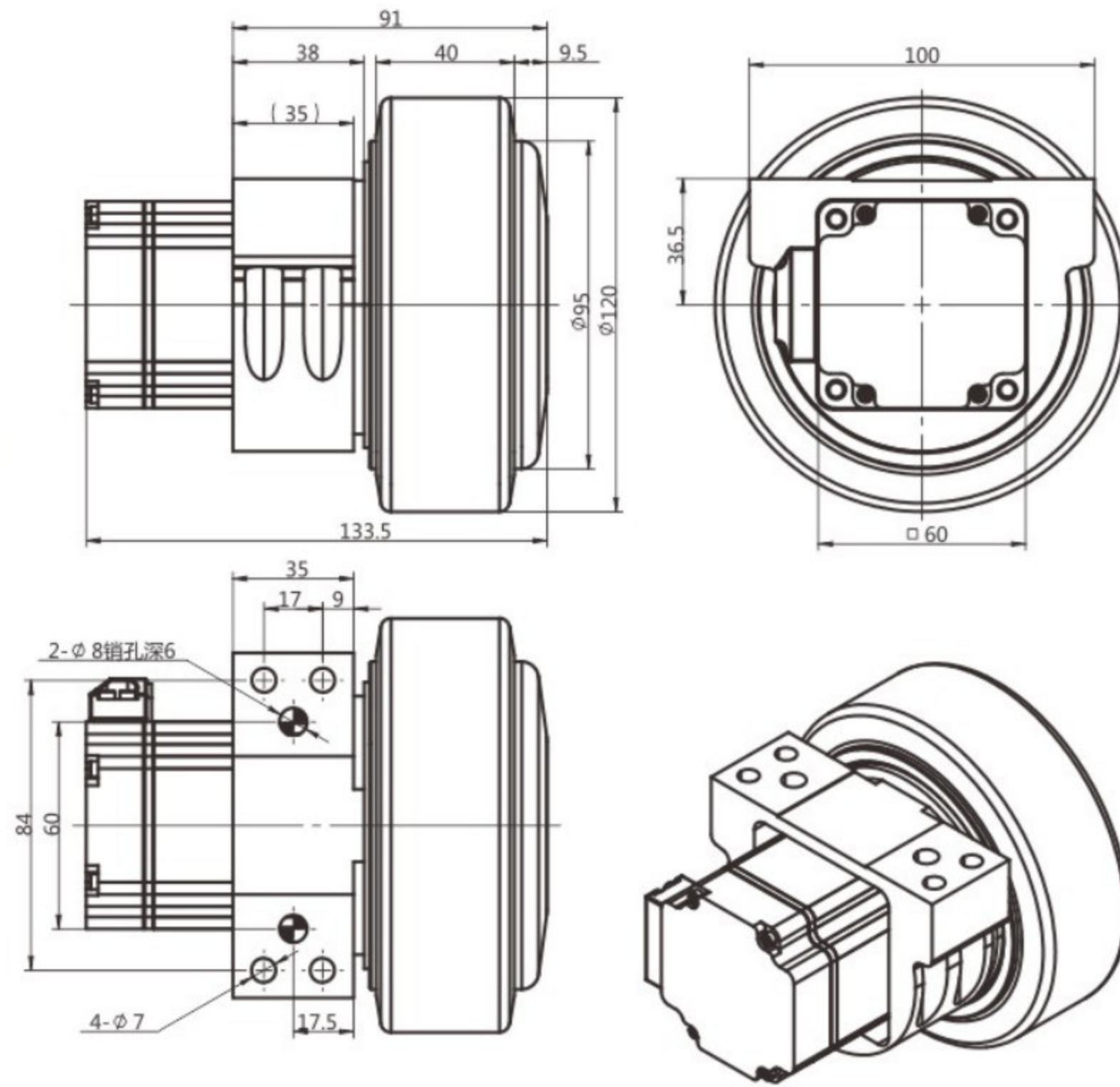
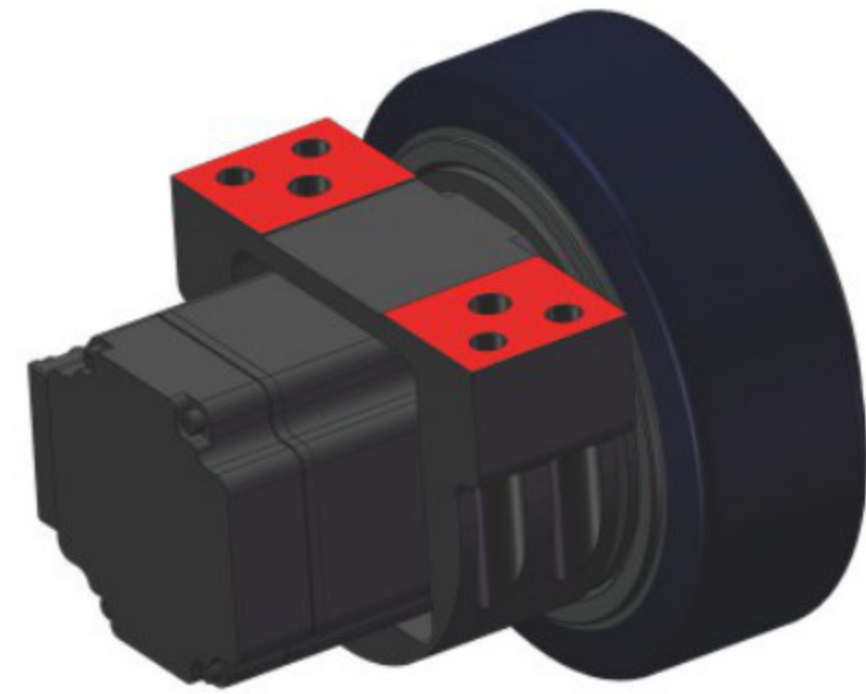
XZS系列型号说明

XZS series model description



XZS 95 Serices

ZL-XZS-95-400-120



牵引电机参数
Parameter list of traction motor

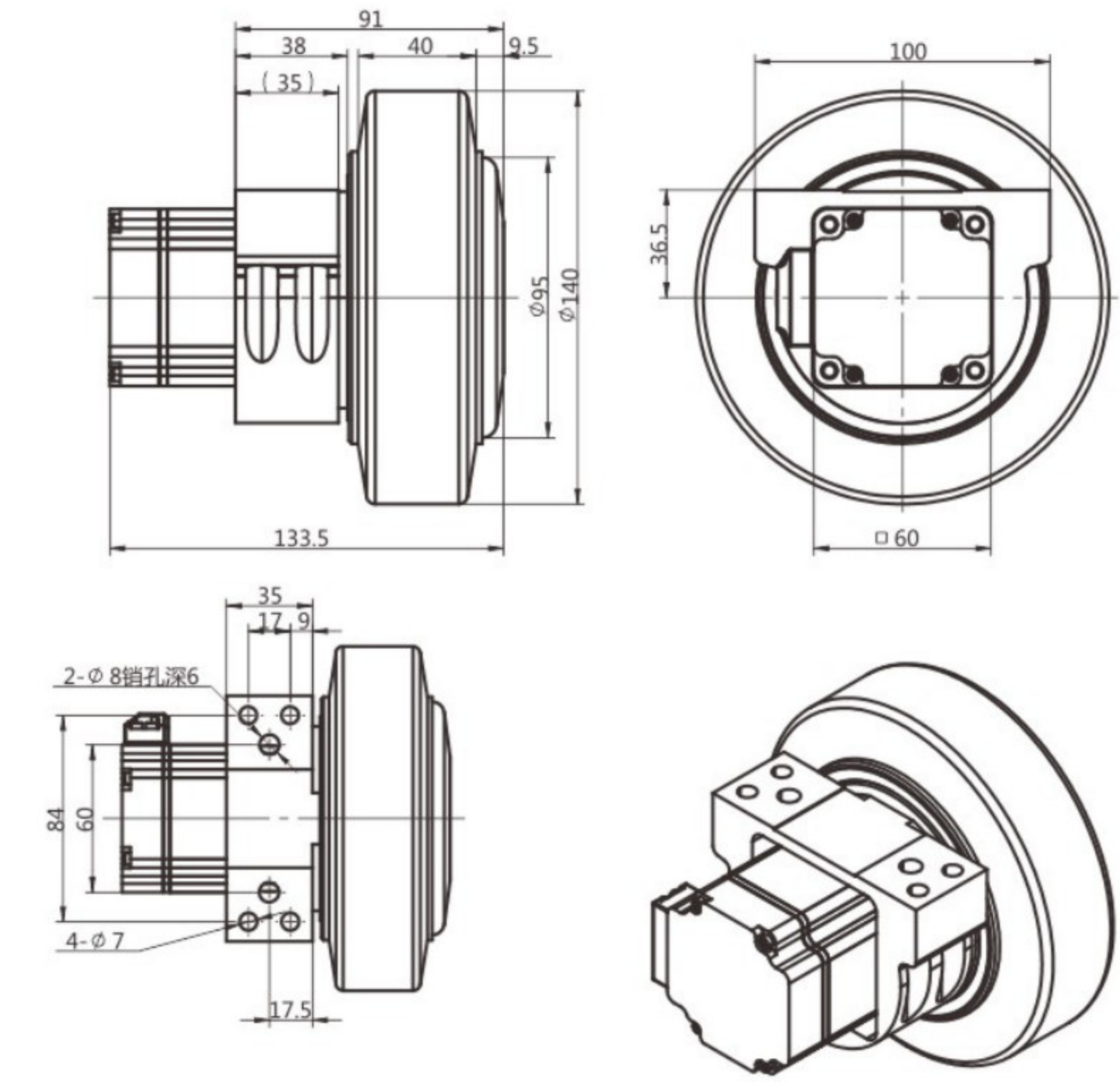
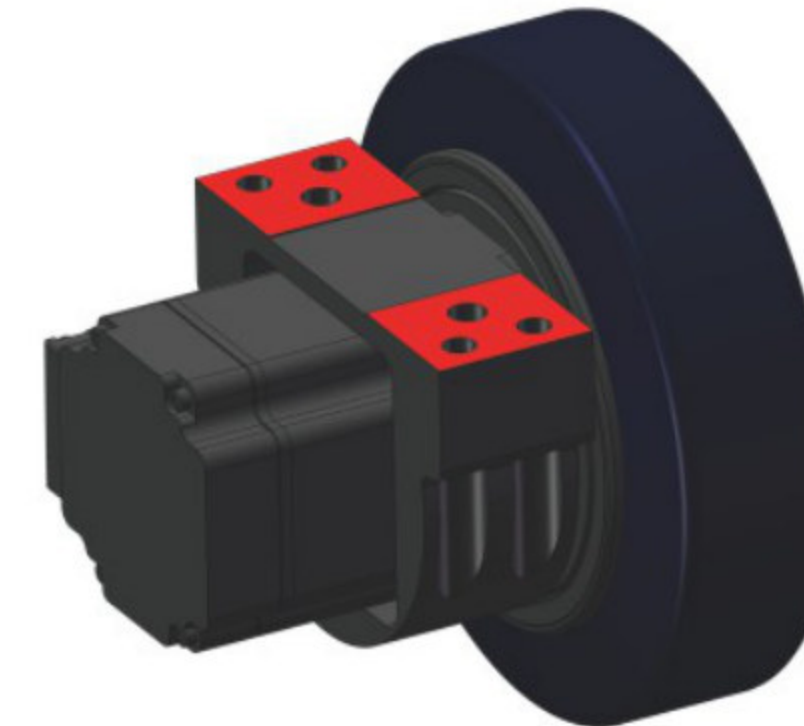
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N·m | 1.27 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 150 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 70.7 | 56.5 | 45.2 | 40.4 | 32.3 | 28.3 | 22.6 | 16.1 |
| 牵引力 Traction | N | 304.8 | 381.0 | 476.3 | 450.0 | 495.0 | 450.0 | 495.0 | 322.5 |
| 牵引重量 Traction weight | 参考 Reference | 579.1 | 723.9 | 904.9 | 855.0 | 940.5 | 855.0 | 940.5 | 612.8 |

XZS 95 Serices

ZL-XZS-95-400-140



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 10.6 |
| 额定扭矩 Rated Torque | N·m | 1.27 |
| 防护等级 Protection level | IP | 65 |

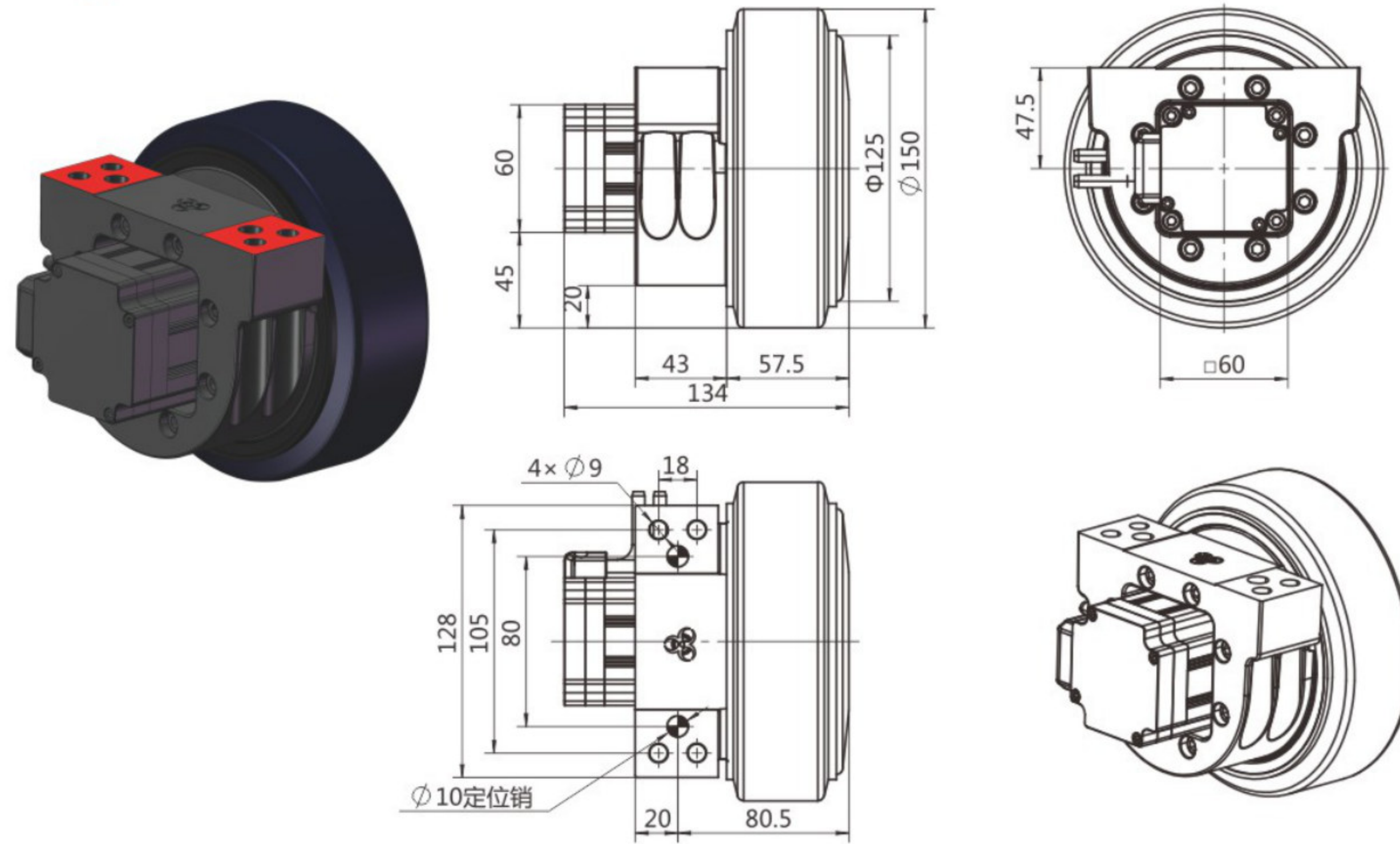
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 82.4 | 65.9 | 52.8 | 47.1 | 37.7 | 33.0 | 26.4 | 18.8 |
| 牵引力 Traction | N | 261.3 | 326.6 | 408.2 | 385.7 | 424.3 | 385.7 | 424.3 | 276.4 |
| 牵引重量 Traction weight | 参考 Reference | 496.4 | 620.5 | 775.6 | 732.9 | 806.1 | 732.9 | 806.1 | 525.2 |

XZS 125 Serices

ZL-XZS-125-400-150

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N-m | 1.27 |
| 防护等级 Protection level | IP | 65 |

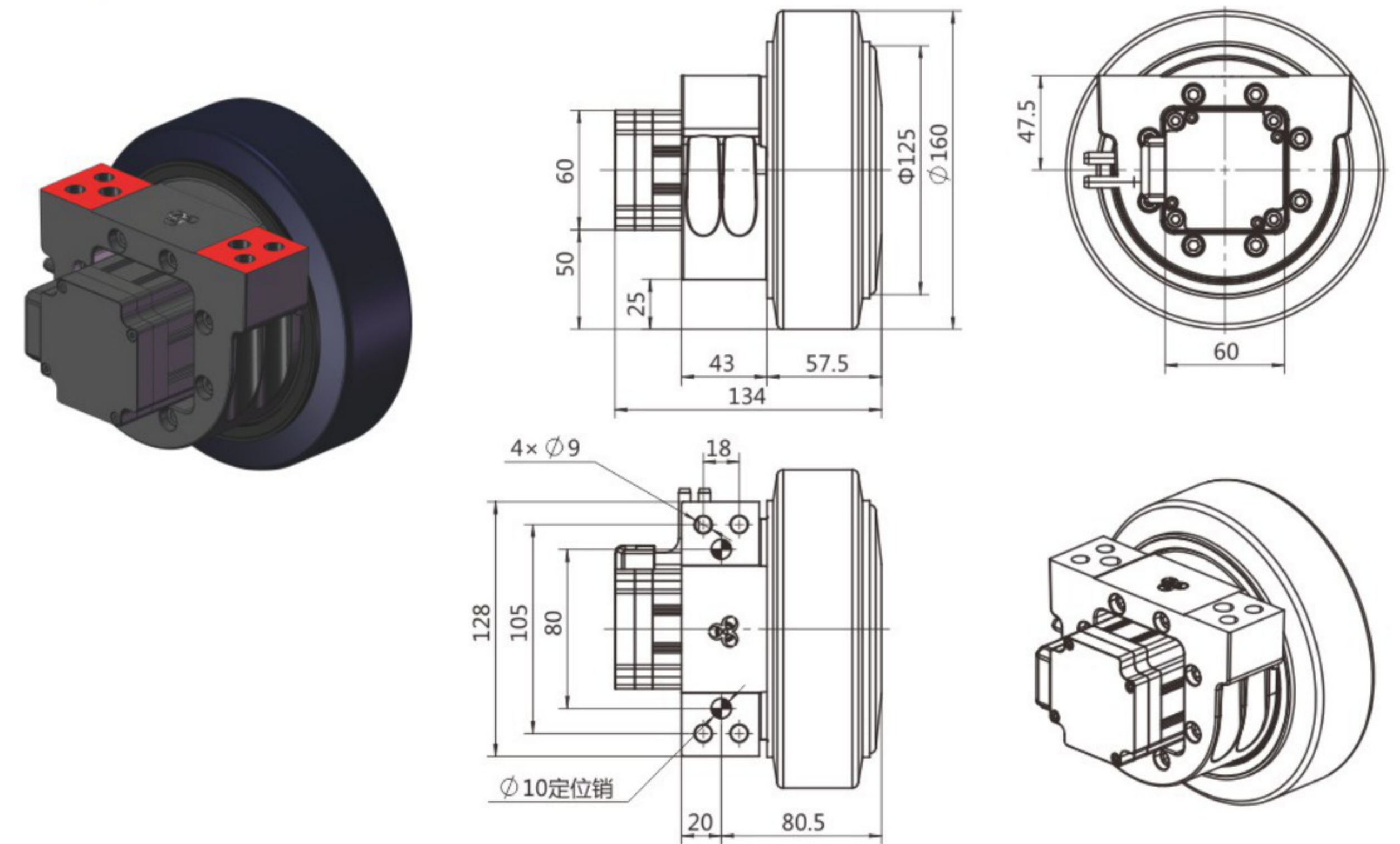
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|------|-------|------|-------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 88.3 | 70.7 | 56.5 | 50.5 | 40.4 | 35.3 | 28.3 | 20.2 |
| 牵引力 Traction | N | 243.8 | 304.8 | 381 | 360 | 396 | 360 | 396 | 258 |
| 牵引重量 Traction weight | 参考 Reference | 463.3 | 579.1 | 723.9 | 684 | 752.4 | 684 | 752.4 | 490.2 |

XZS 125 Serices

ZL-XZS-125-400-160

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N-m | 1.27 |
| 防护等级 Protection level | IP | 65 |

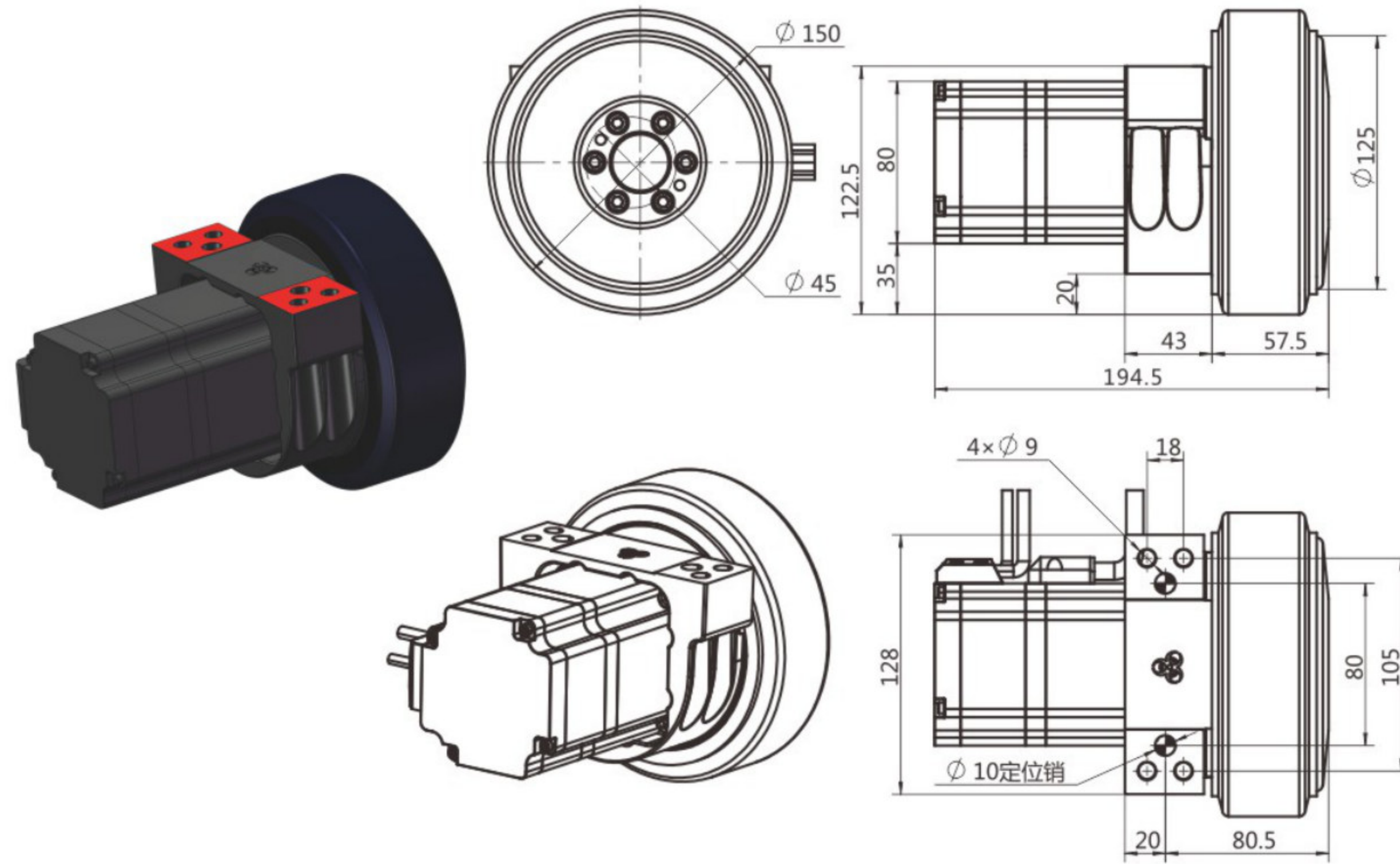
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 350 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 94.2 | 75.4 | 60.3 | 53.8 | 43.1 | 37.7 | 30.1 | 21.5 |
| 牵引力 Traction | N | 228.6 | 285.8 | 357.2 | 337.5 | 371.3 | 337.5 | 371.3 | 241.9 |
| 牵引重量 Traction weight | 参考 Reference | 434.3 | 542.9 | 678.7 | 641.3 | 705.4 | 641.3 | 705.4 | 459.6 |

XZS 125 Serices

ZL-XZS-125-750-150

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 22.4 |
| 额定扭矩 Rated Torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 65 |

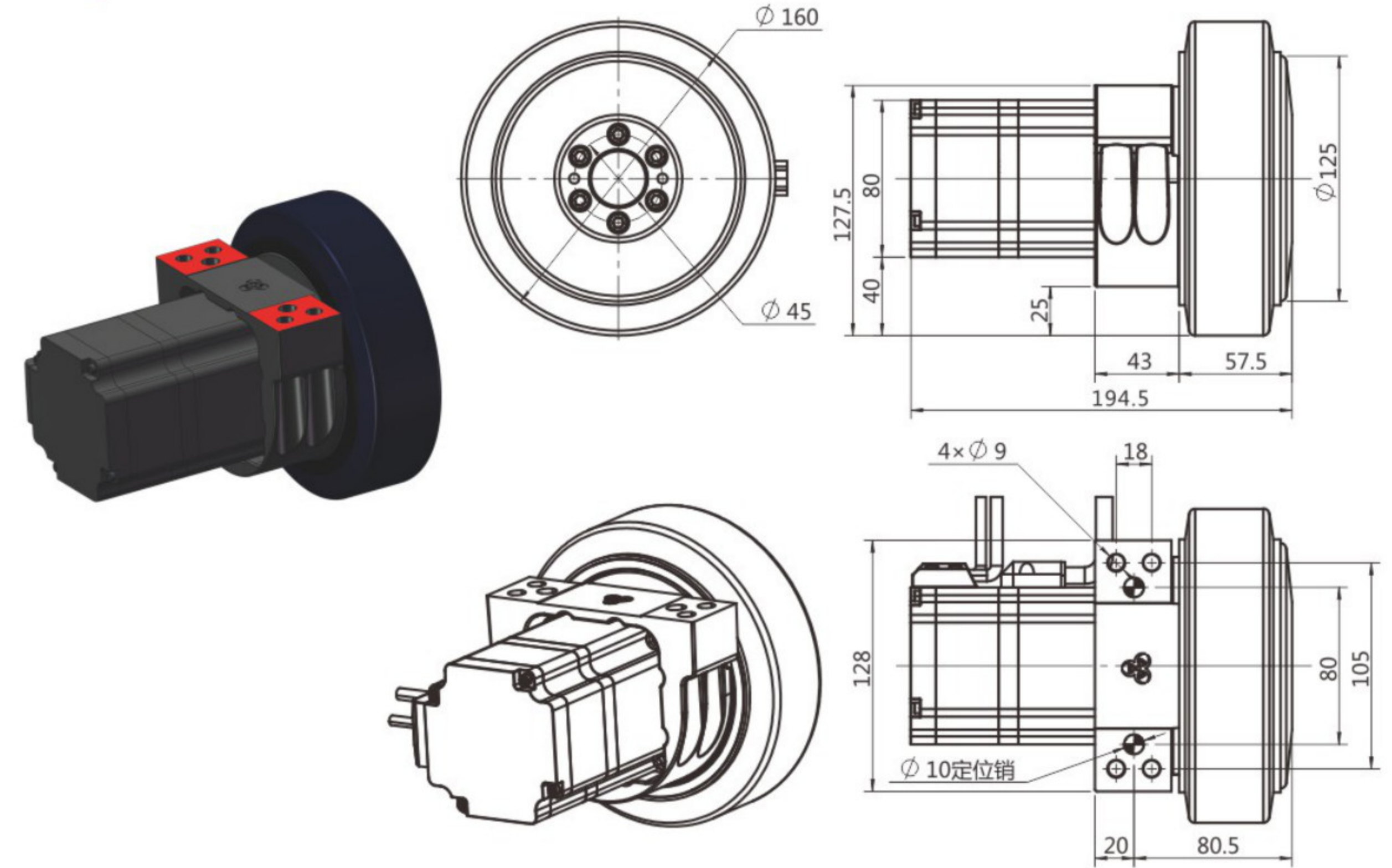
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|--------|--------|------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 96 | 96 | 105 | 96 | 105 | 96 | 105 | 71.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 88.3 | 70.7 | 56.5 | 50.5 | 40.4 | 35.3 | 28.3 | 20.2 |
| 牵引力 Traction | N | 458.9 | 573.6 | 717 | 803 | 1003.8 | 1147.2 | 1260 | 858 |
| 牵引重量 Traction weight | 参考 Reference | 871.9 | 1090 | 1362.3 | 1525.8 | 1907.2 | 2179.7 | 2394 | 1630.2 |

XZS 125 Serices

ZL-XZS-125-750-160

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 22.4 |
| 额定扭矩 Rated Torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 65 |

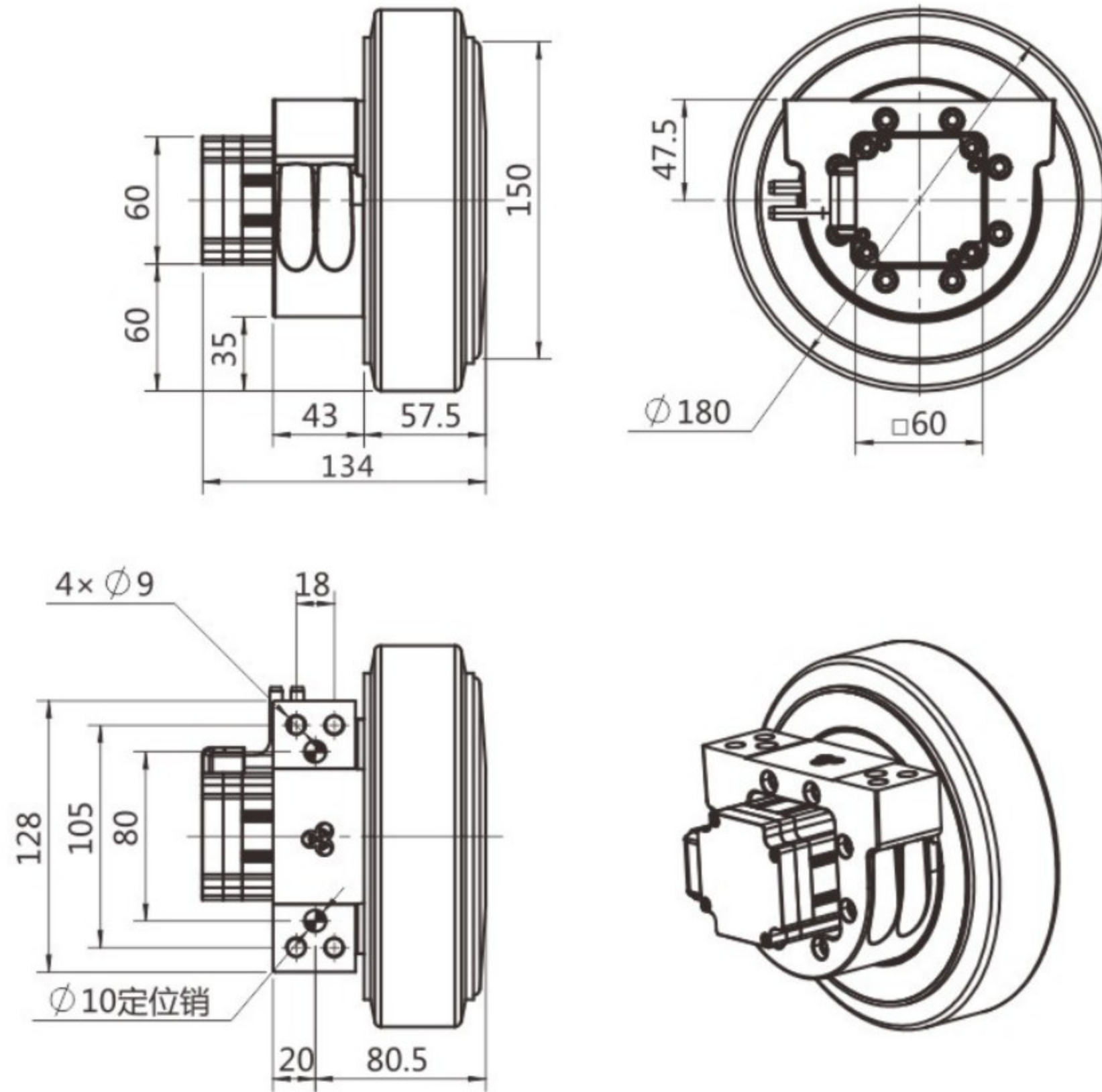
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|-------|--------|------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 96 | 96 | 105 | 96 | 105 | 96 | 105 | 71.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 350 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 94.2 | 75.4 | 60.3 | 53.8 | 43.1 | 37.7 | 30.1 | 21.5 |
| 牵引力 Traction | N | 430.2 | 537.8 | 672.2 | 752.9 | 941.1 | 1075.5 | 1181 | 804.4 |
| 牵引重量 Traction weight | 参考 Reference | 817.4 | 1022 | 1277.2 | 1430.4 | 1788 | 2043.5 | 2244 | 1528.3 |

XZS 150 Serices

ZL-XZS-150-400-180

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N-m | 1.27 |
| 防护等级 Protection level | IP | 65 |



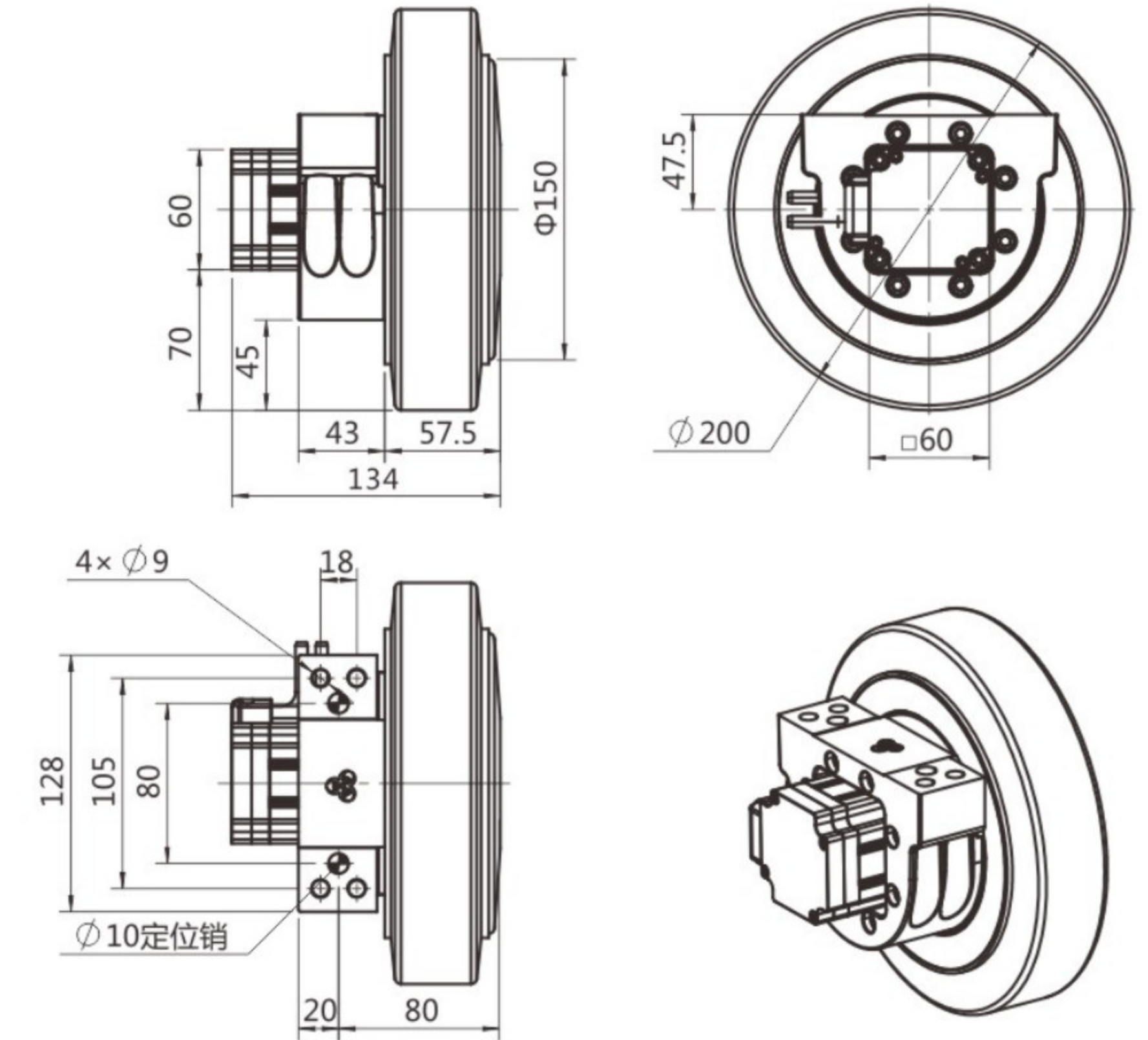
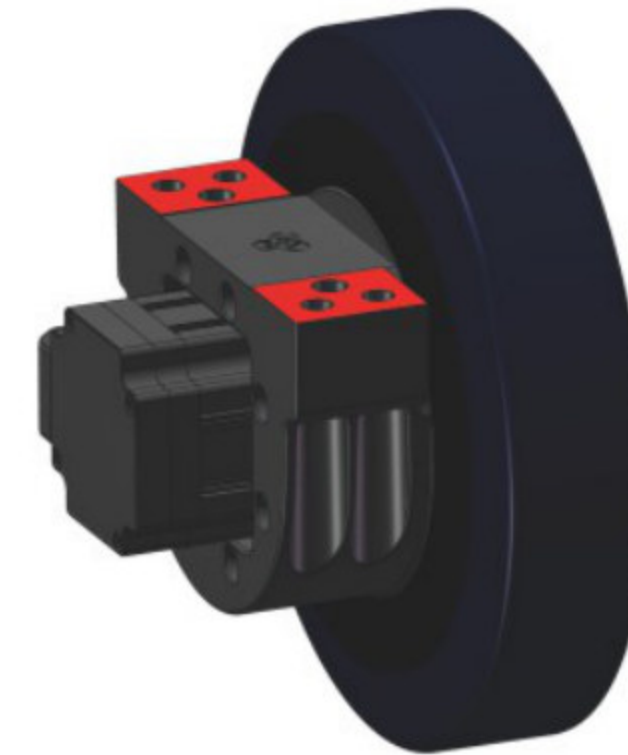
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|------|------|------|------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 400 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 106 | 84.8 | 67.8 | 60.6 | 48.4 | 42.4 | 33.9 | 24.2 |
| 牵引力 Traction | N | 203.2 | 254 | 317.5 | 300 | 330 | 300 | 330 | 215 |
| 牵引重量 Traction weight | 参考 Reference | 386.1 | 482.6 | 603.3 | 570 | 627 | 570 | 627 | 408.5 |

XZS 150 Serices

ZL-XZS-150-400-200

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N-m | 1.27 |
| 防护等级 Protection level | IP | 65 |



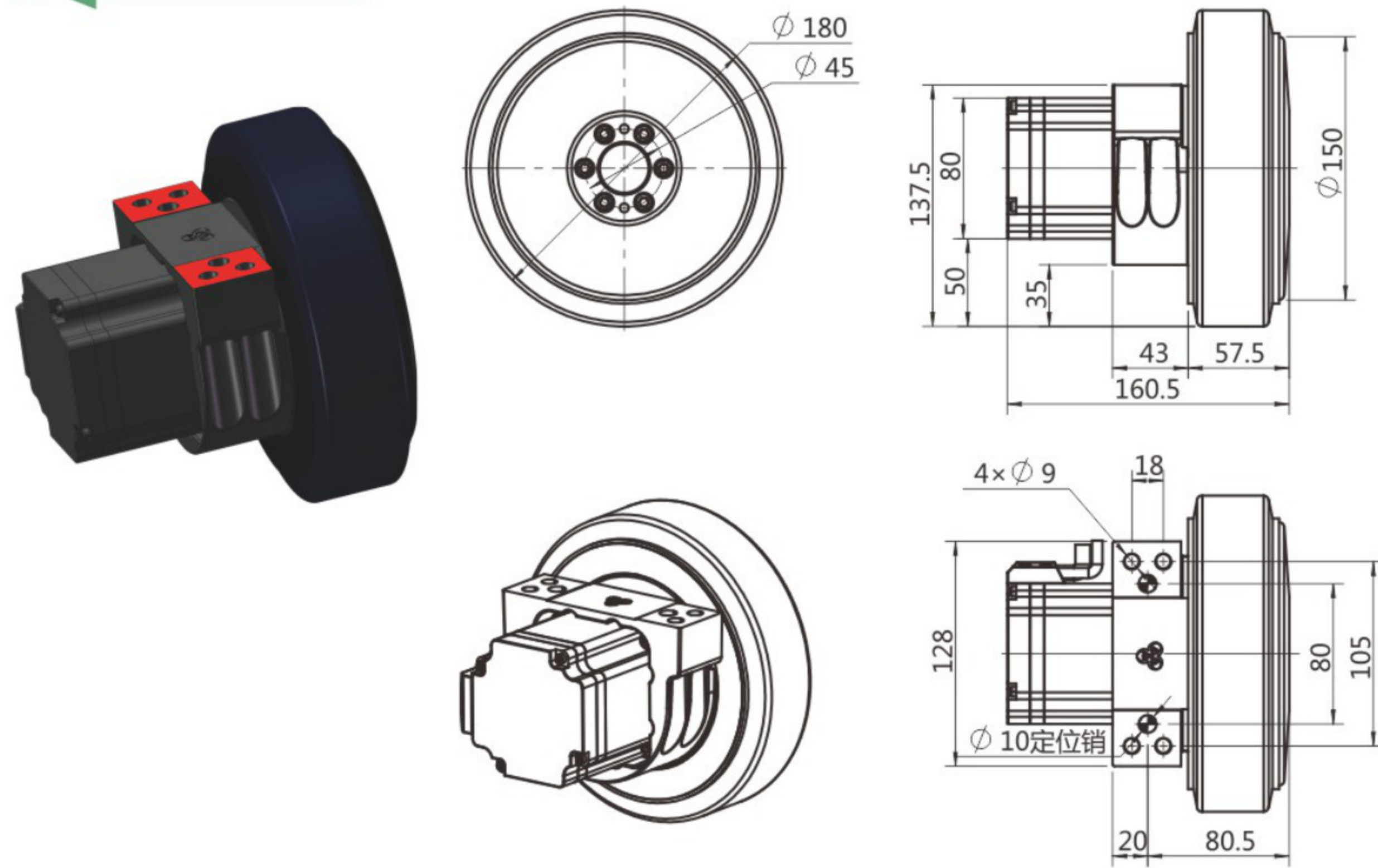
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|-------|------|-------|------|-------|-------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 30 | 30 | 33 | 30 | 33 | 30 | 33 | 21.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 450 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 350 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 117.8 | 94.2 | 75.4 | 67.3 | 53.8 | 47.1 | 37.7 | 26.9 |
| 牵引力 Traction | N | 182.9 | 228.6 | 285.8 | 270 | 297 | 270 | 297 | 193.5 |
| 牵引重量 Traction weight | 参考 Reference | 347.5 | 434.3 | 542.9 | 513 | 564.3 | 513 | 564.3 | 367.7 |

XZS 150 Serices

ZL-XZS-150-750-180

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 22.4 |
| 额定扭矩 Rated Torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 65 |



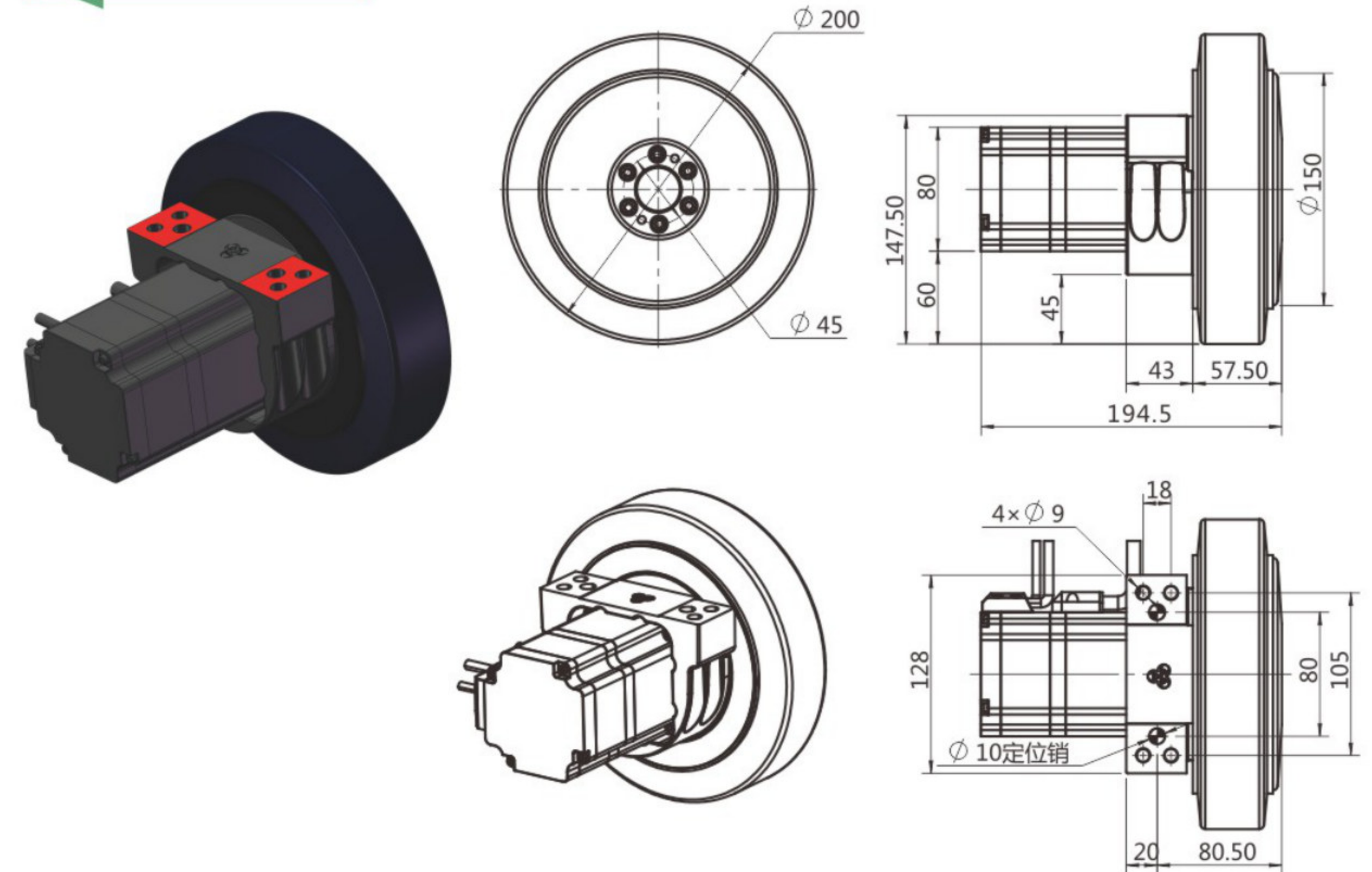
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|--------|--------|------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 96 | 96 | 105 | 96 | 105 | 96 | 105 | 71.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 400 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 300 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 106 | 84.8 | 67.8 | 60.6 | 48.4 | 42.4 | 33.9 | 24.2 |
| 牵引力 Traction | N | 382.4 | 478 | 597.5 | 669.2 | 836.5 | 956 | 1050 | 715 |
| 牵引重量 Traction weight | 参考 Reference | 726.6 | 908.2 | 1135.3 | 1271.5 | 1589.4 | 1816.4 | 1995 | 1358.5 |

XZS 150 Serices

ZL-XZS-150-750-200

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 22.4 |
| 额定扭矩 Rated Torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 65 |



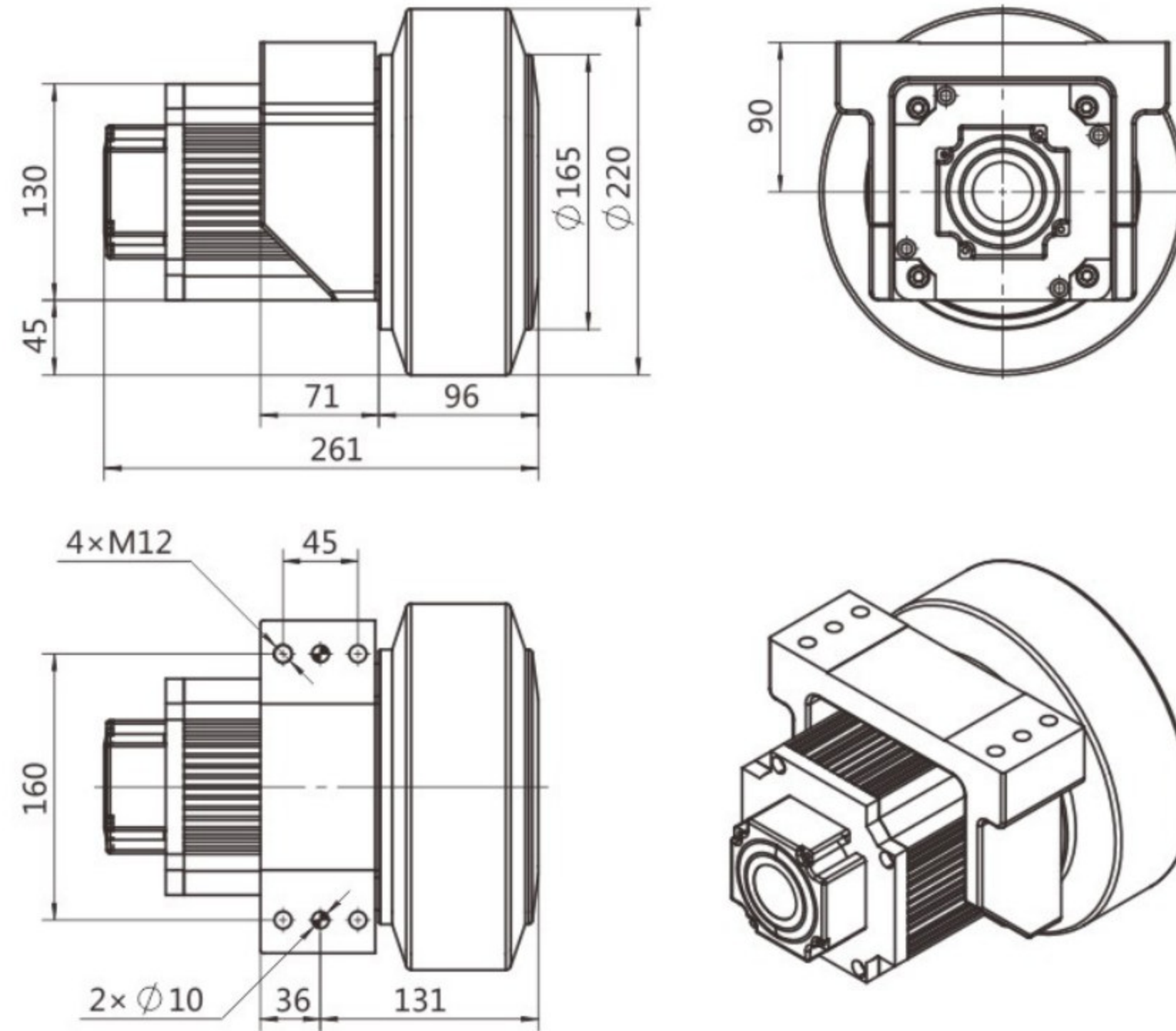
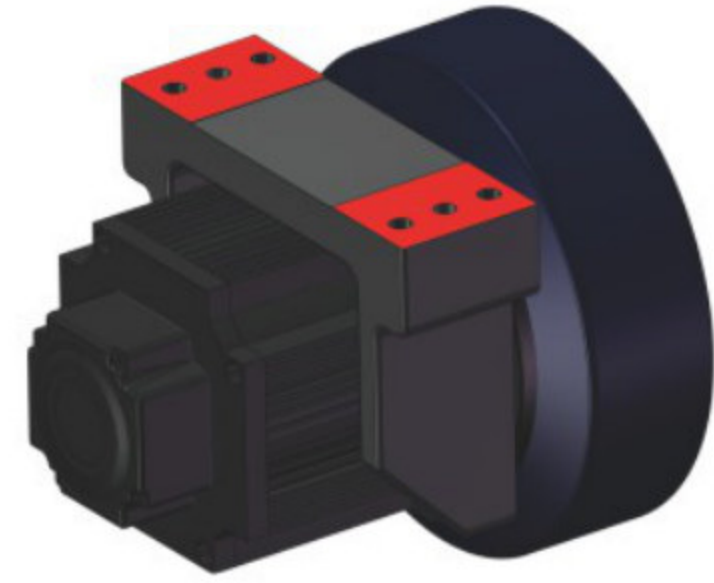
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|--------|--------|------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N-m | 96 | 96 | 105 | 96 | 105 | 96 | 105 | 71.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 450 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 350 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 117.8 | 94.2 | 75.4 | 67.3 | 53.8 | 47.1 | 37.7 | 26.9 |
| 牵引力 Traction | N | 344.2 | 430.2 | 537.8 | 602.3 | 752.9 | 860.4 | 945 | 643.5 |
| 牵引重量 Traction weight | 参考 Reference | 653.9 | 817.4 | 1021.7 | 1144.3 | 1430.4 | 1634.8 | 1795 | 1222.7 |

XZS 165 Serices

ZL-XZS-165-1500A-220

SZX



牵引电机参数
Parameter list of traction motor

| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 39 |
| 额定扭矩 Rated Torque | N·m | 4.77 |
| 防护等级 Protection level | IP | 65 |

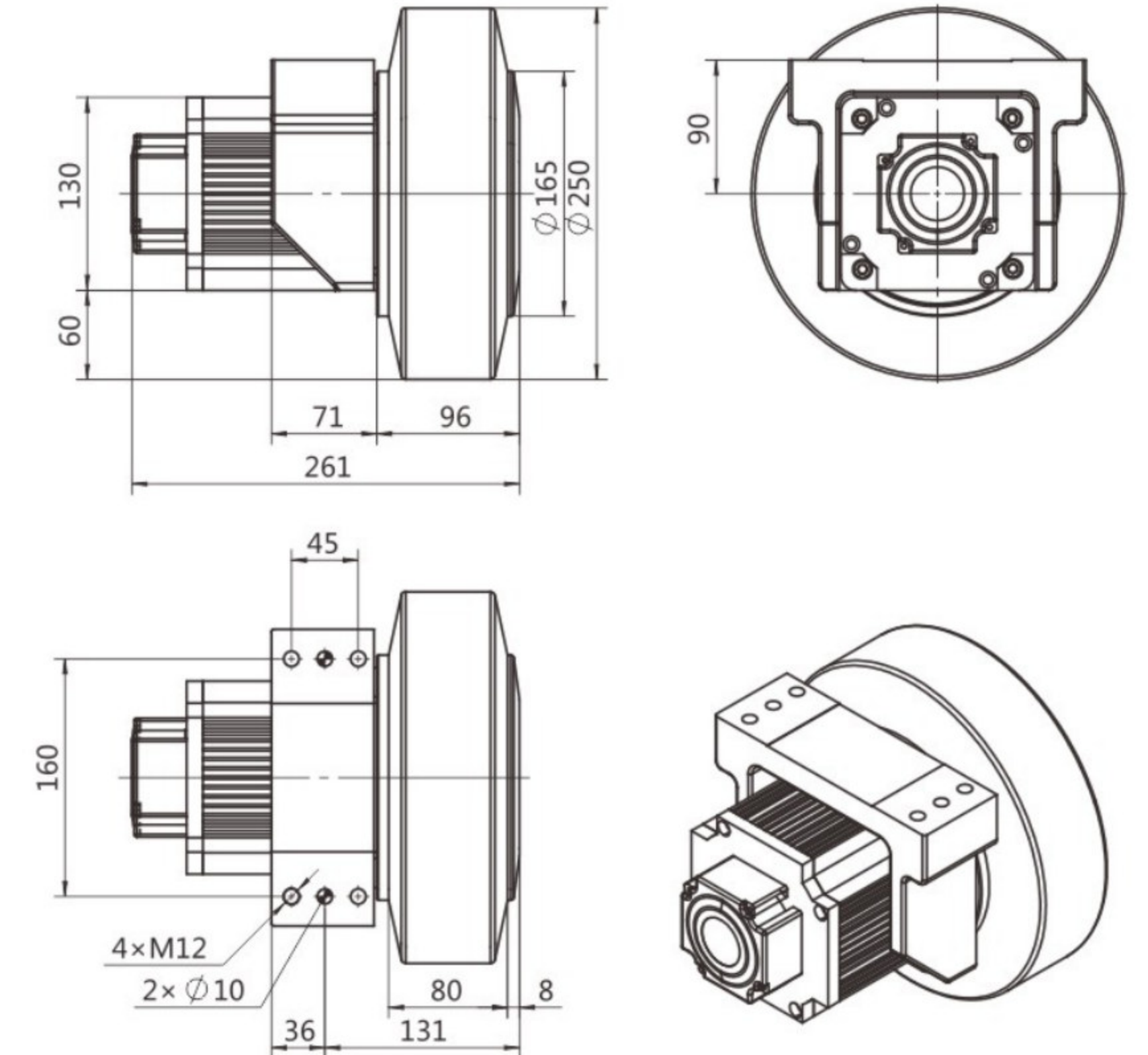
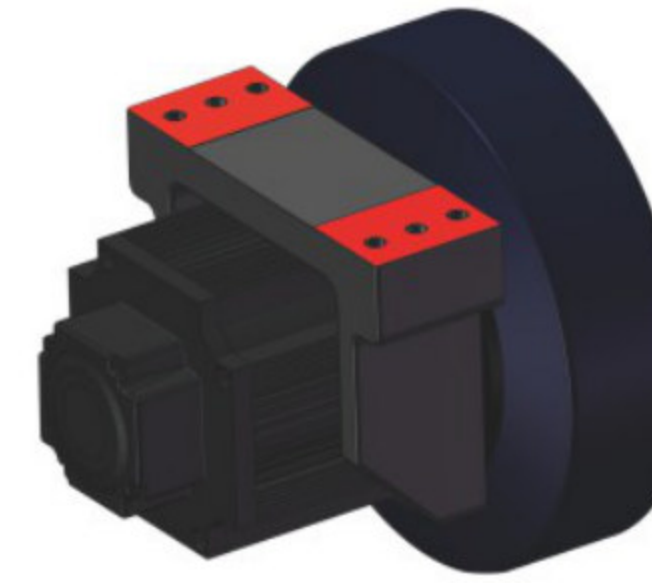
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|-------|--------|--------|--------|--------|--------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 250 | 250 | 264 | 250 | 264 | 250 | 264 | 177 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1120 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 129.5 | 103.6 | 82.9 | 74 | 59.2 | 51.8 | 41.4 | 29.6 |
| 牵引力 Traction | N | 624.4 | 780.5 | 975.7 | 1092.8 | 1366 | 1561.1 | 1951.4 | 1448.2 |
| 牵引重量 Traction weight | 参考 Reference | 1186.4 | 1483 | 1853.8 | 2076.3 | 2595.3 | 2966.1 | 3707.6 | 2751.5 |

XZS 165 Serices

ZL-XZS-165-1500A-250

SZX



牵引电机参数
Parameter list of traction motor

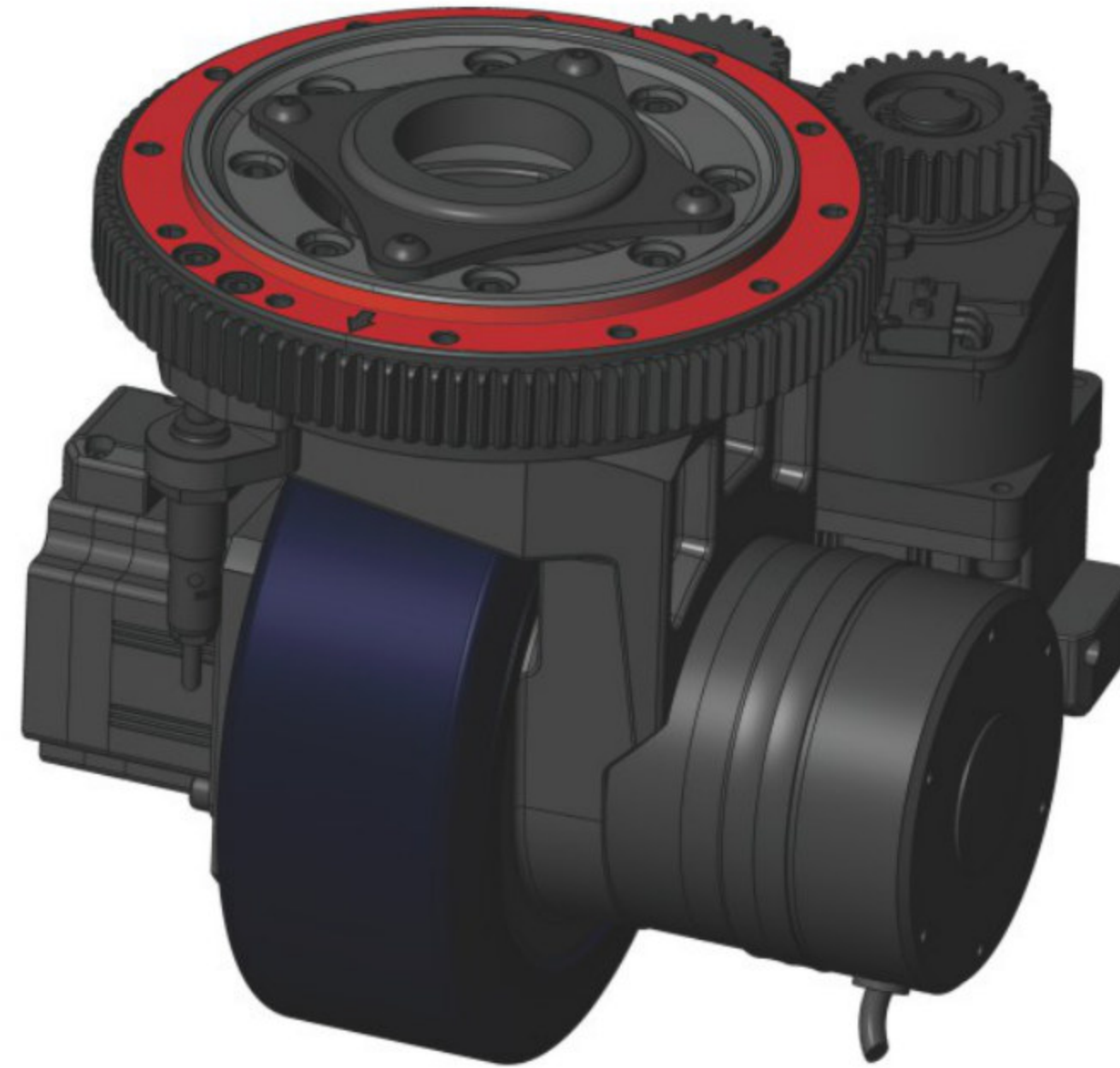
| 类型 Type | DC | 伺服电机 Servo motor |
|-----------------------|-----|------------------|
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 39 |
| 额定扭矩 Rated Torque | N·m | 4.77 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | | | | | |
|---------------------------------|--------------|-------------------------|--------|--------|--------|--------|--------|--------|--------|
| 减速机速比 Speed ratio of reducer | i | 16 | 20 | 25 | 28 | 35 | 40 | 50 | 70 |
| 减速机扭矩 Reducer torque | N·m | 250 | 250 | 264 | 250 | 264 | 250 | 264 | 177 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1150 | | | | | | | |
| 橡胶承重 Rubber bearing | Kg | 750 | | | | | | | |
| 最大速度 Maximum velocity | M/min | 147.2 | 117.8 | 94.2 | 84.1 | 67.3 | 58.9 | 47.1 | 33.6 |
| 牵引力 Traction | N | 549.5 | 686.9 | 858.6 | 961.6 | 1202 | 1373.8 | 1717.2 | 1274.4 |
| 牵引重量 Traction weight | 参考 Reference | 1044.1 | 1305.1 | 1631.3 | 1827.1 | 2283.9 | 2610.1 | 3262.7 | 2421.4 |



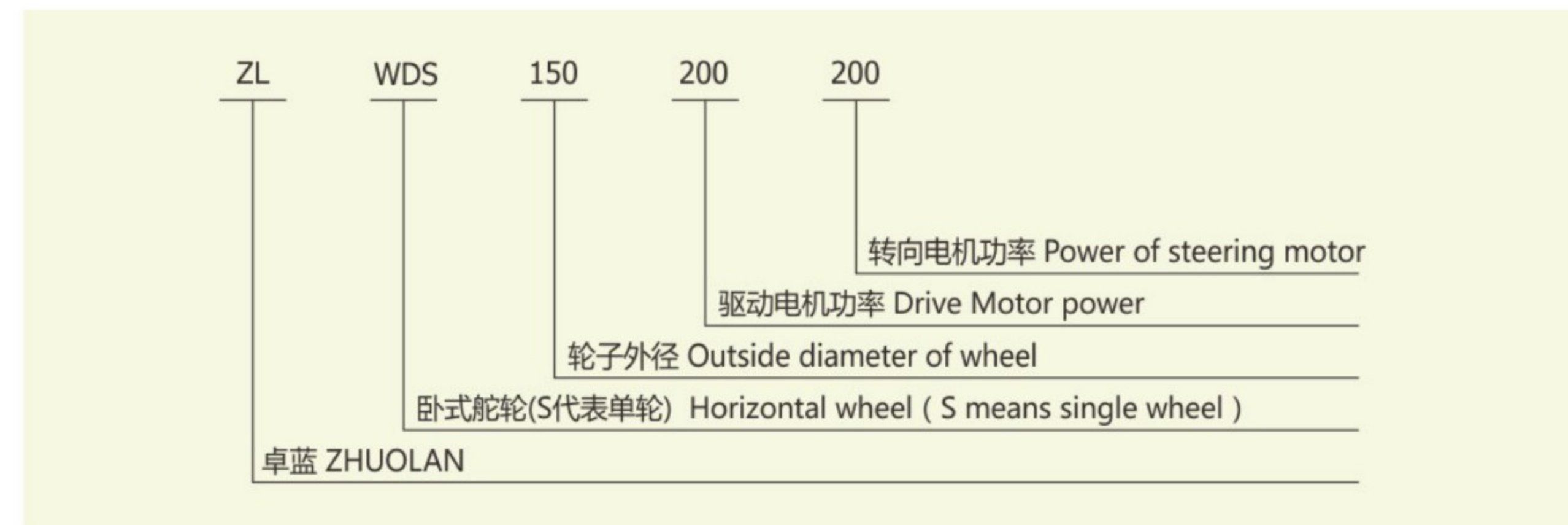
- WDS 150
- WDS 200
- WDS 250
- WDS 300
- WDS 400
- WDS 500



WDS Series

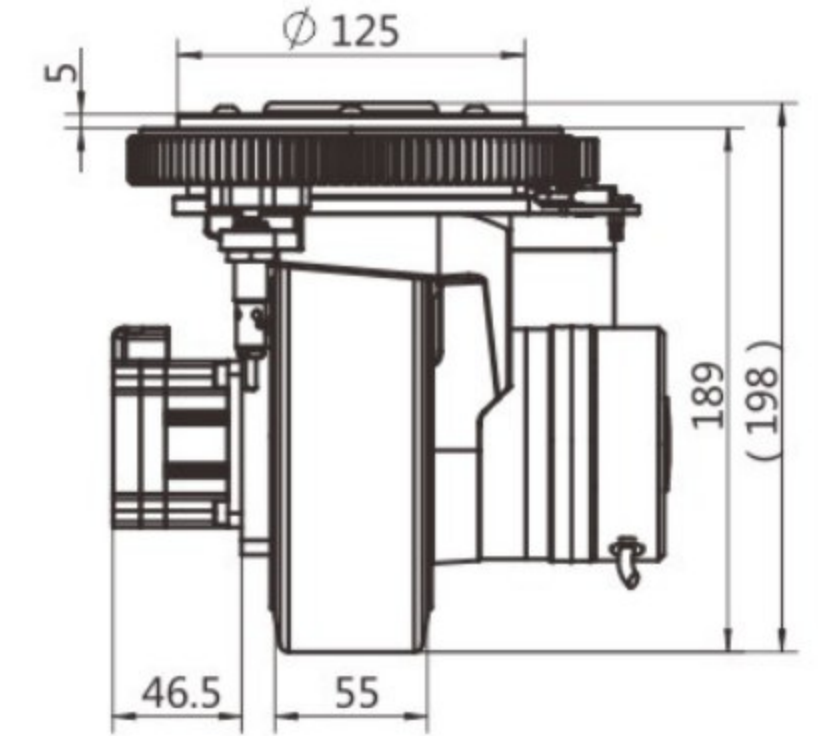
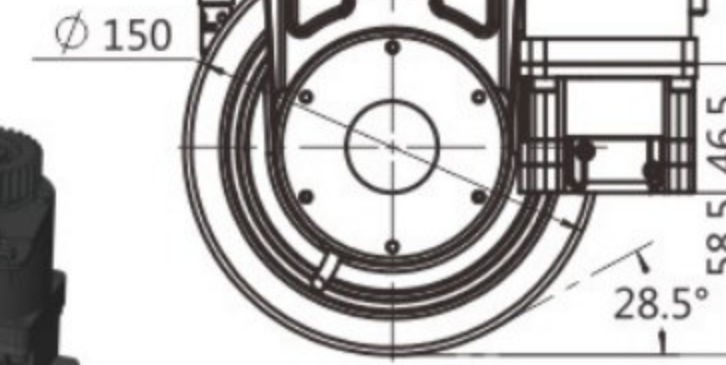
WDS系列型号说明

WDS series model description



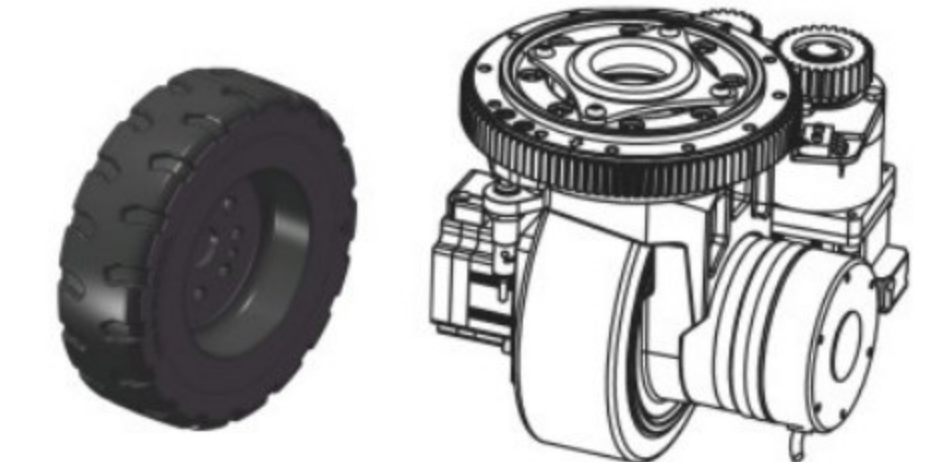
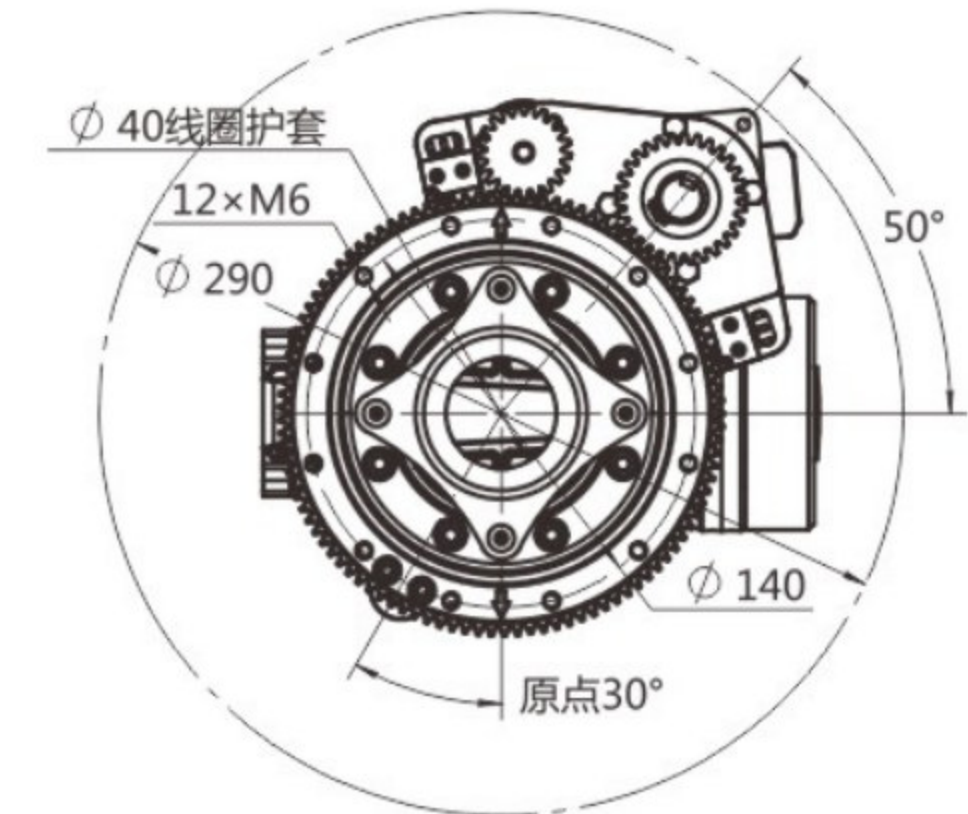
WDS 150 Series

ZL-WDS-150-200-200



行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|----------------------|-------|-------|-------|
| 电机类型 Motor type | 伺服电机 Servo motor | | | |
| 电机功率 Motor power | W | 200 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 5.98 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 0.637 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | 增量磁编 Magnetic coding | | | |
| 行走减速比 Walking reducer | | 20 | 34 | 68 |
| 行走速度 Walking speed | m/min | 70.65 | 41.55 | 20.77 |
| 舵轮输出扭矩 Output Torque | N-m | 12 | 20 | 40 |
| 牵引力 Traction | N | 160 | 266 | 533 |
| 参考牵引重量 Reference Traction weight | Kg | 240 | 400 | 800 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 550 | | |
| 橡胶承重 Rubber bearing | Kg | 300 | | |

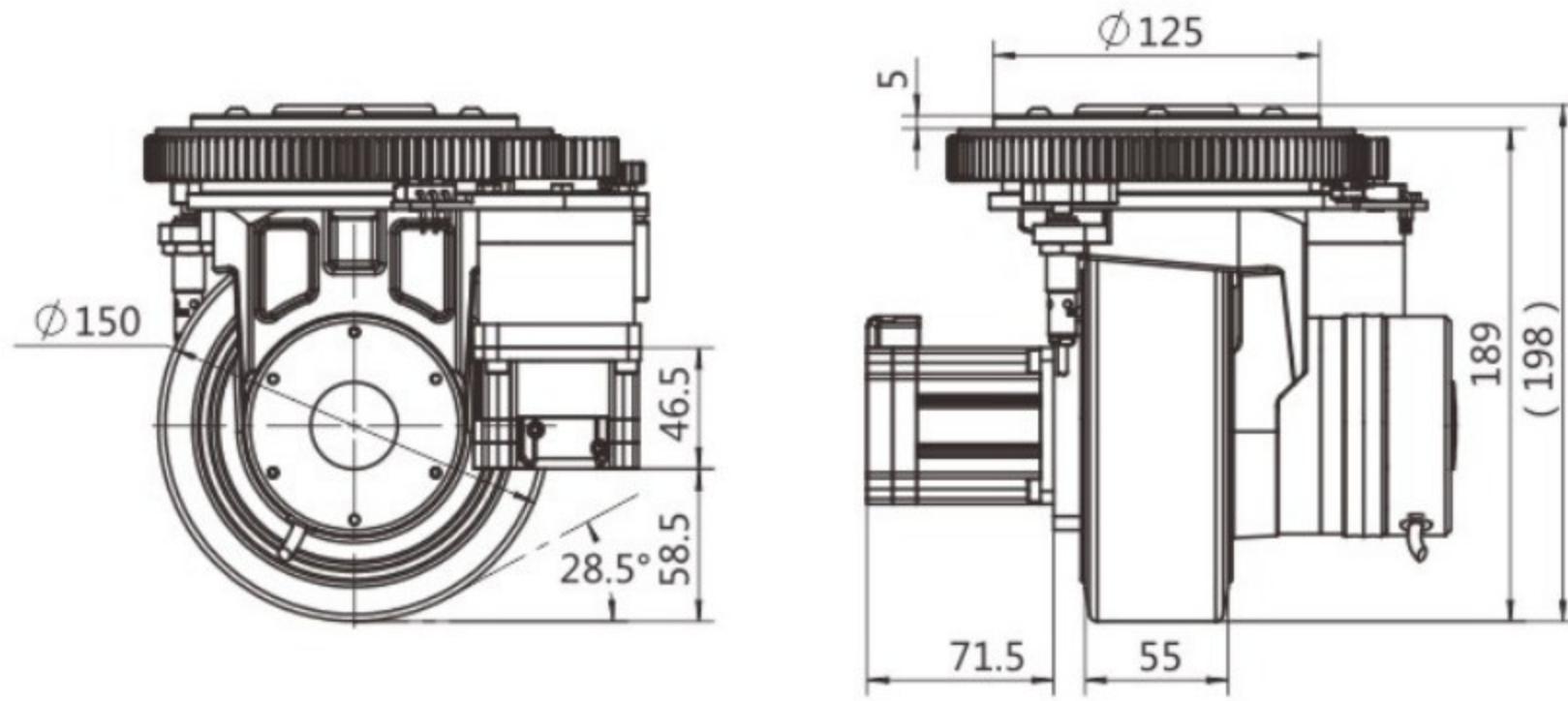
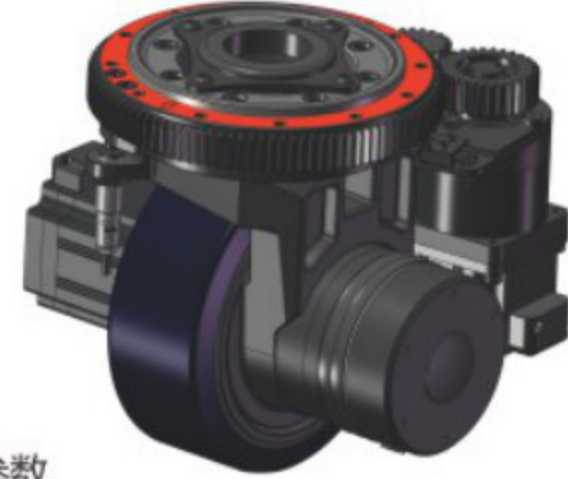


牵引减速机参数
Parameter table of traction reducer

| | | | |
|-------------------------------------|---------------------------------------|----------------------|-------------------------------|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 200 |
| | 电机电压 Motor voltage | V(DC) | 48 |
| | 电机电流 Motor current | A | 5.98 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 0.637 |
| | 防护等级 Protection level | IP | 54 |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 |
| | 回转支承齿数 Slewing gear | 105 | 齿数比3.5 : 1 Gear ratio 3.5 : 1 |
| | 转向齿轮齿数 Number of steering gear teeth | 30 | |
| | 总转向速比 Total steering ratio | i | 122.5 |
| | 编码器齿数 Number of teeth of encoder gear | Z | 21 |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 4 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

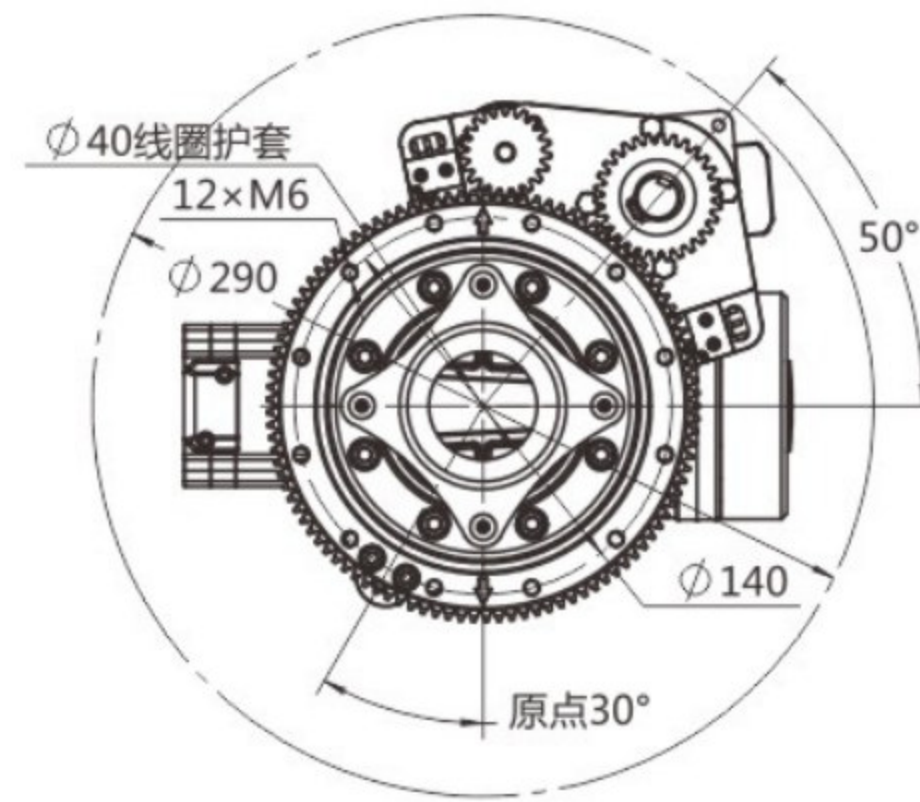
WDS 150 Series

ZL-WDS-150-400-200



行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|-------|----------------------|-------|-------|
| 电机类型 Motor type | | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 400 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 11.95 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 1.27 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | | 增量磁编 Magnetic coding | | |
| 行走减速比 Walking reducer | | 20 | 34 | 68 |
| 行走速度 Walking speed | m/min | 70.65 | 41.55 | 20.77 |
| 舵轮输出扭矩 Output Torque | N-m | 22.9 | 38.9 | 77.7 |
| 牵引力 Traction | N | 322 | 547 | 1036 |
| 参考牵引重量 Reference Traction weight | Kg | 547 | 929 | 1658 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 550 | | |
| 橡胶承重 Rubber bearing | Kg | 300 | | |

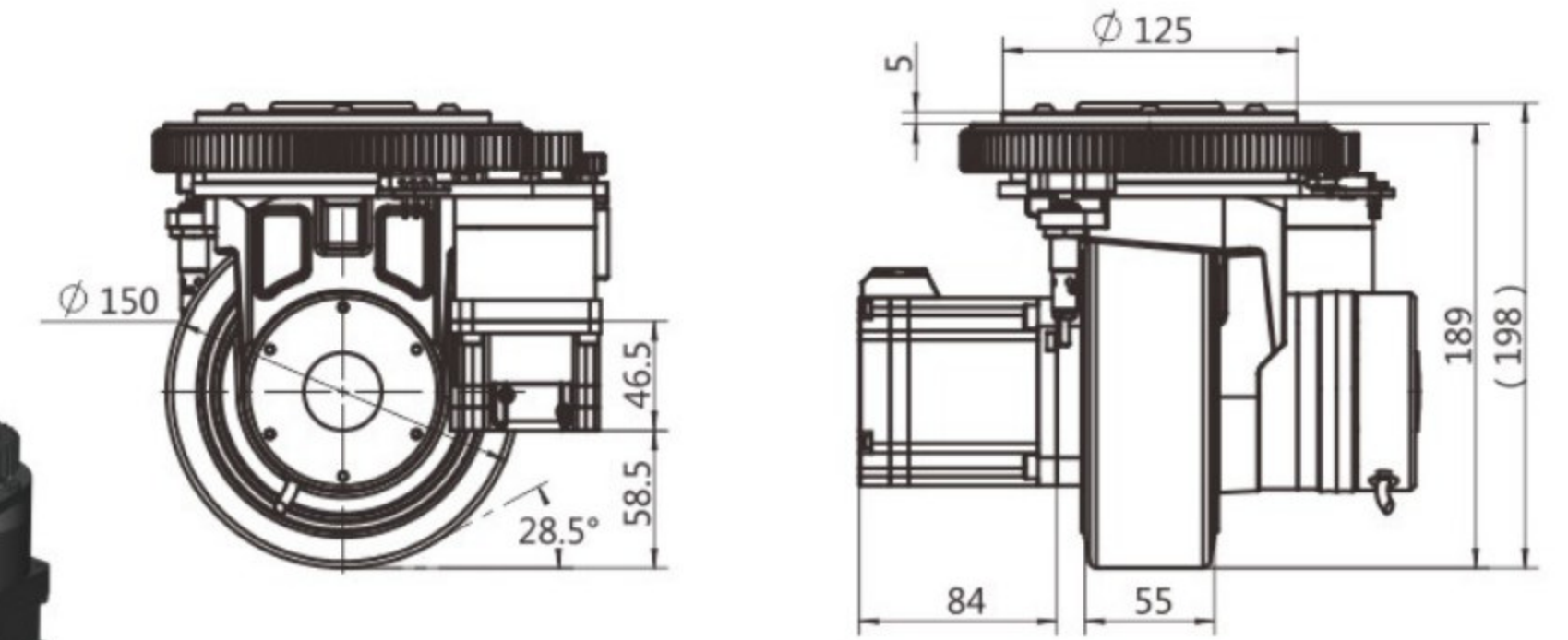


牵引/减速机参数
Parameter table of traction reducer

| | | | | |
|---|--------------------------------------|-------|-------------------------------|--|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 200 | |
| | 电机电压 Motor voltage | V(DC) | 48 | |
| | 电机电流 Motor current | A | 5.98 | |
| | 电机转速 Motor speed | rpm | 3000 | |
| | 电机扭矩 Motor Torque | N-m | 0.637 | |
| | 防护等级 Protection level | IP | 54 | |
| | 电机编码器 Motor encoder | | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 | |
| | 回转支承齿数 Slewing gear | 105 | 齿数比3.5 : 1 Gear ratio 3.5 : 1 | |
| | 转向齿轮齿数 Number of steering gear teeth | 30 | | |
| | 总转向速比 Total steering ratio | i | 122.5 | |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 21 | | |
| 转向角度 Steering Angle | ° | ±140 | | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 | |
| | 制动扭矩 Braking torque | N-m | 4 | |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 | |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 | |

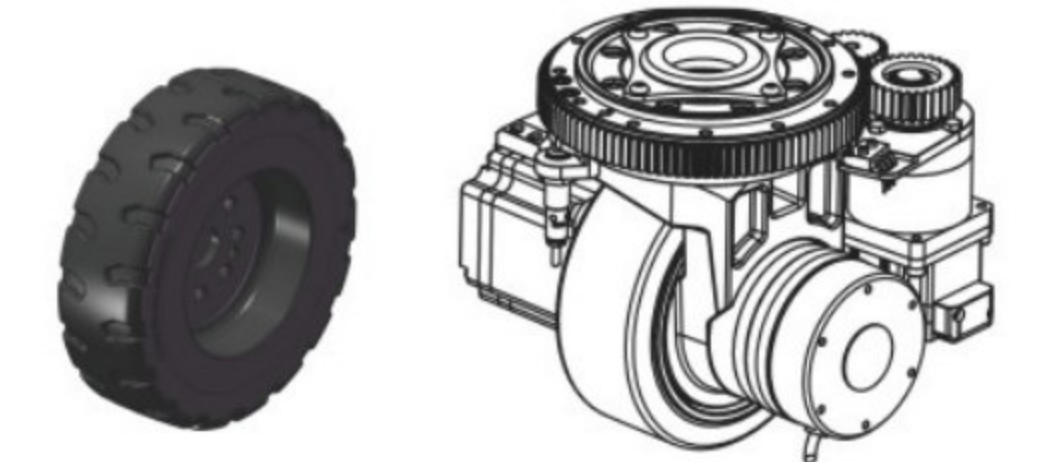
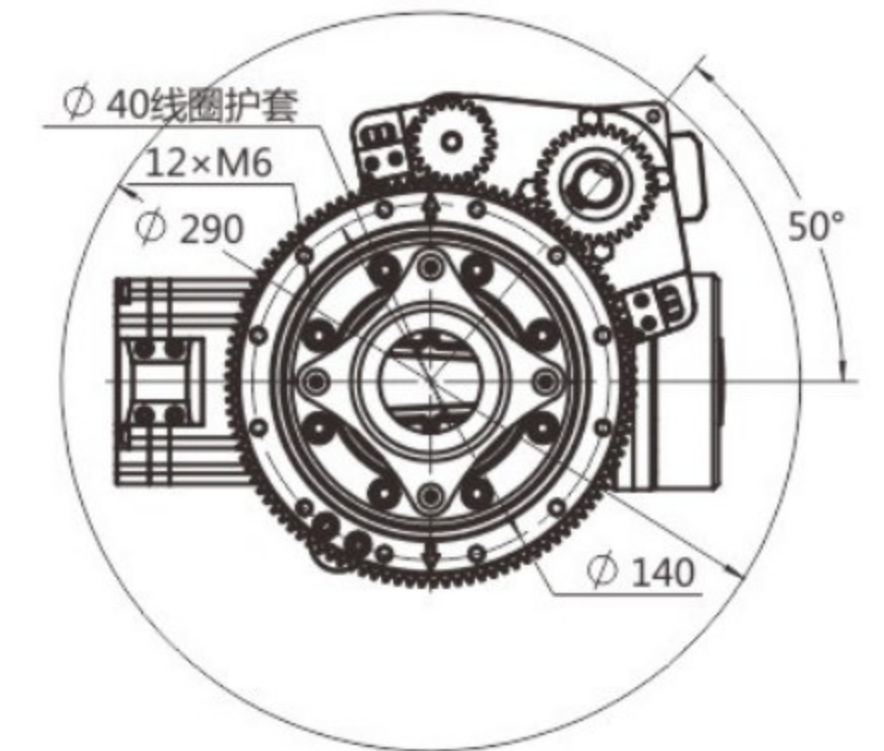
WDS 150 Series

ZL-WDS-150-750-200



行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|-------|----------------------|-------|-------|
| 电机类型 Motor type | | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 750 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 22.44 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 2.387 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | | 增量磁编 Magnetic coding | | |
| 行走减速比 Walking reducer | | 20 | 34 | 68 |
| 行走速度 Walking speed | m/min | 70.65 | 41.55 | 20.77 |
| 舵轮输出扭矩 Output Torque | N-m | 43 | 73 | 120 |
| 牵引力 Traction | N | 605 | 1028 | 1733 |
| 参考牵引重量 Reference Traction weight | Kg | 1029 | 1749 | 2600 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 550 | | |
| 橡胶承重 Rubber bearing | Kg | 300 | | |

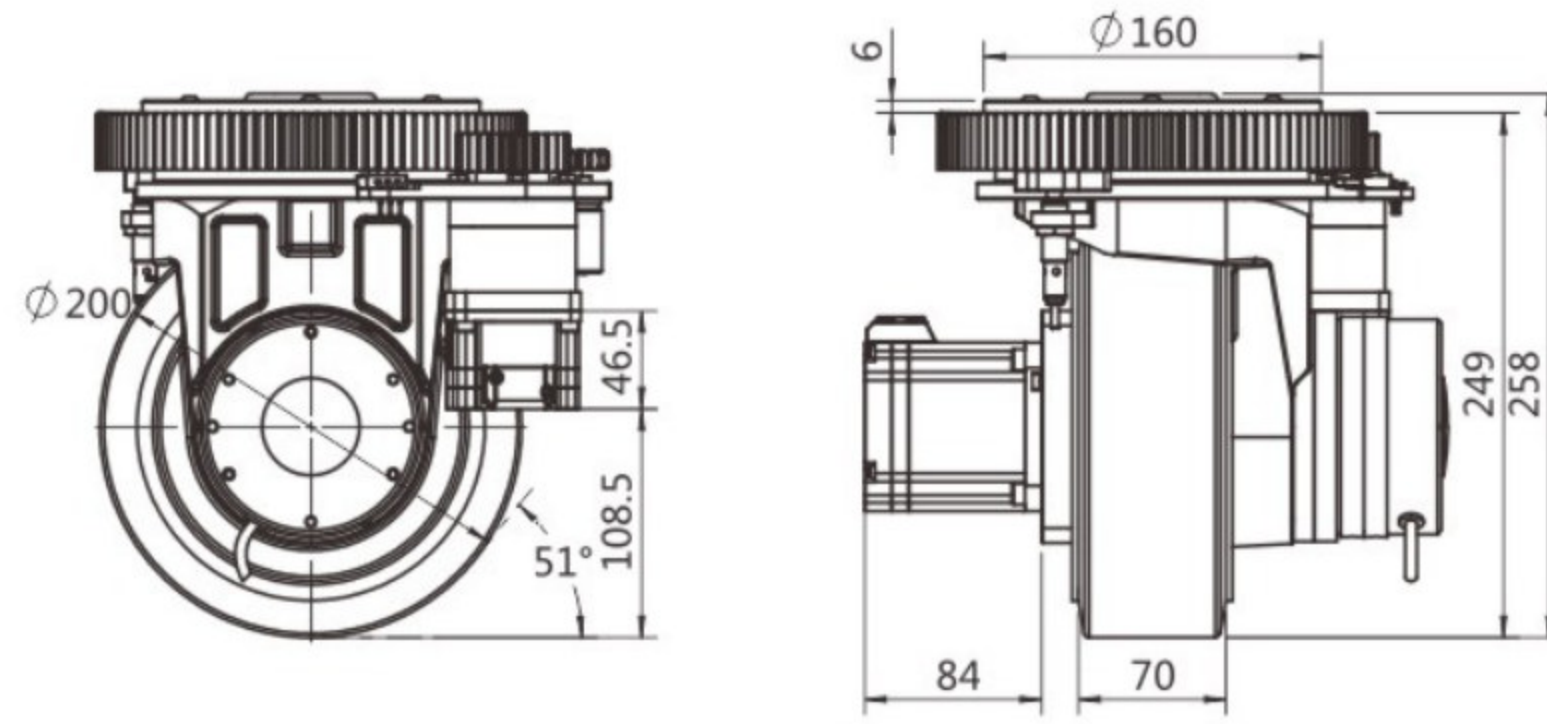


牵引/减速机参数
Parameter table of traction reducer

| | | | | |
|---|--------------------------------------|-------|-------------------------------|--|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 200 | |
| | 电机电压 Motor voltage | V(DC) | 48 | |
| | 电机电流 Motor current | A | 5.98 | |
| | 电机转速 Motor speed | rpm | 3000 | |
| | 电机扭矩 Motor Torque | N-m | 0.637 | |
| | 防护等级 Protection level | IP | 54 | |
| | 电机编码器 Motor encoder | | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 | |
| | 回转支承齿数 Slewing gear | 105 | 齿数比3.5 : 1 Gear ratio 3.5 : 1 | |
| | 转向齿轮齿数 Number of steering gear teeth | 30 | | |
| | 总转向速比 Total steering ratio | i | 122.5 | |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 21 | | |
| 转向角度 Steering Angle | ° | ±140 | | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 | |
| | 制动扭矩 Braking torque | N-m | 4 | |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 | |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 | |

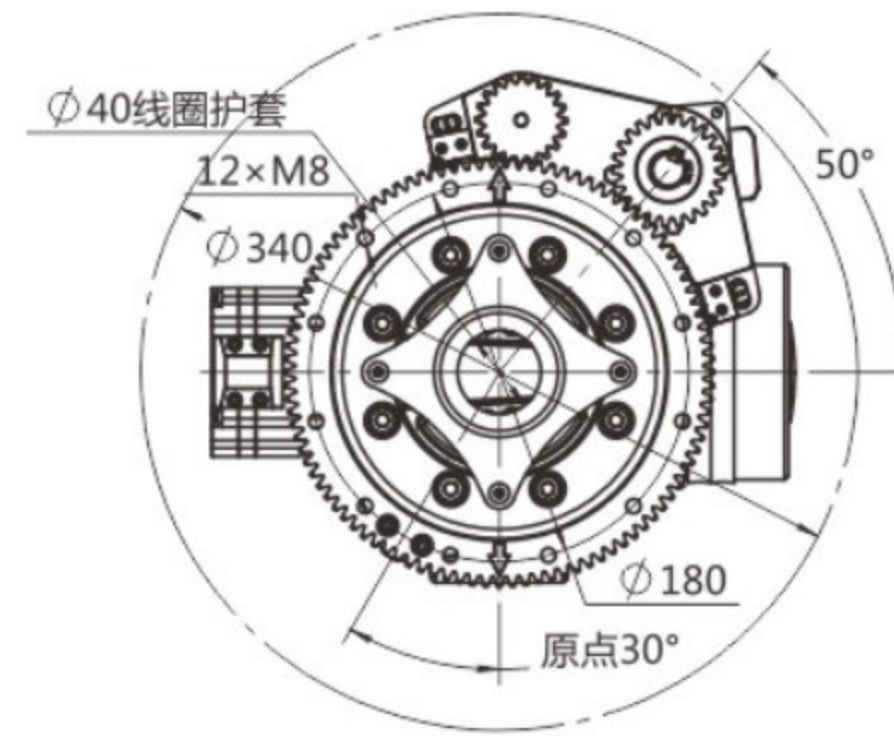
WDS 200 Series

ZL-WDS-200-750-200



行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|----------------------|-------|-------|--------|
| 电机类型 Motor type | 伺服电机 Servo motor | | | |
| 电机功率 Motor power | W | 750 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 22.44 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 2.387 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | 增量磁编 Magnetic coding | | | |
| 行走减速比 Walking reducer | | 21 | 41 | 85 |
| 行走速度 Walking speed | m/min | 88.65 | 45.44 | 22.16 |
| 舵轮输出扭矩 Output Torque | N-m | 45 | 89 | 182 |
| 牵引力 Traction | N | 477 | 848 | 1218.9 |
| 参考牵引重量 Reference Traction weight | Kg | 714 | 1212 | 1828.3 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 900 | | |
| 橡胶承重 Rubber bearing | Kg | 500 | | |

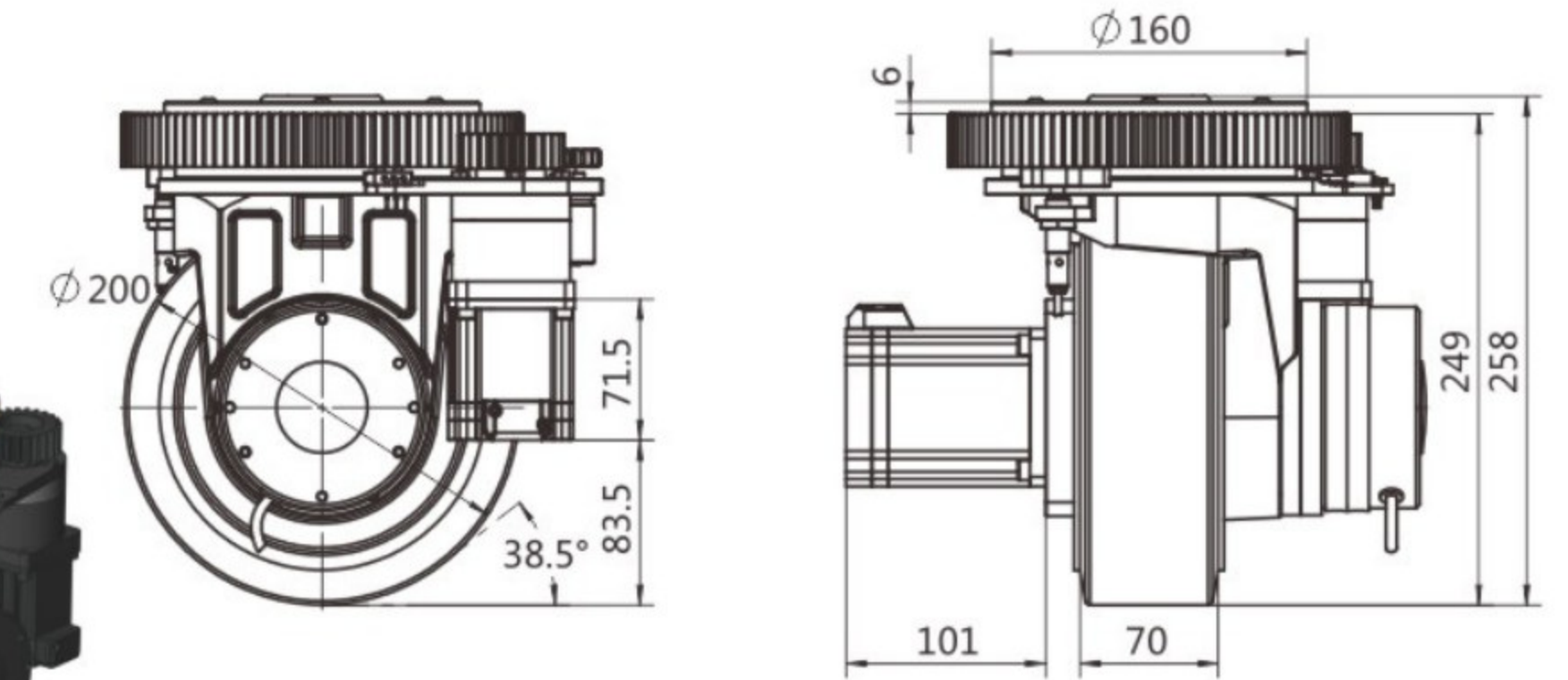


牵引/减速机参数
Parameter table of traction reducer

| | | | |
|---|--------------------------------------|----------------------|---------------------------|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 200 |
| | 电机电压 Motor voltage | V(DC) | 48 |
| | 电机电流 Motor current | A | 5.98 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 0.637 |
| | 防护等级 Protection level | IP | 54 |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 |
| | 回转支承齿数 Slewing gear | 100 | 齿数比4 : 1 Gear ratio 4 : 1 |
| | 转向齿轮齿数 Number of steering gear teeth | 25 | |
| | 总转向速比 Total steering ratio | i | 140 |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 20 | |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 8 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

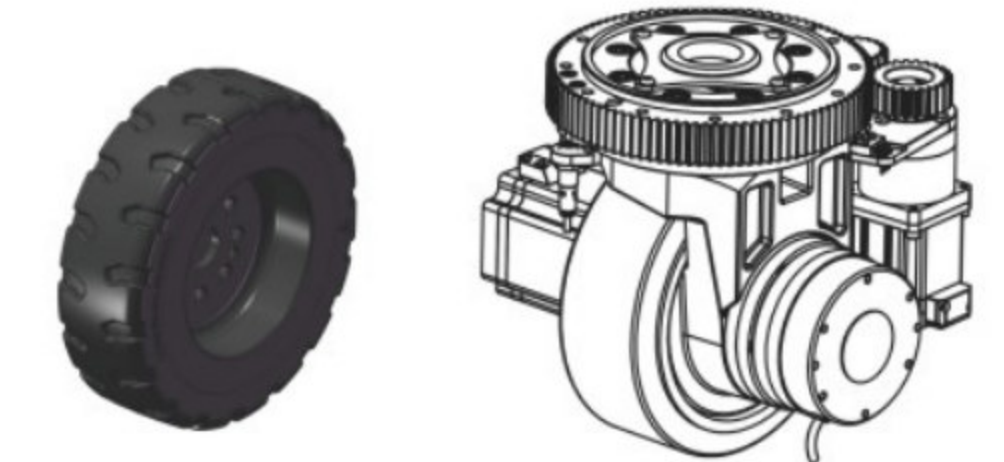
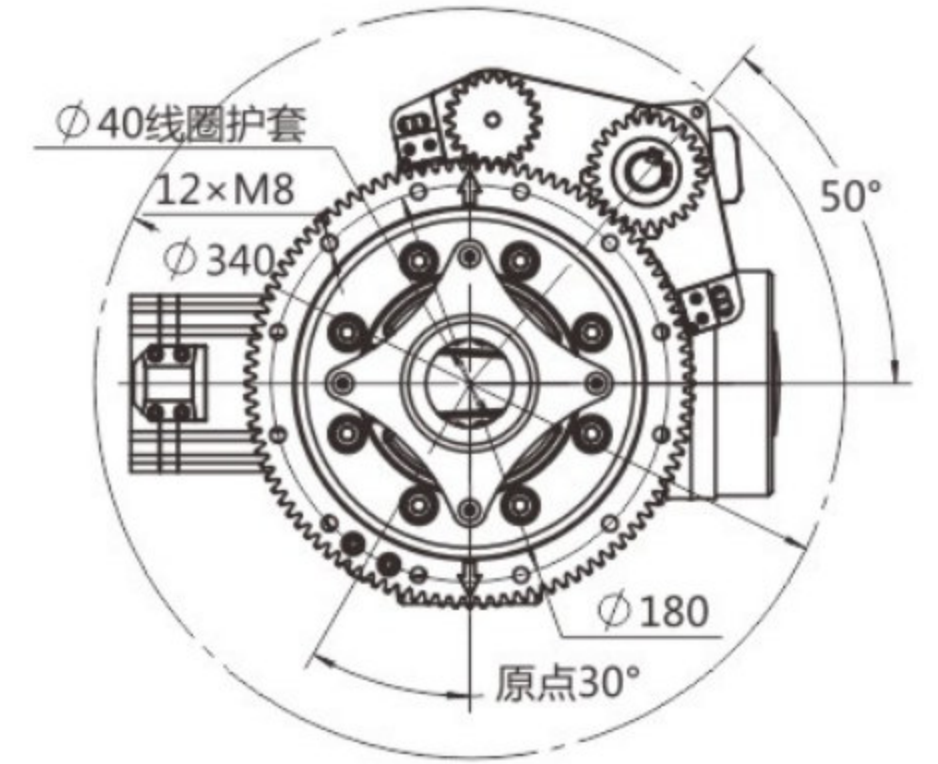
WDS 200 Series

ZL-WDS-200-1000-400



行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|----------------------|-------|-------|-------|
| 电机类型 Motor type | 伺服电机 Servo motor | | | |
| 电机功率 Motor power | W | 1000 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 29.92 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 3.183 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | 增量磁编 Magnetic coding | | | |
| 行走减速比 Walking reducer | | 21 | 41 | 85 |
| 行走速度 Walking speed | m/min | 88.65 | 45.44 | 22.16 |
| 舵轮输出扭矩 Output Torque | N-m | 64 | 125 | 250 |
| 牵引力 Traction | N | 640 | 1250 | 2500 |
| 参考牵引重量 Reference Traction weight | Kg | 1140 | 1780 | 2422 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 900 | | |
| 橡胶承重 Rubber bearing | Kg | 500 | | |

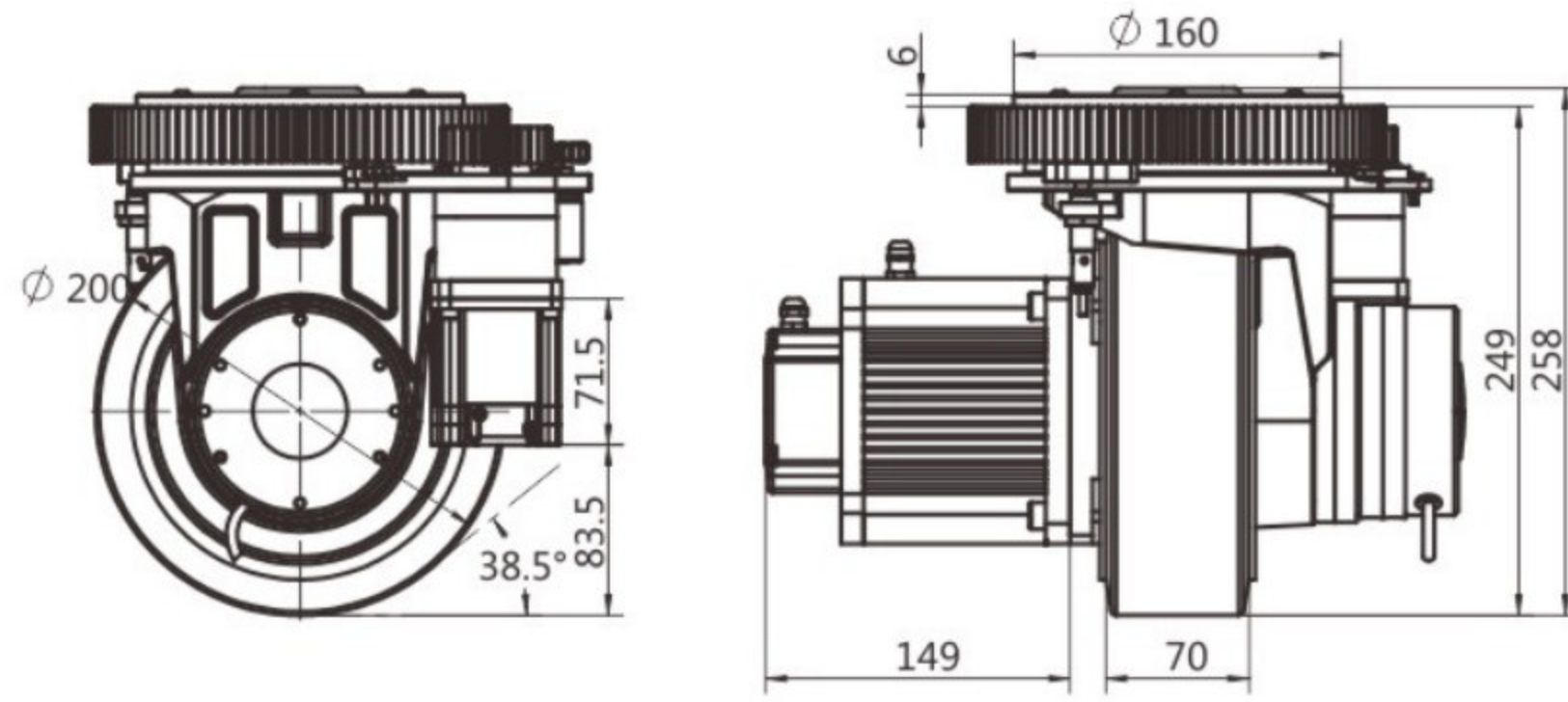
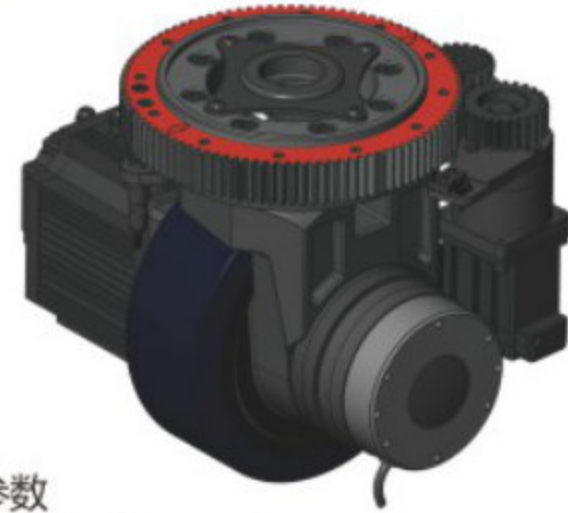


牵引/减速机参数
Parameter table of traction reducer

| | | | |
|---|--------------------------------------|----------------------|---------------------------|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 400 |
| | 电机电压 Motor voltage | V(DC) | 48 |
| | 电机电流 Motor current | A | 11.95 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 1.27 |
| | 防护等级 Protection level | IP | 54 |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 |
| | 回转支承齿数 Slewing gear | 100 | 齿数比4 : 1 Gear ratio 4 : 1 |
| | 转向齿轮齿数 Number of steering gear teeth | 25 | |
| | 总转向速比 Total steering ratio | i | 140 |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 20 | |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 8 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

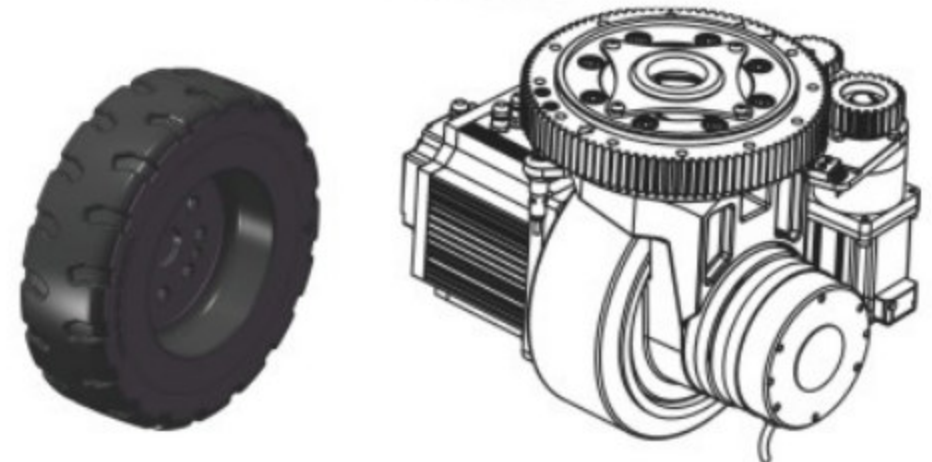
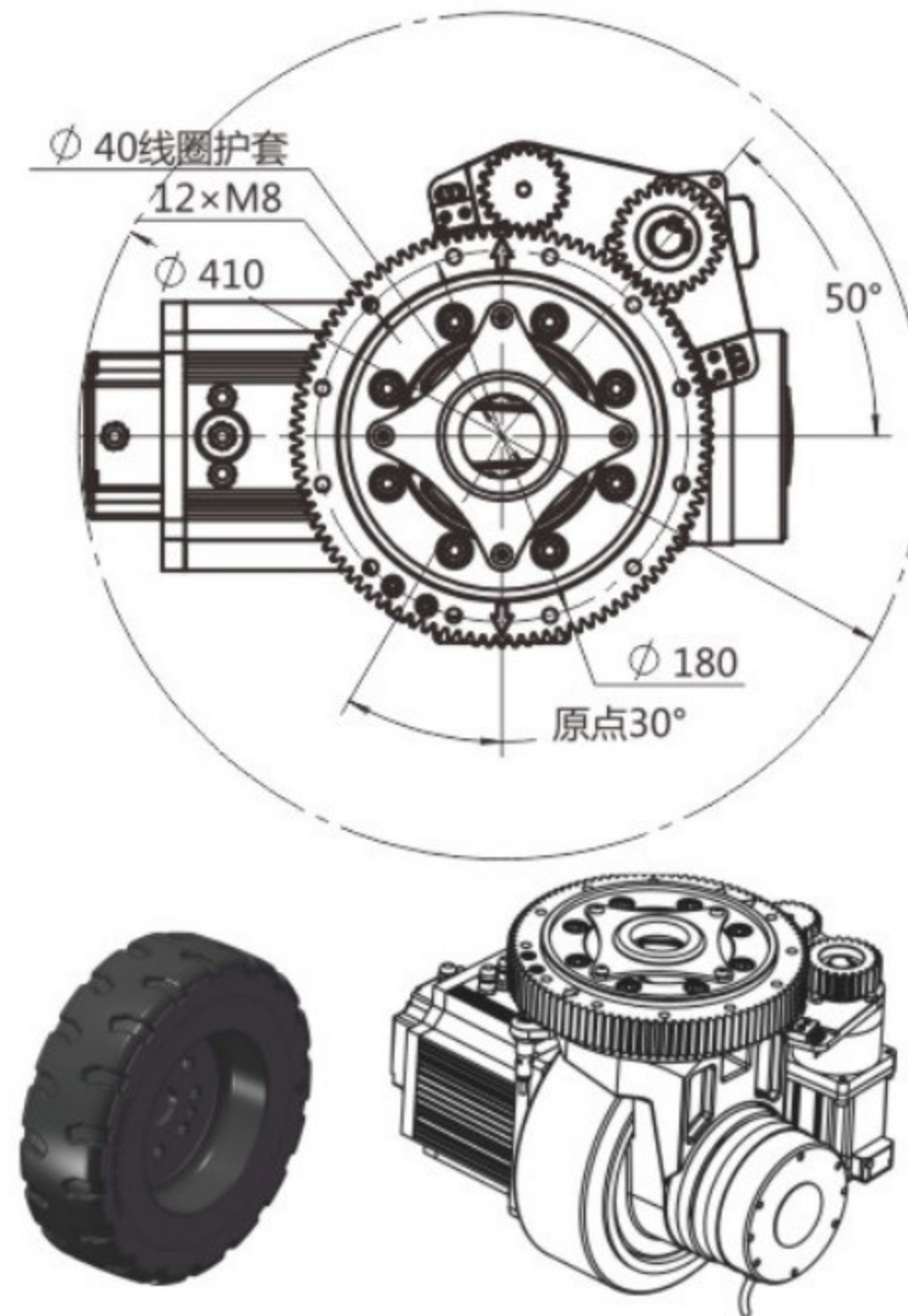
WDS 200 Series

ZL-WDS-200-1500-400



行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|----------------------------------|------------------|-------|--------|
| 电机类型 Motor type | | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 1500 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 39 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 4.77 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | 增量光编 Incremental Optical Weaving | | | |
| 行走减速机 Walking reducer | | 21 | 41 | 85 |
| 行走速度 Walking speed | m/min | 88.65 | 45.44 | 22.16 |
| 舵轮输出扭矩 Output Torque | N-m | 90 | 176 | 310 |
| 牵引力 Traction | N | 880 | 1700 | 2125 |
| 参考牵引重量 Reference Traction weight | Kg | 1500 | 2343 | 3187.5 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 900 | | |
| 橡胶承重 Rubber bearing | Kg | 500 | | |

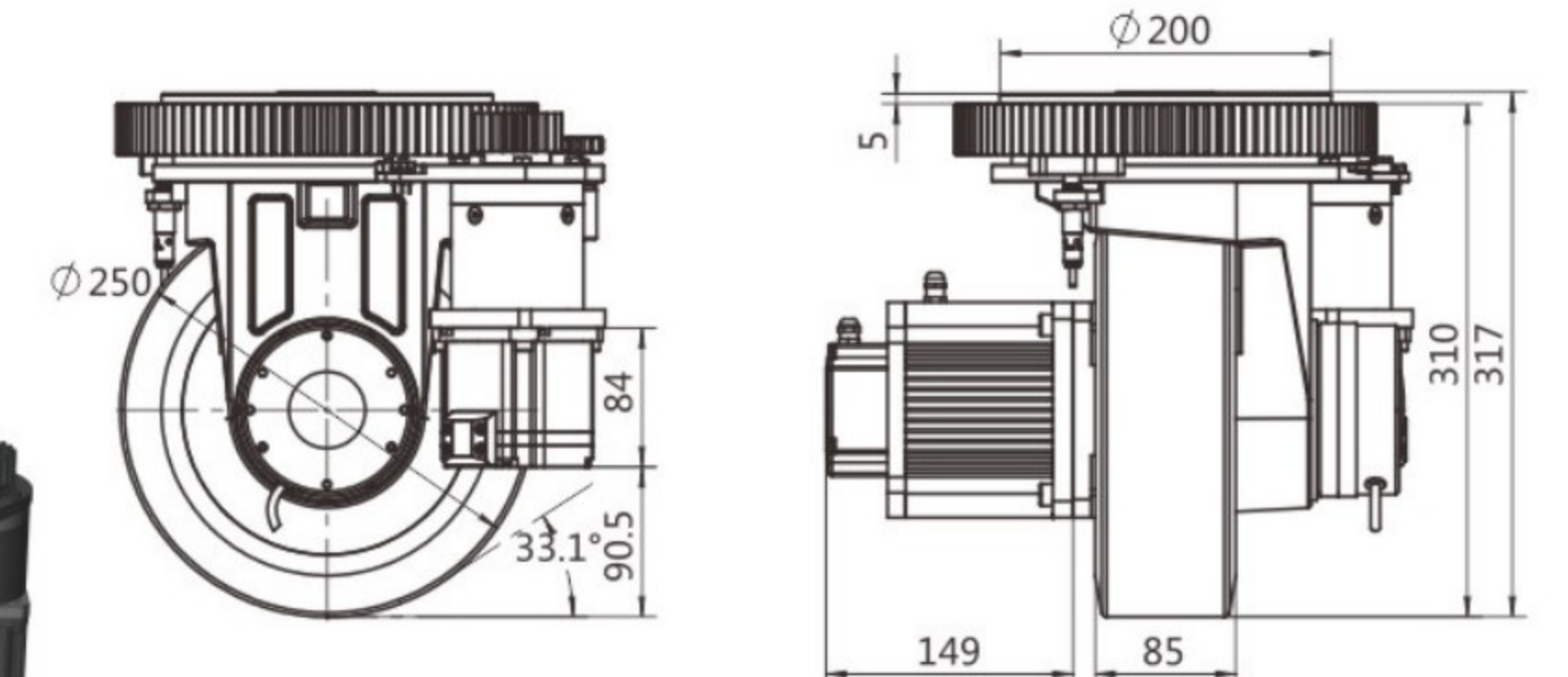


牵引减速机参数
Parameter table of traction reducer

| | | | | |
|---|--------------------------------------|----------------------|---------------------------|--|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 400 | |
| | 电机电压 Motor voltage | V(DC) | 48 | |
| | 电机电流 Motor current | A | 11.95 | |
| | 电机转速 Motor speed | rpm | 3000 | |
| | 电机扭矩 Motor Torque | N-m | 1.27 | |
| | 防护等级 Protection level | IP | 54 | |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | | |
| | 减速机速比 Speed ratio of reducer | i | 35 | |
| | 回转支承齿数 Slewing gear | 100 | 齿数比4 : 1 Gear ratio 4 : 1 | |
| | 转向齿轮齿数 Number of steering gear teeth | 25 | | |
| 总转向速比 Total steering ratio | i | 140 | | |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 20 | | |
| 转向角度 Steering Angle | ° | ±140 | | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 | |
| | 制动扭矩 Braking torque | N-m | 8 | |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 | |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 | |

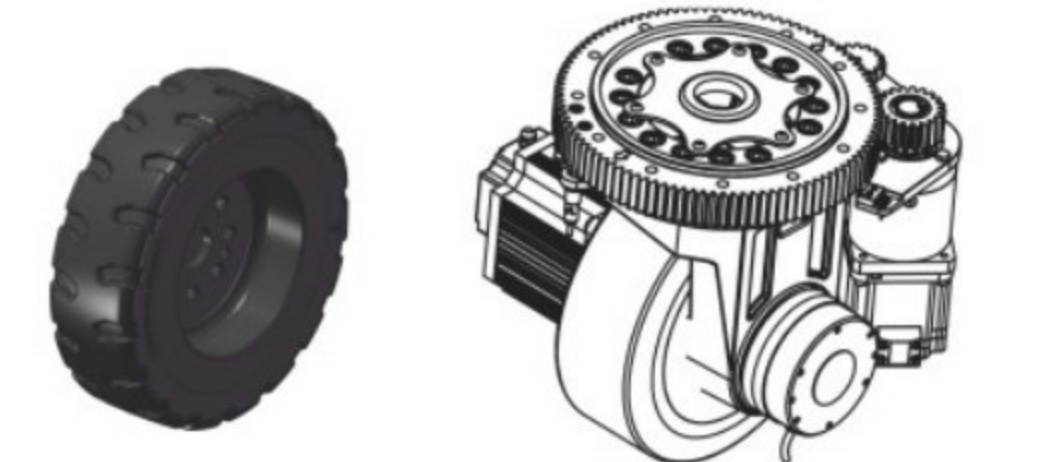
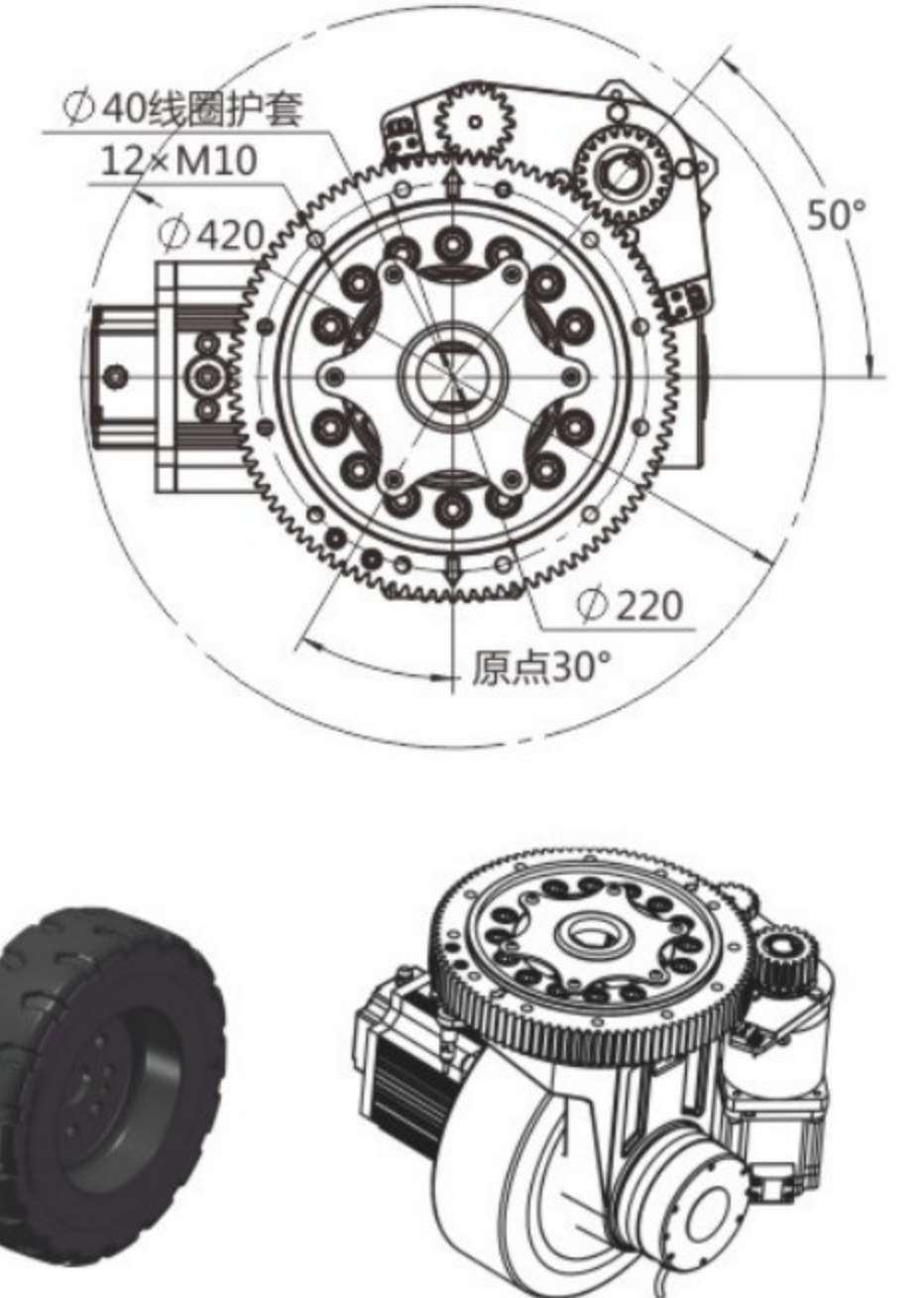
WDS 250 Series

ZL-WDS-250-1500-750



行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|----------------------------------|------------------|------|------|
| 电机类型 Motor type | | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 1500 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 39 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 4.77 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | 增量光编 Incremental Optical Weaving | | | |
| 行走减速机 Walking reducer | | 21 | 41 | 85 |
| 行走速度 Walking speed | m/min | 110.82 | 56.8 | 27.7 |
| 舵轮输出扭矩 Output Torque | N-m | 94.5 | 184 | 310 |
| 牵引力 Traction | N | 756 | 1472 | 1700 |
| 参考牵引重量 Reference Traction weight | Kg | 1134 | 2000 | 2550 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1200 | | |
| 橡胶承重 Rubber bearing | Kg | 800 | | |

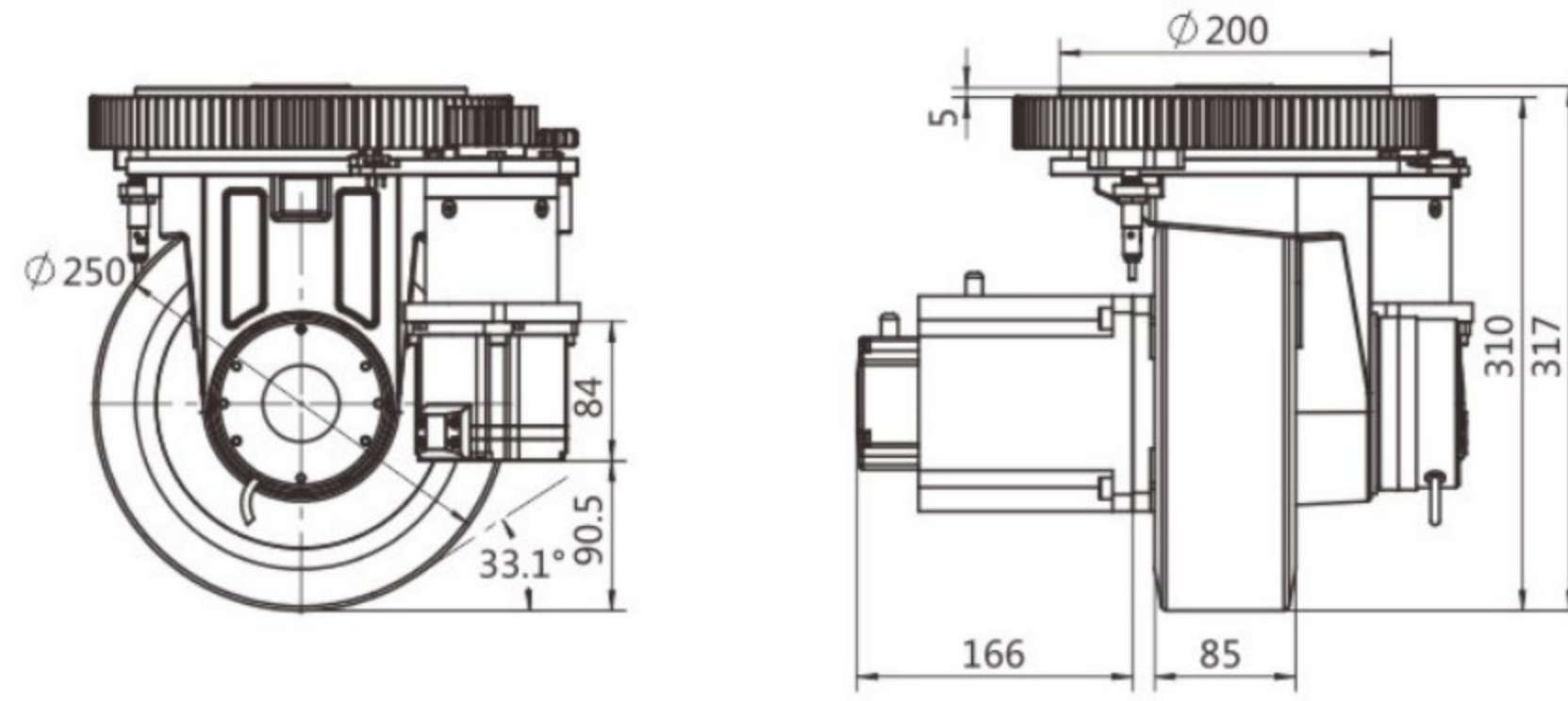


牵引减速机参数
Parameter table of traction reducer

| | | | | |
|---|--------------------------------------|----------------------|---------------------------|--|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 750 | |
| | 电机电压 Motor voltage | V(DC) | 48 | |
| | 电机电流 Motor current | A | 22.44 | |
| | 电机转速 Motor speed | rpm | 3000 | |
| | 电机扭矩 Motor Torque | N-m | 2.387 | |
| | 防护等级 Protection level | IP | 54 | |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | | |
| | 减速机速比 Speed ratio of reducer | i | 35 | |
| | 回转支承齿数 Slewing gear | 100 | 齿数比5 : 1 Gear ratio 5 : 1 | |
| | 转向齿轮齿数 Number of steering gear teeth | 20 | | |
| 总转向速比 Total steering ratio | i | 175 | | |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 16 | | |
| 转向角度 Steering Angle | ° | ±140 | | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 | |
| | 制动扭矩 Braking torque | N-m | 8 | |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 | |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 | |

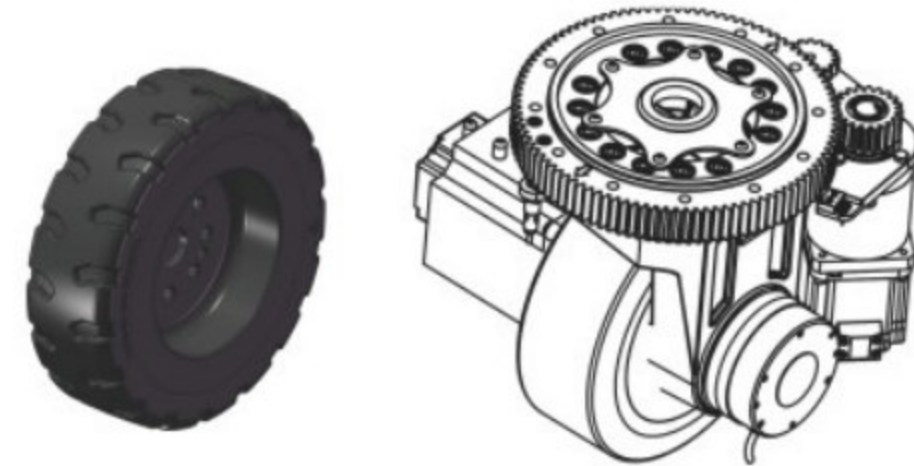
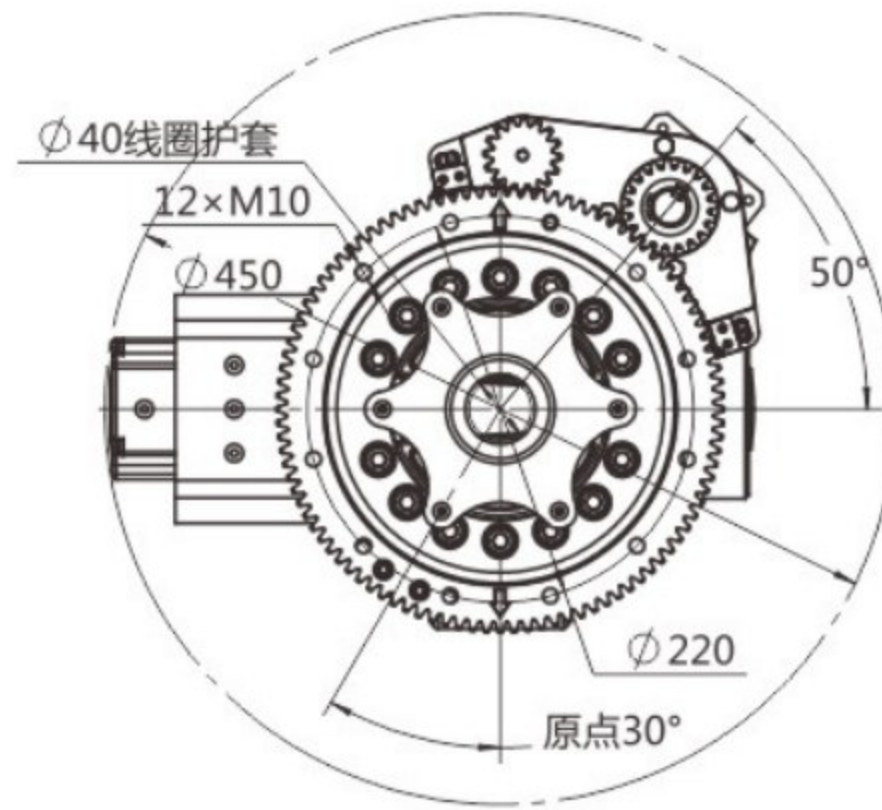
WDS 250 Series

ZL-WDS-250-2300-750



行走电机参数
Parameters of walking motor

| | | | |
|----------------------------------|----------------------------------|--------|------|
| 电机类型 Motor type | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 2300 | |
| 电机电压 Motor voltage | V(DC) | 48 | |
| 电机电流 Motor current | A | 65 | |
| 电机转速 Motor speed | rpm | 3000 | |
| 电机扭矩 Motor Torque | N-m | 7.3 | |
| 防护等级 Protection level | IP | 54 | |
| 电机编码器 Motor encoder | 增量光编 Incremental Optical Weaving | | |
| 行走减速比 Walking reducer | | 21 | 41 |
| 行走速度 Walking speed | m/min | 110.82 | 56.8 |
| 舵轮输出扭矩 Output Torque | N-m | 138 | 270 |
| 牵引力 Traction | N | 1165 | 1823 |
| 参考牵引重量 Reference Traction weight | Kg | 1748 | 2735 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1200 | |
| 橡胶承重 Rubber bearing | Kg | 800 | |

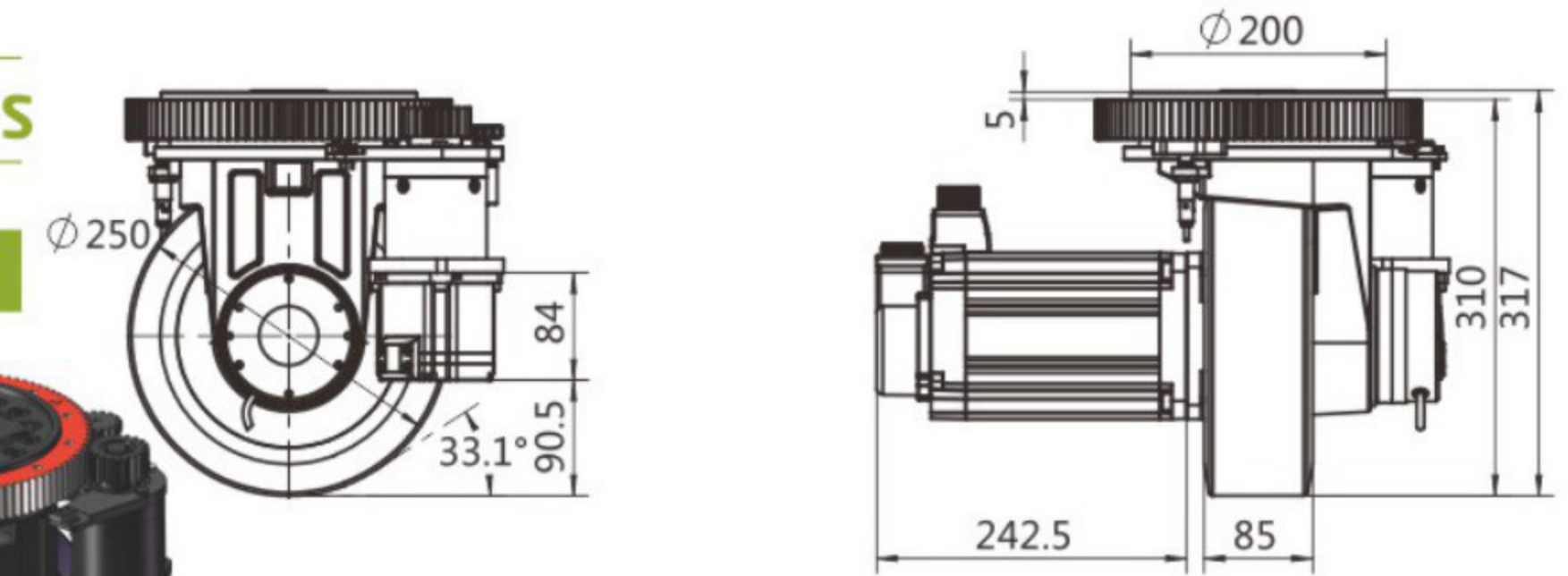


牵引|减速机参数
Parameter table of traction reducer

| | | | |
|---|------------------------------|----------------------|---------------------------|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 750 |
| | 电机电压 Motor voltage | V(DC) | 48 |
| | 电机电流 Motor current | A | 22.44 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 2.387 |
| | 防护等级 Protection level | IP | 54 |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 |
| | 回转支承齿数 Slewing gear | 100 | 齿数比5 : 1 Gear ratio 5 : 1 |
| 转向齿轮齿数 Number of steering gear teeth | 20 | | |
| 总转向速比 Total steering ratio | i | 175 | |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 16 | |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 8 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

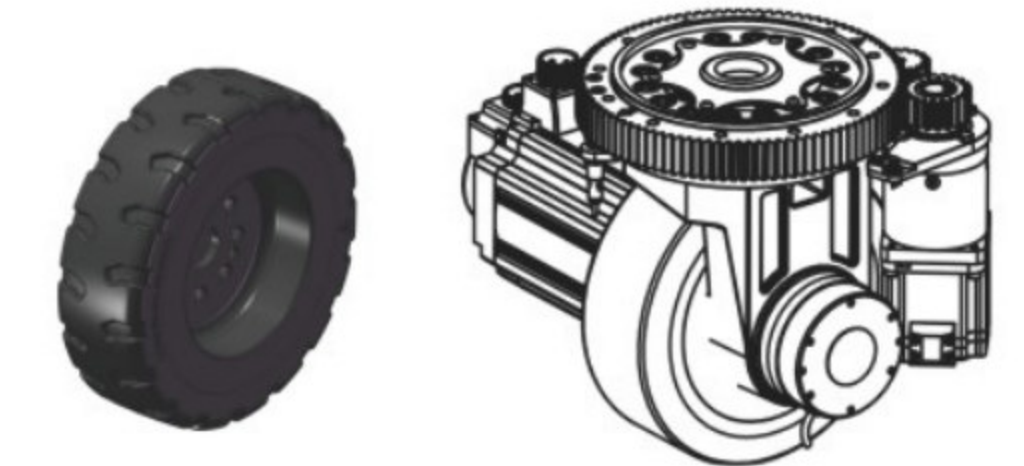
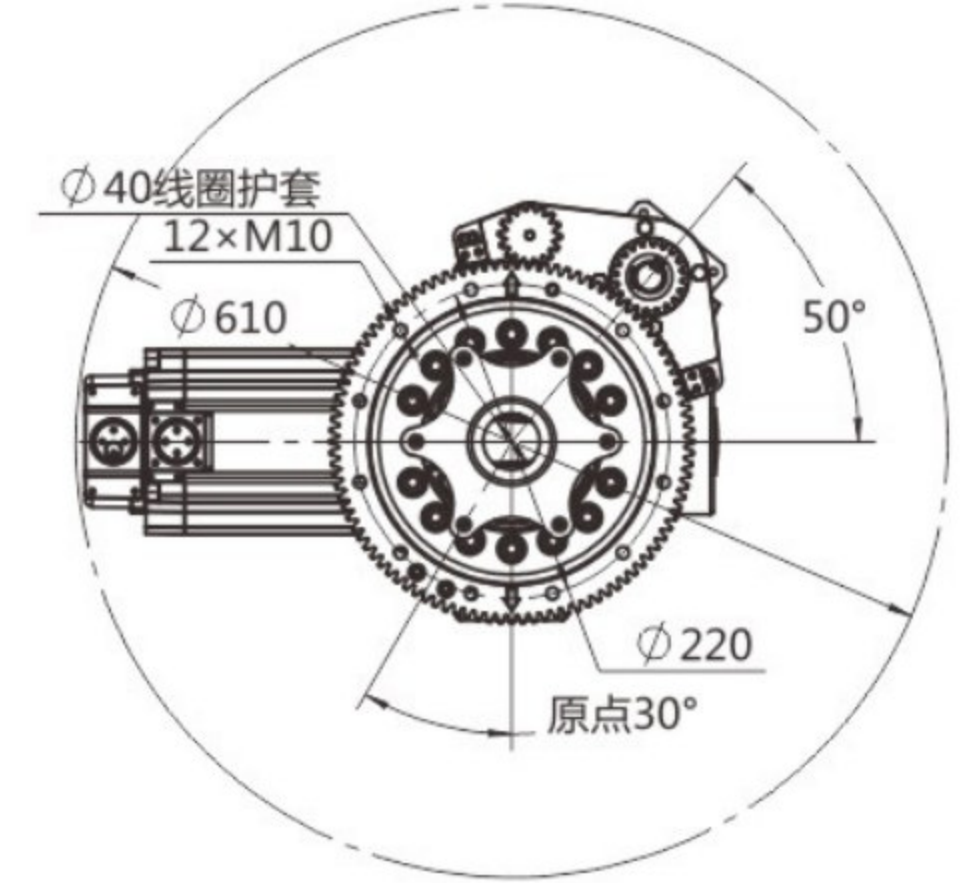
WDS 250 Series

ZL-WDS-250-3000-750



行走电机参数
Parameters of walking motor

| | | | |
|----------------------------------|----------------------------------|-------|------|
| 电机类型 Motor type | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 3000 | |
| 电机电压 Motor voltage | V(DC) | 48 | |
| 电机电流 Motor current | A | 90 | |
| 电机转速 Motor speed | rpm | 1500 | |
| 电机扭矩 Motor Torque | N-m | 19 | |
| 防护等级 Protection level | IP | 54 | |
| 电机编码器 Motor encoder | 增量光编 Incremental Optical Weaving | | |
| 行走减速比 Walking reducer | | 21 | 41 |
| 行走速度 Walking speed | m/min | 55.41 | 28.4 |
| 舵轮输出扭矩 Output Torque | N-m | 310 | 310 |
| 牵引力 Traction | N | 1400 | 1800 |
| 参考牵引重量 Reference Traction weight | Kg | 2200 | 3000 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1200 | |
| 橡胶承重 Rubber bearing | Kg | 800 | |

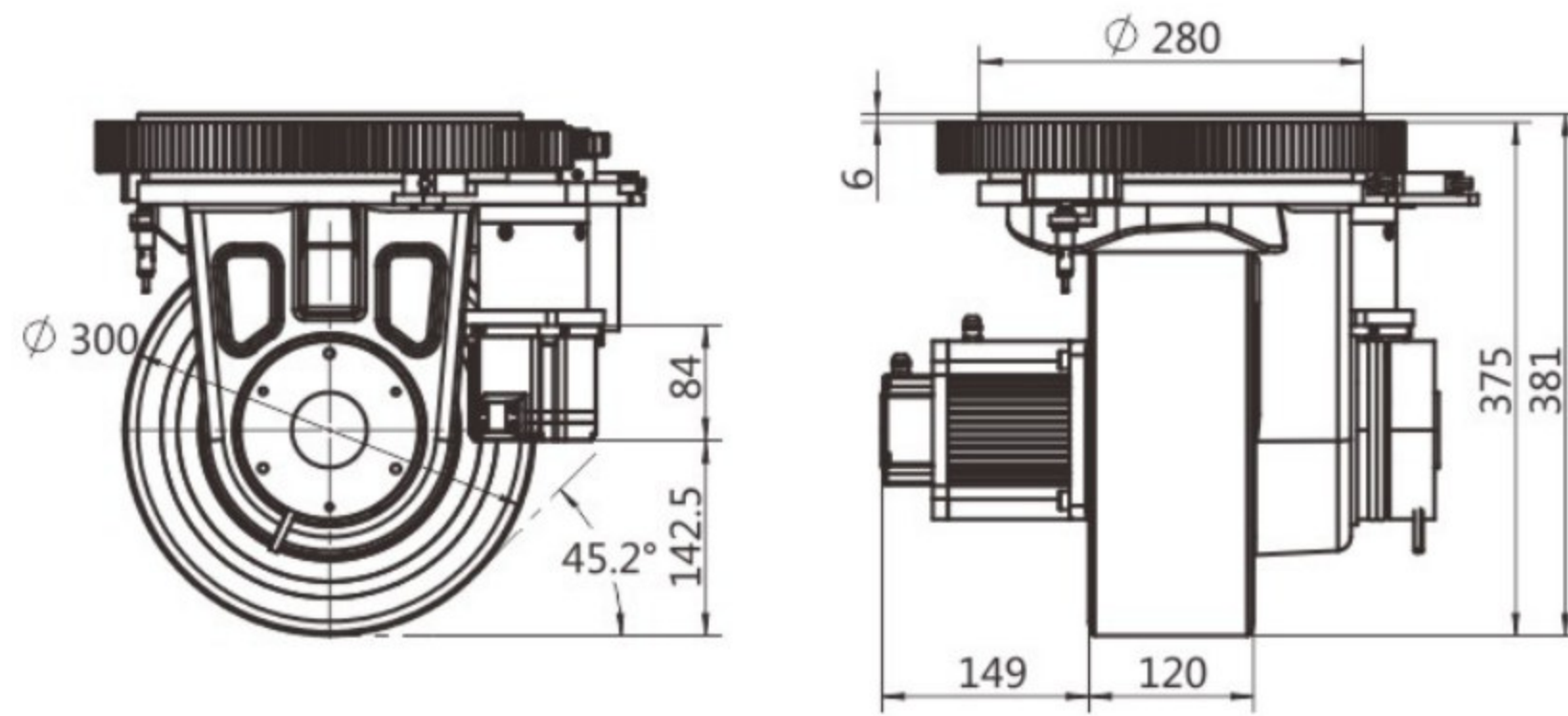


牵引|减速机参数
Parameter table of traction reducer

| | | | |
|---|------------------------------|----------------------|---------------------------|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 750 |
| | 电机电压 Motor voltage | V(DC) | 48 |
| | 电机电流 Motor current | A | 22.44 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 2.387 |
| | 防护等级 Protection level | IP | 54 |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 |
| | 回转支承齿数 Slewing gear | 100 | 齿数比5 : 1 Gear ratio 5 : 1 |
| 转向齿轮齿数 Number of steering gear teeth | 20 | | |
| 总转向速比 Total steering ratio | i | 175 | |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 16 | |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 8 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

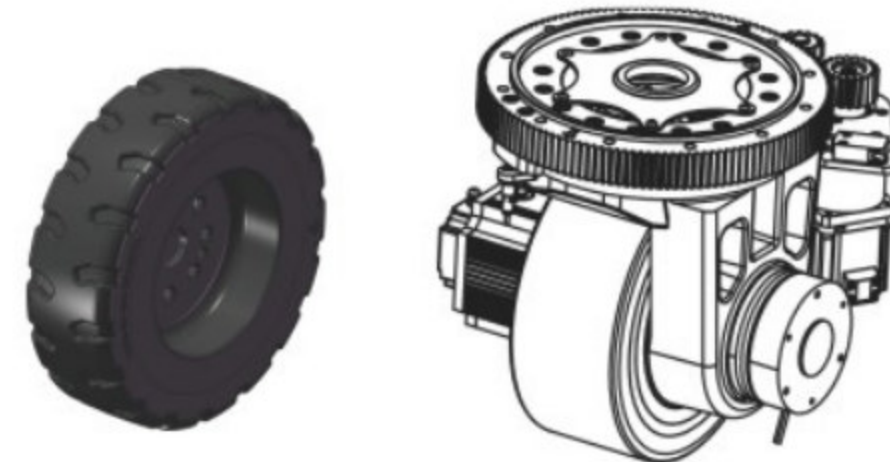
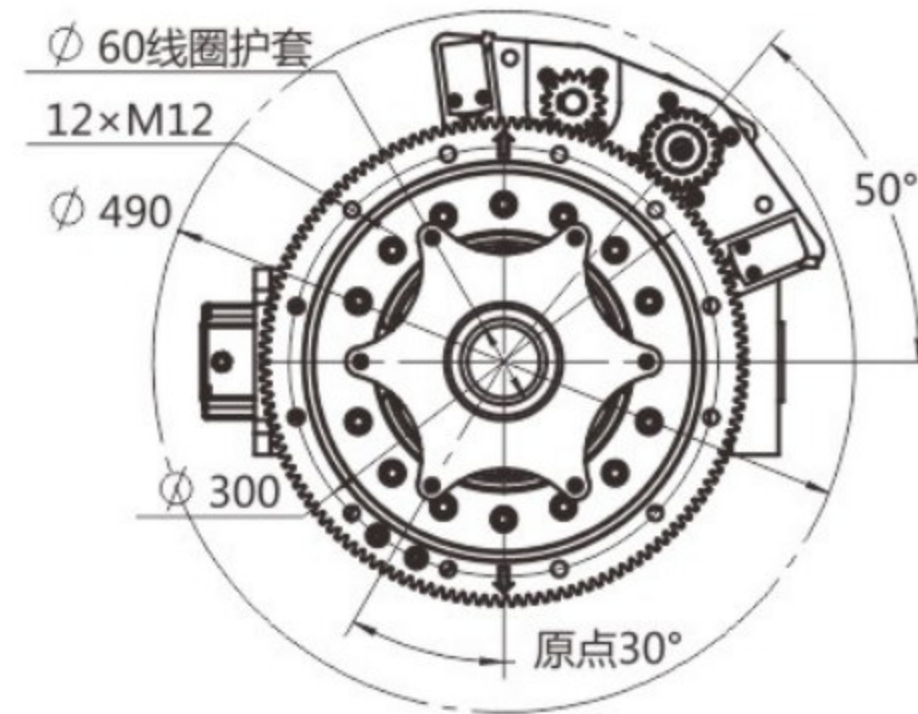
WDS 300 Series

ZL-WDS-300-1500-750



行走电机参数
Parameters of walking motor

| | | | |
|----------------------------------|----------------------------------|------|------|
| 电机类型 Motor type | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 1500 | |
| 电机电压 Motor voltage | V(DC) | 48 | |
| 电机电流 Motor current | A | 39 | |
| 电机转速 Motor speed | rpm | 3000 | |
| 电机扭矩 Motor Torque | N-m | 4.77 | |
| 防护等级 Protection level | IP | 54 | |
| 电机编码器 Motor encoder | 增量光编 Incremental Optical Weaving | | |
| 行走减速比 Walking reducer | | 48 | 64 |
| 行走速度 Walking speed | m/min | 58.8 | 44.1 |
| 舵轮输出扭矩 Output Torque | N-m | 206 | 274 |
| 牵引力 Traction | N | 1373 | 1826 |
| 参考牵引重量 Reference Traction weight | Kg | 2000 | 2500 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 2200 | |
| 橡胶承重 Rubber bearing | Kg | 1200 | |

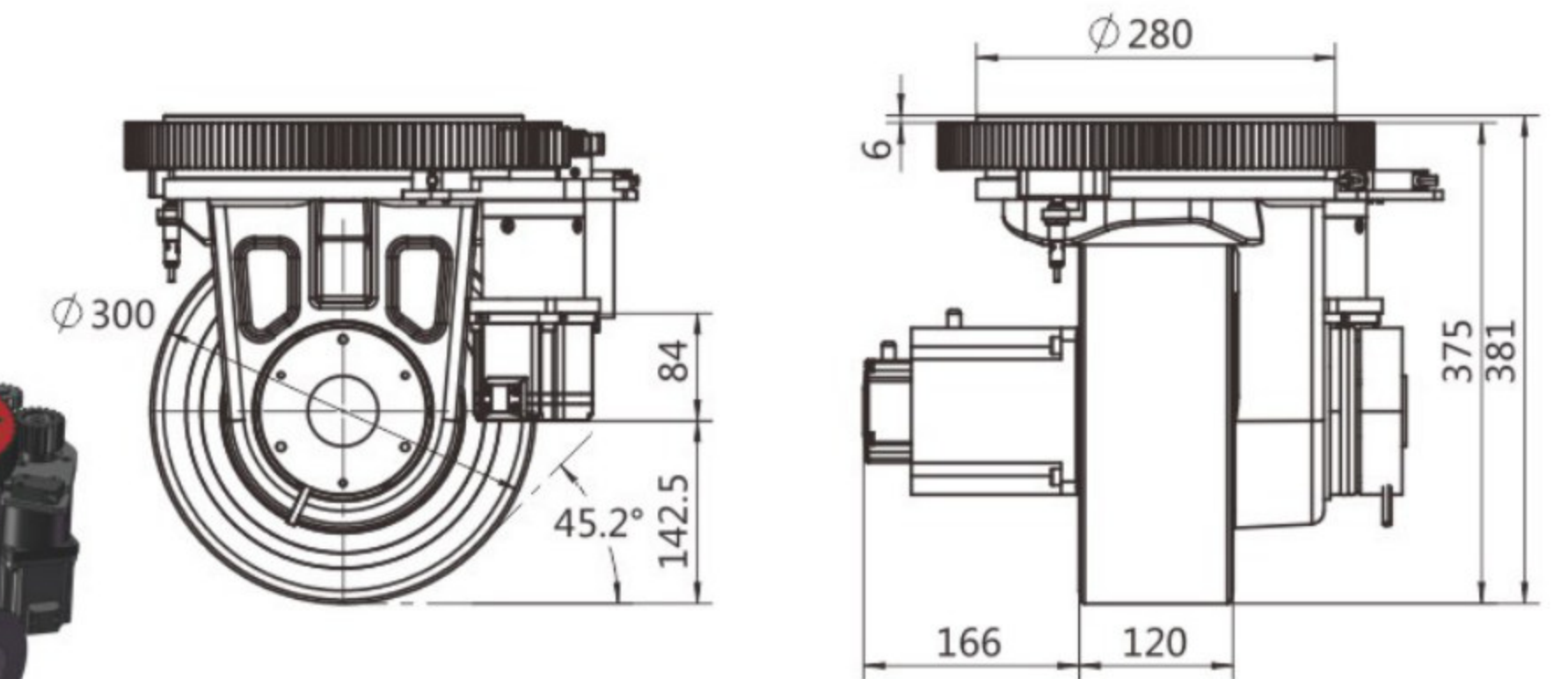


牵引|减速机参数
Parameter table of traction reducer

| | | | |
|---|--------------------------------------|----------------------|---------------------------------|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 750 |
| | 电机电压 Motor voltage | V(DC) | 48 |
| | 电机电流 Motor current | A | 22.44 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 2.387 |
| | 防护等级 Protection level | IP | 54 |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 |
| | 回转支承齿数 Slewing gear | 135 | 齿数比6.75 : 1 Gear ratio 6.75 : 1 |
| | 转向齿轮齿数 Number of steering gear teeth | 20 | |
| 总转向速比 Total steering ratio | i | 236.25 | |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 15 | |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 16 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

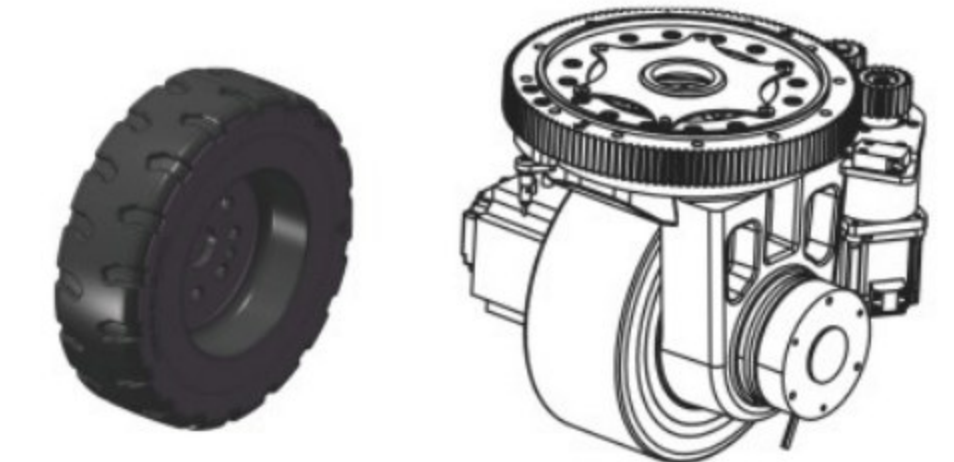
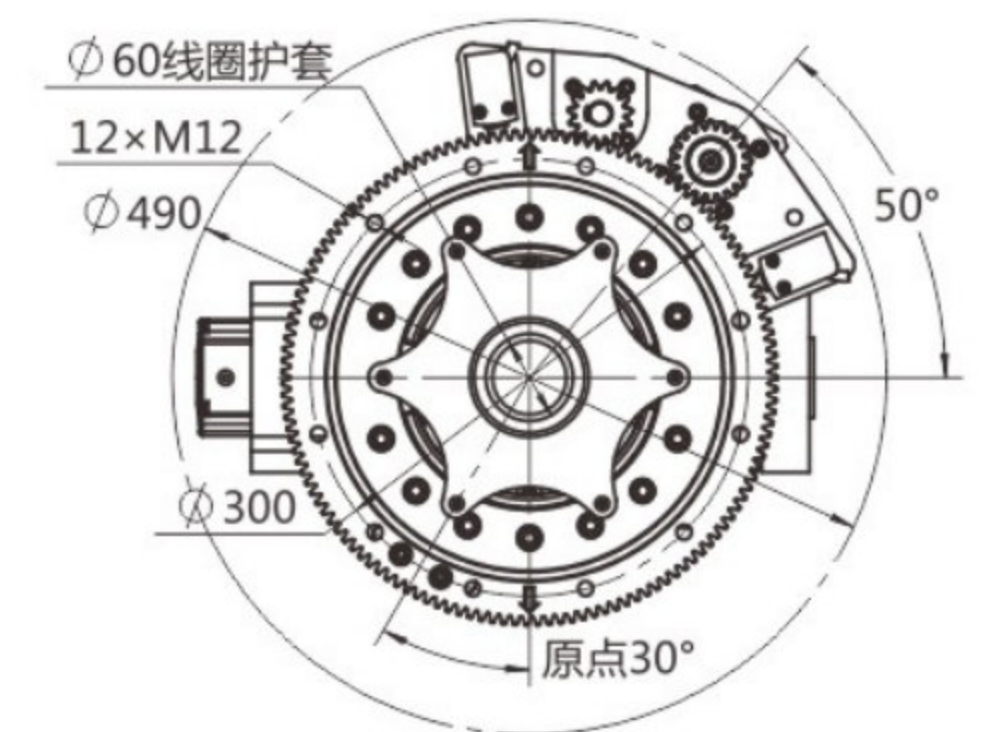
WDS 300 Series

ZL-WDS-300-2300-750



行走电机参数
Parameters of walking motor

| | | | |
|----------------------------------|----------------------------------|------|------|
| 电机类型 Motor type | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 2300 | |
| 电机电压 Motor voltage | V(DC) | 48 | |
| 电机电流 Motor current | A | 65 | |
| 电机转速 Motor speed | rpm | 3000 | |
| 电机扭矩 Motor Torque | N-m | 7.3 | |
| 防护等级 Protection level | IP | 54 | |
| 电机编码器 Motor encoder | 增量光编 Incremental Optical Weaving | | |
| 行走减速比 Walking reducer | | 48 | 64 |
| 行走速度 Walking speed | m/min | 58.8 | 44.1 |
| 舵轮输出扭矩 Output Torque | N-m | 315 | 420 |
| 牵引力 Traction | N | 2100 | 2800 |
| 参考牵引重量 Reference Traction weight | Kg | 3150 | 4200 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 2200 | |
| 橡胶承重 Rubber bearing | Kg | 1200 | |

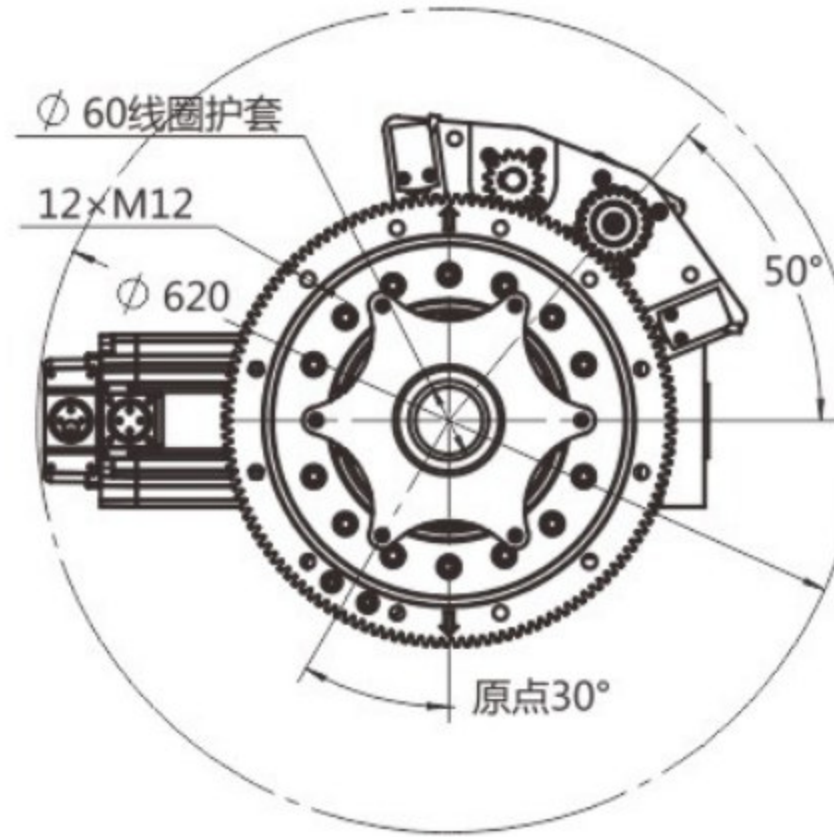
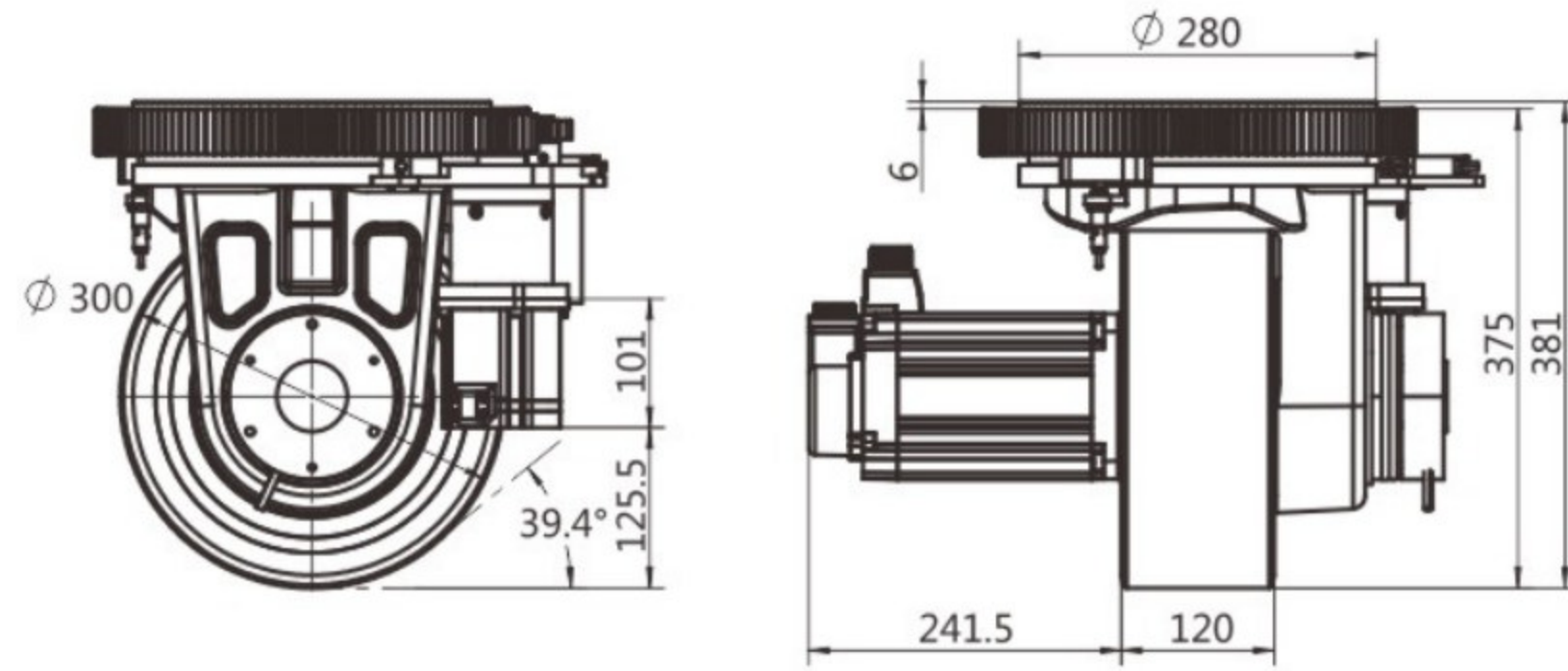


牵引|减速机参数
Parameter table of traction reducer

| | | | |
|---|--------------------------------------|----------------------|---------------------------------|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 750 |
| | 电机电压 Motor voltage | V(DC) | 48 |
| | 电机电流 Motor current | A | 22.44 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 2.387 |
| | 防护等级 Protection level | IP | 54 |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 |
| | 回转支承齿数 Slewing gear | 135 | 齿数比6.75 : 1 Gear ratio 6.75 : 1 |
| | 转向齿轮齿数 Number of steering gear teeth | 20 | |
| 总转向速比 Total steering ratio | i | 236.25 | |
| 编码器齿轮齿数 Number of teeth of encoder gear | Z | 15 | |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 16 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

WDS 300 Series

ZL-WDS-300-3000-1000



行走电机参数
Parameters of walking motor

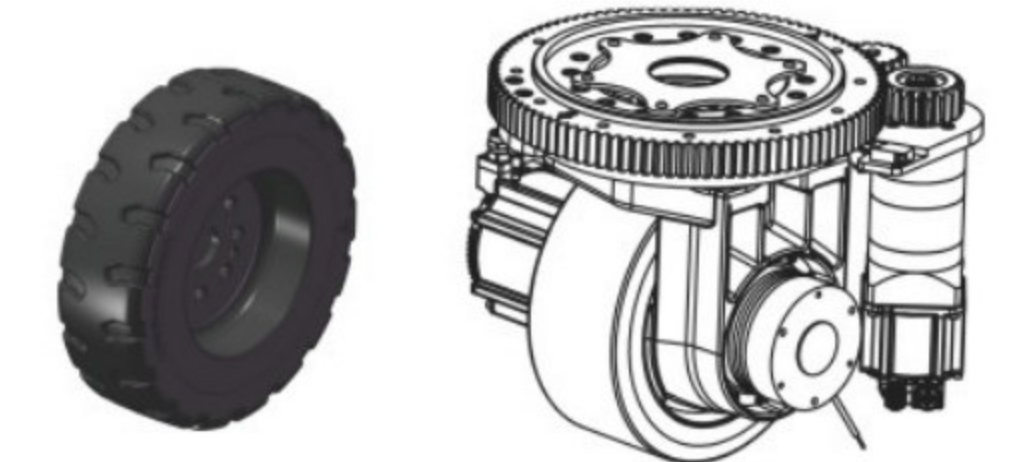
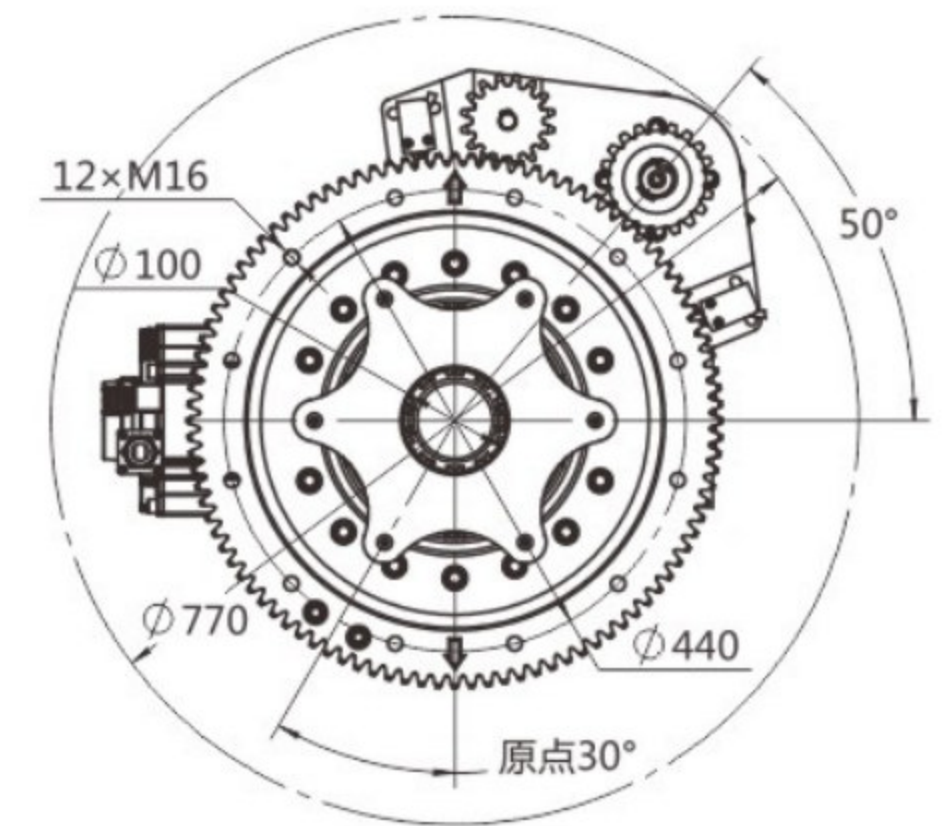
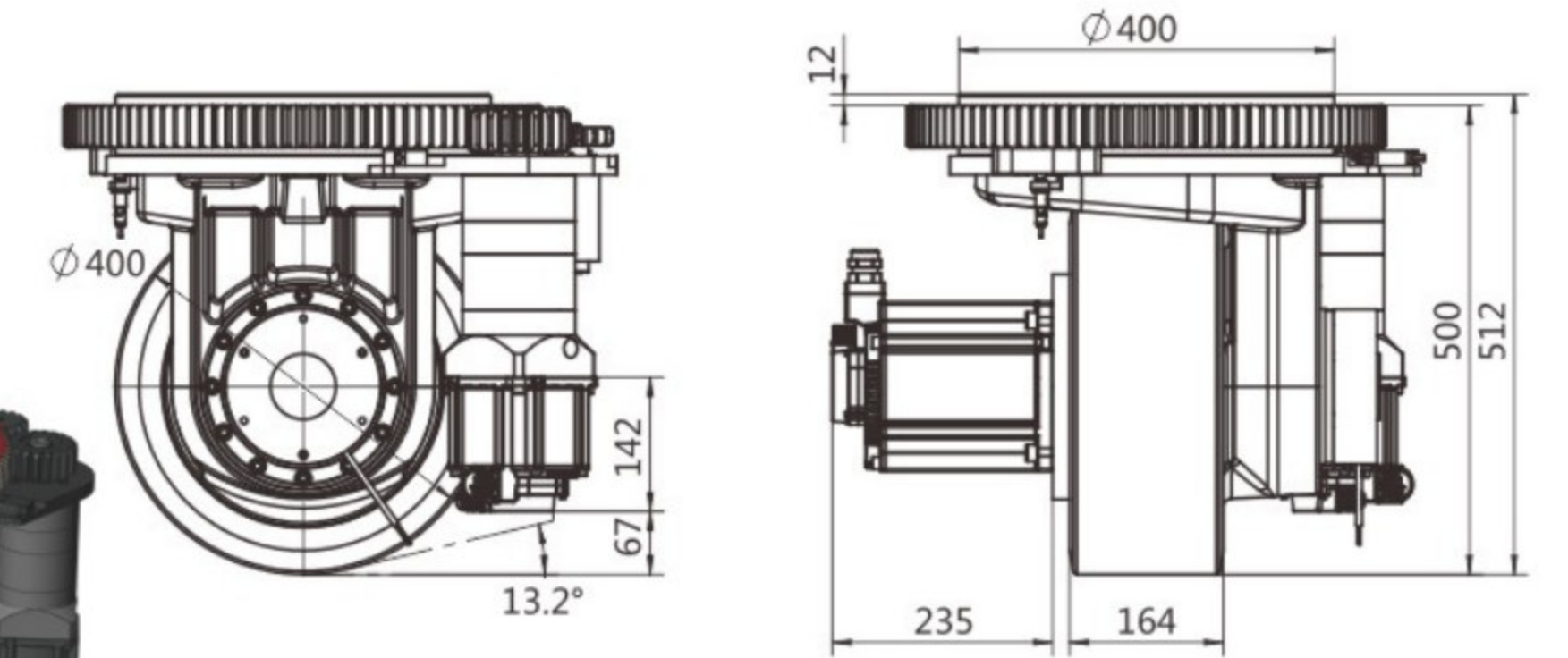
| 电机类型 Motor type | 伺服电机 Servo motor | | | |
|----------------------------------|----------------------------------|------|------|-------|
| 电机功率 Motor power | W | 3000 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 90 | | |
| 电机转速 Motor speed | rpm | 1500 | | |
| 电机扭矩 Motor Torque | N-m | 19 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | 增量光编 Incremental Optical Weaving | | | |
| 行走减速比 Walking reducer | | 48 | 64 | 80 |
| 行走速度 Walking speed | m/min | 29.4 | 22 | 17.66 |
| 舵轮输出扭矩 Output Torque | N-m | 820 | 1090 | 1350 |
| 牵引力 Traction | N | 5466 | 7266 | 9000 |
| 参考牵引重量 Reference Traction weight | Kg | 7000 | 9500 | 11700 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 2200 | | |
| 橡胶承重 Rubber bearing | Kg | 1200 | | |

牵引/减速机参数
Parameter table of traction reducer

| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
|-------------------------------------|---|----------------------|---------------------------------|
| | 电机功率 Motor power | W | 1000 |
| | 电机电压 Motor voltage | V(DC) | 48 |
| | 电机电流 Motor current | A | 29.92 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 3.183 |
| | 防护等级 Protection level | IP | 54 |
| | 电机编码器 Motor encoder | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 |
| | 回转支承齿数 Slewing gear | 135 | 齿数比6.75 : 1 Gear ratio 6.75 : 1 |
| | 转向齿轮齿数 Number of steering gear teeth | 20 | |
| | 总转向速比 Total steering ratio | i | 236.25 |
| | 编码器齿轮齿数 Number of teeth of encoder gear | Z | 15 |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 16 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

WDS 400 Series

ZL-WDS-400-5500-2350



行走电机参数
Parameters of walking motor

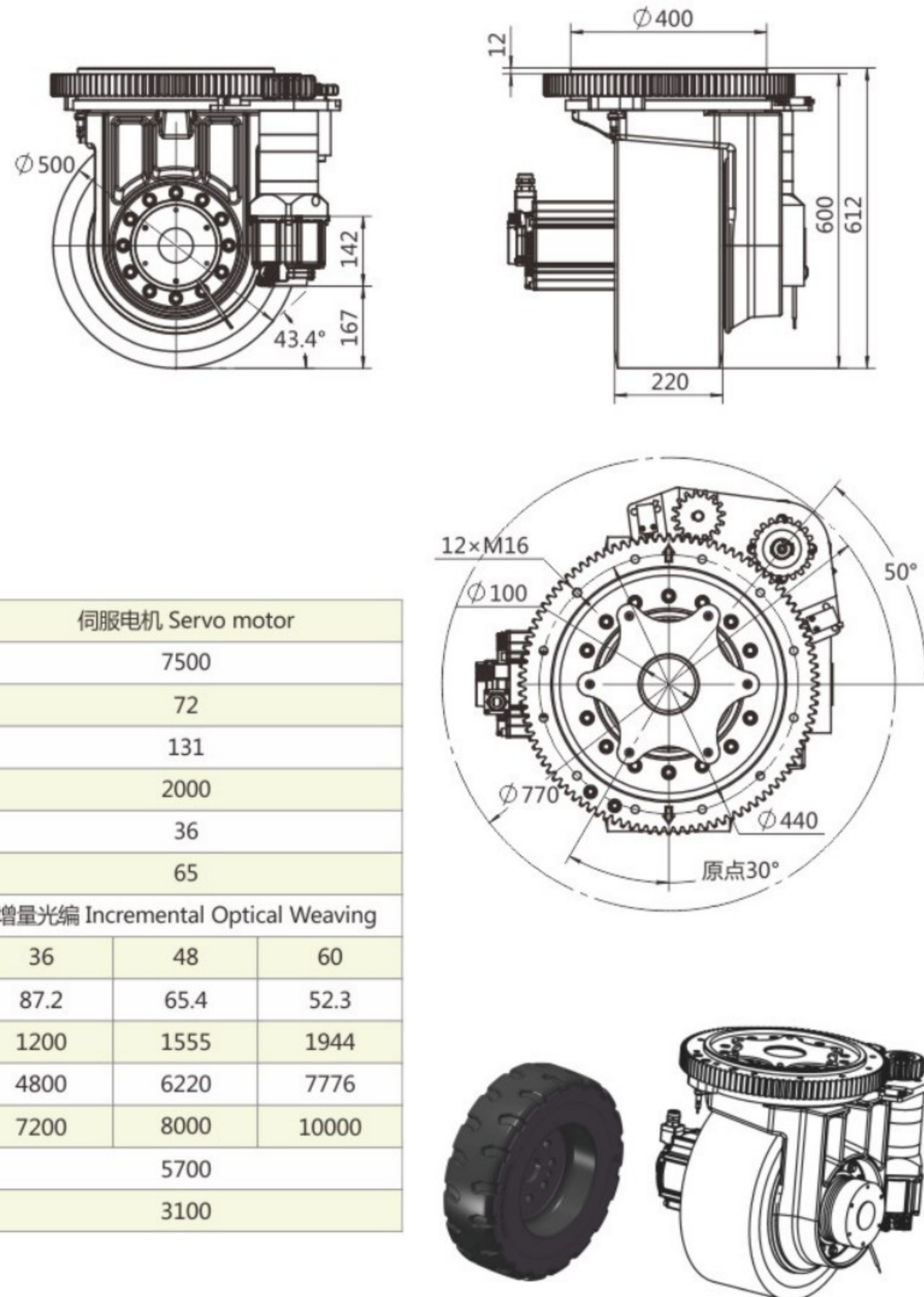
| 电机类型 Motor type | 伺服电机 Servo motor | | | |
|----------------------------------|----------------------|------|------|-------|
| 电机功率 Motor power | W | 5500 | | |
| 电机电压 Motor voltage | V(DC) | 72 | | |
| 电机电流 Motor current | A | 97 | | |
| 电机转速 Motor speed | rpm | 1500 | | |
| 电机扭矩 Motor Torque | N-m | 35 | | |
| 防护等级 Protection level | IP | 65 | | |
| 电机编码器 Motor encoder | 增量磁编 Magnetic coding | | | |
| 行走减速比 Walking reducer | | 36 | 48 | 60 |
| 行走速度 Walking speed | m/min | 52.3 | 39.2 | 31.4 |
| 舵轮输出扭矩 Output Torque | N-m | 1150 | 1580 | 1974 |
| 牵引力 Traction | N | 5750 | 7900 | 9870 |
| 参考牵引重量 Reference Traction weight | Kg | 8400 | 9300 | 10800 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 3600 | | |
| 橡胶承重 Rubber bearing | Kg | 2000 | | |

牵引/减速机参数
Parameter table of traction reducer

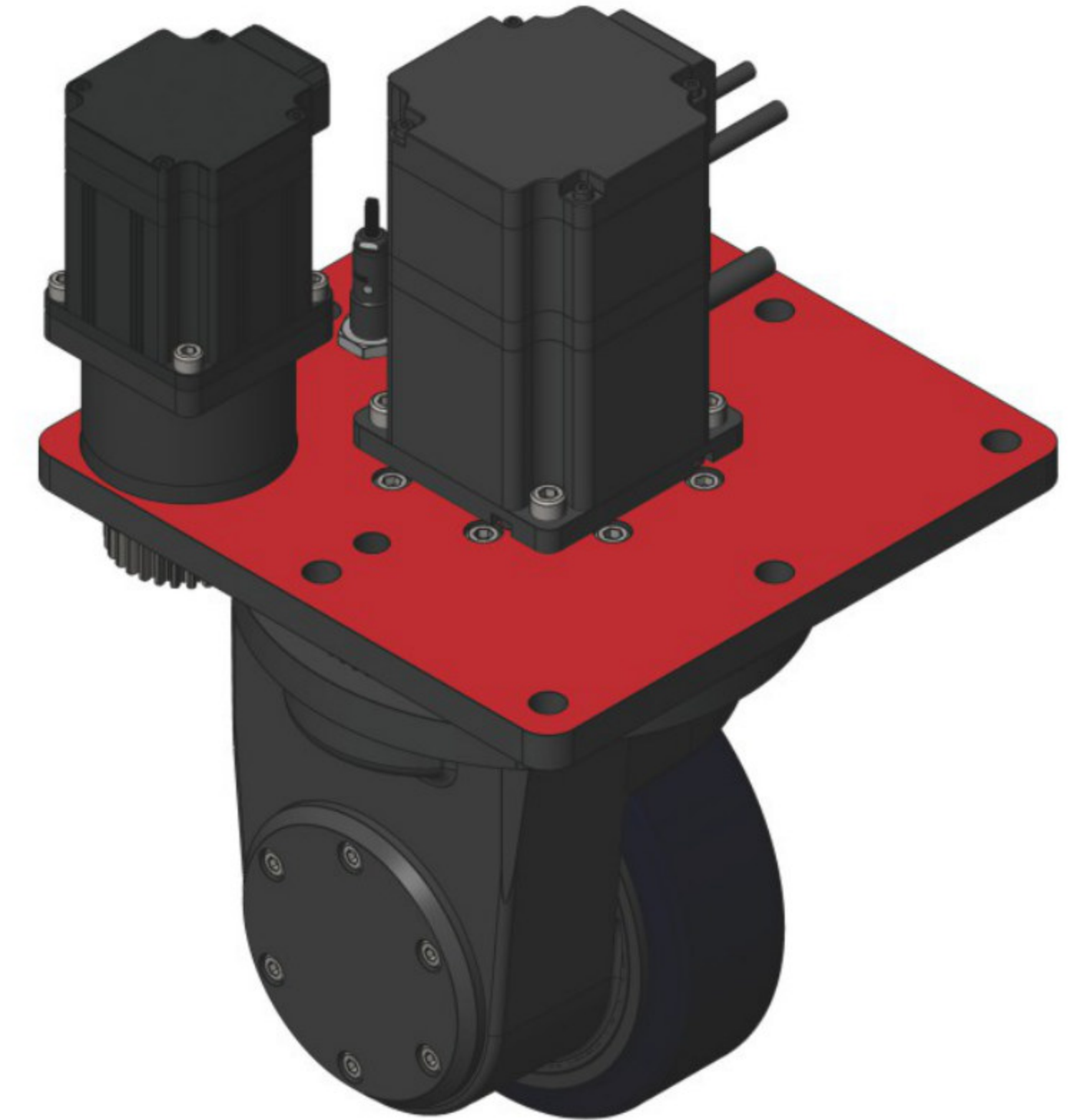
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | 伺服电机 Servo motor | |
|-------------------------------------|---|----------------------------------|---------------------------|
| | 电机功率 Motor power | W | 2350 |
| | 电机电压 Motor voltage | V(DC) | 72 |
| | 电机电流 Motor current | A | 40 |
| | 电机转速 Motor speed | rpm | 3000 |
| | 电机扭矩 Motor Torque | N-m | 7.5 |
| | 防护等级 Protection level | IP | 65 |
| | 电机编码器 Motor encoder | 增量光编 Incremental Optical Weaving | |
| | 减速器速比 Speed ratio of reducer | i | 125 |
| | 回转支承齿数 Slewing gear | 100 | 齿数比5 : 1 Gear ratio 5 : 1 |
| | 转向齿轮齿数 Number of steering gear teeth | 20 | |
| | 总转向速比 Total steering ratio | i | 625 |
| | 编码器齿轮齿数 Number of teeth of encoder gear | Z | 16 |
| 转向角度 Steering Angle | ° | ±140 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 |
| | 制动扭矩 Braking torque | N-m | 60 |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 |

WDS 500 Series

ZL-WDS-500-7500-2350



— LDS150
— LDS230



LDS Series

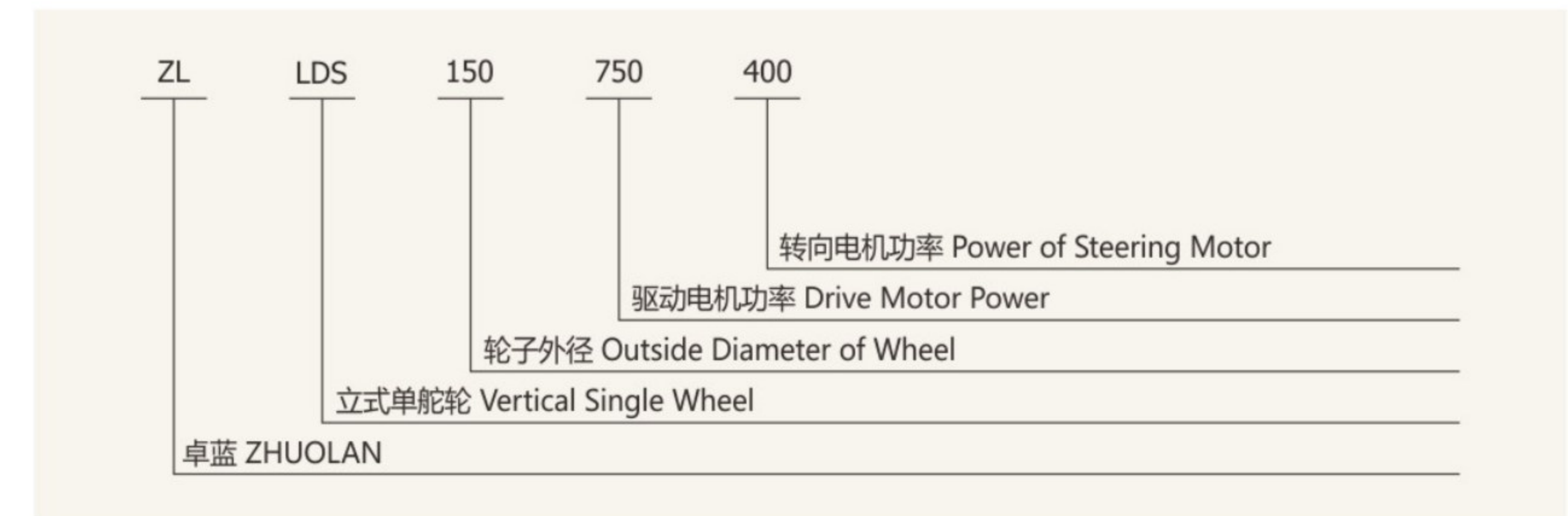
行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|-------|----------------------------------|------|-------|
| 电机类型 Motor type | | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 7500 | | |
| 电机电压 Motor voltage | V(DC) | 72 | | |
| 电机电流 Motor current | A | 131 | | |
| 电机转速 Motor speed | rpm | 2000 | | |
| 电机扭矩 Motor Torque | N-m | 36 | | |
| 防护等级 Protection level | IP | 65 | | |
| 电机编码器 Motor encoder | | 增量光编 Incremental Optical Weaving | | |
| 行走减速比 Walking reducer | | 36 | 48 | 60 |
| 行走速度 Walking speed | m/min | 87.2 | 65.4 | 52.3 |
| 舵轮输出扭矩 Output Torque | N-m | 1200 | 1555 | 1944 |
| 牵引力 Traction | N | 4800 | 6220 | 7776 |
| 参考牵引重量 Reference Traction weight | Kg | 7200 | 8000 | 10000 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 5700 | | |
| 橡胶承重 Rubber bearing | Kg | 3100 | | |

牵引/减速机参数
Parameter table of traction reducer

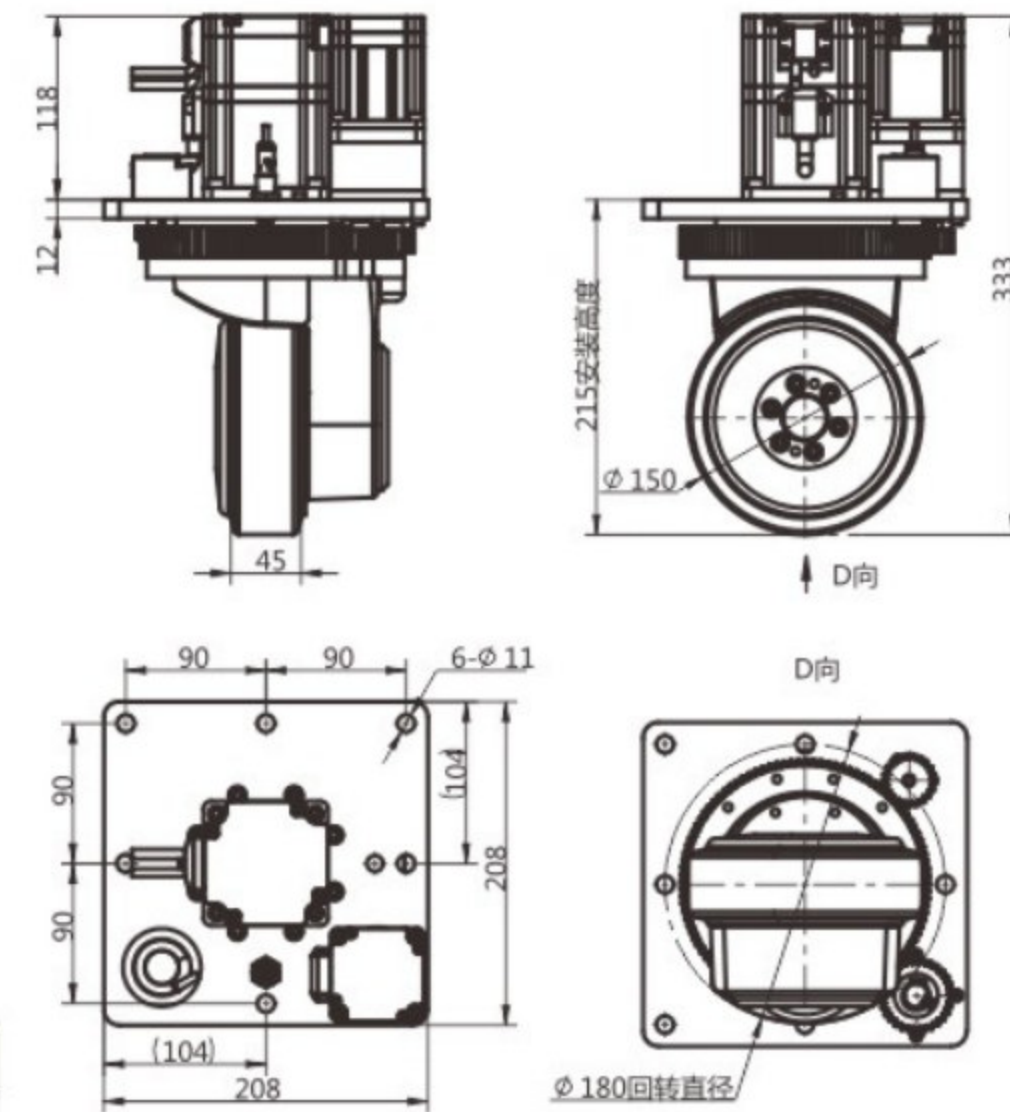
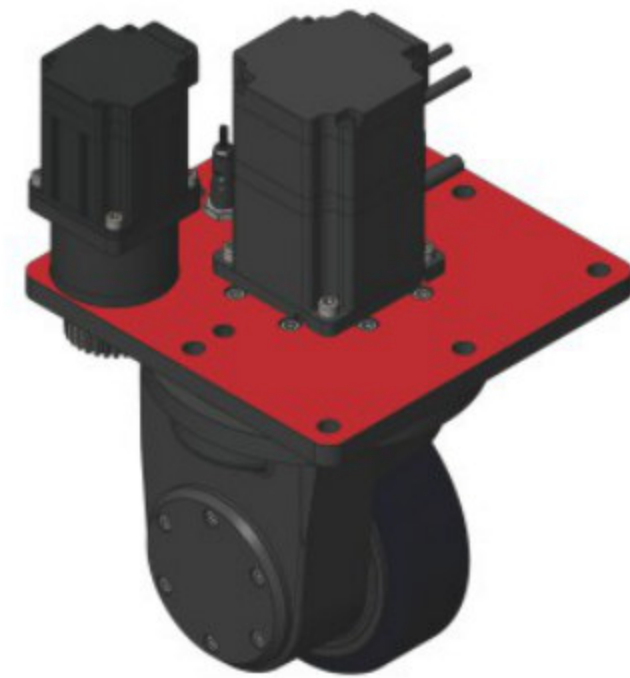
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|-------------------------------------|---|-------|----------------------------------|--|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 2350 | |
| | 电机电压 Motor voltage | V(DC) | 72 | |
| | 电机电流 Motor current | A | 40 | |
| | 电机转速 Motor speed | rpm | 3000 | |
| | 电机扭矩 Motor Torque | N-m | 7.5 | |
| | 防护等级 Protection level | IP | 65 | |
| | 电机编码器 Motor encoder | | 增量光编 Incremental Optical Weaving | |
| | 减速器速比 Speed ratio of reducer | i | 125 | |
| | 回转支承齿数 Slewing gear | 100 | 齿数比5:1 Gear ratio 5:1 | |
| | 转向齿轮齿数 Number of steering gear teeth | 20 | | |
| | 总转向速比 Total steering ratio | i | 625 | |
| | 编码器齿轮齿数 Number of teeth of encoder gear | Z | 16 | |
| 转向角度 Steering Angle | ° | ±140 | | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 48 | |
| | 制动扭矩 Braking torque | N-m | 60 | |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 | |
| 限位开关 Limit Switch | 工作电压 Working voltage | V | 0~48 | |

LDS系列型号说明
LDS series model description



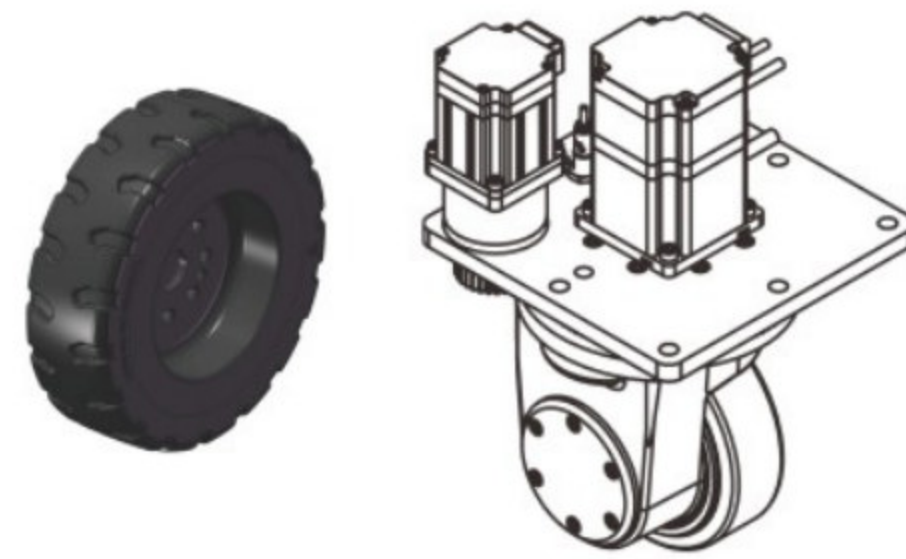
LDS150 Series

ZL-LDS-150-750-400



行走电机参数
Parameters of walking motor

| | | | | |
|----------------------------------|-------|----------------------|------|------|
| 电机类型 Motor type | | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 750 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 22.44 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 2.387 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | | 增量磁编 Magnetic coding | | |
| 行走减速比 Walking reducer | | 16 | 20 | 28 |
| 行走速度 Walking speed | m/min | 88.3 | 70.7 | 50.5 |
| 舵轮输出扭矩 Output Torque | N-m | 34 | 43 | 60 |
| 牵引力 Traction | N | 453 | 573 | 800 |
| 参考牵引重量 Reference Traction weight | Kg | 800 | 900 | 1300 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 550 | | |

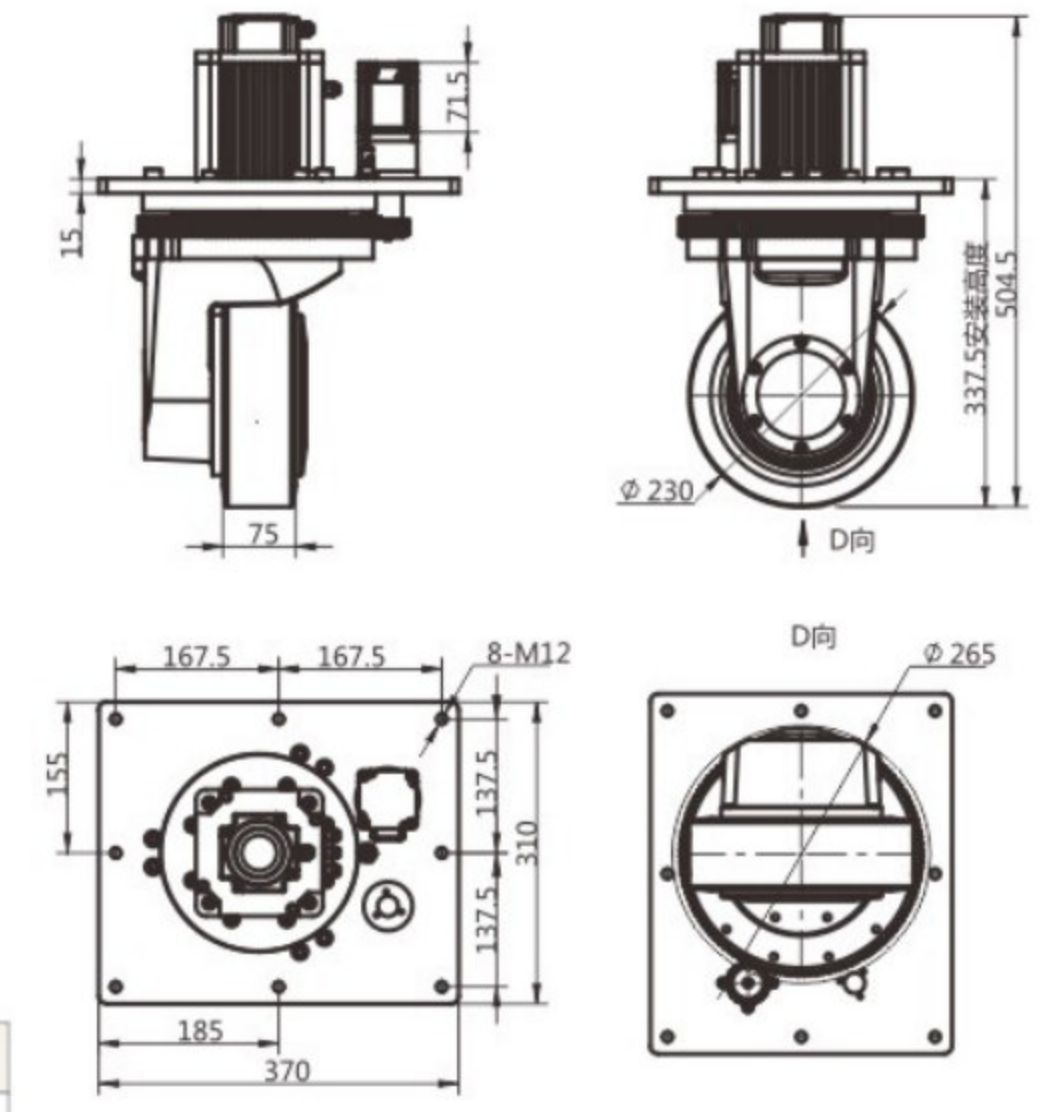
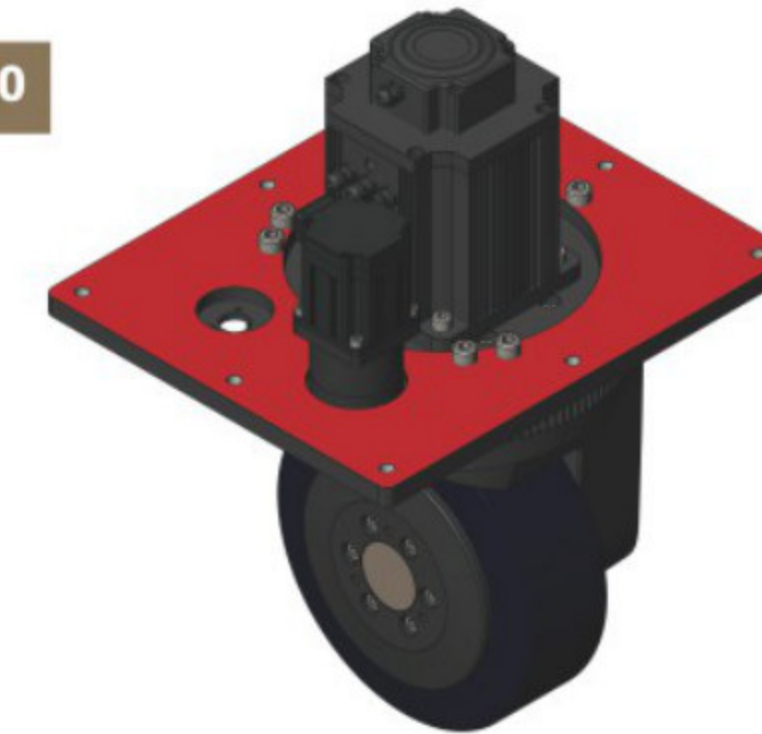


转向电机参数
Steering Motor parameters

| | | | | |
|-------------------------------------|---|-------|-------------------------------|--|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 400 | |
| | 电机电压 Motor voltage | V(DC) | 48 | |
| | 电机电流 Motor current | A | 11.95 | |
| | 电机转速 Motor speed | rpm | 3000 | |
| | 电机扭矩 Motor Torque | N-m | 1.27 | |
| | 防护等级 Protection level | IP | 54 | |
| | 电机编码器 Motor encoder | | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 | |
| | 回转支承齿数 Slewing gear | 105 | 齿数比3.5 : 1 Gear ratio 3.5 : 1 | |
| | 转向齿轮齿数 Number of steering gear teeth | 30 | | |
| | 总转向速比 Total steering ratio | i | 122.5 | |
| | 编码器齿轮齿数 Number of teeth of encoder gear | Z | 21 | |
| 转向角度 Steering Angle | ° | 360 | | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | 24 | |
| | 制动扭矩 Braking torque | N-m | 3.2 | |
| 角度传感器 Angle Sensor | 型号 Type | SICK | DBS36E-S3EK02000 | |

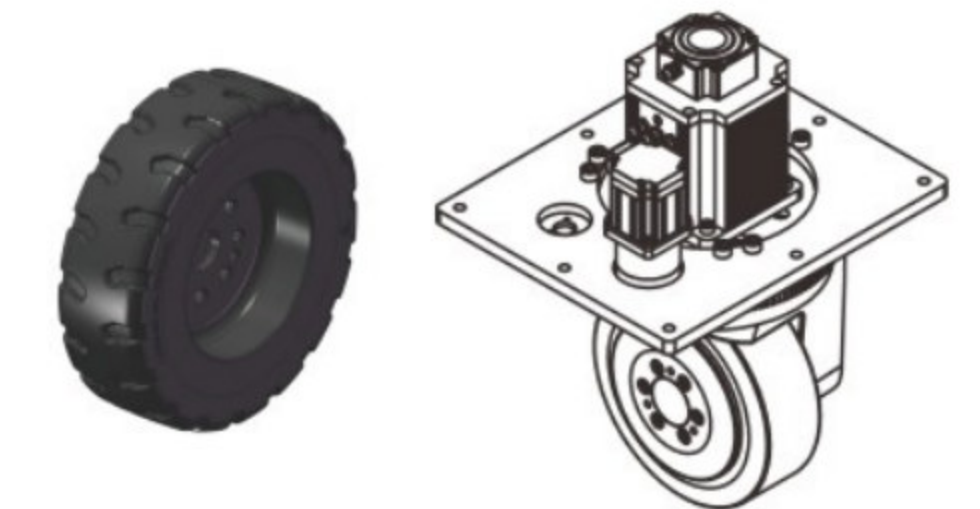
LDS230 Series

ZL-LDS-230-1500-400



行走电机参数
Parameters of walking motor

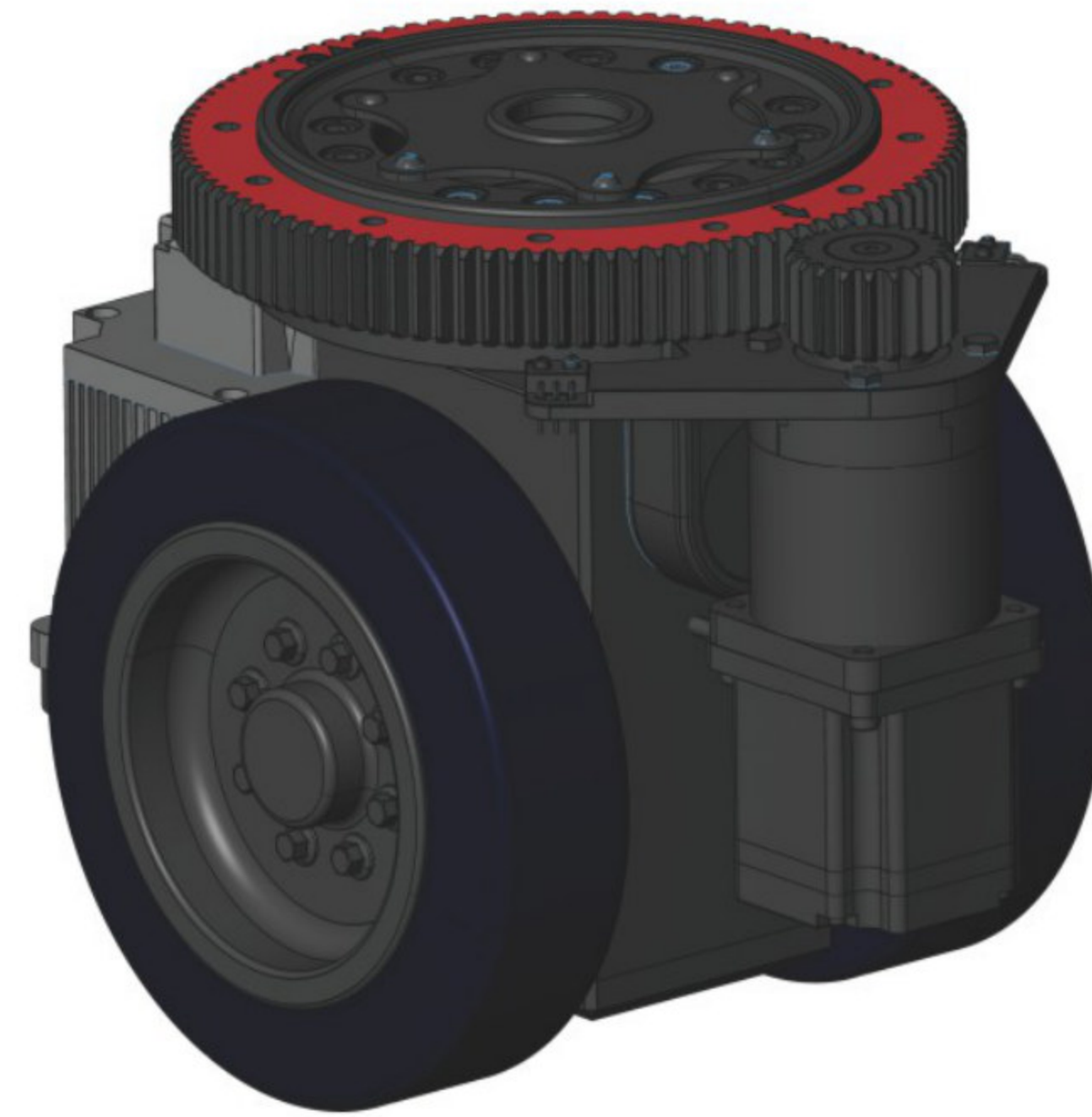
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|----------------------------------|-------|----------------------------------|-------|------|
| 电机类型 Motor type | | 伺服电机 Servo motor | | |
| 电机功率 Motor power | W | 1500 | | |
| 电机电压 Motor voltage | V(DC) | 48 | | |
| 电机电流 Motor current | A | 39 | | |
| 电机转速 Motor speed | rpm | 3000 | | |
| 电机扭矩 Motor Torque | N-m | 4.77 | | |
| 防护等级 Protection level | IP | 54 | | |
| 电机编码器 Motor encoder | | 增量光编 Incremental Optical Weaving | | |
| 行走减速比 Walking reducer | | 16 | 20 | 28 |
| 行走速度 Walking speed | m/min | 135.4 | 108.3 | 77.3 |
| 舵轮输出扭矩 Output Torque | N-m | 70 | 90 | 125 |
| 牵引力 Traction | N | 608 | 782 | 1086 |
| 参考牵引重量 Reference Traction weight | Kg | 900 | 1173 | 1600 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1120 | | |



转向电机参数
Steering Motor parameters

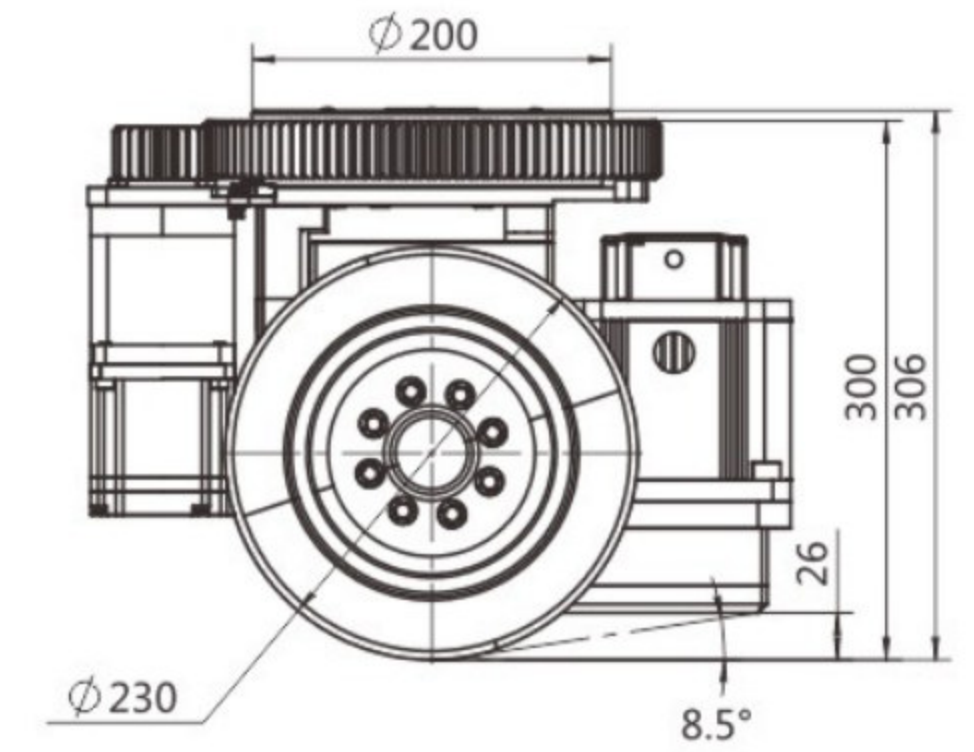
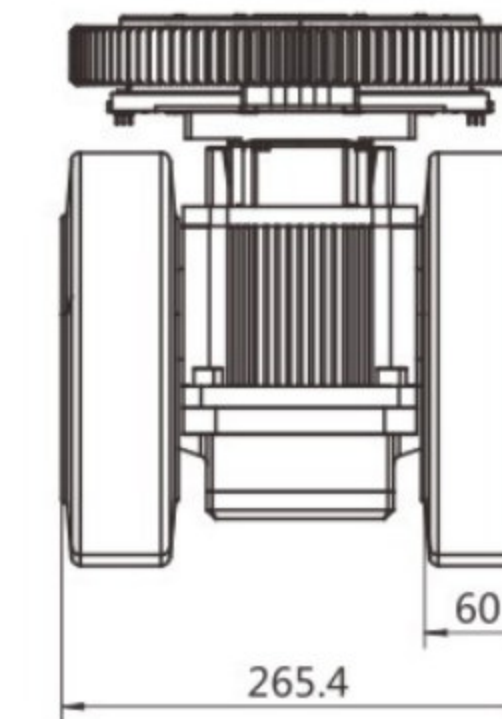
| | | | | |
|-------------------------------------|--------------------------------------|-------|-------------------------------|--|
| 转向电机参数 Steering Motor parameters | 电机类型 Motor type | | 伺服电机 Servo motor | |
| | 电机功率 Motor power | W | 400 | |
| | 电机电压 Motor voltage | V(DC) | 48 | |
| | 电机电流 Motor current | A | 11.95 | |
| | 电机转速 Motor speed | rpm | 3000 | |
| | 电机扭矩 Motor Torque | N-m | 1.27 | |
| | 防护等级 Protection level | IP | 54 | |
| | 电机编码器 Motor encoder | | 增量磁编 Magnetic coding | |
| | 减速器速比 Speed ratio of reducer | i | 35 | |
| | 回转支承齿数 Slewing gear | 123 | 齿数比3.5 : 1 Gear ratio 3.5 : 1 | |
| | 转向齿轮齿数 Number of steering gear teeth | 20 | | |
| | 总转向速比 Total steering ratio | i | 215.25 | |
| | 转向角度 Steering Angle | ° | 360 | |
| 制动器 Brake | 工作电压 Working voltage | V(DC) | | |
| | 制动扭矩 Braking torque | N-m | | |

- WDSS 230
- WDSS 250
- WDSS 300
- WDSS 400
- WDSS 580
- WDSS 780



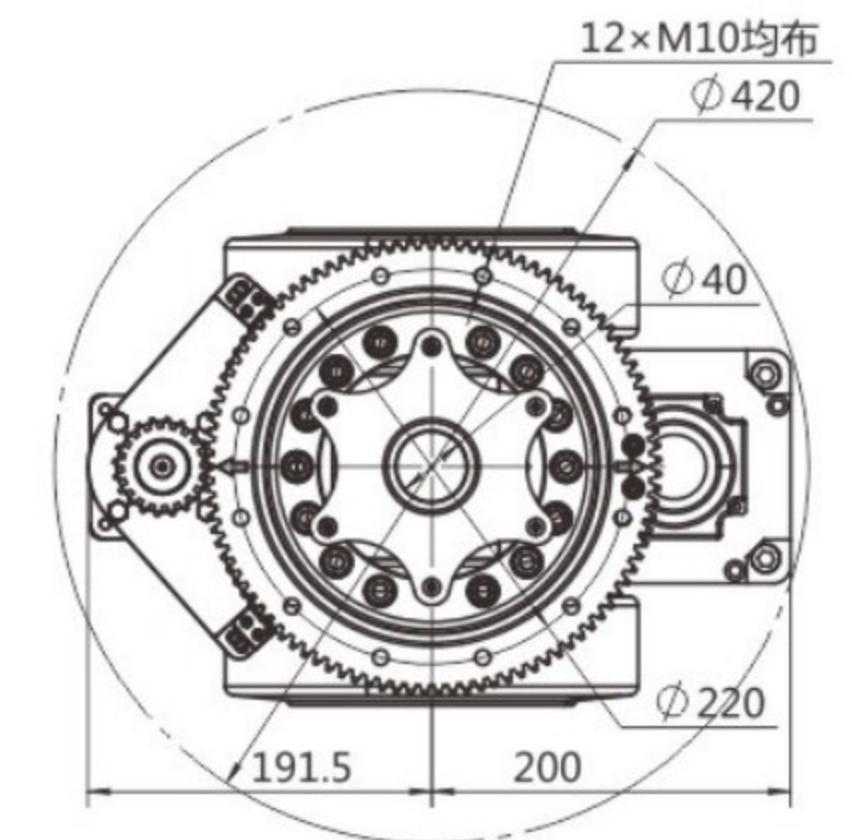
WDSS 230 Series

ZL-WDSS-230-1500A-750



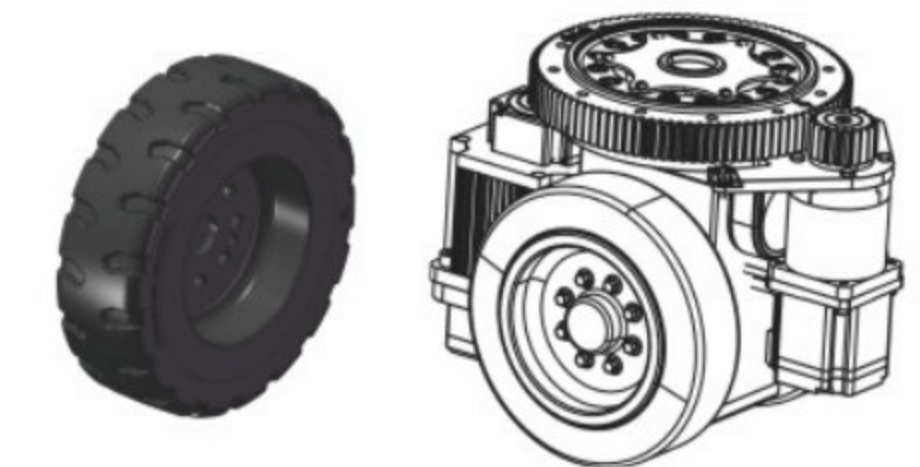
转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 19.9 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N·m | 2.39 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |



牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 37.4 |
| 额定扭矩 Rated Torque | N·m | 5 |
| 防护等级 Protection level | IP | 65 |



牵引减速机参数
Parameter table of traction reducer

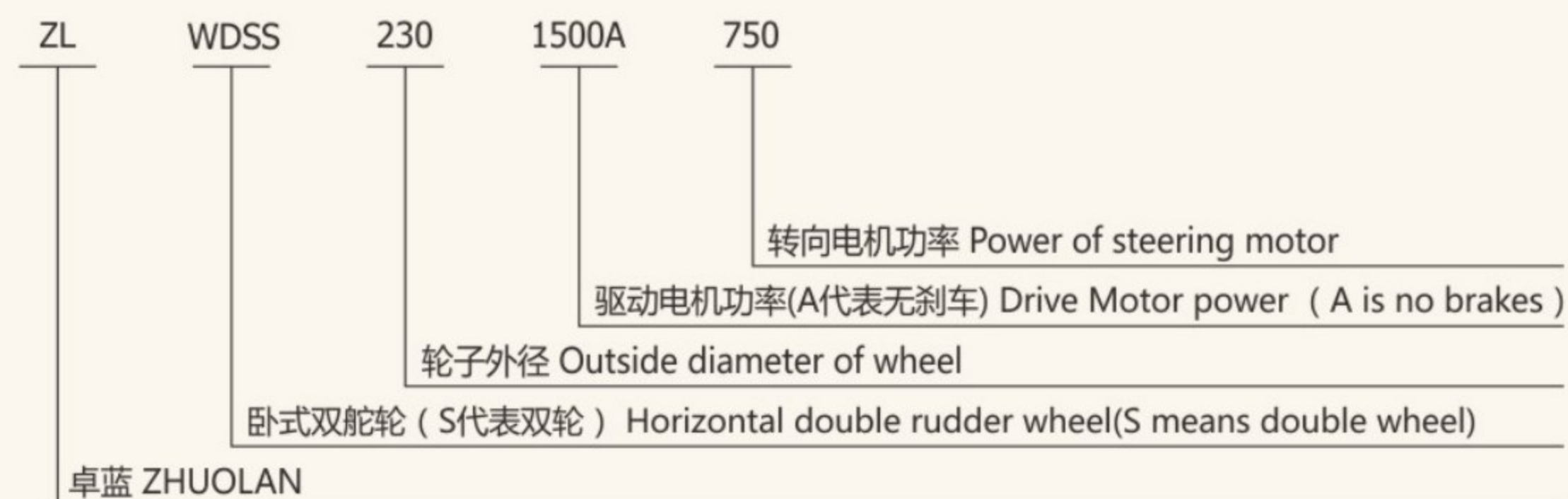
| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|------|------|------|
| 减速机速比 Speed ratio of reducer | i | 24 | 30 | 42 | 60 |
| 减速机扭矩 Reducer torque | N·m | 516 | 567 | 384 | 237 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1600 | 1600 | 1600 | 1600 |
| 橡胶承重 Rubber bearing | Kg | 1100 | 1100 | 1100 | 1100 |
| 最大速度 Maximum velocity | M/min | 90.3 | 72.2 | 51.6 | 36.1 |
| 牵引力 Traction | N | 939.1 | 1174 | 1643 | 1855 |
| 牵引重量 Traction weight | 参考 Reference | 1408.7 | 1761 | 2465 | 2782 |

WDSS

Series

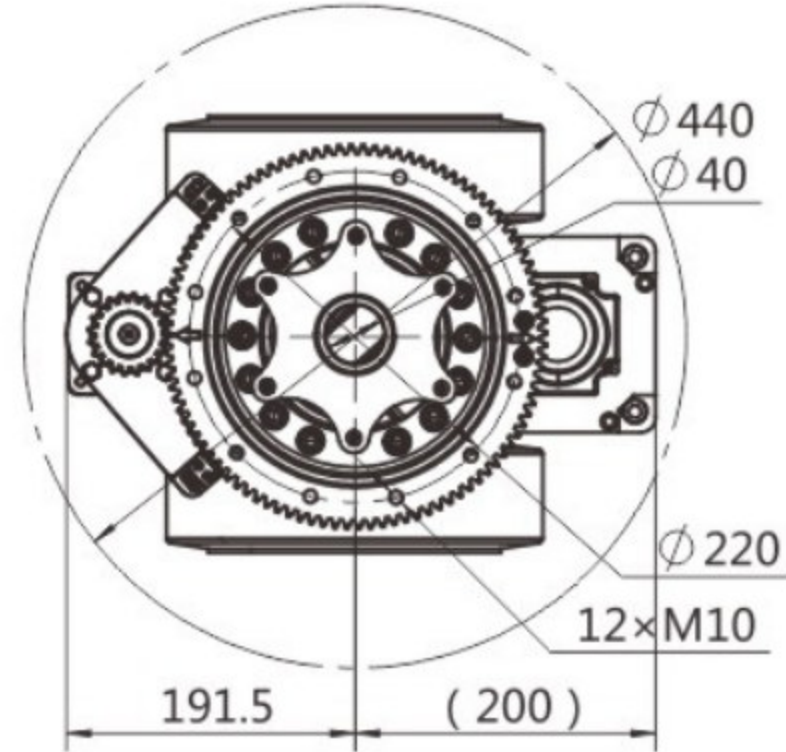
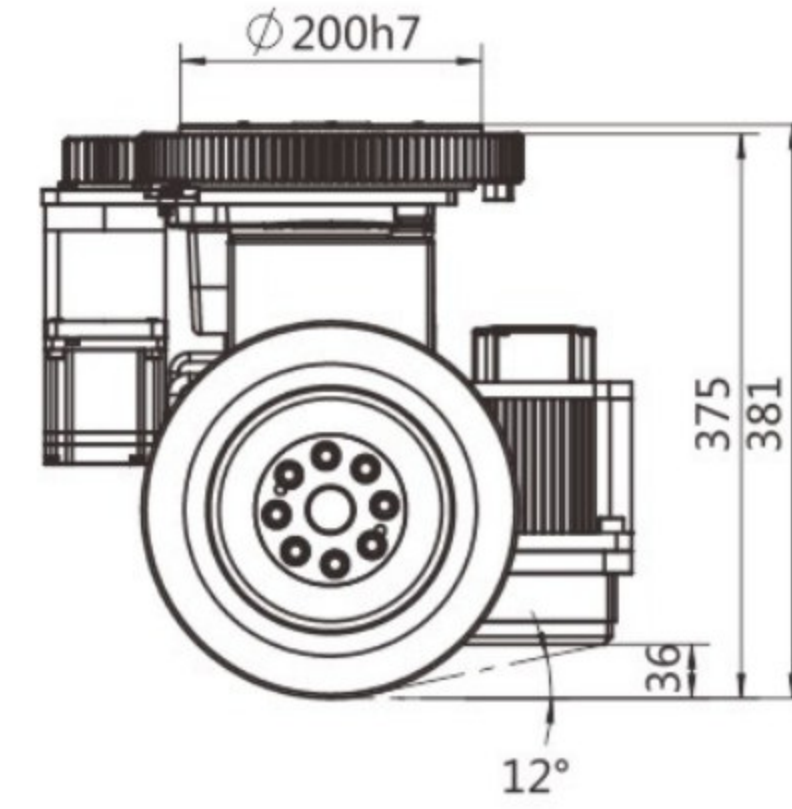
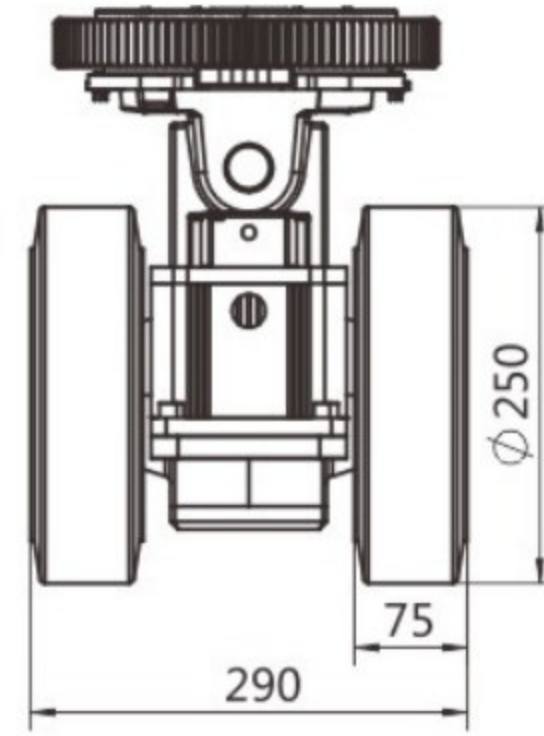
WDSS系列型号说明

WDSS series model description



WDSS 250 Series

ZL-WDSS-250-1500A-750

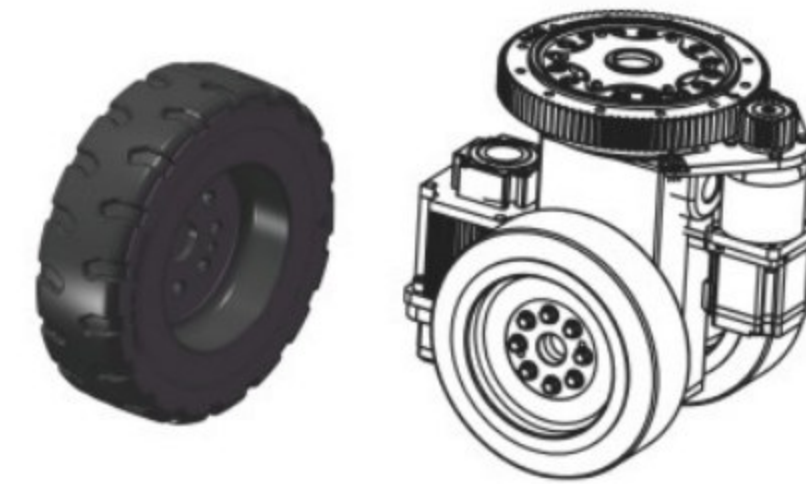


转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 19.9 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |

牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 37.4 |
| 额定扭矩 Rated Torque | N-m | 5 |
| 防护等级 Protection level | IP | 65 |

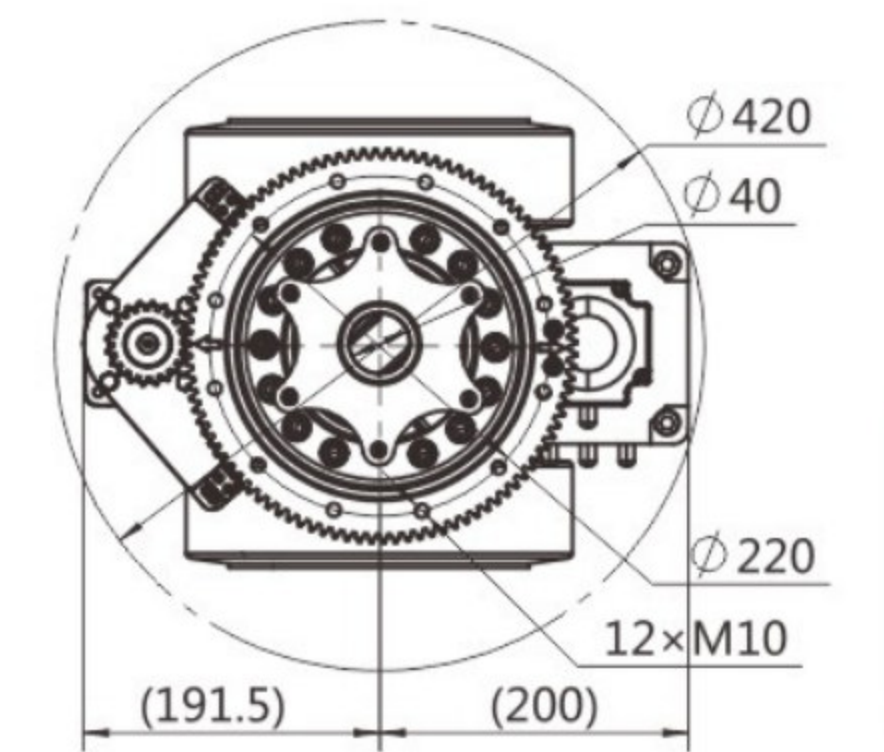
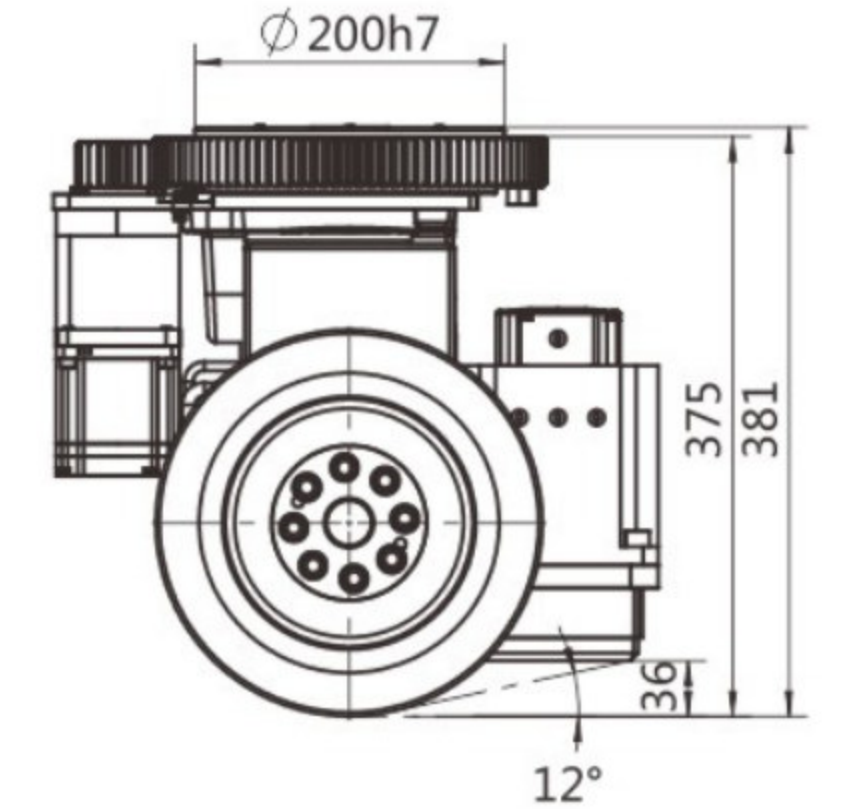
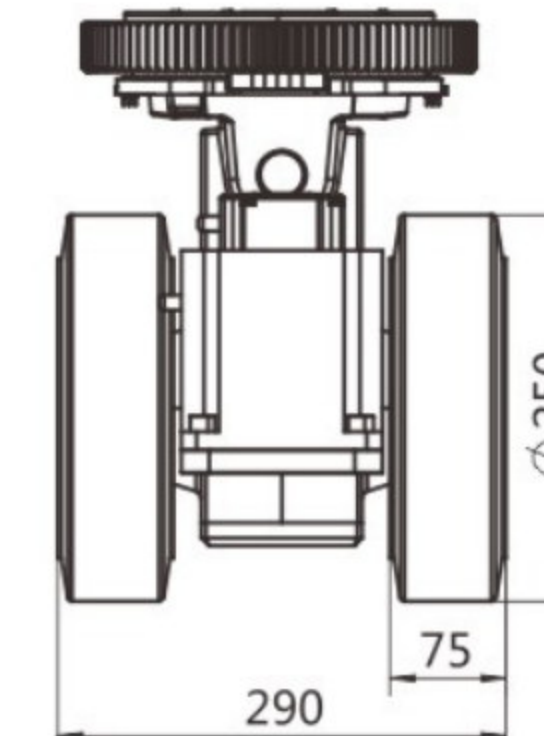


牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|------|------|------|
| 减速机速比 Speed ratio of reducer | i | 24 | 30 | 42 | 60 |
| 减速机扭矩 Reducer torque | N-m | 516 | 567 | 384 | 237 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 2200 | 2200 | 2200 | 2200 |
| 橡胶承重 Rubber bearing | Kg | 1400 | 1400 | 1400 | 1400 |
| 最大速度 Maximum velocity | M/min | 98.1 | 78.5 | 56.1 | 39.3 |
| 牵引力 Traction | N | 864 | 1080 | 1512 | 1706 |
| 牵引重量 Traction weight | 参考 Reference | 1296 | 1620 | 2268 | 2560 |

WDSS 250 Series

ZL-WDSS-250-2300A-750

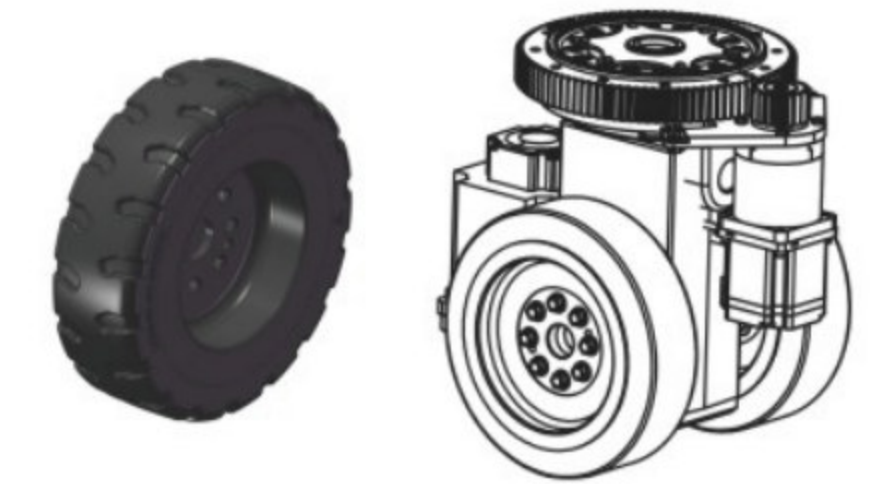


转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 19.9 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |

牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 2300 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 65 |
| 额定扭矩 Rated Torque | N-m | 7.3 |
| 防护等级 Protection level | IP | 54 |



牵引减速机参数
Parameter table of traction reducer

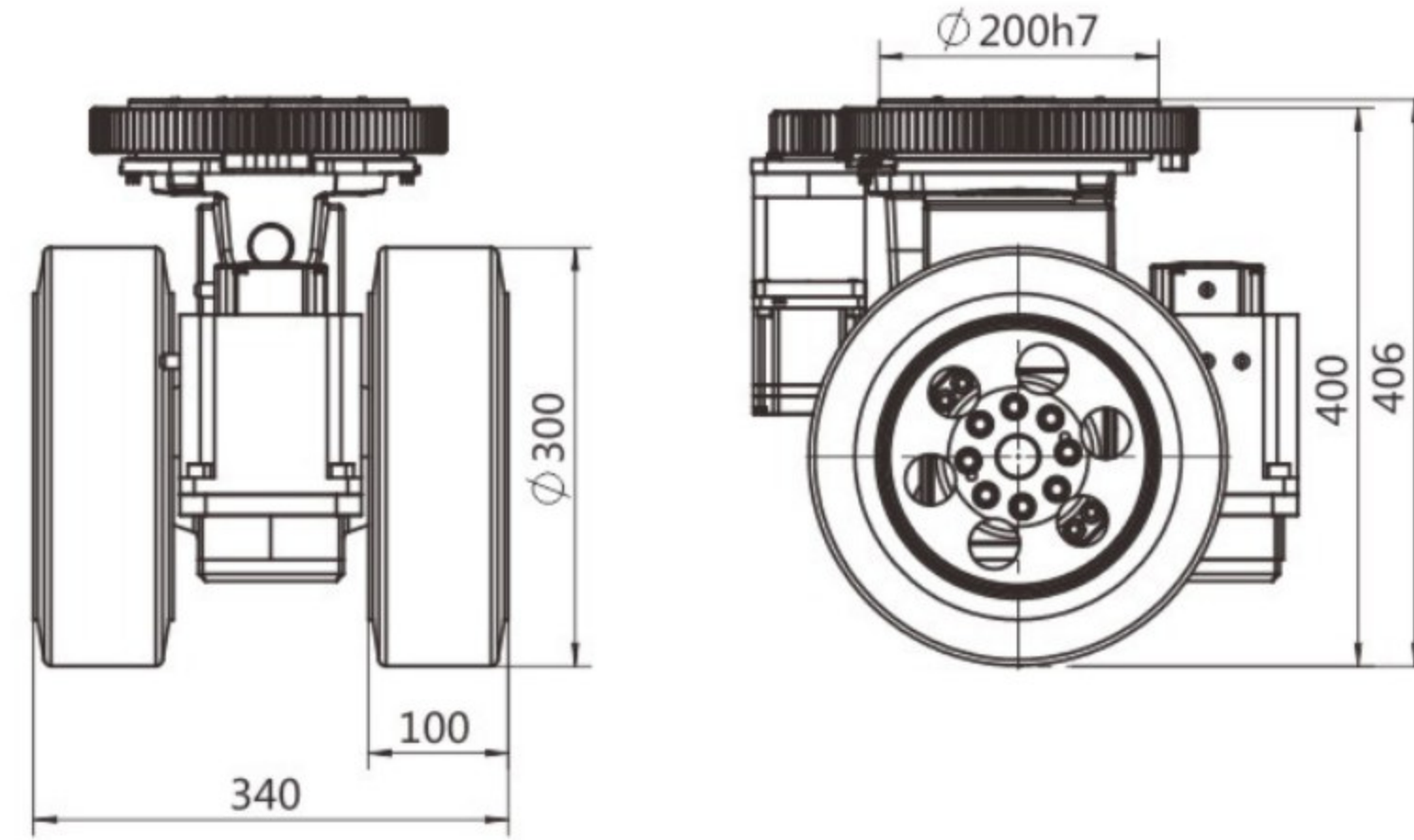
| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|--------|------|------|
| 减速机速比 Speed ratio of reducer | i | 24 | 30 | 42 | 60 |
| 减速机扭矩 Reducer torque | N-m | 516 | 567 | 384 | 237 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 2200 | 2200 | 2200 | 2200 |
| 橡胶承重 Rubber bearing | Kg | 1400 | 1400 | 1400 | 1400 |
| 最大速度 Maximum velocity | M/min | 98.1 | 78.5 | 56.1 | 39.3 |
| 牵引力 Traction | N | 1261 | 1576.8 | 2208 | 1706 |
| 牵引重量 Traction weight | 参考 Reference | 1892 | 2365.2 | 3311 | 2560 |

WDSS

WDSS

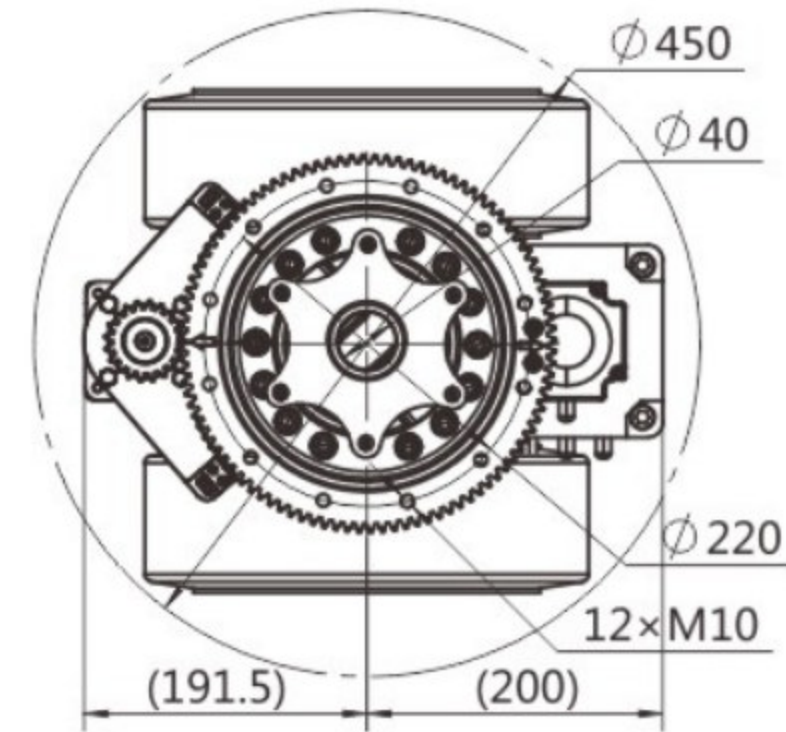
WDSS 300 Series

ZL-WDSS-300-2300A-750



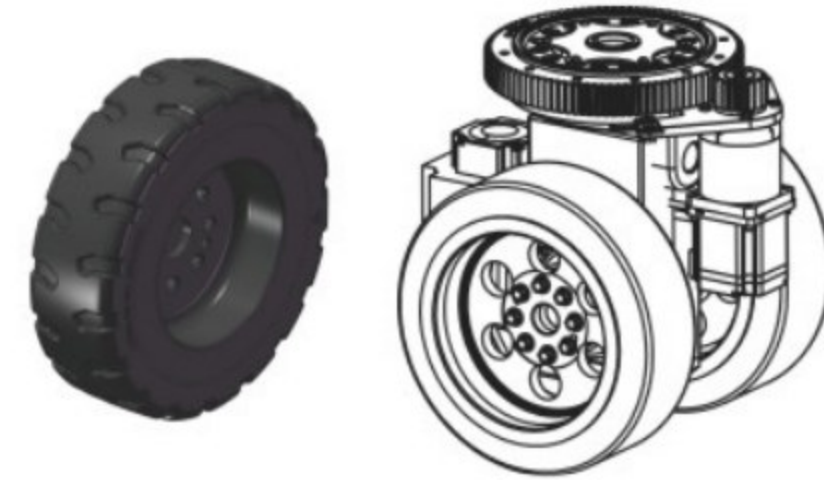
转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 19.9 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 54 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |



牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 2300 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 65 |
| 额定扭矩 Rated Torque | N-m | 7.3 |
| 防护等级 Protection level | IP | 54 |

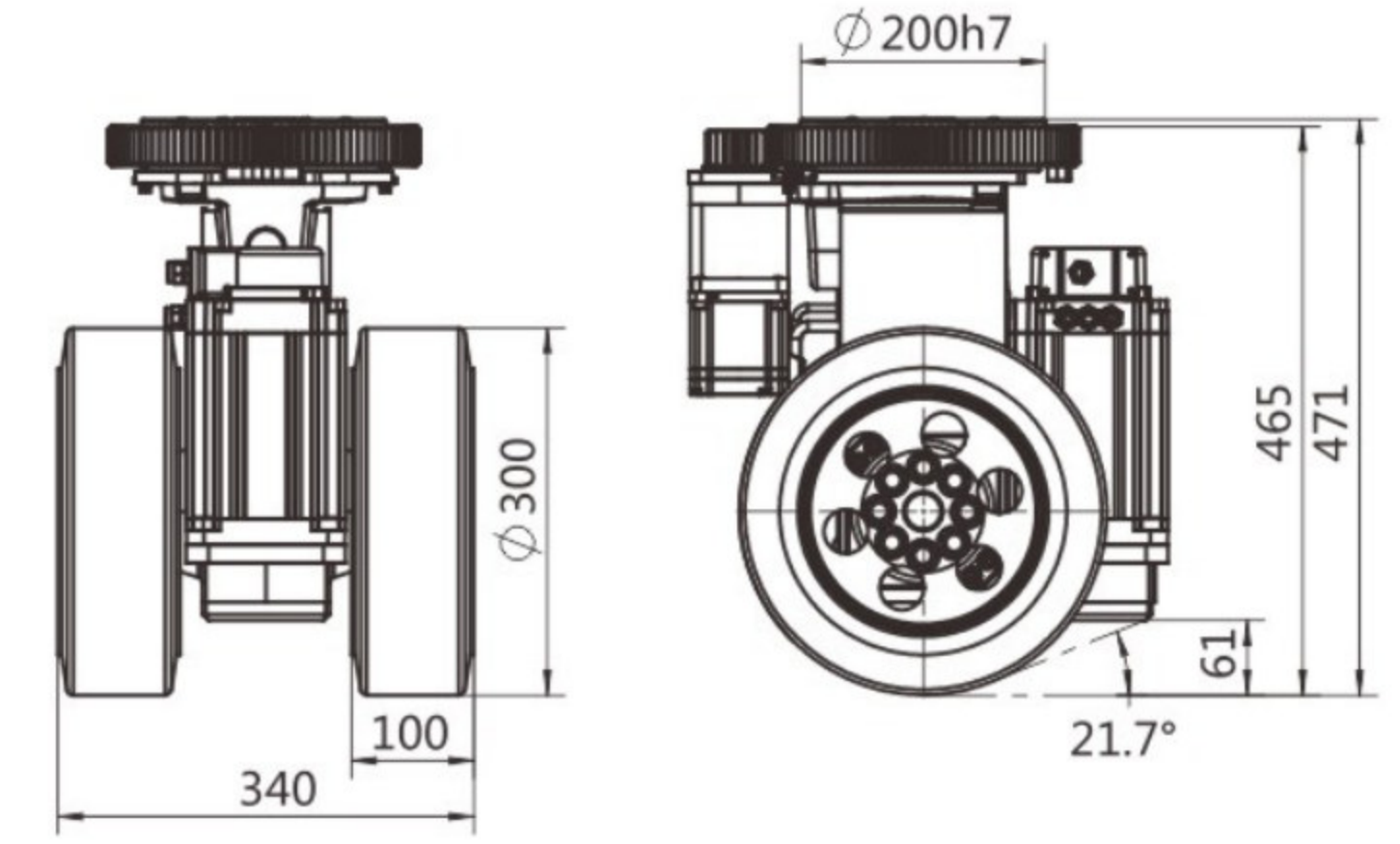


牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|------|------|------|
| 减速机速比 Speed ratio of reducer | i | 24 | 30 | 42 | 60 |
| 减速机扭矩 Reducer torque | N-m | 516 | 567 | 384 | 237 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 3600 | 3600 | 3600 | 3600 |
| 橡胶承重 Rubber bearing | Kg | 2000 | 2000 | 2000 | 2000 |
| 最大速度 Maximum velocity | M/min | 117.8 | 94.2 | 67.3 | 47.1 |
| 牵引力 Traction | N | 1051 | 1314 | 1840 | 1422 |
| 牵引重量 Traction weight | 参考 Reference | 1577 | 1971 | 2759 | 2133 |

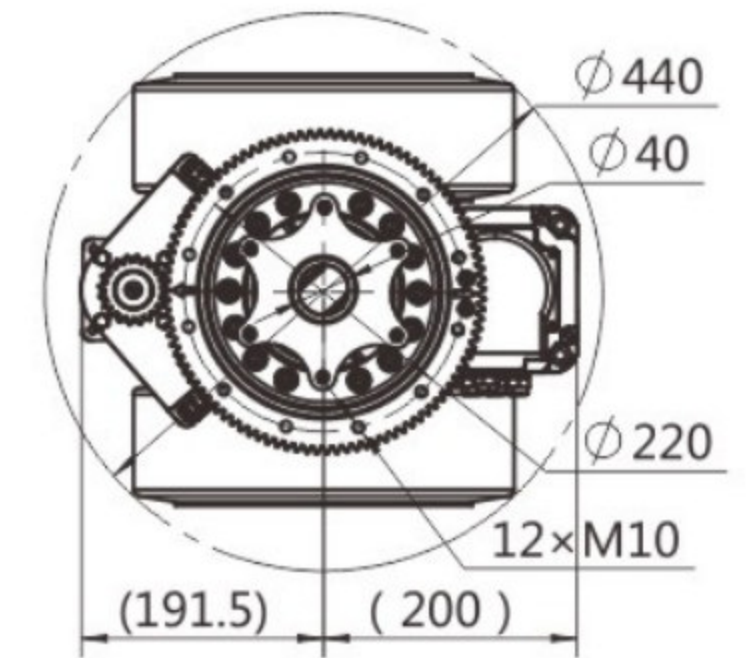
WDSS 300 Series

ZL-WDSS-300-3000A-750



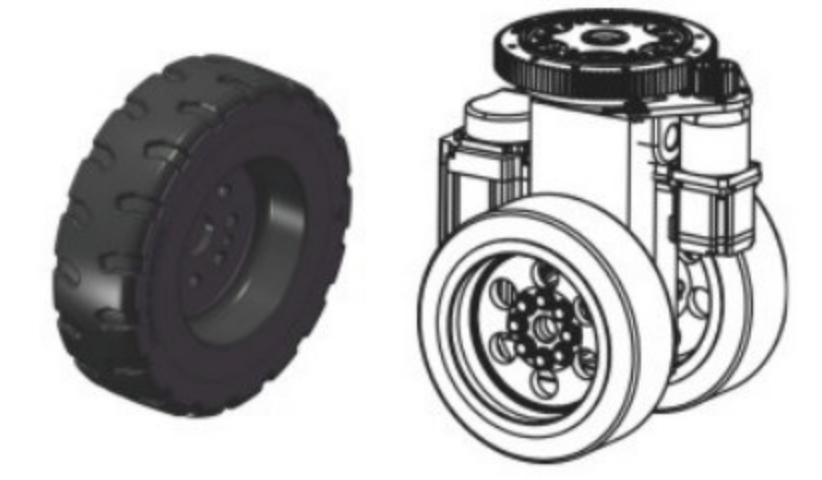
转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 19.9 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 54 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |



牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 3000 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 1500 |
| 电机电流 Motor current | A | 90 |
| 额定扭矩 Rated Torque | N-m | 19 |
| 防护等级 Protection level | IP | 54 |

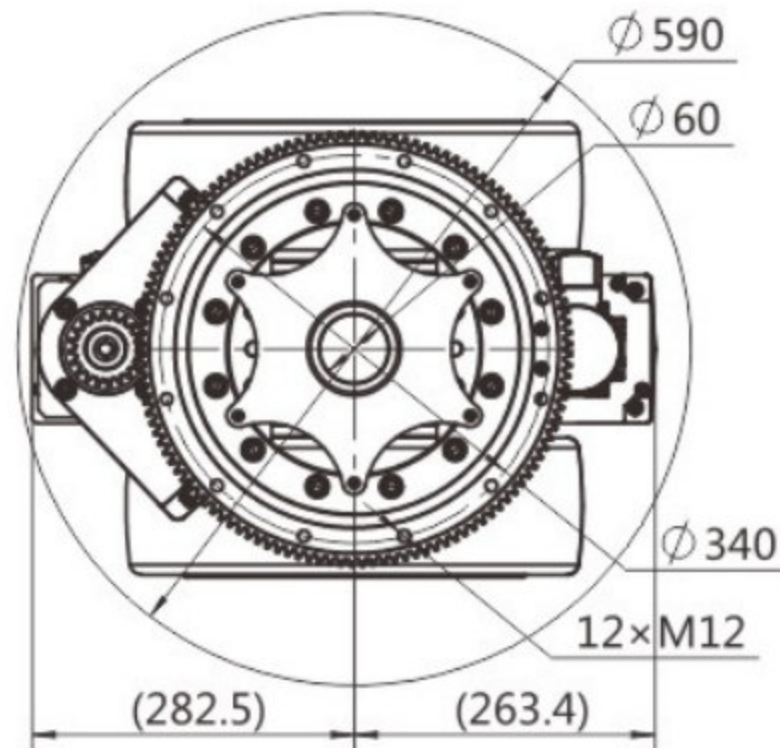
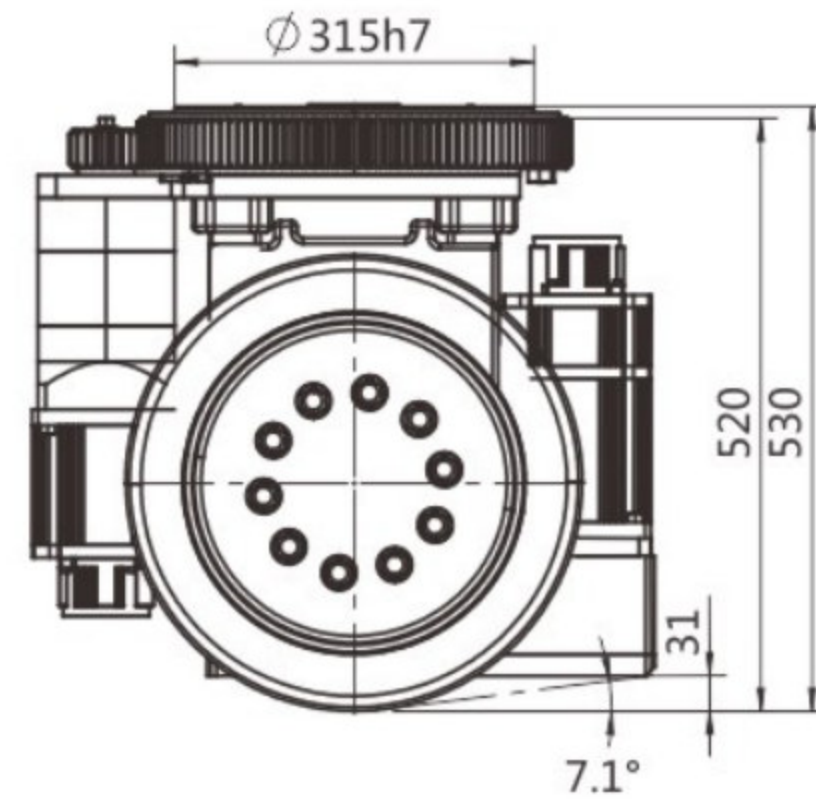
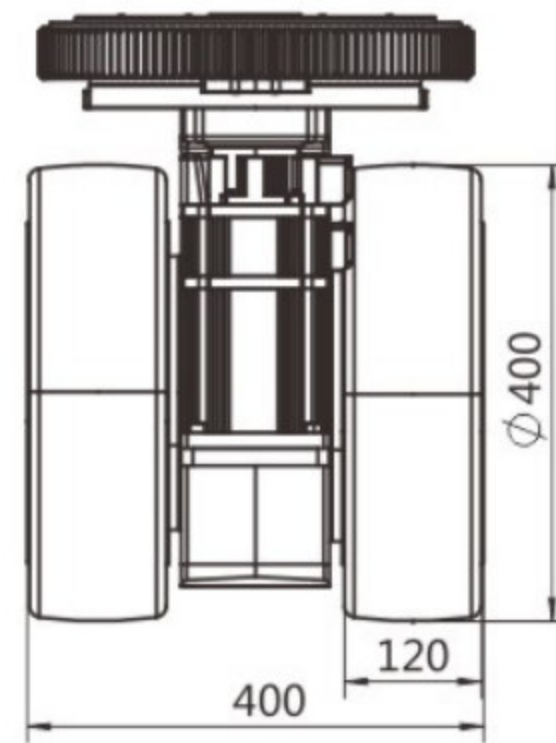


牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|------|------|------|
| 减速机速比 Speed ratio of reducer | i | 24 | 30 | 42 | 60 |
| 减速机扭矩 Reducer torque | N-m | 516 | 567 | 384 | 237 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 3600 | 3600 | 3600 | 3600 |
| 橡胶承重 Rubber bearing | Kg | 2000 | 2000 | 2000 | 2000 |
| 最大速度 Maximum velocity | M/min | 58.9 | 47.1 | 33.6 | 23.6 |
| 牵引力 Traction | N | 2736 | 3402 | 2304 | 1422 |
| 牵引重量 Traction weight | 参考 Reference | 4104 | 5103 | 3456 | 2133 |

WDSS 400 Series

ZL-WDSS-400-3000A-750

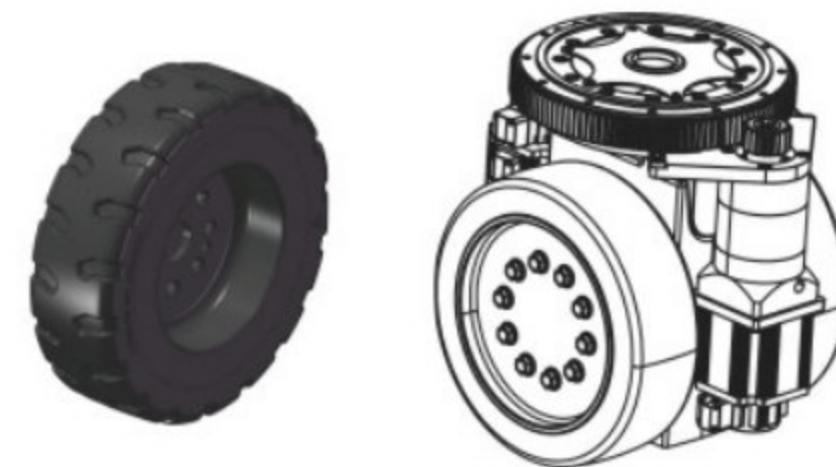


转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 39 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 4.77 |
| 防护等级 Protection level | IP | 54 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |

牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 3000 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 1500 |
| 电机电流 Motor current | A | 90 |
| 额定扭矩 Rated Torque | N-m | 19 |
| 防护等级 Protection level | IP | 65 |

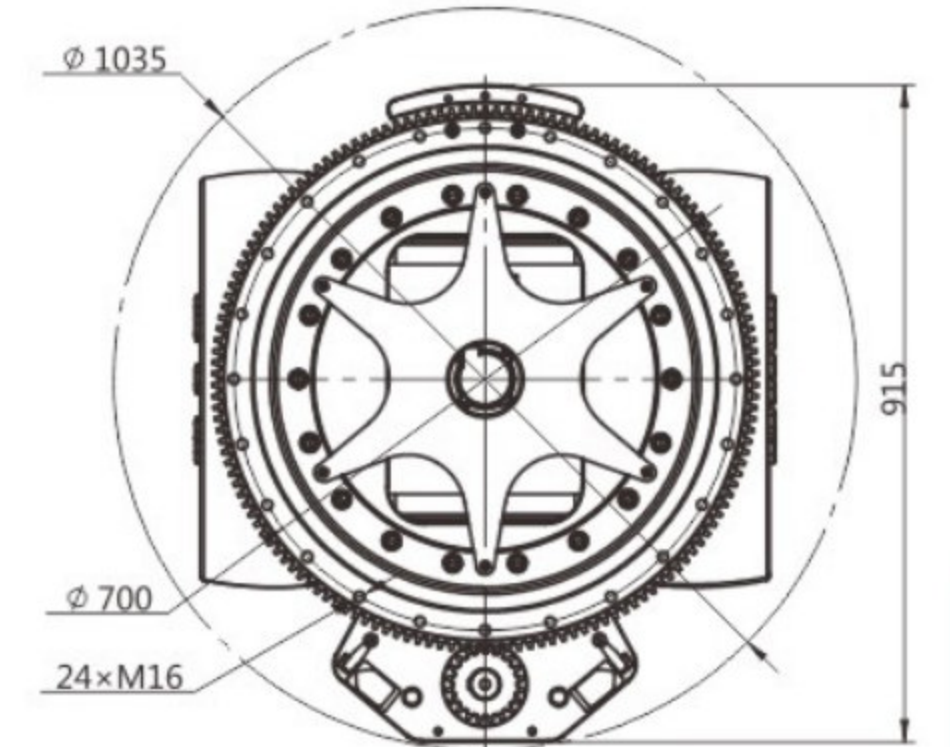
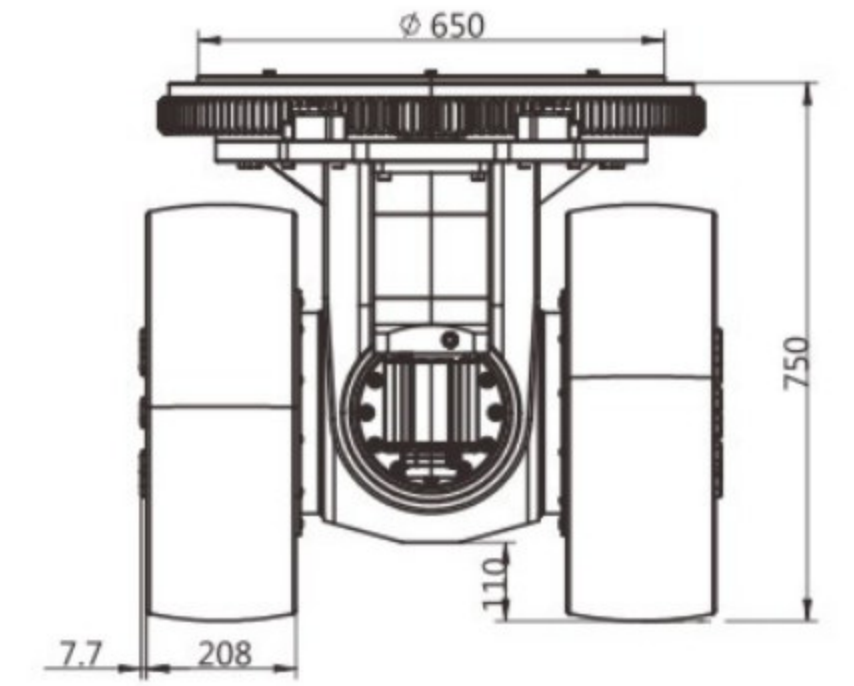
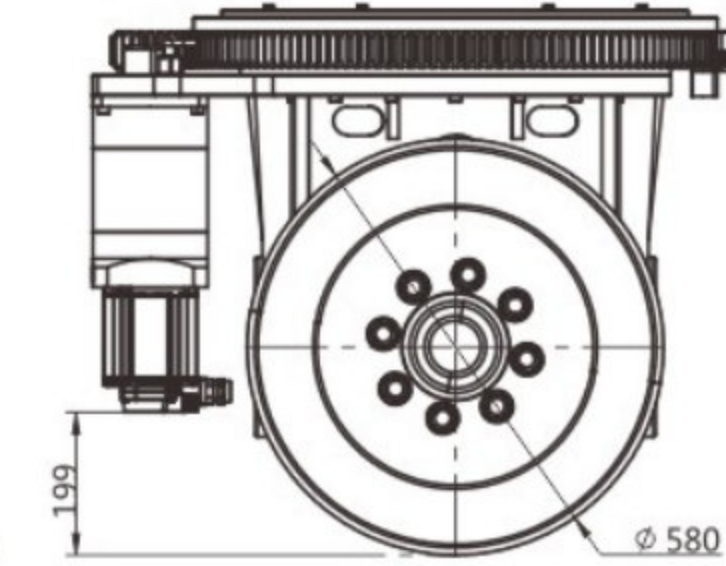


牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|--------|--------|--------|
| 减速比 Speed ratio of reducer | i | 36 | 45 | 48 | 60 |
| 减速机扭矩 Reducer torque | N-m | 750 | 750 | 750 | 750 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 5000 | 5000 | 5000 | 5000 |
| 橡胶承重 Rubber bearing | Kg | 3000 | 3000 | 3000 | 3000 |
| 最大速度 Maximum velocity | M/min | 52.3 | 41.9 | 39.3 | 31.4 |
| 牵引力 Traction | N | 3078 | 3375 | 3375 | 3375 |
| 牵引重量 Traction weight | 参考 Reference | 4617 | 5062.5 | 5062.5 | 5062.5 |

WDSS 580 Series

ZL-WDSS-580-7500A-2350

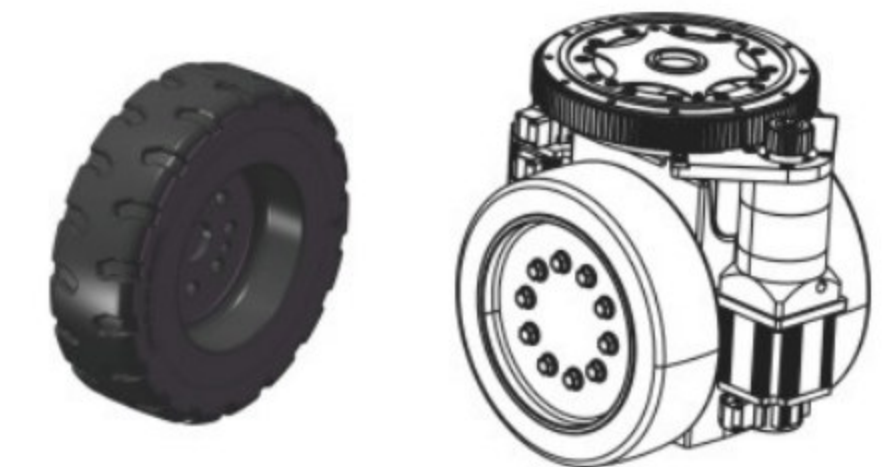


转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|----------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 2350 |
| 电机电压 Motor voltage | V | 72 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 41±10% |
| 减速器速比 Speed ratio of reducer | i | 64+(150 : 20) |
| 电机扭矩 Motor torque | N-m | 7.5 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | D4V-8108SZ-N8104SZ-N |
| 最大转向角度 Steering Angle | ° | ±140° |

牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 7500 |
| 电机电压 Motor voltage | V | 72 |
| 电机转速 Motor speed | rpm | 2000 |
| 电机电流 Motor current | A | 135±10% |
| 额定扭矩 Rated Torque | N-m | 35 |
| 防护等级 Protection level | IP | 65 |

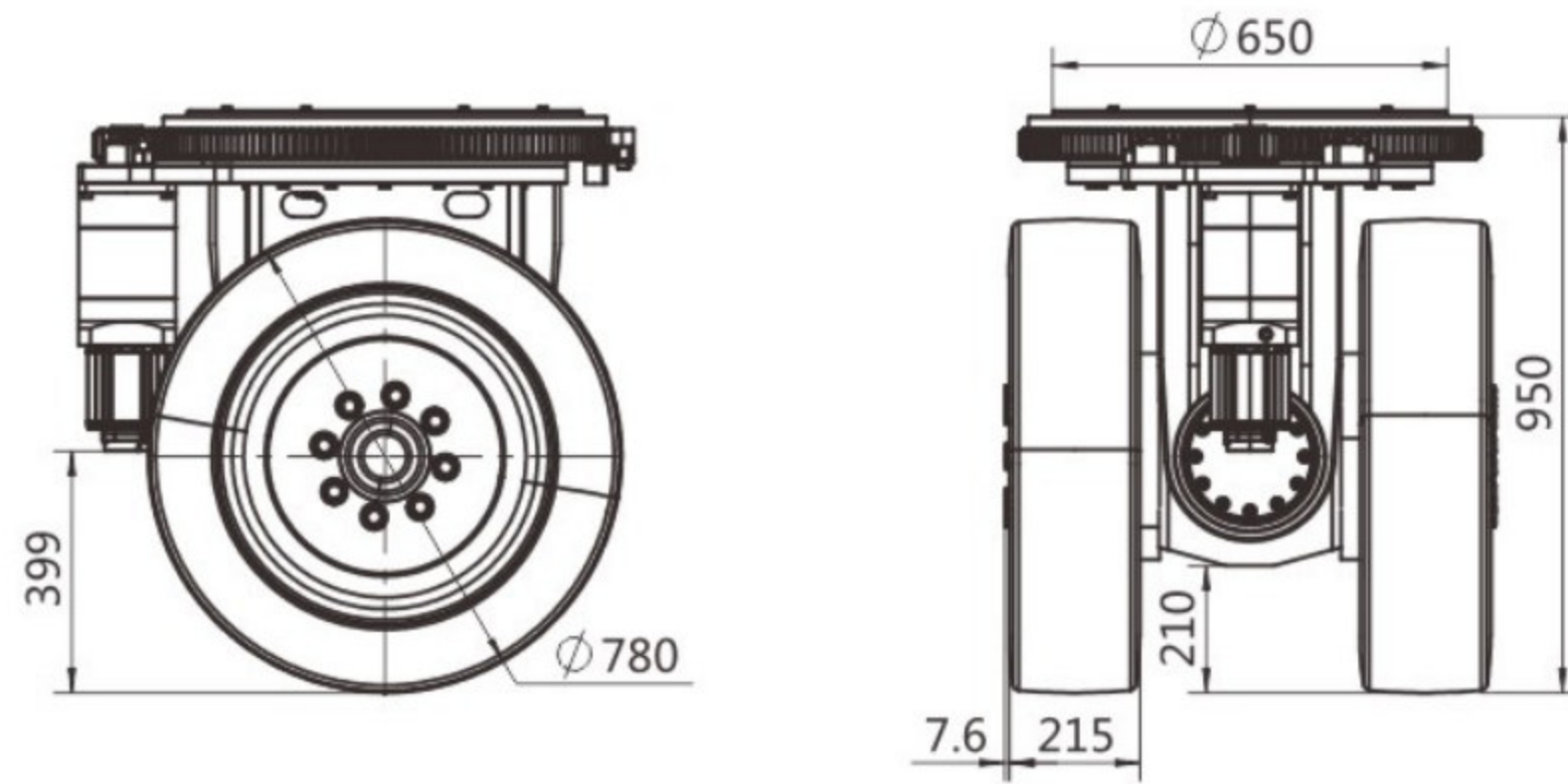


牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | |
|---------------------------------|--------------|-------------------------|---------|---------|
| 减速比 Speed ratio of reducer | i | 108 | 144 | 180 |
| 减速机扭矩 Reducer torque | N-m | 4800 | 4800 | 4800 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 11200 | 11200 | 11200 |
| 橡胶承重 Rubber bearing | Kg | 6200 | 6200 | 6200 |
| 制动扭矩 Braking torque | N-m | 4860 | 6480 | 8100 |
| 制动器扭矩 Brake torque | N-m | 50 | 50 | 50 |
| 制动器电压 Brake voltage | V | DC24 | DC24 | DC24 |
| 最大速度 Maximum velocity | M/min | 33.7 | 25.3 | 20.2 |
| 牵引力 Traction | N | 11731.0 | 14896.6 | 14896.6 |
| 牵引重量 Traction weight | 参考 Reference | 17596.6 | 22344.8 | 22344.8 |

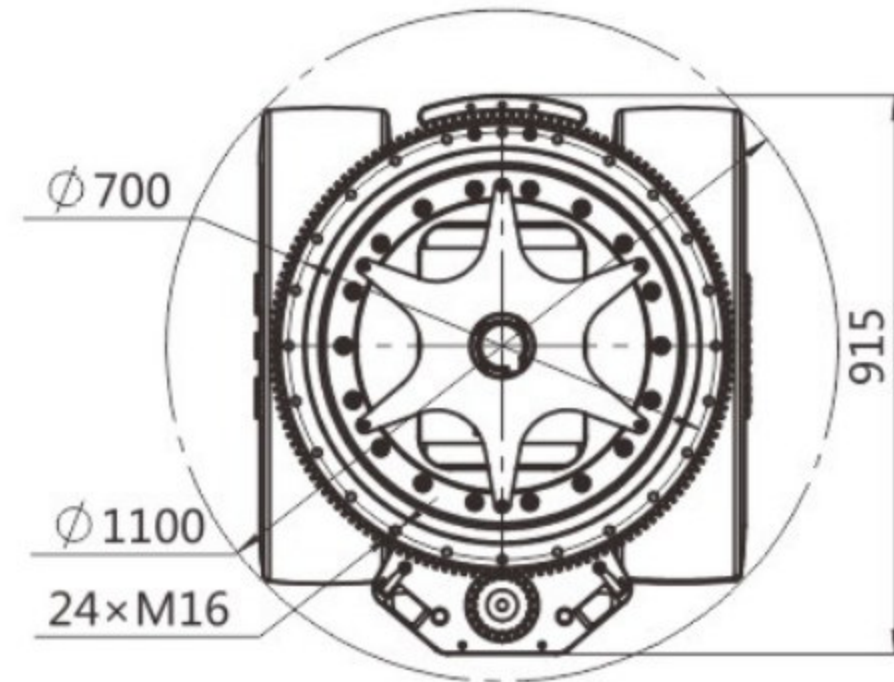
WDSS 780 Series

ZL-WDSS-780-7500A-2350



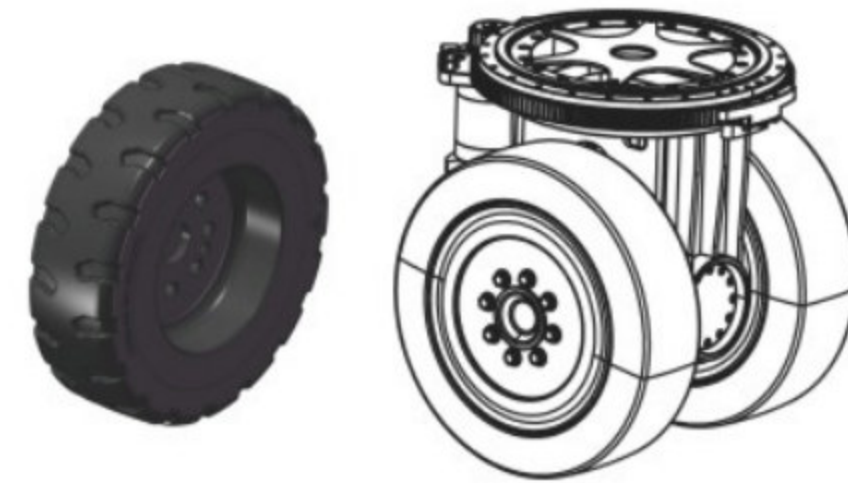
转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|----------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 2350 |
| 电机电压 Motor voltage | V | 72 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 41±10% |
| 减速器速比 Speed ratio of reducer | i | 64+(150 : 20) |
| 电机扭矩 Motor torque | N·m | 7.5 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | D4V-8108SZ-N8104SZ-N |
| 最大转向角度 Steering Angle | ° | ±140° |



牵引电机参数
Parameters of traction motor

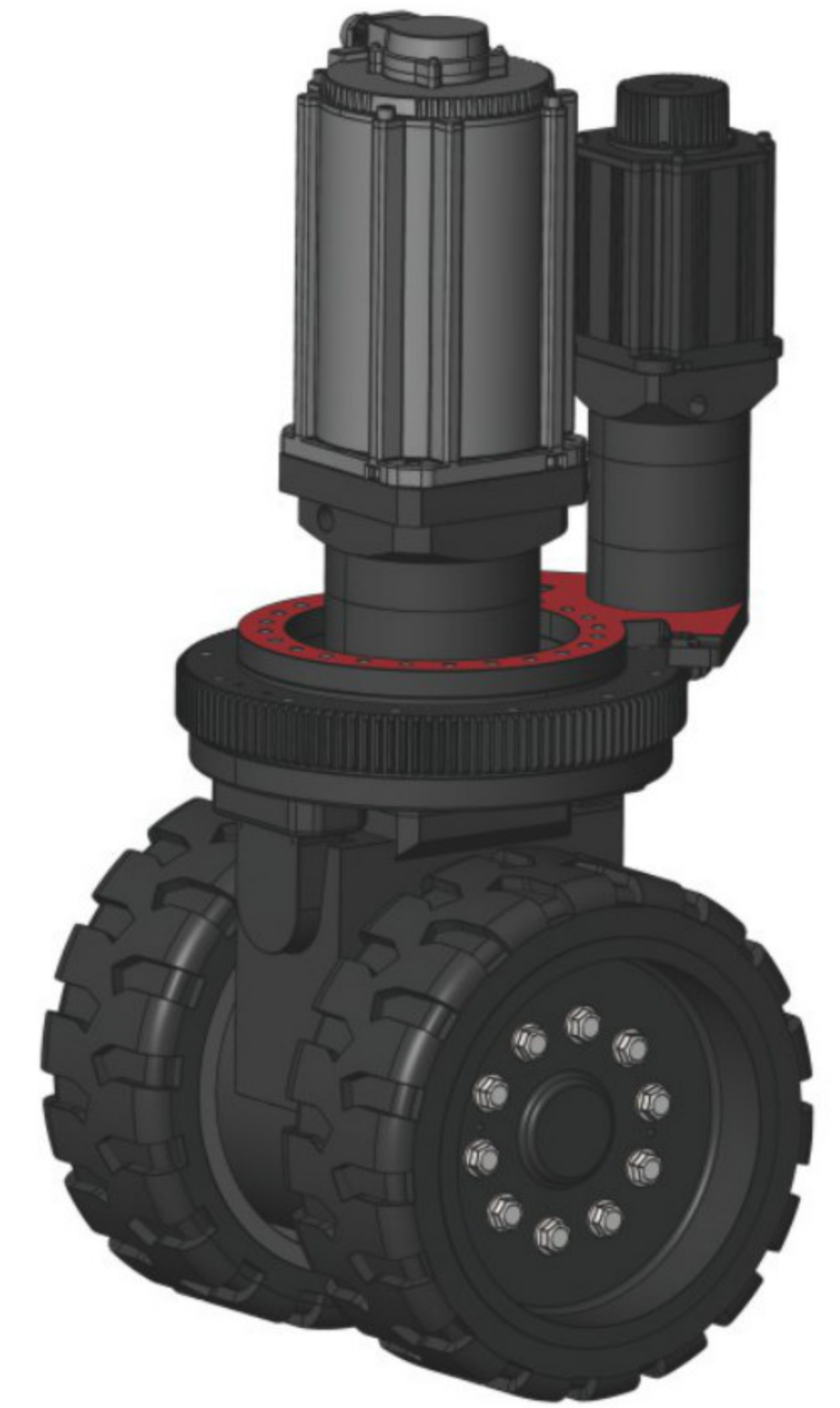
| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 7500 |
| 电机电压 Motor voltage | V | 72 |
| 电机转速 Motor speed | rpm | 2000 |
| 电机电流 Motor current | A | 135±10% |
| 额定扭矩 Rated Torque | N·m | 35 |
| 防护等级 Protection level | IP | 65 |



牵引减速机参数
Parameter table of traction reducer

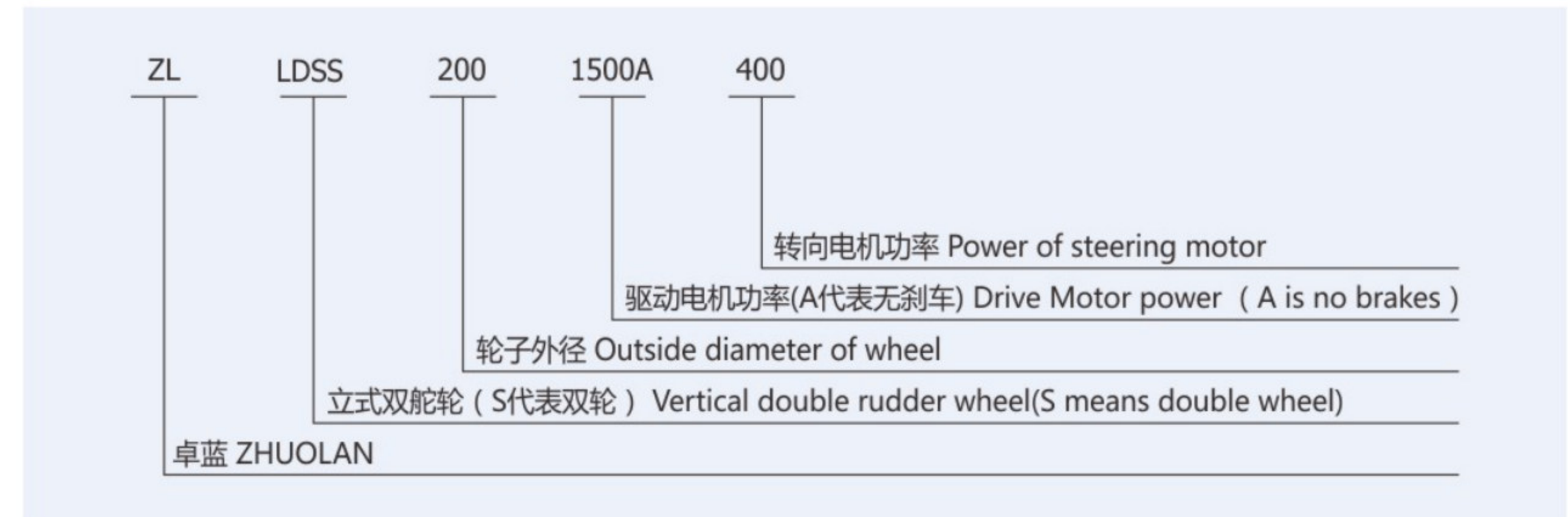
| 类型 Type | X | 行星减速机 Planetary reducer | | |
|---------------------------------|--------------|-------------------------|---------|---------|
| 减速机速比 Speed ratio of reducer | i | 108 | 144 | 180 |
| 减速机扭矩 Reducer torque | N·m | 4800 | 4800 | 4800 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 11200 | 11200 | 11200 |
| 橡胶承重 Rubber bearing | Kg | 6200 | 6200 | 6200 |
| 制动扭矩 Braking torque | N·m | 4860 | 6480 | 8100 |
| 制动器扭矩 Brake torque | N·m | 50 | 50 | 50 |
| 制动器电压 Brake voltage | V | DC24 | DC24 | DC24 |
| 最大速度 Maximum velocity | M/min | 45.4 | 34.0 | 27.2 |
| 牵引力 Traction | N | 8723.1 | 11076.9 | 11076.9 |
| 牵引重量 Traction weight | 参考 Reference | 13084.6 | 16615.4 | 16615.4 |

- LDSS 200
- LDSS 250
- LDSS 350
- LDSS 400



LDSS Series

LDSS系列型号说明
LDSS series model description



WDSS

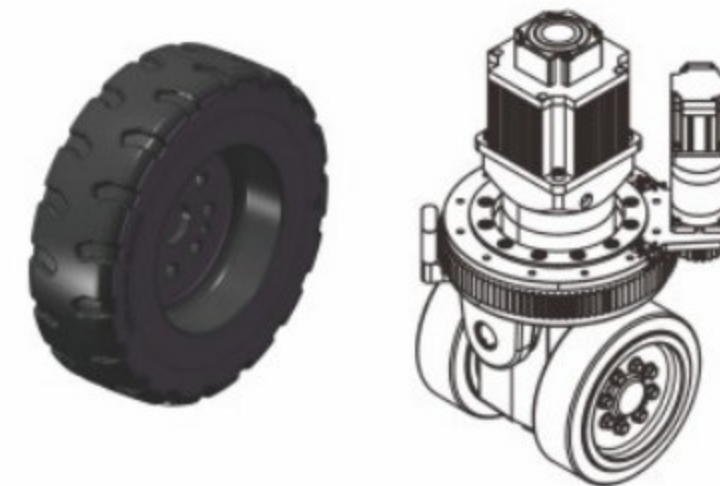
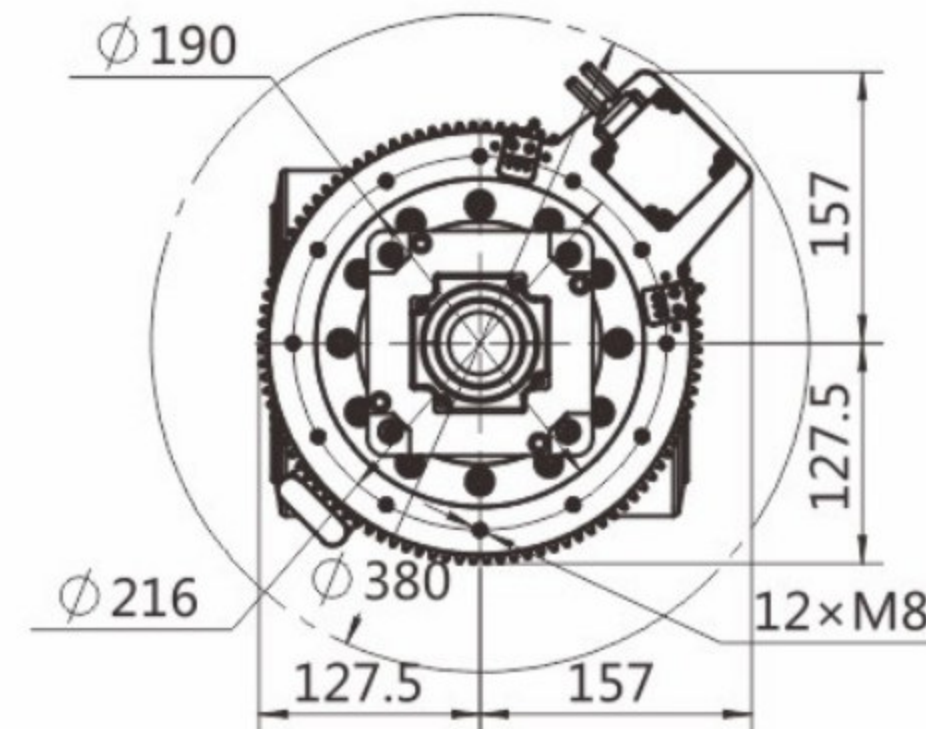
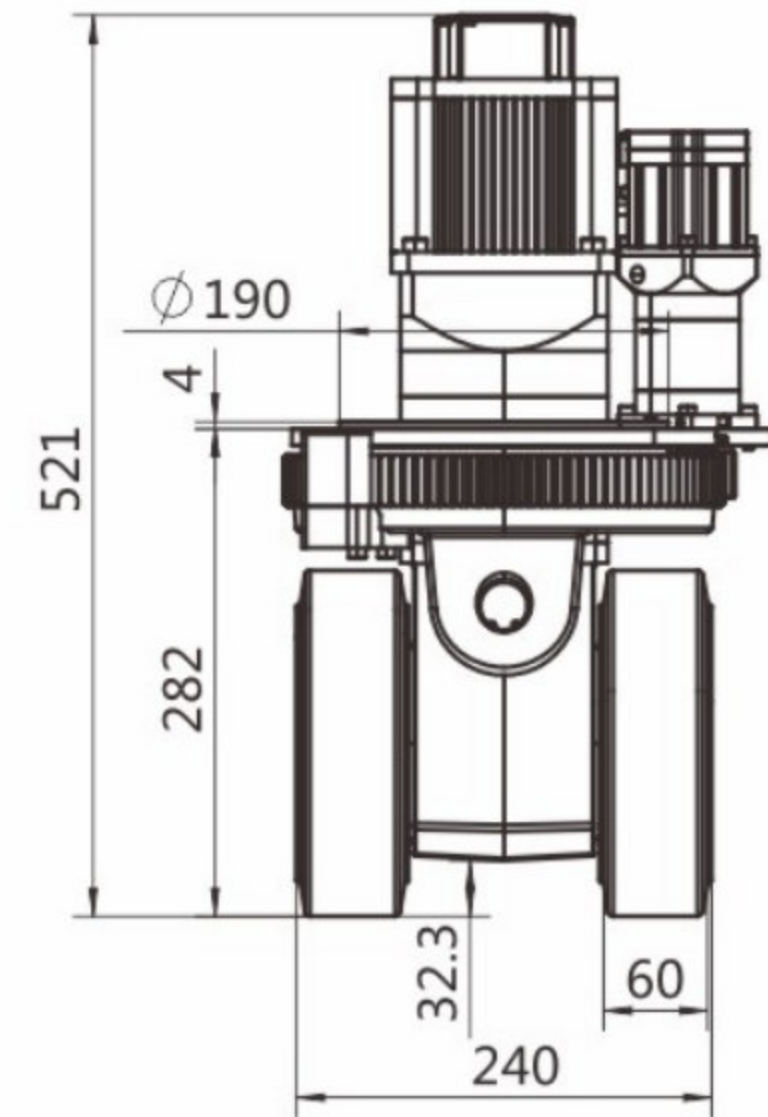
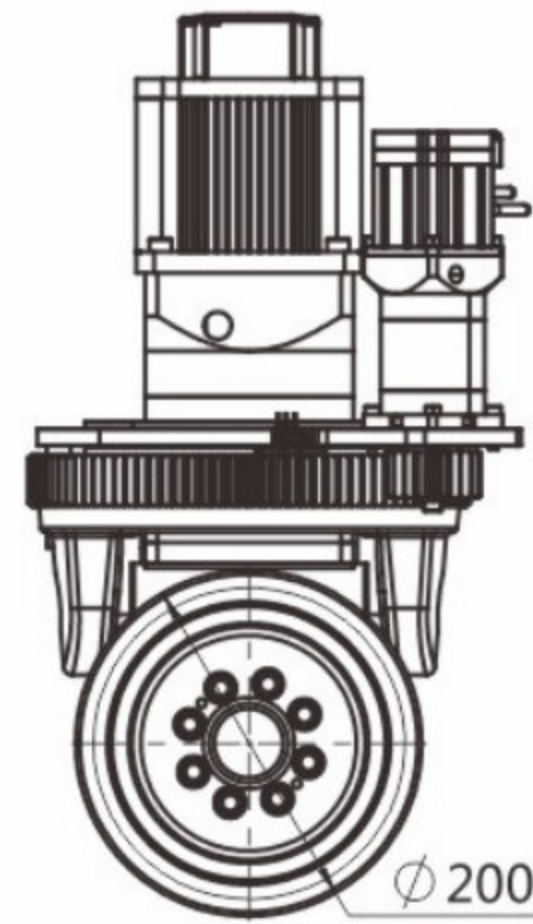
LDSS 200 Series

ZL-LDSS-200-1500A-400



转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 10.1 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 1.27 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |



牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 37.4 |
| 额定扭矩 Rated Torque | N-m | 5 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|------|------|------|
| 减速机速比 Speed ratio of reducer | I | 16 | 20 | 28 | 40 |
| 减速机扭矩 Reducer torque | N-m | 888 | 940 | 632 | 372 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 1600 | 1600 | 1600 | 1600 |
| 橡胶承重 Rubber bearing | Kg | 1100 | 1100 | 1100 | 1100 |
| 制动扭矩 Braking torque | N-m | 240 | 300 | 420 | 600 |
| 制动器扭矩 Brake torque | N-m | 15 | 15 | 15 | 15 |
| 制动器电压 Brake voltage | V | DC24 | DC24 | DC24 | DC24 |
| 最大速度 Maximum velocity | M/min | 117.8 | 94.2 | 67.3 | 47.1 |
| 牵引力 Traction | N | 720 | 900 | 1260 | 1800 |
| 牵引重量 Traction weight | 参考 Reference | 1080 | 1350 | 1890 | 2700 |

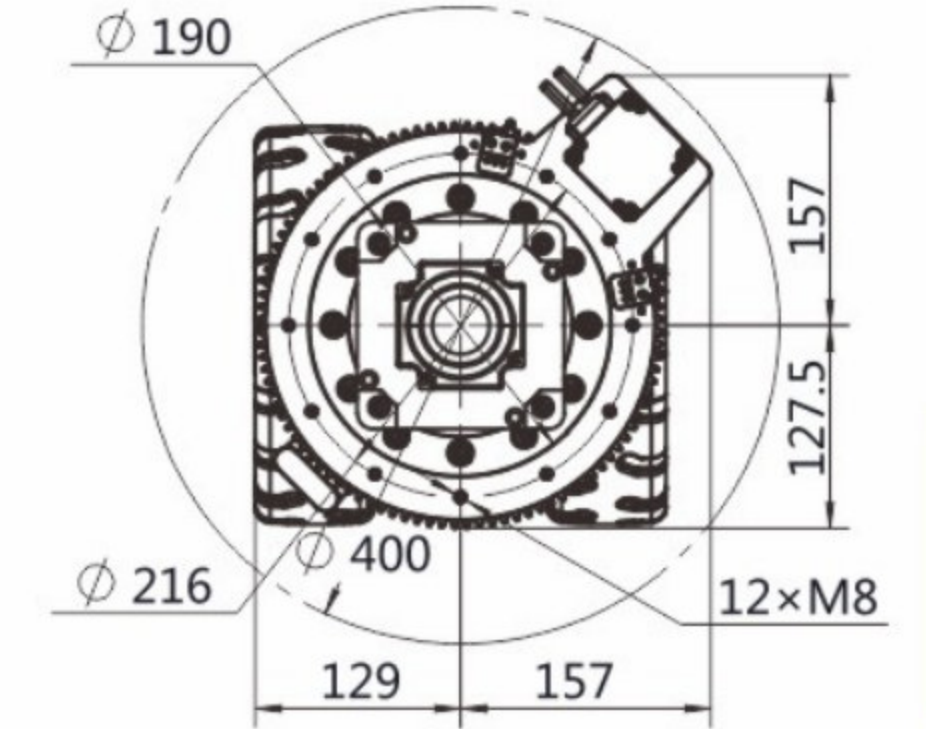
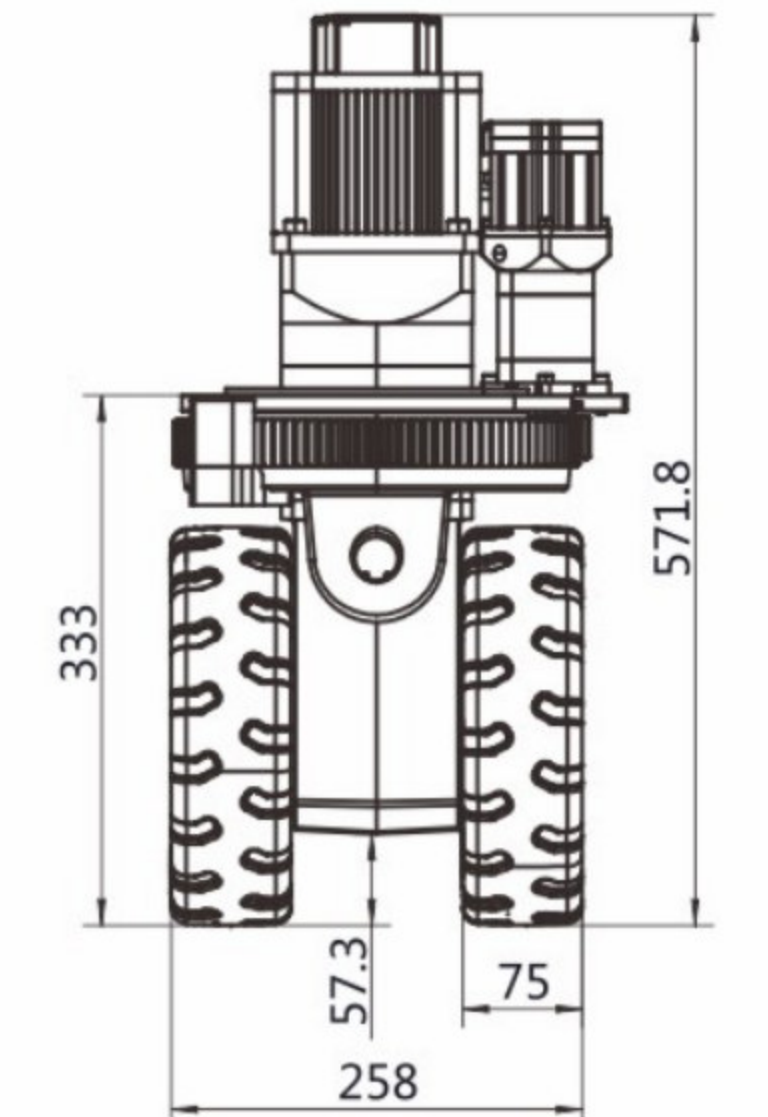
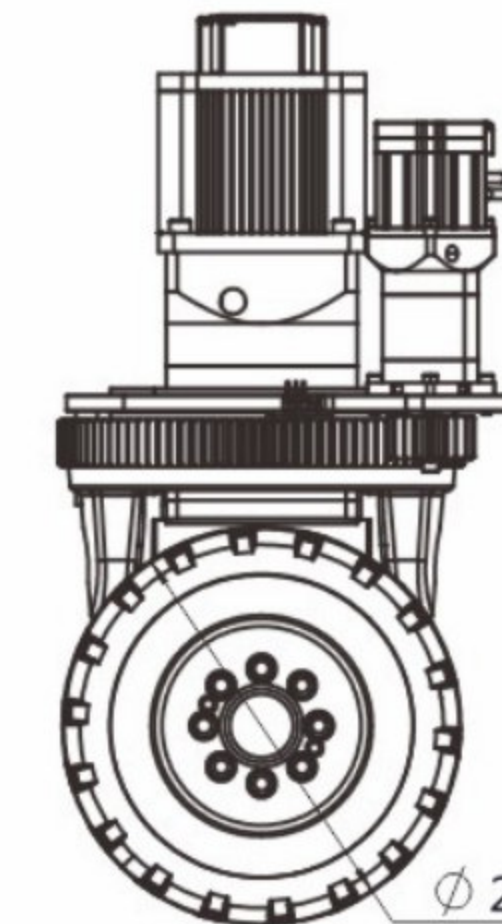
LDSS 250 Series

ZL-LDSS-250-1500A-750



转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 19 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |

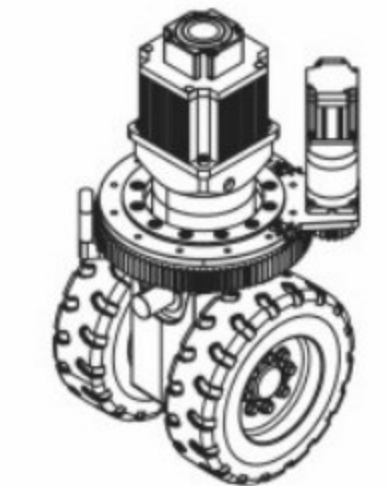


牵引电机参数
Parameters of traction motor

| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 37.4 |
| 额定扭矩 Rated Torque | N-m | 5 |
| 防护等级 Protection level | IP | 65 |

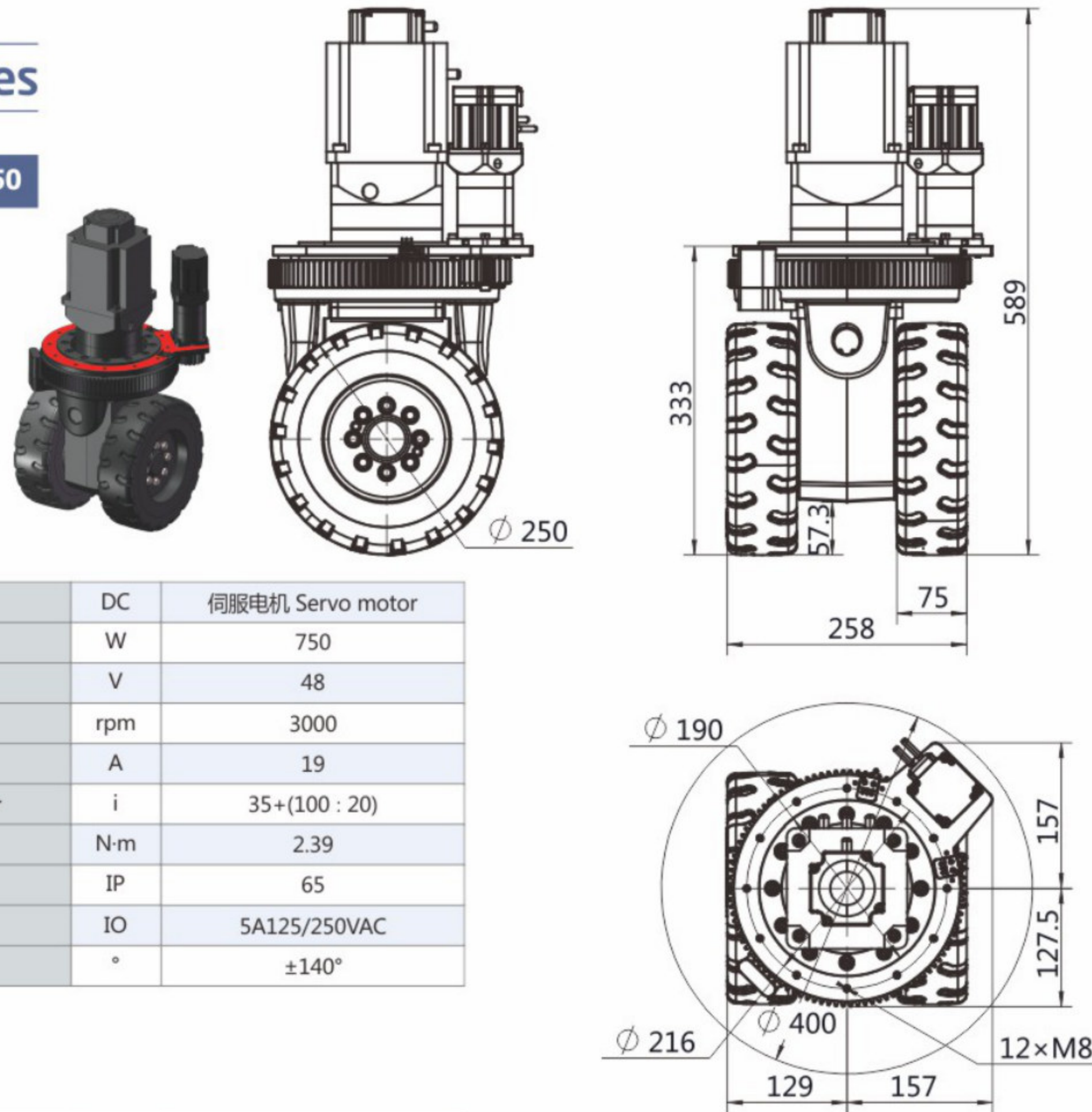
牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|-------|------|------|
| 减速机速比 Speed ratio of reducer | I | 16 | 20 | 28 | 40 |
| 减速机扭矩 Reducer torque | N-m | 888 | 940 | 632 | 372 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 2200 | 2200 | 2200 | 2200 |
| 橡胶承重 Rubber bearing | Kg | 1400 | 1400 | 1400 | 1400 |
| 制动扭矩 Braking torque | N-m | 240 | 300 | 420 | 600 |
| 制动器扭矩 Brake torque | N-m | 15 | 15 | 15 | 15 |
| 制动器电压 Brake voltage | V | DC24 | DC24 | DC24 | DC24 |
| 最大速度 Maximum velocity | M/min | 147.2 | 117.8 | 84.1 | 58.9 |
| 牵引力 Traction | N | 576 | 720 | 1008 | 1440 |
| 牵引重量 Traction weight | 参考 Reference | 864 | 1080 | 1512 | 2160 |



LDSS 250 Series

ZL-LDSS-250-2300A-750



转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 750 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 19 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 2.39 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |

牵引电机参数
Parameters of traction motor

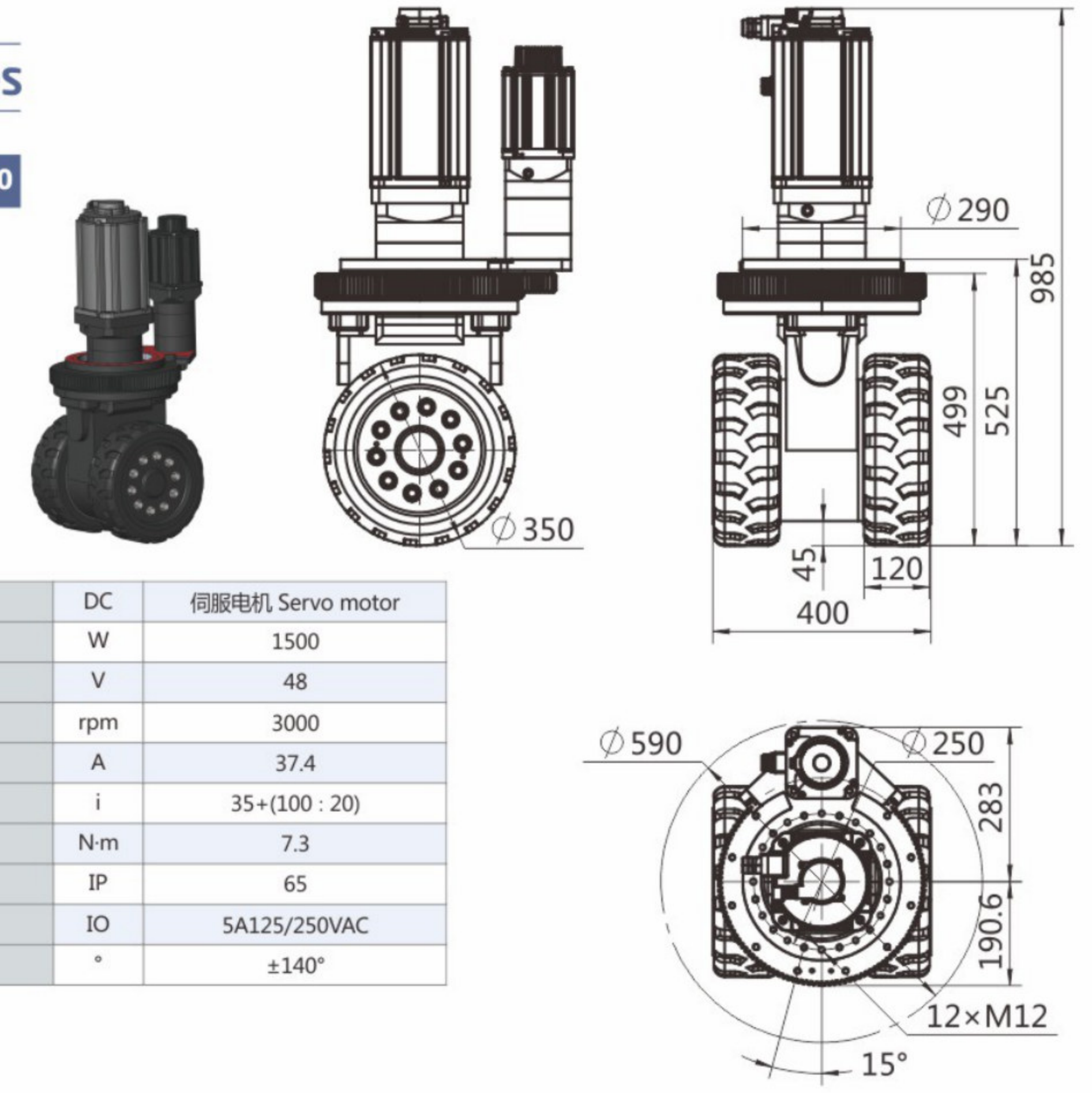
| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 2300 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 67 |
| 额定扭矩 Rated Torque | N-m | 7.3 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|--------|------|------|
| 减速机速比 Speed ratio of reducer | I | 16 | 20 | 28 | 40 |
| 减速机扭矩 Reducer torque | N-m | 888 | 940 | 632 | 372 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 2200 | 2200 | 2200 | 2200 |
| 橡胶承重 Rubber bearing | Kg | 1400 | 1400 | 1400 | 1400 |
| 制动扭矩 Braking torque | N-m | 240 | 300 | 420 | 600 |
| 制动器扭矩 Brake torque | N-m | 15 | 15 | 15 | 15 |
| 制动器电压 Brake voltage | V | DC24 | DC24 | DC24 | DC24 |
| 最大速度 Maximum velocity | M/min | 147.2 | 117.8 | 84.1 | 58.9 |
| 牵引力 Traction | N | 841 | 1051.2 | 1472 | 2102 |
| 牵引重量 Traction weight | 参考 Reference | 1261 | 1576.8 | 2208 | 3154 |

LDSS 350 Series

ZL-LDSS-350-7500A-1500



转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 37.4 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N-m | 7.3 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |

牵引电机参数
Parameters of traction motor

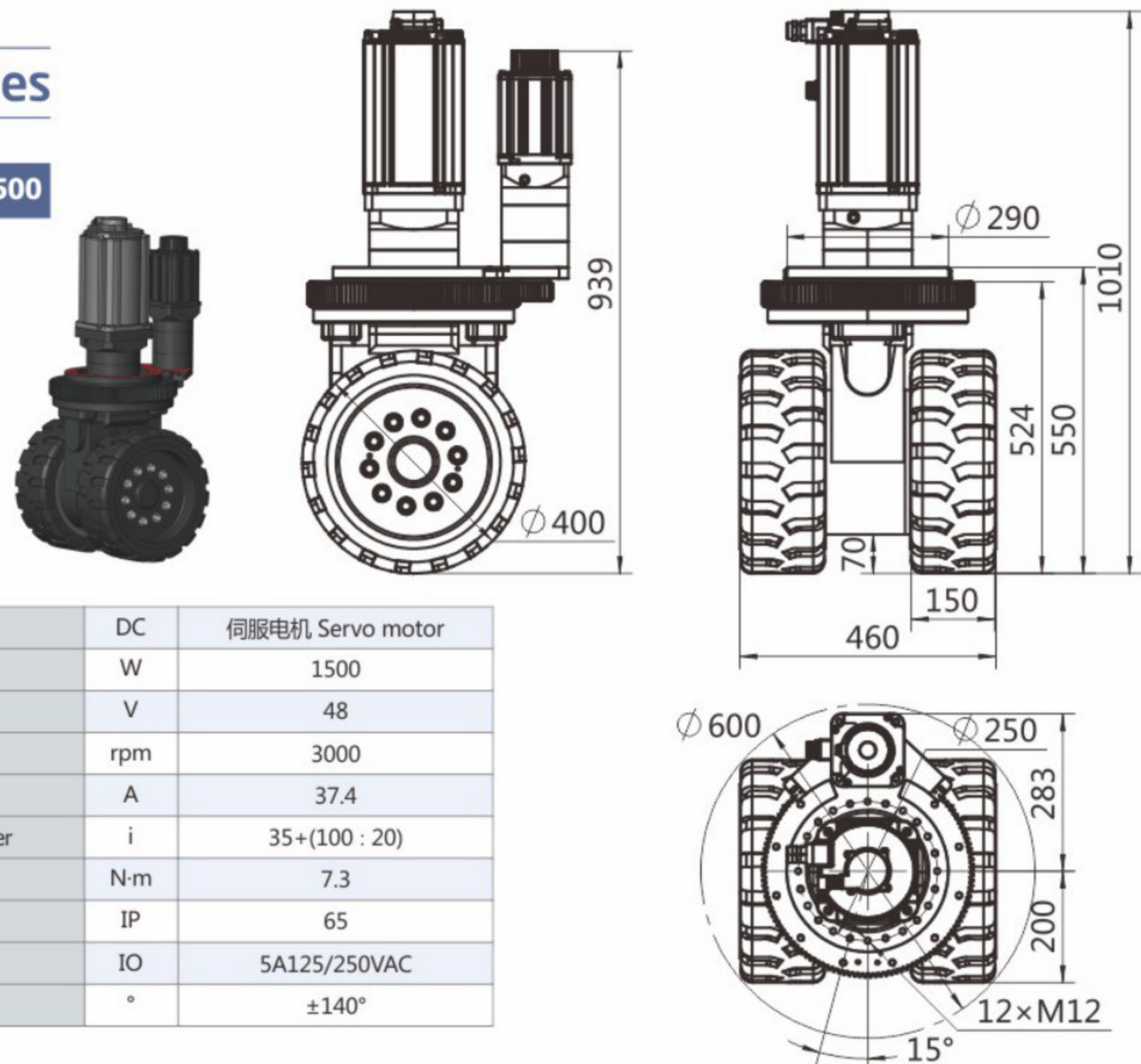
| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 7500 |
| 电机电压 Motor voltage | V | 72 |
| 电机转速 Motor speed | rpm | 2000 |
| 电机电流 Motor current | A | 135±10% |
| 额定扭矩 Rated Torque | N-m | 35 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|-------|------|------|
| 减速机速比 Speed ratio of reducer | I | 12 | 15 | 24 | 36 |
| 减速机扭矩 Reducer torque | N-m | 1815 | 1260 | 810 | 5040 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 4300 | 4300 | 4300 | 4300 |
| 橡胶承重 Rubber bearing | Kg | 2500 | 2500 | 2500 | 2500 |
| 制动扭矩 Braking torque | N-m | 600 | 750 | 1200 | 1800 |
| 制动器扭矩 Brake torque | N-m | 50 | 50 | 50 | 50 |
| 制动器电压 Brake voltage | V | DC24 | DC24 | DC24 | DC24 |
| 最大速度 Maximum velocity | M/min | 183.2 | 146.5 | 91.6 | 61.1 |
| 牵引力 Traction | N | 2160 | 2700 | 4320 | 6480 |
| 牵引重量 Traction weight | 参考 Reference | 3240 | 4050 | 6480 | 9720 |

LDSS 400 Series

ZL-LDSS-400-7500A-1500



转向电机参数
Steering motor parameters

| | | |
|------------------------------|-----|------------------|
| 电机类型 Type/Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 1500 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | rpm | 3000 |
| 电机电流 Motor current | A | 37.4 |
| 减速器速比 Speed ratio of reducer | i | 35+(100 : 20) |
| 电机扭矩 Motor torque | N·m | 7.3 |
| 防护等级 Protection level | IP | 65 |
| 左右限位 Left and right limit | IO | 5A125/250VAC |
| 最大转向角度 Steering Angle | ° | ±140° |

牵引电机参数
Parameters of traction motor

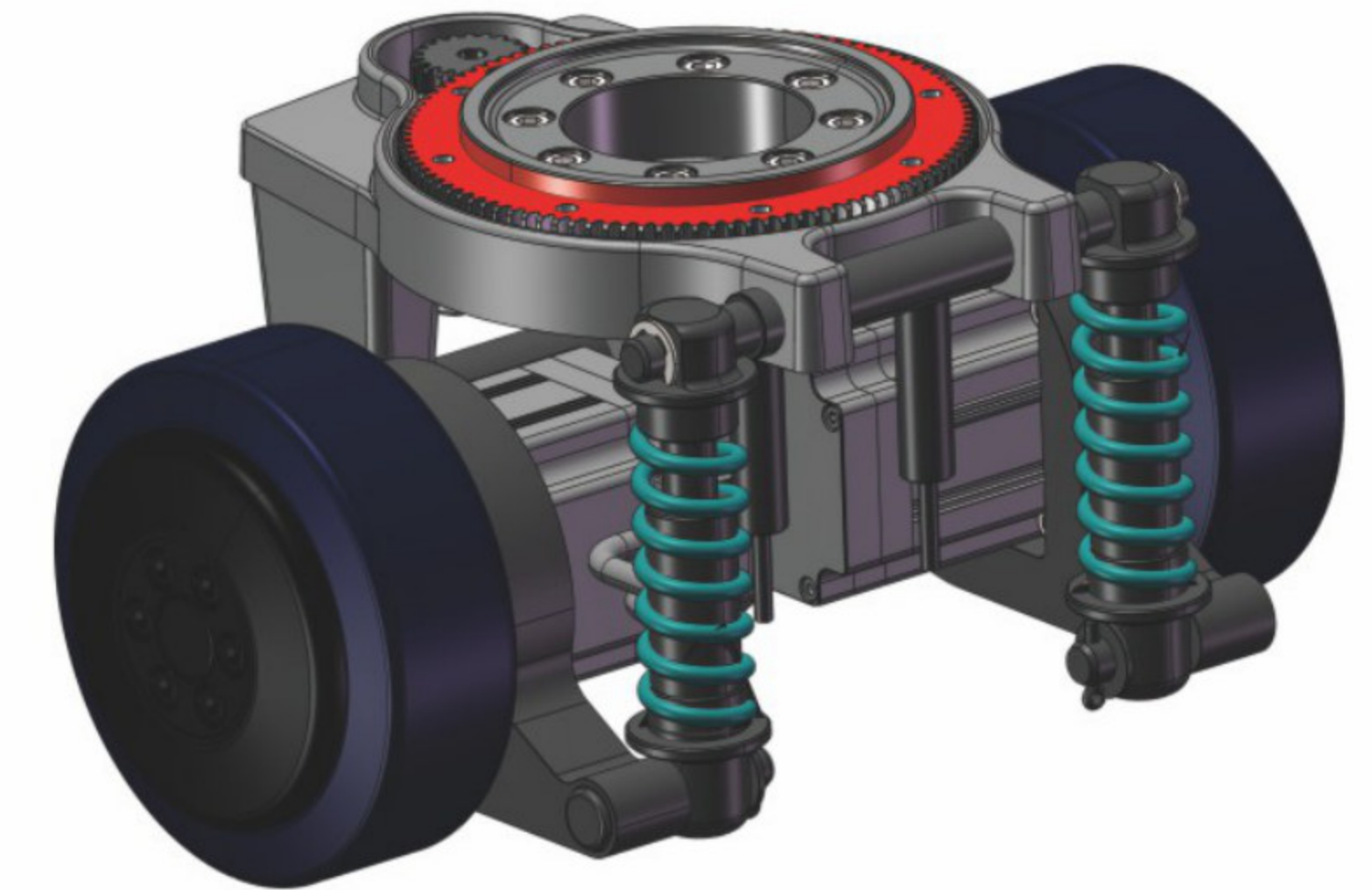
| | | |
|-----------------------|-----|------------------|
| 电机类型 Motor type | DC | 伺服电机 Servo motor |
| 电机功率 Motor power | W | 7500 |
| 电机电压 Motor voltage | V | 72 |
| 电机转速 Motor speed | rpm | 2000 |
| 电机电流 Motor current | A | 135±10% |
| 额定扭矩 Rated Torque | N·m | 35 |
| 防护等级 Protection level | IP | 65 |

牵引减速机参数
Parameter table of traction reducer

| 类型 Type | X | 行星减速机 Planetary reducer | | | |
|---------------------------------|--------------|-------------------------|--------|-------|------|
| 减速机速比 Speed ratio of reducer | I | 12 | 15 | 24 | 36 |
| 减速机扭矩 Reducer torque | N·m | 1815 | 1260 | 810 | 5040 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 5000 | 5000 | 5000 | 5000 |
| 橡胶承重 Rubber bearing | Kg | 3000 | 3000 | 3000 | 3000 |
| 制动扭矩 Braking torque | N·m | 600 | 750 | 1200 | 1800 |
| 制动器扭矩 Brake torque | N·m | 50 | 50 | 50 | 50 |
| 制动器电压 Brake voltage | V | DC24 | DC24 | DC24 | DC24 |
| 最大速度 Maximum velocity | M/min | 209.3 | 167.5 | 104.7 | 69.8 |
| 牵引力 Traction | N | 1890 | 2362.5 | 3780 | 5670 |
| 牵引重量 Traction weight | 参考 Reference | 2835 | 3543.8 | 5670 | 8505 |



- CS 95
- CS 125

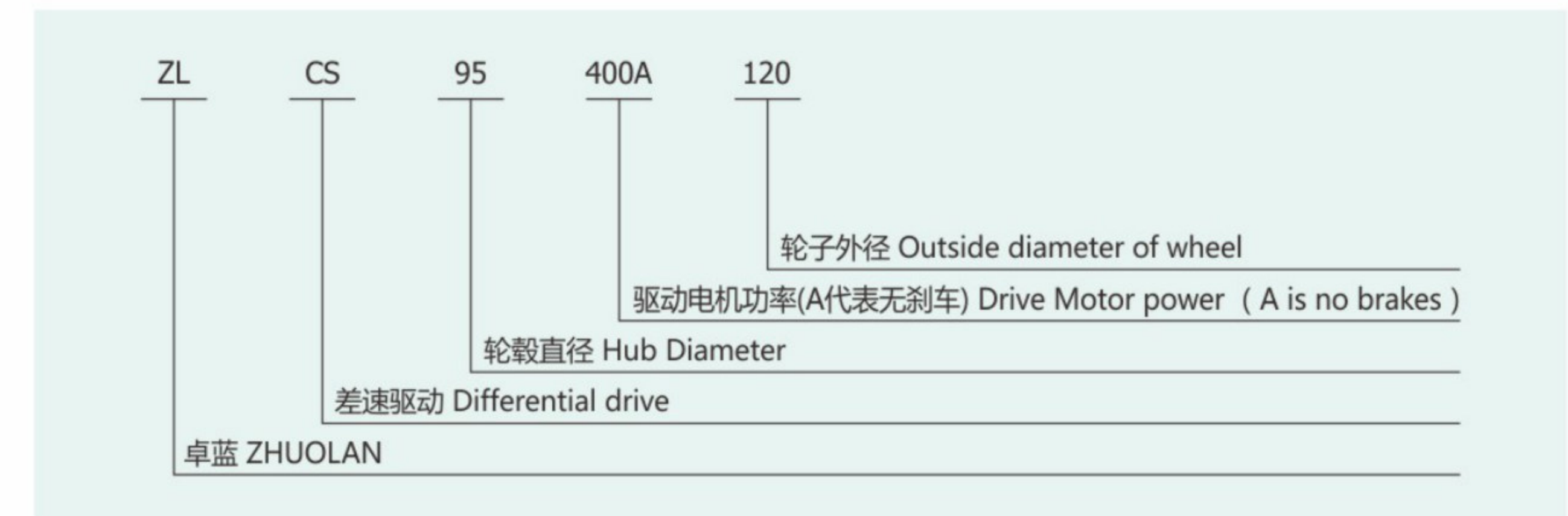


CS

Series

CS系列型号说明

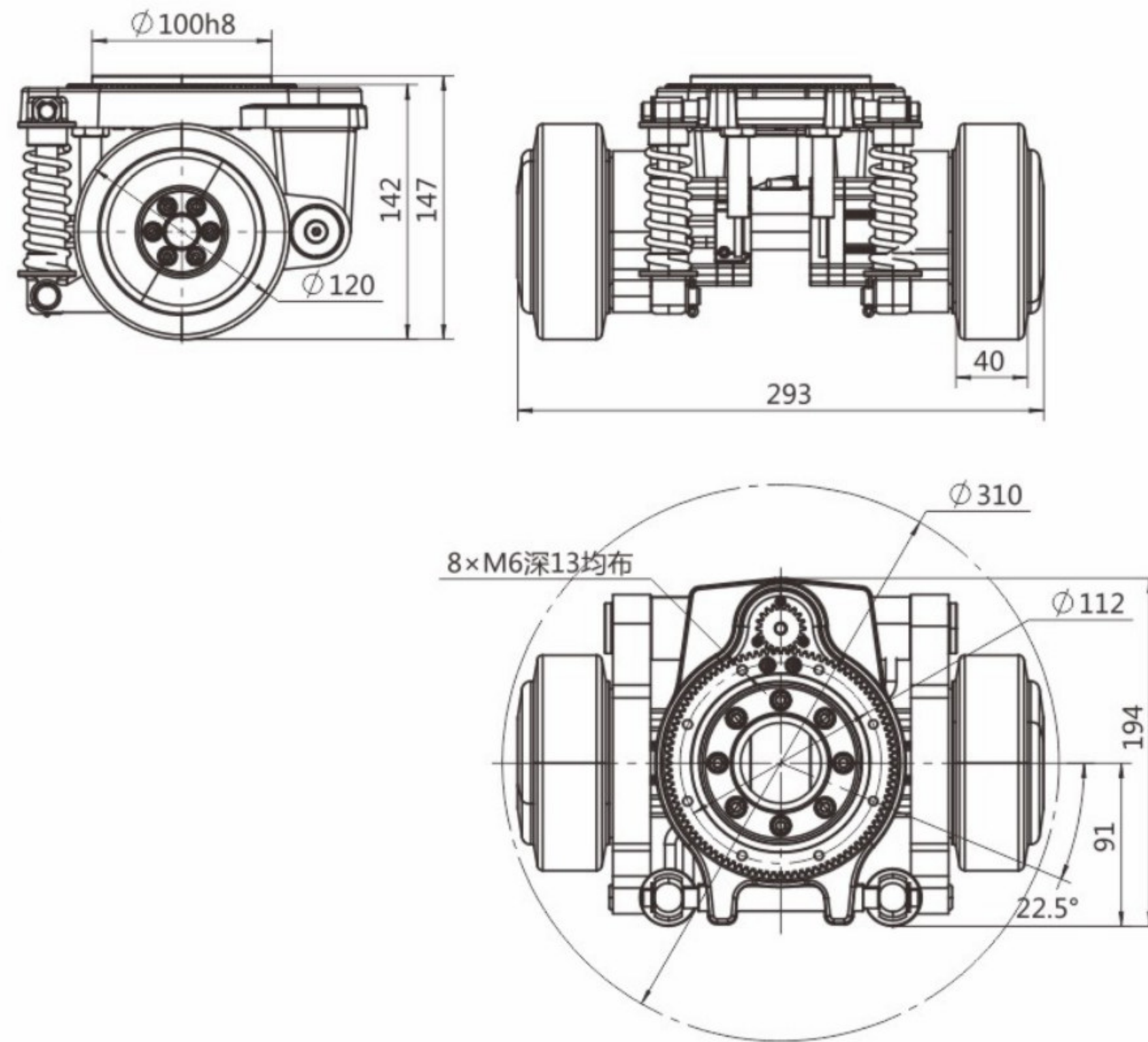
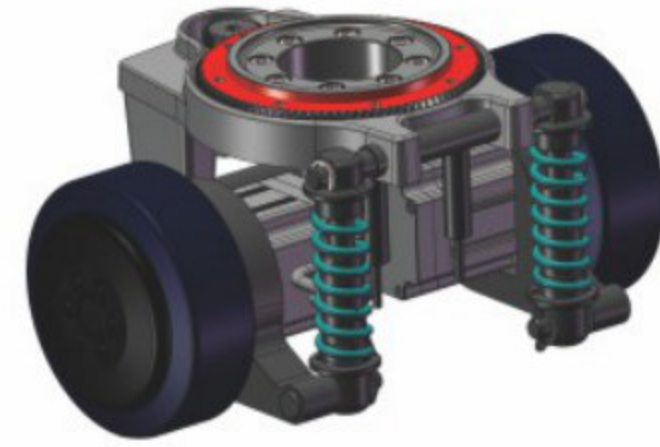
CS series model description



LDSS

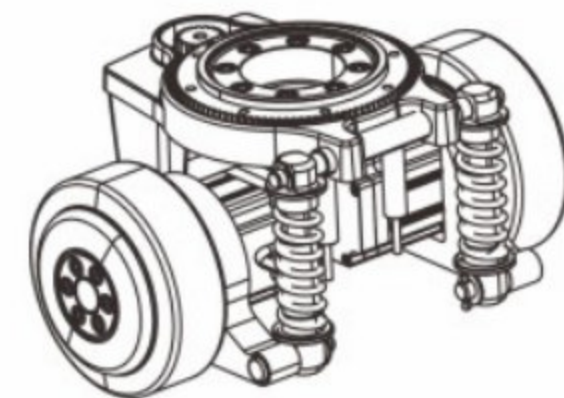
CS 95 Series

ZL-CS-95-120A-400



行走电机参数
Parameters of walking motor

| | | | | | | |
|----------------------------------|--------|------------------|------|------|------|--|
| 电机类型 Motor type | DC | 伺服电机 Servo motor | | | | |
| 电机额定功率 Rated power of motor | W | 400 | | | | |
| 电机额定电压 Rated voltage of motor | V | 48 | | | | |
| 电机额定转速 Rated speed of motor | rpm | 3000 | | | | |
| 电机电流 Motor current | A | 11.95 | | | | |
| 电机额定扭矩 Rated Torque of motor | N-m | 1.27 | | | | |
| 防护等级 Protection level | IP | 54 | | | | |
| 电机编码器类型 Motor encoder type | | 增量 Increment | | | | |
| 线长 Line length | m | 1 | | | | |
| 行走减速比 Walking reducer | 16 | 20 | 28 | 35 | 50 | |
| 行走速度 Walking speed | 70.7 | 56.5 | 40.4 | 32.3 | 22.6 | |
| 单轮额定扭矩 Rated Torque | 30 | 30 | 30 | 33 | 33 | |
| 牵引力 Traction | 609.6 | 762 | 900 | 990 | 990 | |
| 参考牵引重量 Reference Traction weight | 1158.2 | 1448 | 1710 | 1881 | 1881 | |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 360 | | | | |
| 聚氨酯硬度 Polyurethane hardness | A | 90±5 | | | | |
| 聚氨酯颜色 Polyurethane color | | 深蓝色 Dark Blue | | | | |

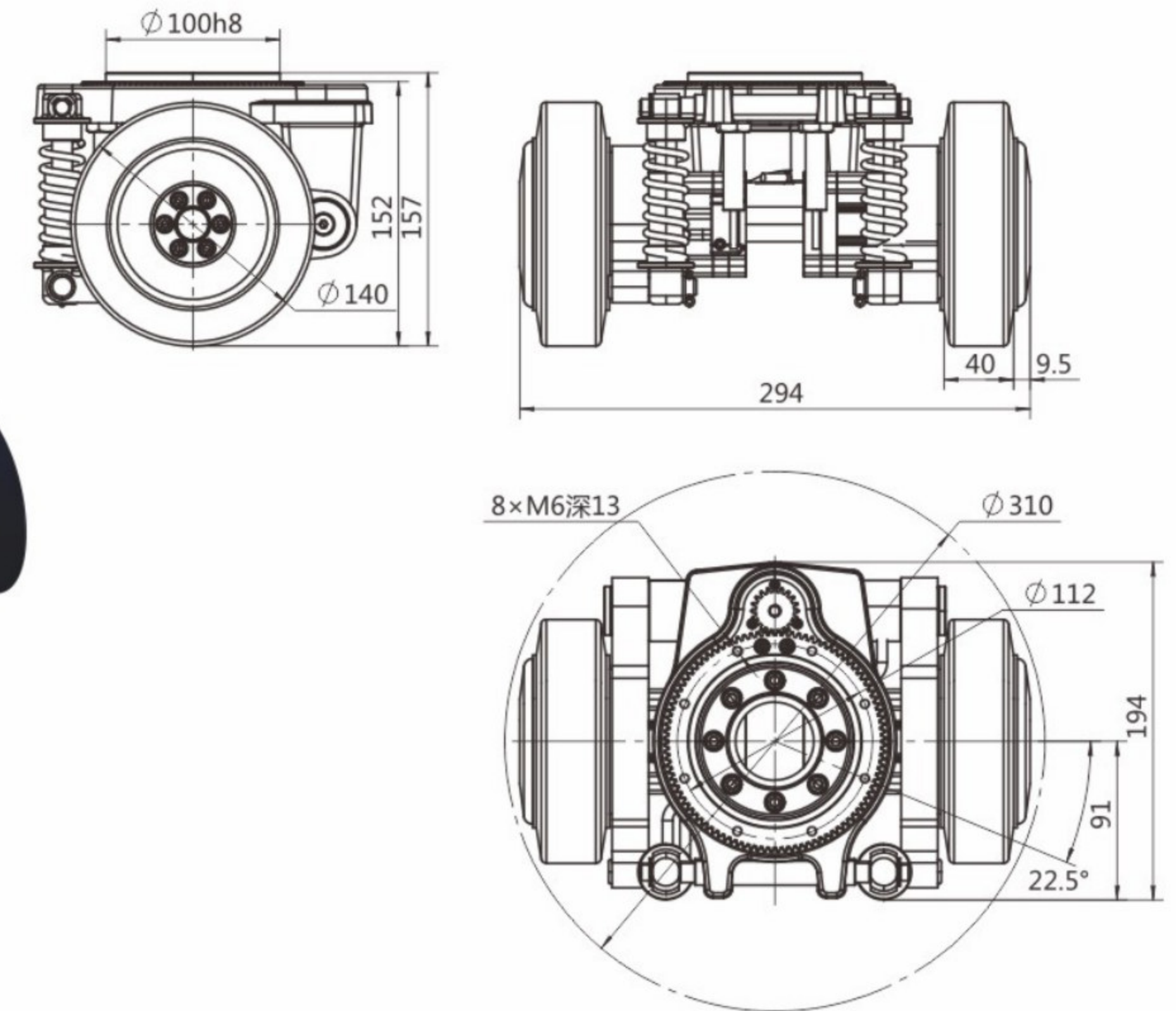


转向参数
Steering parameter

| | | |
|-------------------------|-------------------|-------|
| 转向角度 Steering Angle | ° | ±140° |
| 绝对值编码器 Absolute encoder | AHM36A-S3CK014×12 | |
| 原点传感器 Origin Sensor | IME12-02BNSZW2K | |

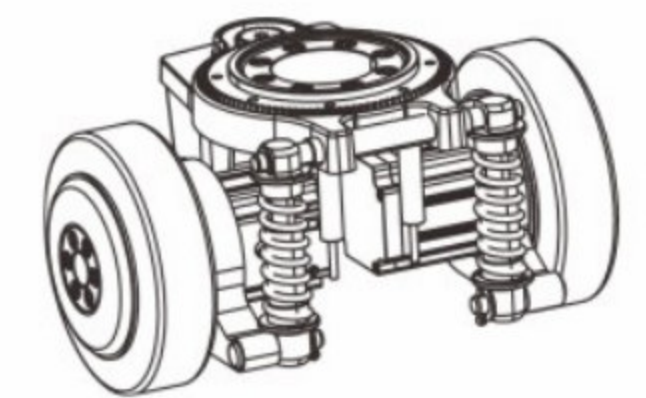
CS 95 Series

ZL-CS-95-140A-400



行走电机参数
Parameters of walking motor

| | | | | | | |
|----------------------------------|-------|------------------|-------|-------|-------|--|
| 电机类型 Motor type | DC | 伺服电机 Servo motor | | | | |
| 电机额定功率 Rated power of motor | W | 400 | | | | |
| 电机额定电压 Rated voltage of motor | V | 48 | | | | |
| 电机额定转速 Rated speed of motor | rpm | 3000 | | | | |
| 电机电流 Motor current | A | 11.95 | | | | |
| 电机额定扭矩 Rated Torque of motor | N-m | 1.27 | | | | |
| 防护等级 Protection level | IP | 54 | | | | |
| 电机编码器类型 Motor encoder type | | 增量 Increment | | | | |
| 线长 Line length | m | 1 | | | | |
| 行走减速比 Walking reducer | 16 | 20 | 28 | 35 | 50 | |
| 行走速度 Walking speed | 82.4 | 65.9 | 47.1 | 37.7 | 26.4 | |
| 单轮额定扭矩 Rated Torque | 30 | 30 | 30 | 33 | 33 | |
| 牵引力 Traction | 522.5 | 653.1 | 771.4 | 848.5 | 848.5 | |
| 参考牵引重量 Reference Traction weight | 992.8 | 1241 | 1465 | 1612 | 1612 | |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 900 | | | | |
| 聚氨酯硬度 Polyurethane hardness | A | 90±5 | | | | |
| 聚氨酯颜色 Polyurethane color | | 深蓝色 Dark Blue | | | | |

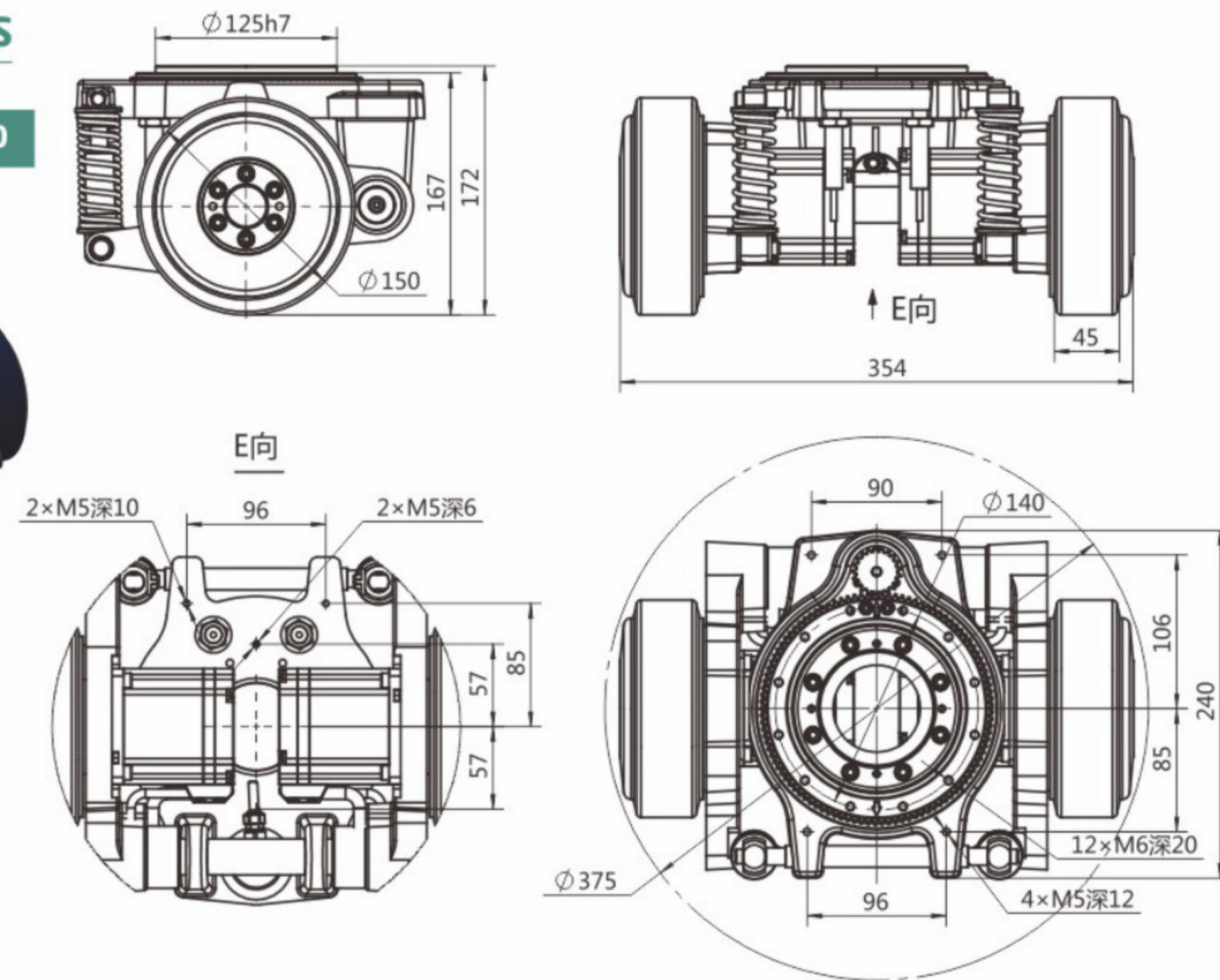
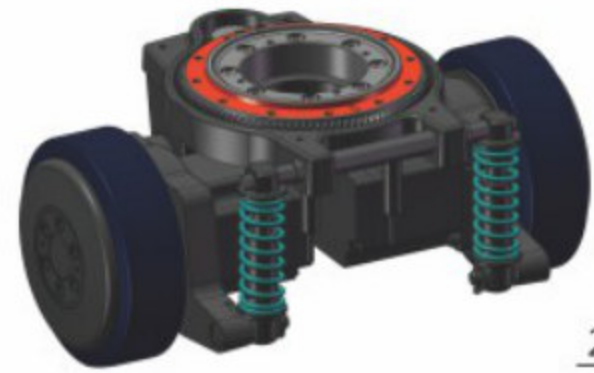


转向参数
Steering parameter

| | | |
|-------------------------|-------------------|-------|
| 转向角度 Steering Angle | ° | ±140° |
| 绝对值编码器 Absolute encoder | AHM36A-S3CK014×12 | |
| 原点传感器 Origin Sensor | IME12-02BNSZW2K | |

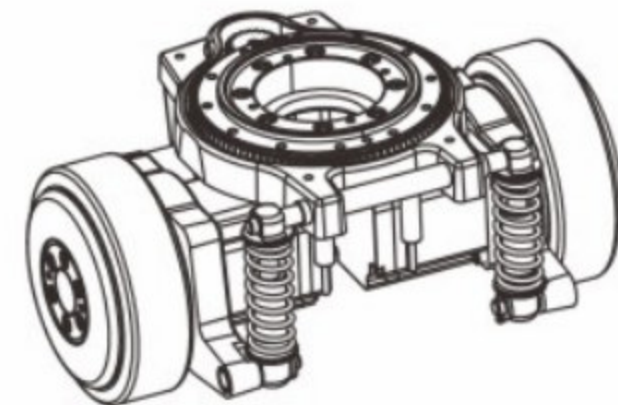
CS 125 Series

ZL-CS-125-150A-400



行走电机参数
Parameters of walking motor

| | | | | | | |
|----------------------------------|-------|------------------|--------|--------|--------|--|
| 电机类型 Motor type | DC | 伺服电机 Servo motor | | | | |
| 电机额定功率 Rated power of motor | W | 400 | | | | |
| 电机额定电压 Rated voltage of motor | V | 48 | | | | |
| 电机额定转速 Rated speed of motor | rpm | 3000 | | | | |
| 电机电流 Motor current | A | 11.95 | | | | |
| 电机额定扭矩 Rated Torque of motor | N-m | 1.27 | | | | |
| 防护等级 Protection level | IP | 54 | | | | |
| 电机编码器类型 Motor encoder type | | 增量 Increment | | | | |
| 线长 Line length | m | 1 | | | | |
| 行走减速比 Walking reducer | 16 | 20 | 28 | 35 | 50 | |
| 行走速度 Walking speed | 88.3 | 70.7 | 50.5 | 40.4 | 28.3 | |
| 单轮额定扭矩 Rated Torque | 96 | 96 | 96 | 105 | 105 | |
| 牵引力 Traction | 487.7 | 609.6 | 853.4 | 1066.8 | 1524 | |
| 参考牵引重量 Reference Traction weight | 926.6 | 1158 | 1621.5 | 2026.9 | 2895.6 | |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 600 | | | | |
| 聚氨酯硬度 Polyurethane hardness | A | 90±5 | | | | |
| 聚氨酯颜色 Polyurethane color | | 深蓝色 Dark Blue | | | | |

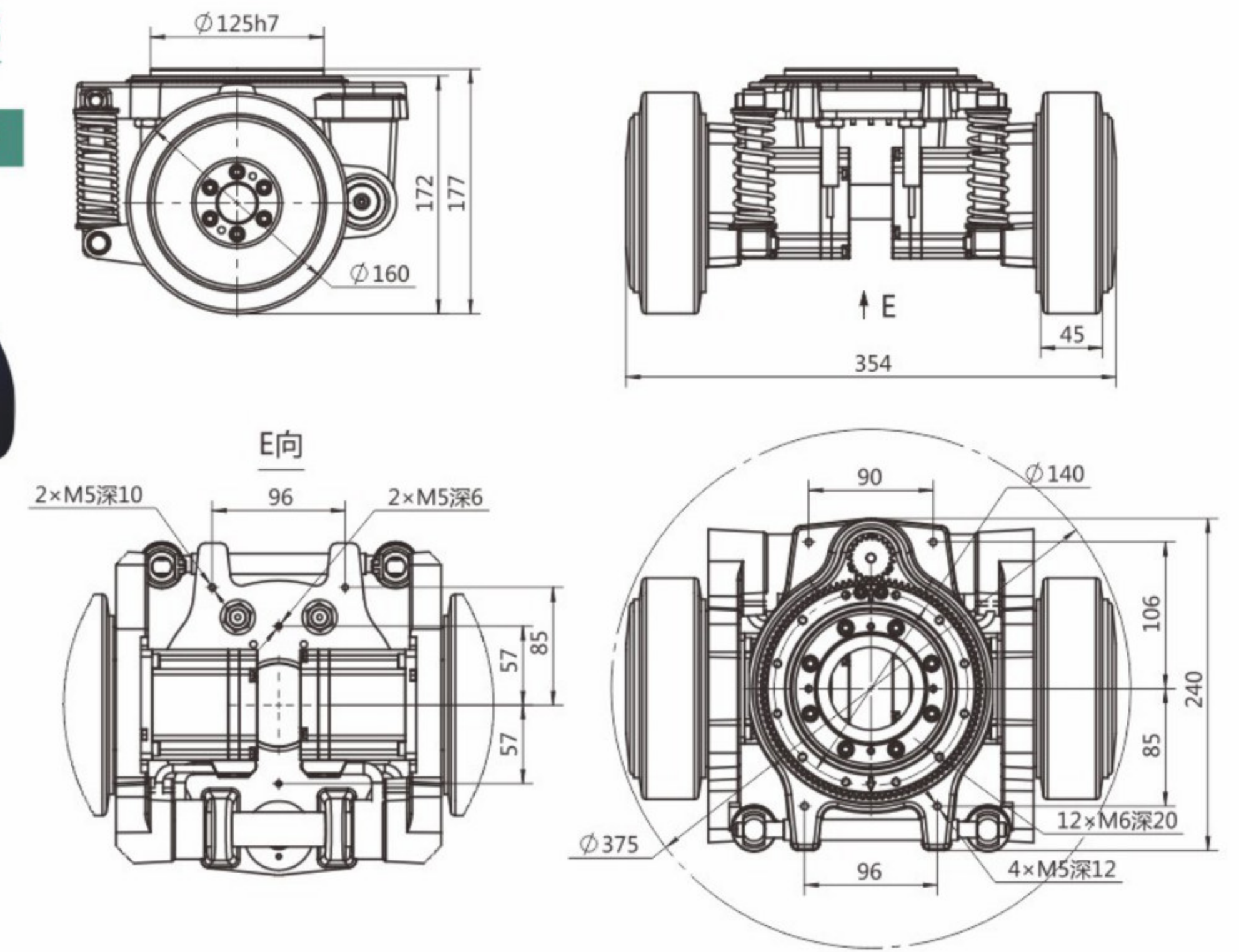
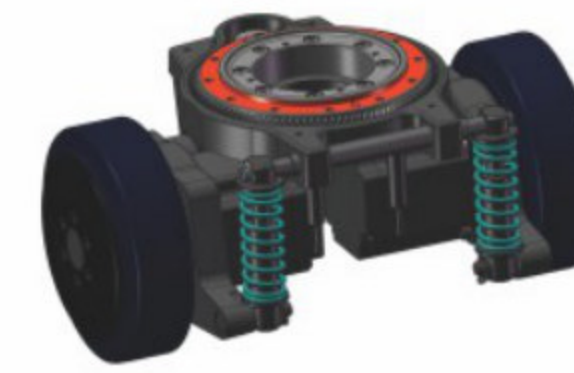


转向参数
Steering parameter

| | | |
|-------------------------|---|-------------------|
| 转向角度 Steering Angle | ° | ±140° |
| 绝对值编码器 Absolute encoder | | AHM36A-S3CK014×12 |
| 原点传感器 Origin Sensor | | IME12-02BNSZW2K |

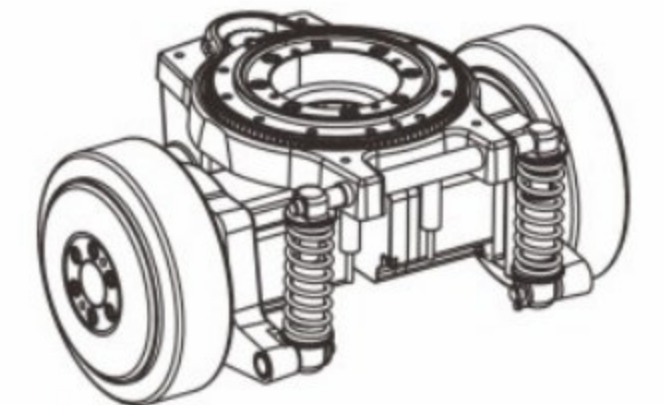
CS 125 Series

ZL-CS-125-160A-400



行走电机参数
Parameters of walking motor

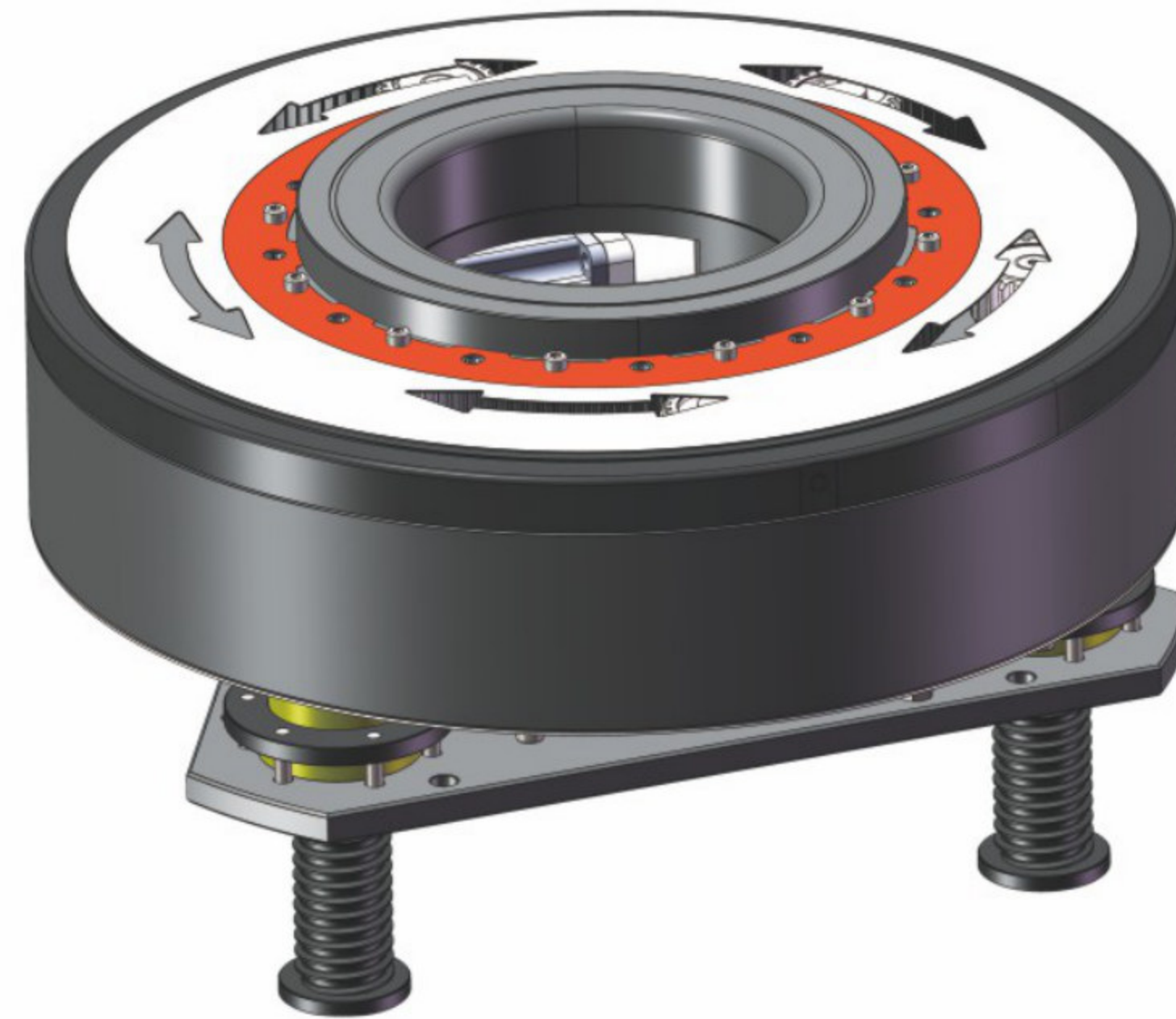
| | | | | | | |
|----------------------------------|-------|------------------|--------|--------|--------|--|
| 电机类型 Motor type | DC | 伺服电机 Servo motor | | | | |
| 电机额定功率 Rated power of motor | W | 400 | | | | |
| 电机额定电压 Rated voltage of motor | V | 48 | | | | |
| 电机额定转速 Rated speed of motor | rpm | 3000 | | | | |
| 电机电流 Motor current | A | 11.95 | | | | |
| 电机额定扭矩 Rated Torque of motor | N-m | 1.27 | | | | |
| 防护等级 Protection level | IP | 54 | | | | |
| 电机编码器类型 Motor encoder type | | 增量 Increment | | | | |
| 线长 Line length | m | 1 | | | | |
| 行走减速比 Walking reducer | 16 | 20 | 28 | 35 | 50 | |
| 行走速度 Walking speed | 94.2 | 75.4 | 53.8 | 43.1 | 30.1 | |
| 单轮额定扭矩 Rated Torque | 96 | 96 | 96 | 105 | 105 | |
| 牵引力 Traction | 457.2 | 571.5 | 800.1 | 1000.1 | 1428.8 | |
| 参考牵引重量 Reference Traction weight | 868.7 | 1086 | 1520.2 | 1900.2 | 2714.6 | |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 700 | | | | |
| 聚氨酯硬度 Polyurethane hardness | A | 90±5 | | | | |
| 聚氨酯颜色 Polyurethane color | | 深蓝色 Dark Blue | | | | |



转向参数
Steering parameter

| | | |
|-------------------------|---|-------------------|
| 转向角度 Steering Angle | ° | ±140° |
| 绝对值编码器 Absolute encoder | | AHM36A-S3CK014×12 |
| 原点传感器 Origin Sensor | | IME12-02BNSZW2K |

- ／ SJX 350
- ／ SJX 468
- ／ SJX 520

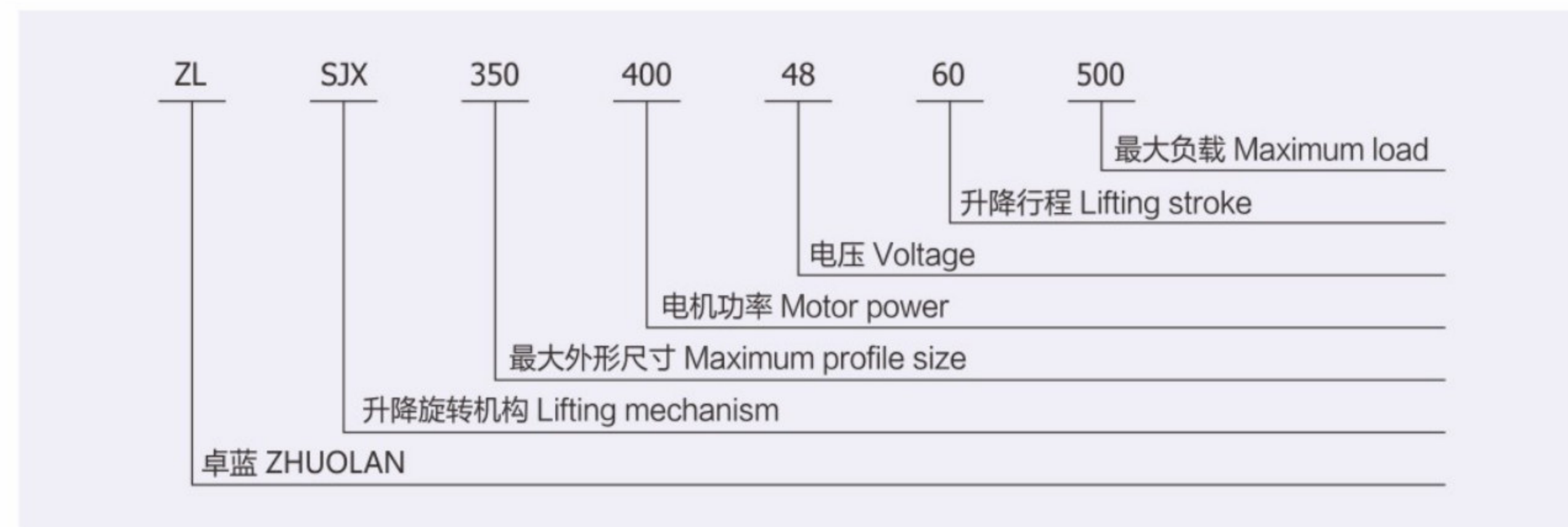


SJX

Series

SJX系列型号说明

SJX series model description



SJX 350 Series

ZL-SJX-350-400-48-60-500



升降参数 Lift parameter

| | | |
|------------------------------|------|-----------------------------------|
| 类型 Type | X | 行星减速机 Planetary reducer |
| 行程 Route | mm | 60 |
| 丝杆规格 Screw rod specification | mm | T32×5 |
| 减速机速比 Speed ratio of reducer | i | 40 |
| 传动齿比 Gear ratio | I | 1 |
| 升降速度 Up and down speed | mm/s | 6.25 |
| 升降时间 Up and down time | s | 9.6 |
| 限位传感器 Limit Sensor | SICK | 常开NPN-24V Regular opening NPN-24V |

电机参数 Motor parameters

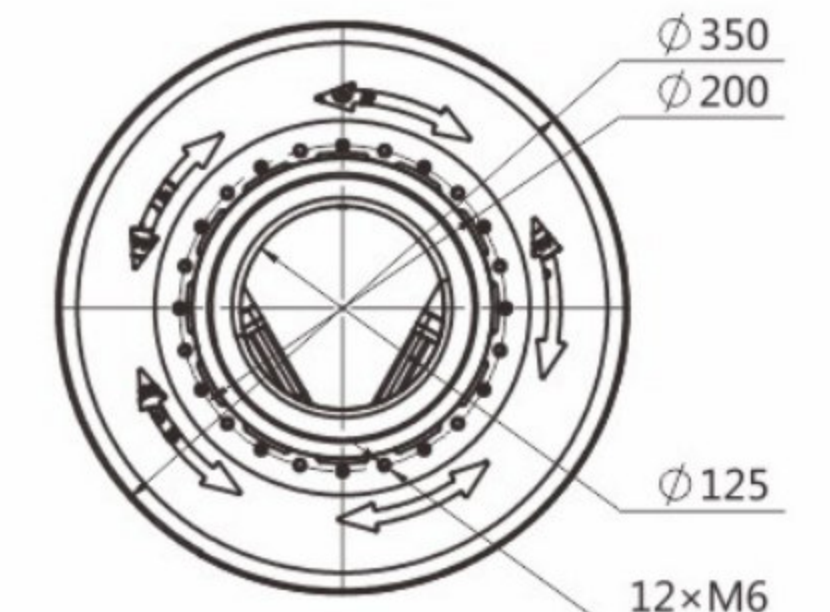
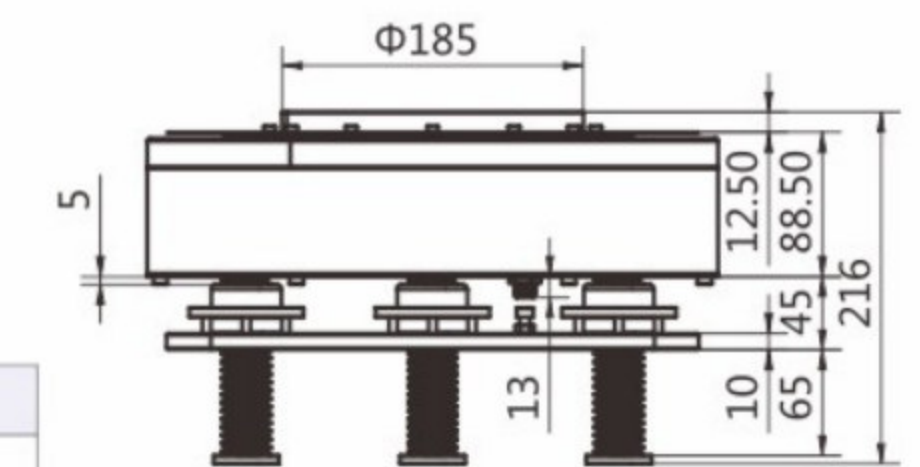
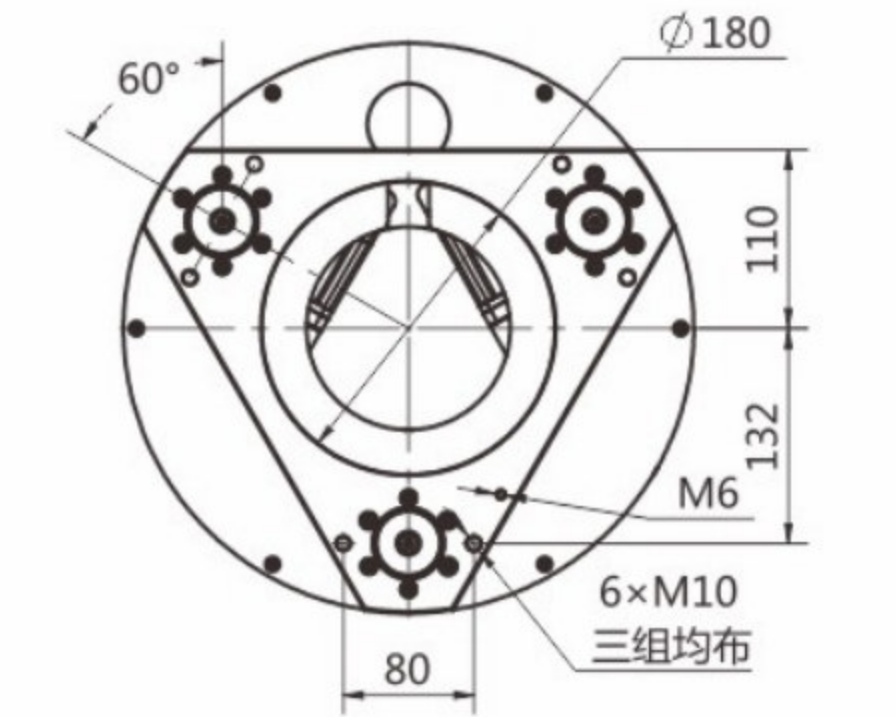
| | | |
|-----------------------|-----|-------|
| 负载 Load | Kg | 500 |
| 电机功率 Motor power | W | 400 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | Rpm | 3000 |
| 电机电流 Motor current | A | 11.95 |
| 额定扭矩 Rated Torque | N-m | 1.27 |
| 防护等级 Protection level | IP | 54 |

旋转参数 Rotation parameter

| | | |
|------------------------------|------------|-----------------------------------|
| 类型 Type | X | 行星减速机 Planetary reducer |
| 减速机速比 Speed ratio of reducer | i | 40 |
| 传动齿比 Gear ratio | i | 6.04 |
| 旋转位移 Rotation Displacement | 90/转90/rpm | 1.51 |
| 旋转90° Rotate 90° | s | 1.21 |
| 旋转原点 Origin of rotation | SICK | 常开NPN-24V Regular opening NPN-24V |

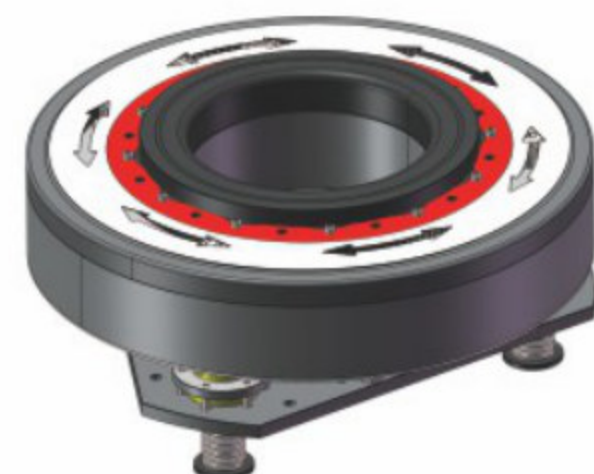
其它 Others

| | | |
|---------------------------|------------|-------------|
| 减速机润滑 Reducer lubrication | 润滑脂 Grease | -20° ~ 200° |
| 自重 Self weight | Kg | 约 26.5 |



SJX 468 Serices

ZL-SJX-468-600-48-50-1000



升降参数
Lift parameter

| 类型 Type | X | 行星减速机 Planetary reducer |
|------------------------------|------|-----------------------------------|
| 行程 Route | mm | 50 |
| 丝杆规格 Screw rod specification | mm | T36×6 |
| 减速机速比 Speed ratio of reducer | i | 40 |
| 传动齿比 Gear ratio | I | 1 |
| 升降速度 Up and down speed | mm/s | 7.5 |
| 升降时间 Up and down time | s | 6.67 |
| 限位传感器 Limit Sensor | SICK | 常开NPN-24V Regular opening NPN-24V |

电机参数
Motor parameters

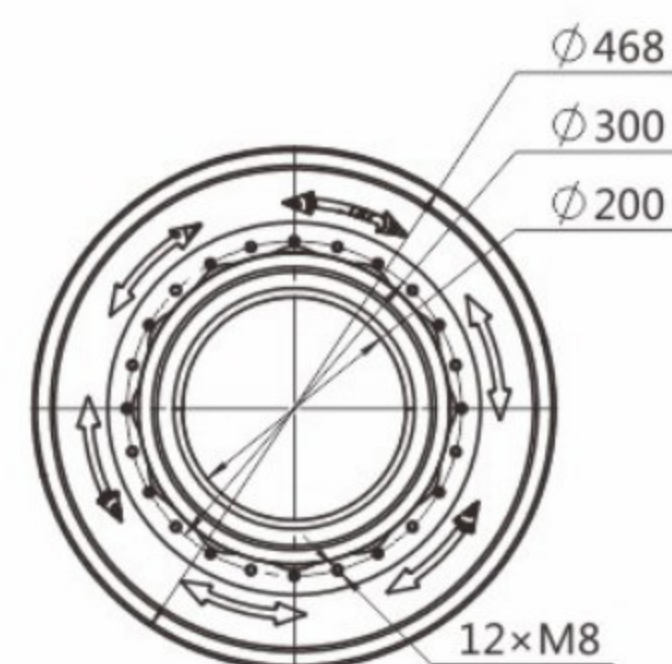
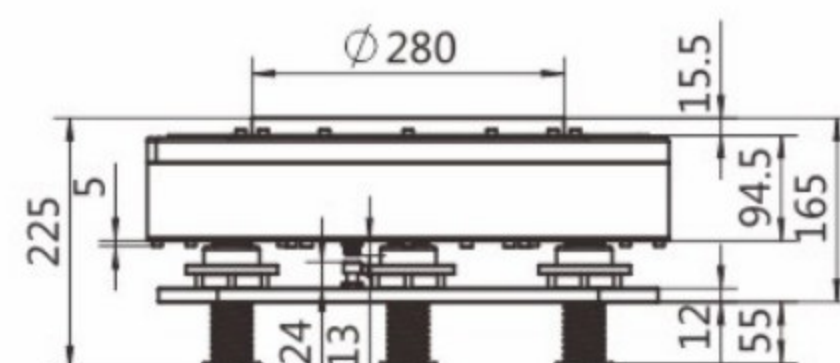
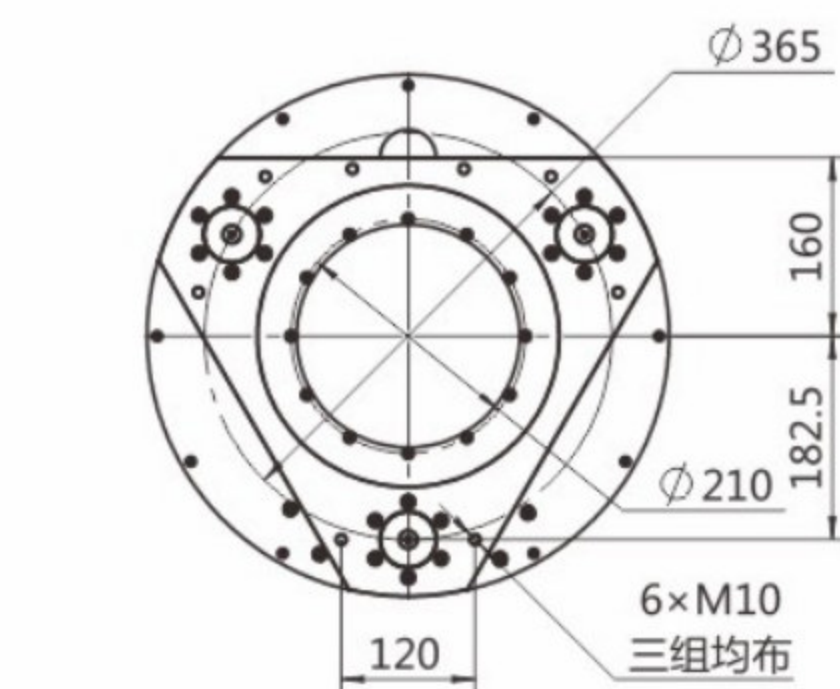
| | | |
|-----------------------|-----|------|
| 负载 Load | Kg | 1000 |
| 电机功率 Motor power | W | 600 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | Rpm | 3000 |
| 电机电流 Motor current | A | 16.5 |
| 额定扭矩 Rated Torque | N-m | 1.91 |
| 防护等级 Protection level | IP | 65 |

旋转参数
Rotation parameter

| 类型 Type | X | 行星减速机 Planetary reducer |
|------------------------------|------------|-----------------------------------|
| 减速机速比 Speed ratio of reducer | i | 40 |
| 传动齿比 Gear ratio | i | 8.89 |
| 旋转位移 Rotation Displacement | 90/转90/rpm | 2.22 |
| 旋转90° Rotate 90° | s | 1.8 |
| 旋转原点 Origin of rotation | SICK | 常开NPN-24V Regular opening NPN-24V |

其它
Others

| | | |
|---------------------------|------------|-------------|
| 减速机润滑 Reducer lubrication | 润滑脂 Grease | -20° ~ 200° |
| 自重 Self weight | Kg | 约 50.8 |



SJX 468 Serices

ZL-SJX-468-600-48-60-1000



升降参数
Lift parameter

| 类型 Type | X | 行星减速机 Planetary reducer |
|------------------------------|------|-----------------------------------|
| 行程 Route | mm | 60 |
| 丝杆规格 Screw rod specification | mm | T36×6 |
| 减速机速比 Speed ratio of reducer | i | 40 |
| 传动齿比 Gear ratio | I | 1 |
| 升降速度 Up and down speed | mm/s | 7.5 |
| 升降时间 Up and down time | s | 6.67 |
| 限位传感器 Limit Sensor | SICK | 常开NPN-24V Regular opening NPN-24V |

电机参数
Motor parameters

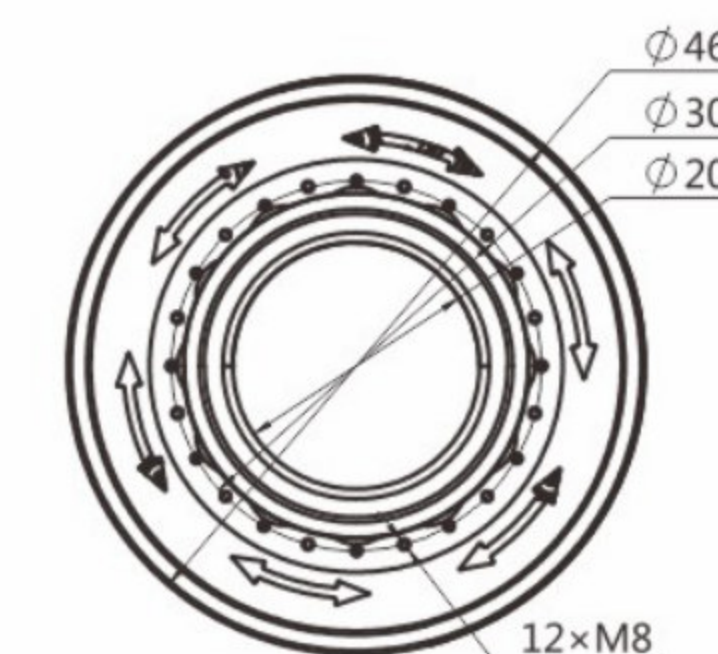
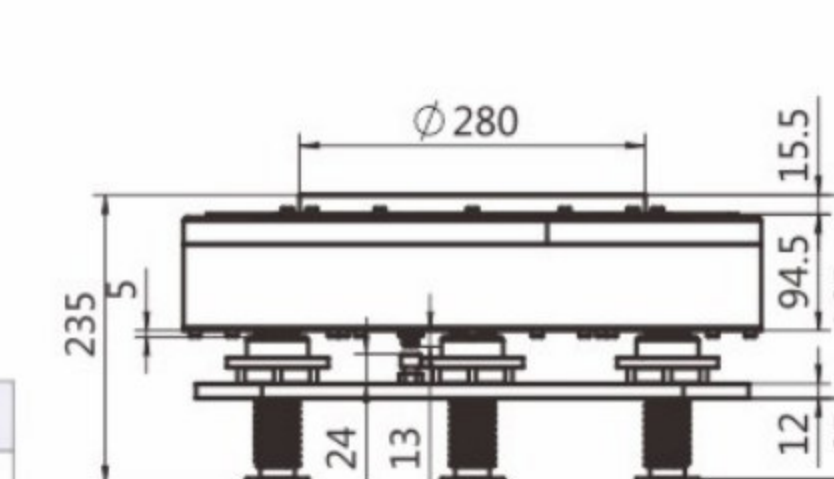
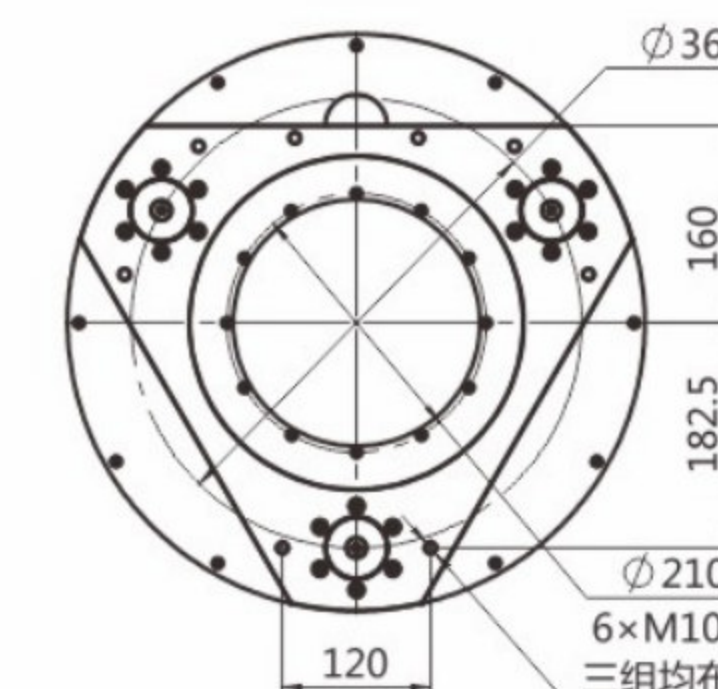
| | | |
|-----------------------|-----|------|
| 负载 Load | Kg | 1000 |
| 电机功率 Motor power | W | 600 |
| 电机电压 Motor voltage | V | 48 |
| 电机转速 Motor speed | Rpm | 3000 |
| 电机电流 Motor current | A | 16.5 |
| 额定扭矩 Rated Torque | N-m | 1.91 |
| 防护等级 Protection level | IP | 65 |

旋转参数
Rotation parameter

| 类型 Type | X | 行星减速机 Planetary reducer |
|------------------------------|------------|-----------------------------------|
| 减速机速比 Speed ratio of reducer | i | 40 |
| 传动齿比 Gear ratio | i | 8.89 |
| 旋转位移 Rotation Displacement | 90/转90/rpm | 2.22 |
| 旋转90° Rotate 90° | s | 1.78 |
| 旋转原点 Origin of rotation | SICK | 常开NPN-24V Regular opening NPN-24V |

其它
Others

| | | |
|---------------------------|------------|-------------|
| 减速机润滑 Reducer lubrication | 润滑脂 Grease | -20° ~ 200° |
| 自重 Self weight | Kg | 约 50.8 |



SJX 520 Series

ZL-SJX-520-750-48-50-1500



升降参数
Lift parameter

| | | |
|------------------------------|------|-----------------------------------|
| 类型 Type | X | 行星减速机 Planetary reducer |
| 行程 Route | mm | 50 |
| 丝杆规格 Screw rod specification | mm | T45×6 |
| 减速机速比 Speed ratio of reducer | i | 30 |
| 传动齿比 Gear ratio | I | 1.65 |
| 升降速度 Up and down speed | mm/s | 10 |
| 升降时间 Up and down time | s | 5 |
| 限位传感器 Limit Sensor | SICK | 常开NPN-24V Regular opening NPN-24V |

电机参数
Motor parameters

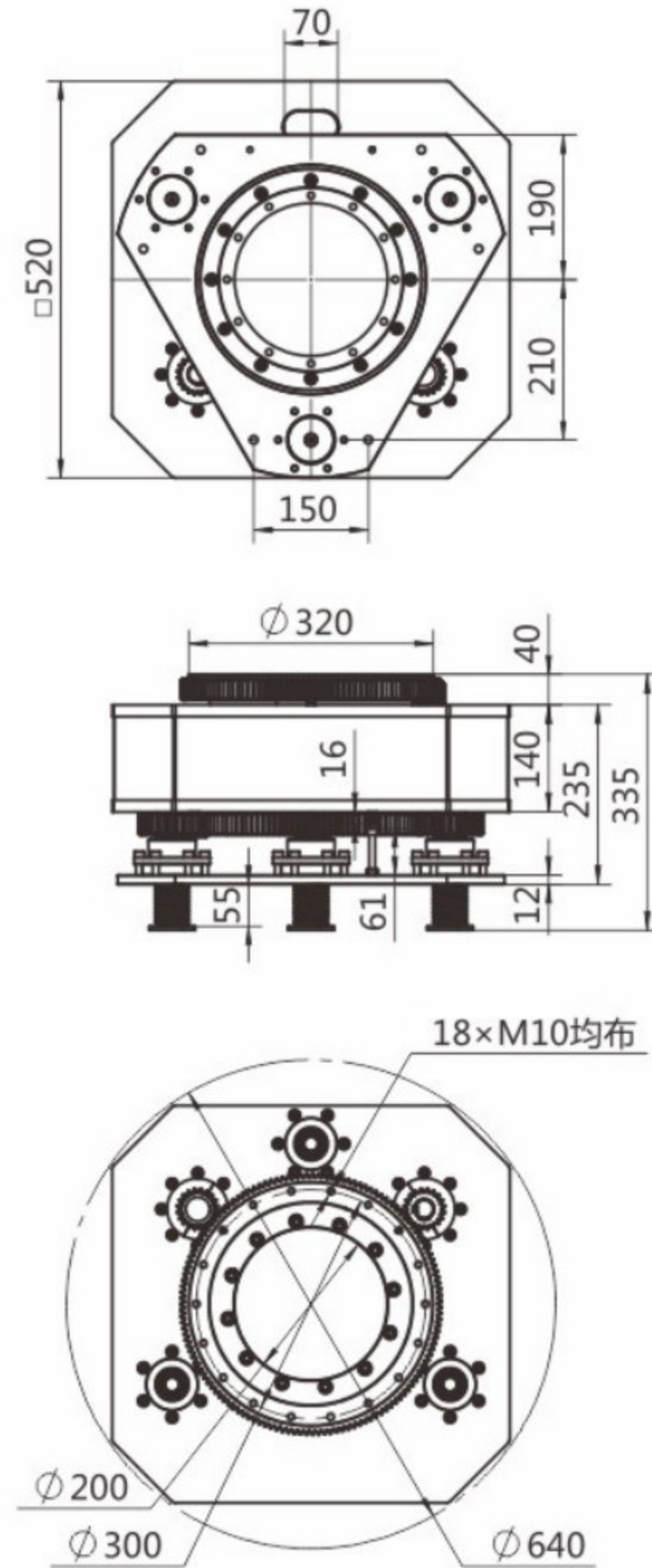
| | | | |
|-----------------------|-----|------|------|
| 负载 Load | Kg | 1500 | 2000 |
| 电机功率 Motor power | W | 750 | 1200 |
| 电机电压 Motor voltage | V | 48 | 48 |
| 电机转速 Motor speed | Rpm | 3000 | 3000 |
| 电机电流 Motor current | A | 19.9 | 32 |
| 额定扭矩 Rated Torque | N-m | 2.39 | 4 |
| 防护等级 Protection level | IP | 65 | 65 |

旋转参数
Rotation parameter

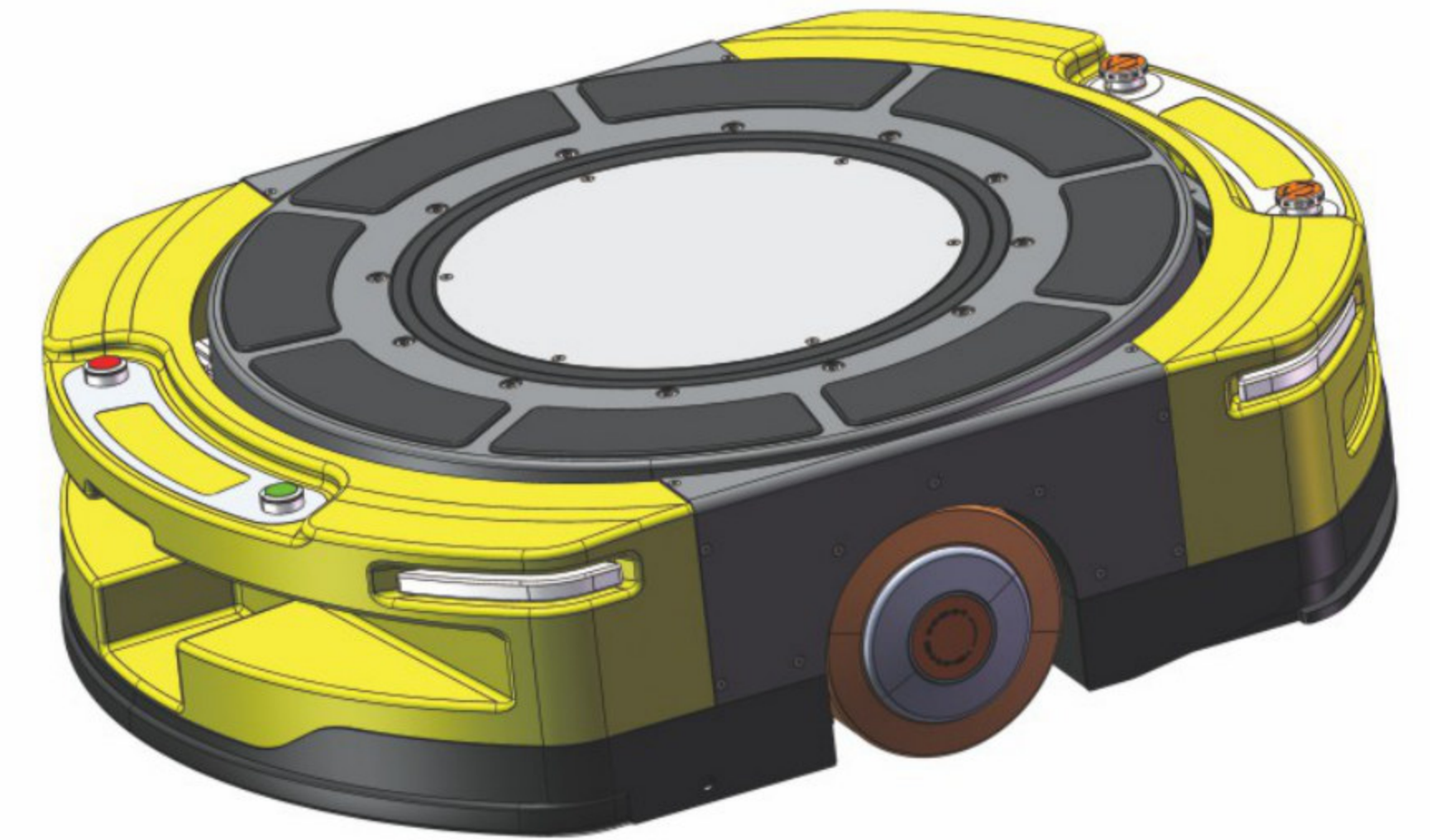
| | | |
|------------------------------|------------|-----------------------------------|
| 类型 Type | X | 行星减速机 Planetary reducer |
| 减速机速比 Speed ratio of reducer | i | 30 |
| 传动齿比 Gear ratio | i | 6.75 |
| 旋转位移 Rotation Displacement | 90/转90/rpm | 1.69 |
| 旋转90° Rotate 90° | s | 1.01 |
| 旋转原点 Origin of rotation | SICK | 常开NPN-24V Regular opening NPN-24V |

其它
Others

| | | |
|---------------------------|------------|-------------|
| 减速机润滑 Reducer lubrication | 润滑脂 Grease | -20° ~ 200° |
| 自重 Self weight | Kg | 约 88.8 |

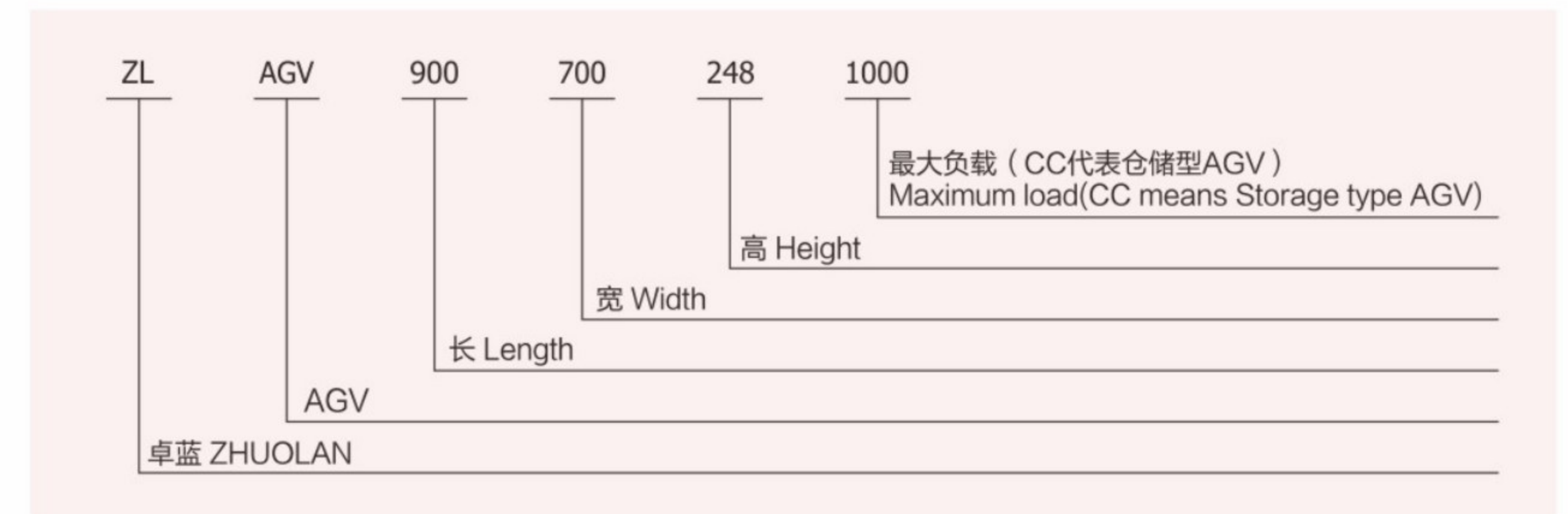


AGV-CC



AGV-CC Series

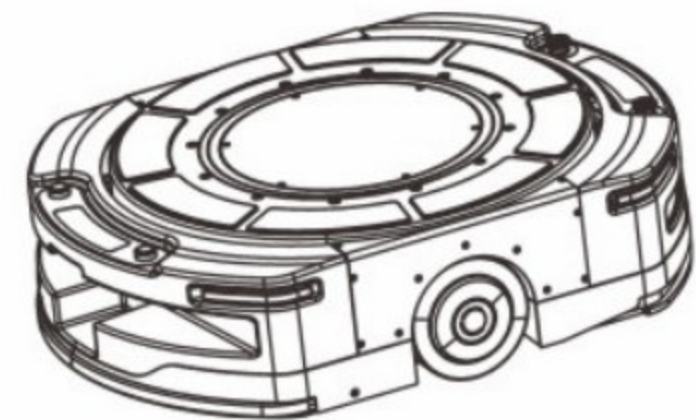
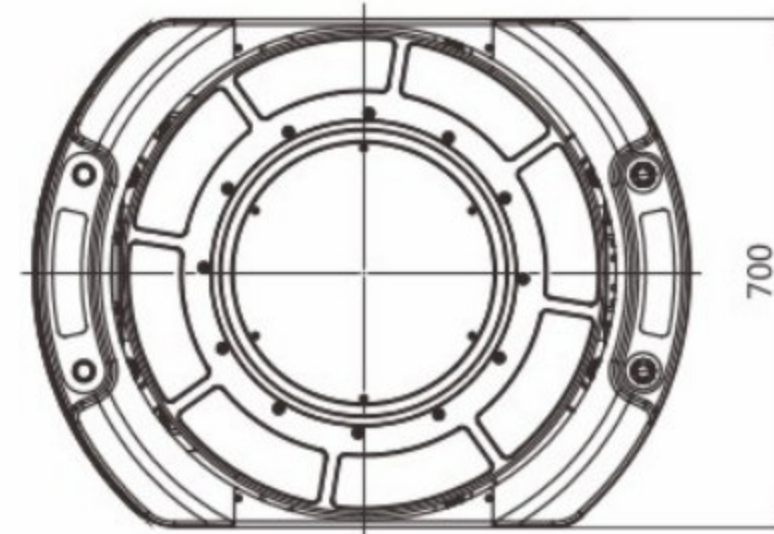
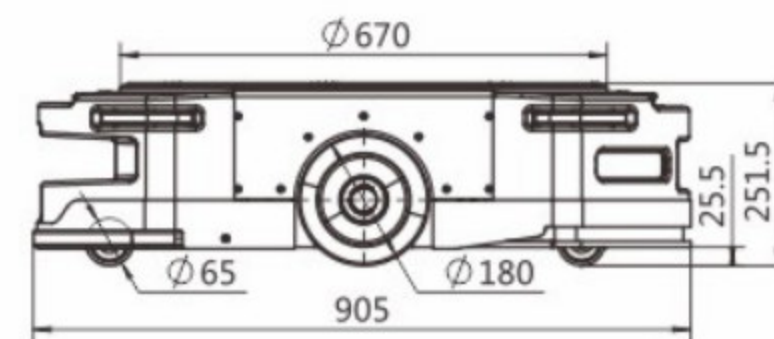
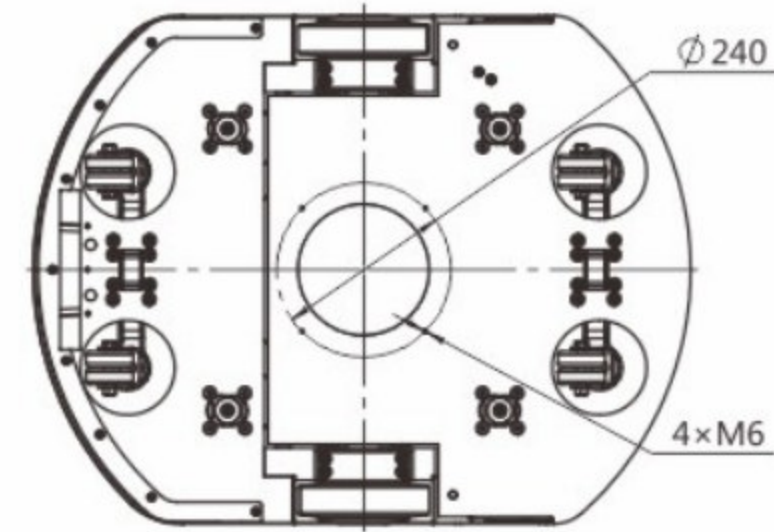
AGV系列型号说明
AGV series model description



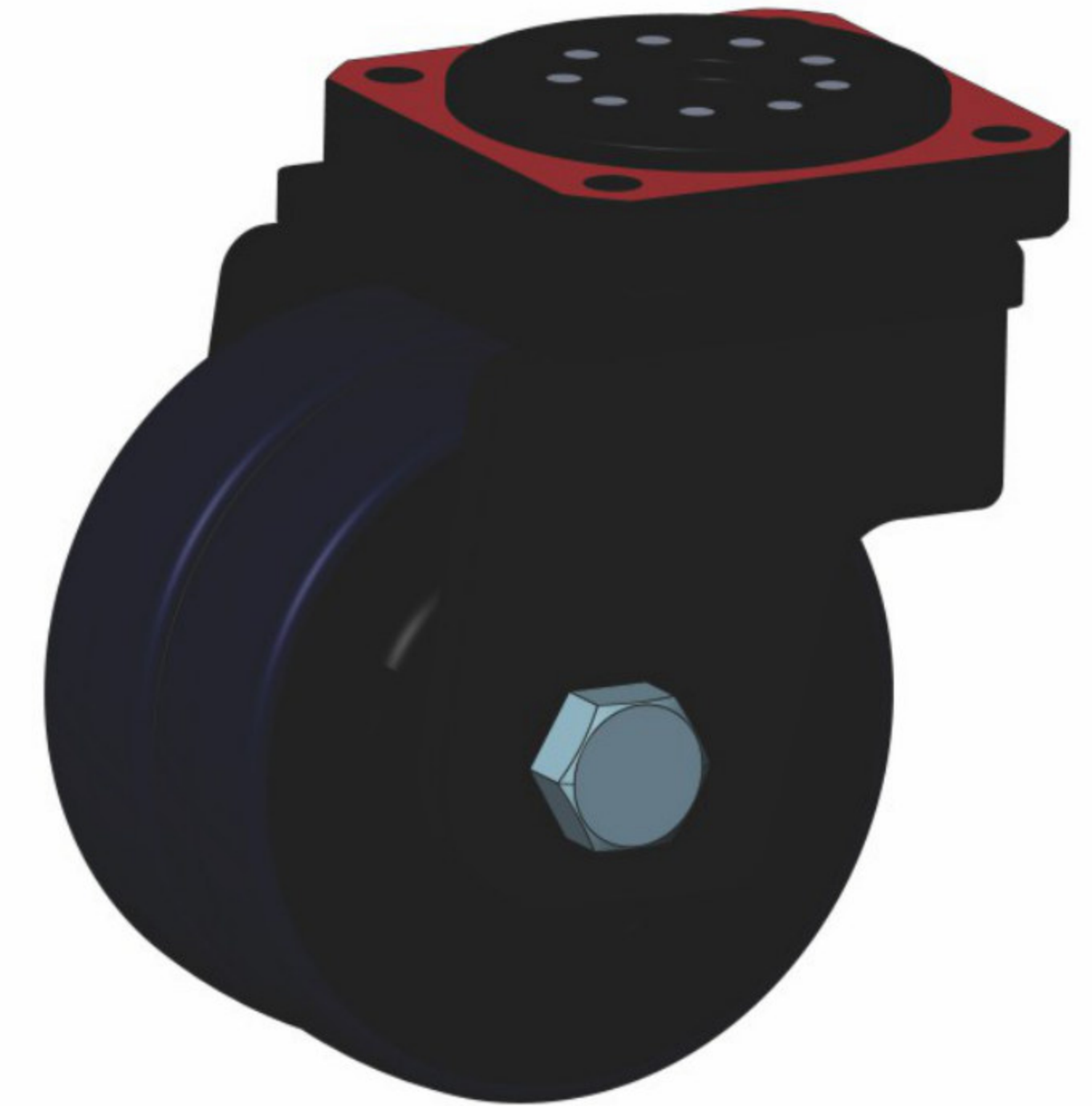
XCS

AGV-CC Series

ZL-AGV-900-700-248-1000



CZSS



牵引电机参数 Parameters of traction motor

| | | | |
|-----------------------|-----|------|------|
| 负载 Load | Kg | 500 | 1000 |
| 电机功率 Motor power | W | 400 | 750 |
| 电机电压 Motor voltage | V | 48 | 48 |
| 电机转速 Motor speed | Rpm | 3000 | 3000 |
| 电机电流 Motor current | A | 10.6 | 19.9 |
| 额定扭矩 Rated Torque | N-m | 1.27 | 2.39 |
| 防护等级 Protection level | IP | 65 | 65 |

牵引减速机参数 Parameters of traction reducer

| | | | |
|---------------------------------|--------------|-------------------------|------|
| 类型 Type | X | 行星减速机 Planetary reducer | |
| 减速机速比 Speed ratio of reducer | i | 16 | |
| 减速机扭矩 Reducer torque | N-m | 105 | |
| 轮径 Wheel diameter | mm | 180 | |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 800 | |
| 橡胶承重 Rubber bearing | Kg | 750 | |
| 最大速度 Maximum velocity | M/min | 106 | |
| 牵引力 Traction | N | 214 | 404 |
| 牵引承重 Traction load | 参考 Reference | 536 | 1009 |

升降旋转电机参数 Parameters of up-and-down Rotary Motor

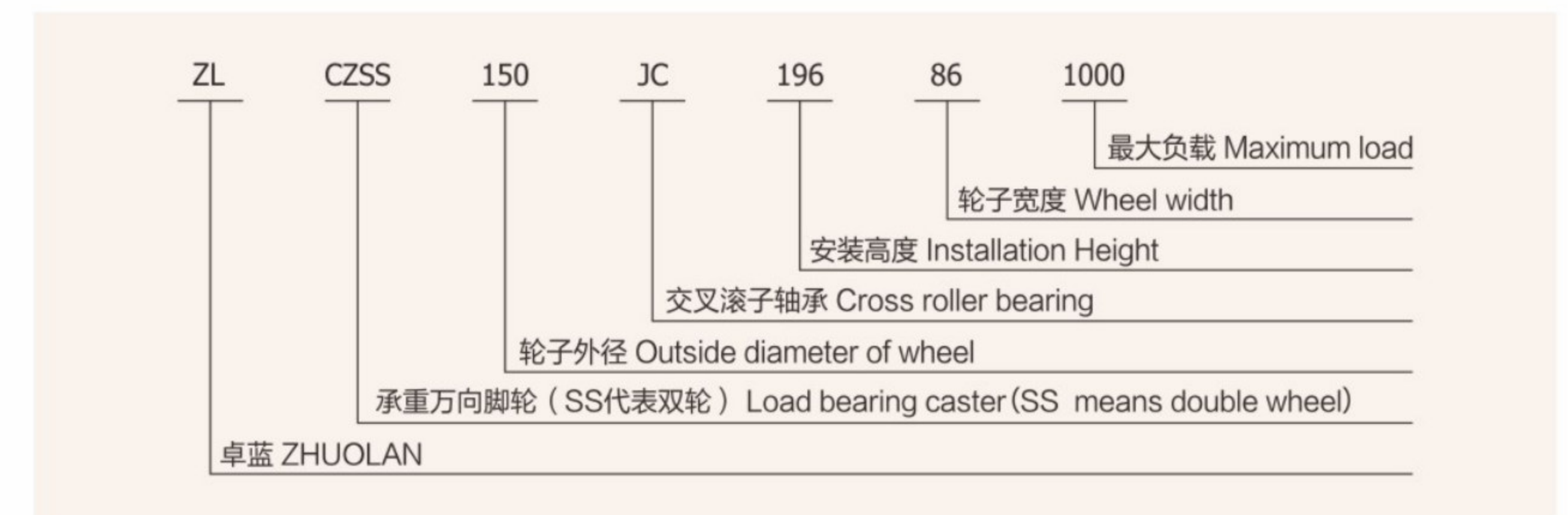
| | | | |
|-----------------------------|------|-----------------------------------|------|
| 电机功率 Motor power | W | 400 | 600 |
| 电机电压 Motor voltage | V | 48 | 48 |
| 电机转速 Motor speed | Rpm | 3000 | 3000 |
| 电机电流 Motor current | A | 10.6 | 18 |
| 额定扭矩 Rated Torque | N-m | 1.27 | 1.91 |
| 升降速比 Up-down ratio | I | 1 : 40 | |
| 升降速度 Up and down speed | mm/s | 7.5 | |
| 旋转速比 Rotational speed ratio | i | 20+(234 : 18) | |
| 旋转位移 Rotation Displacement | 90° | 60转 60rpm | |
| 下限位 Lower bound | SICK | 常开NPN-24V Regular opening NPN-24V | |
| 旋转原点 Origin of rotation | SICK | 常开NPN-24V Regular opening NPN-24V | |

其它 Others

| | | |
|---------------------------|------------|-------------|
| 减速机润滑 Reducer lubrication | 润滑脂 Grease | -20° ~ 200° |
| 自重 Self weight | Kg | 约 133.2 |

CZSS Series

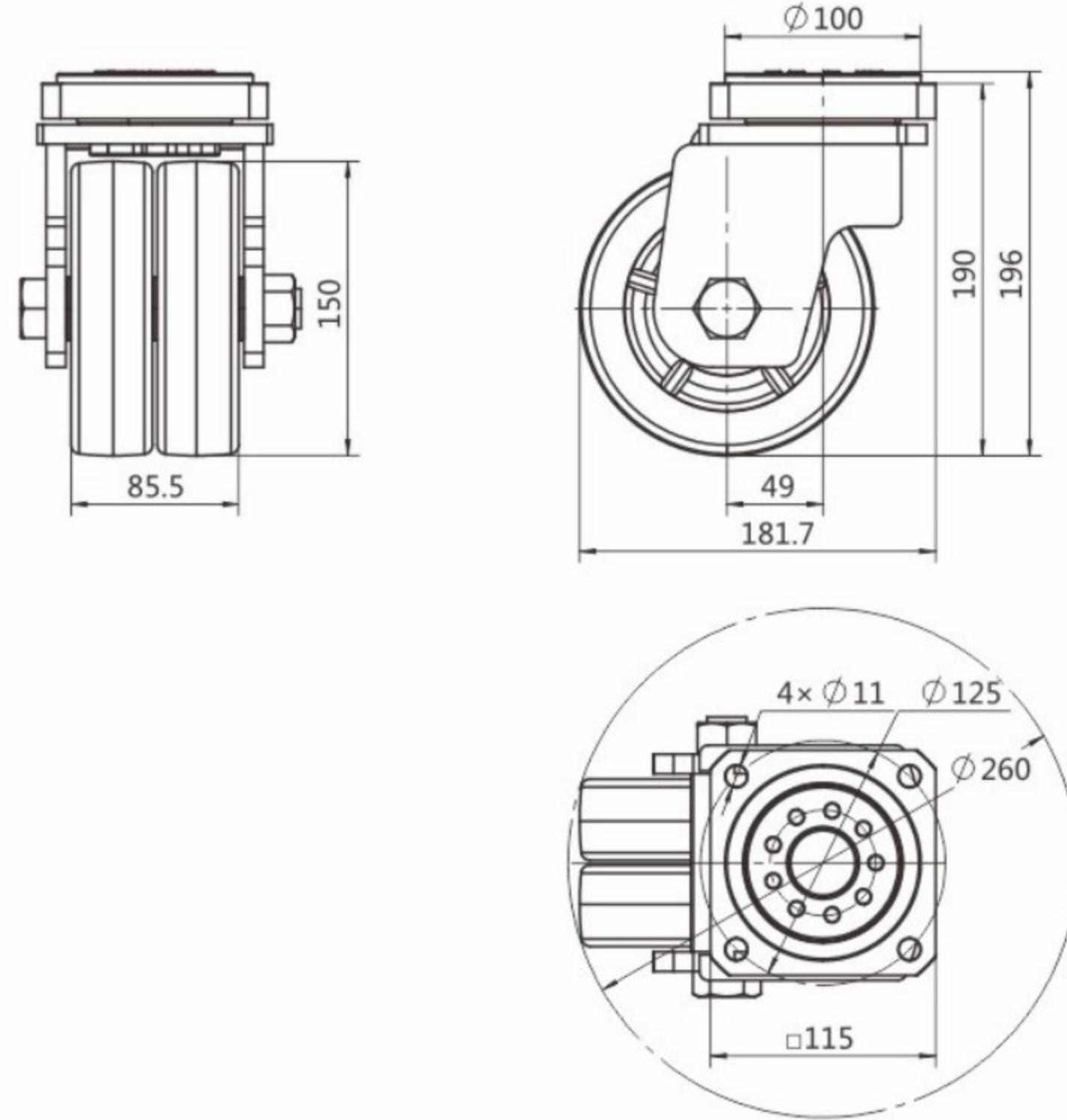
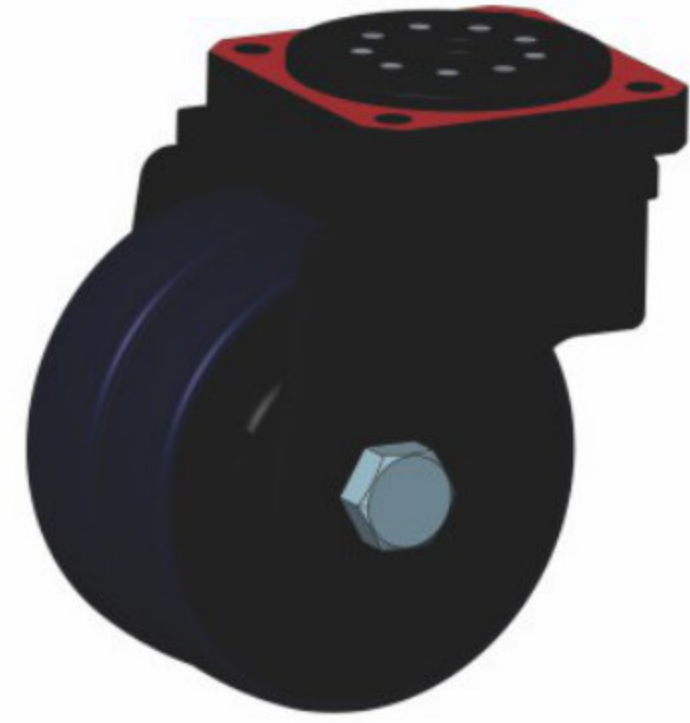
CZSS系列型号说明 CZSS series model description



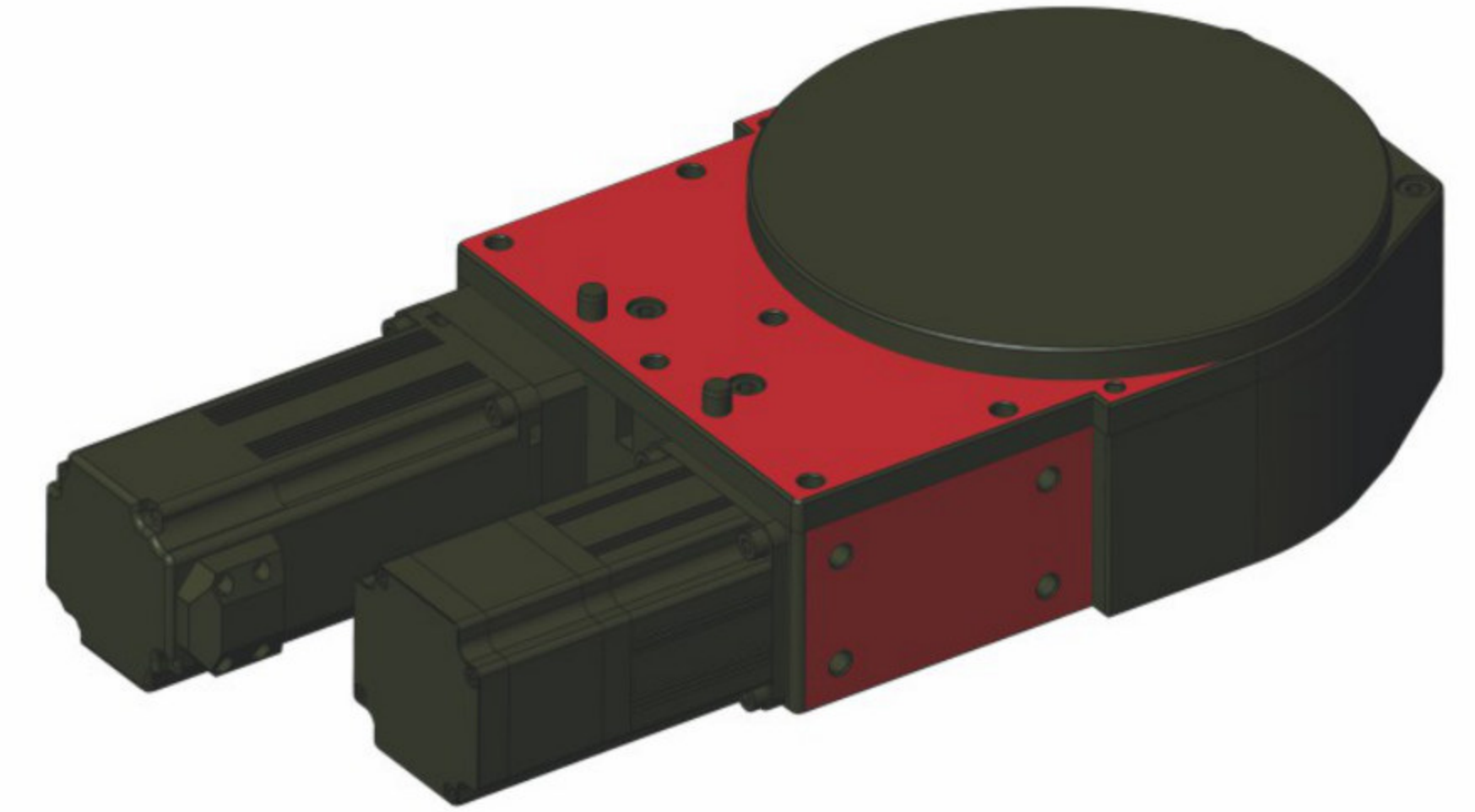
AGV-CC

CZSS Series

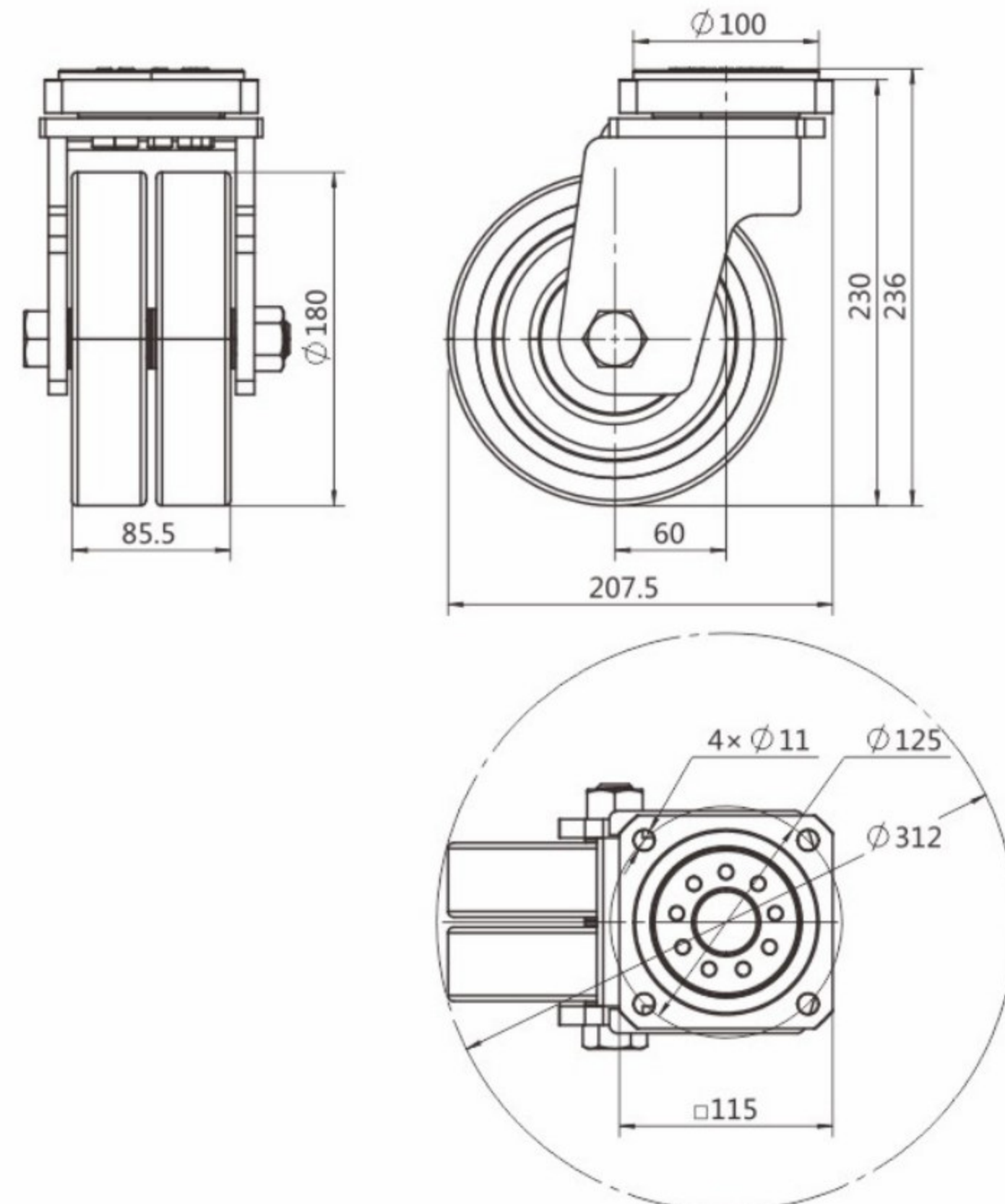
ZL-CZSS-150-JC-196-86-1000



QXC



ZL-CZSS-180-JC-230-86-1500

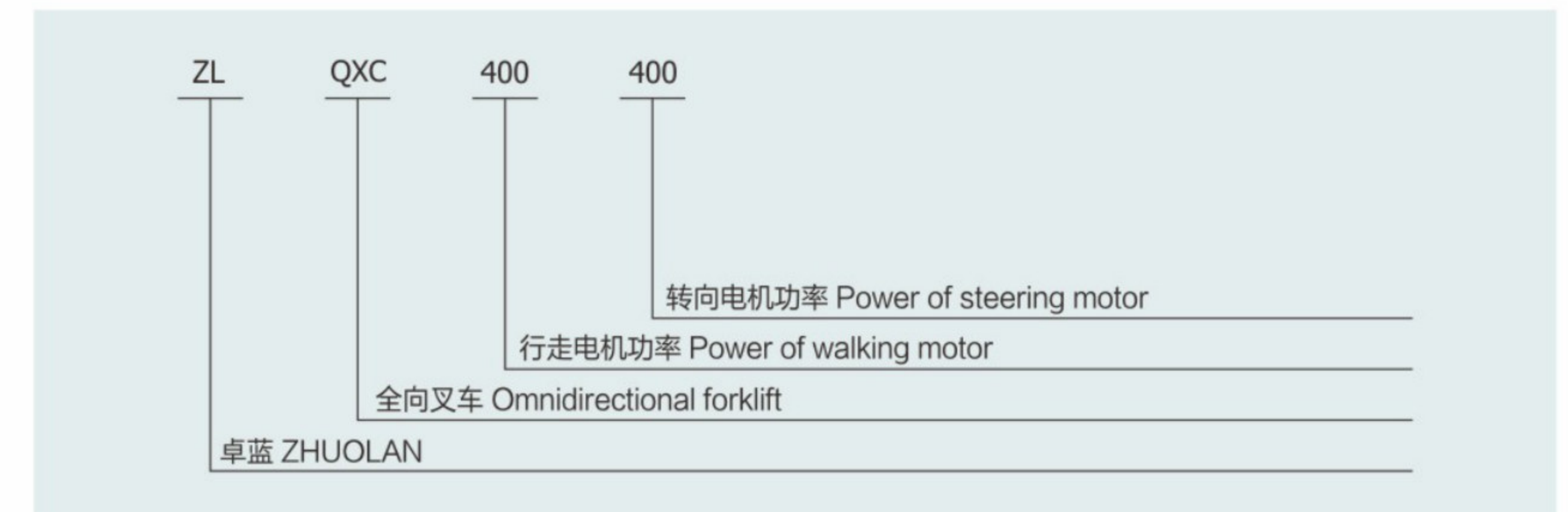


QXC

Series

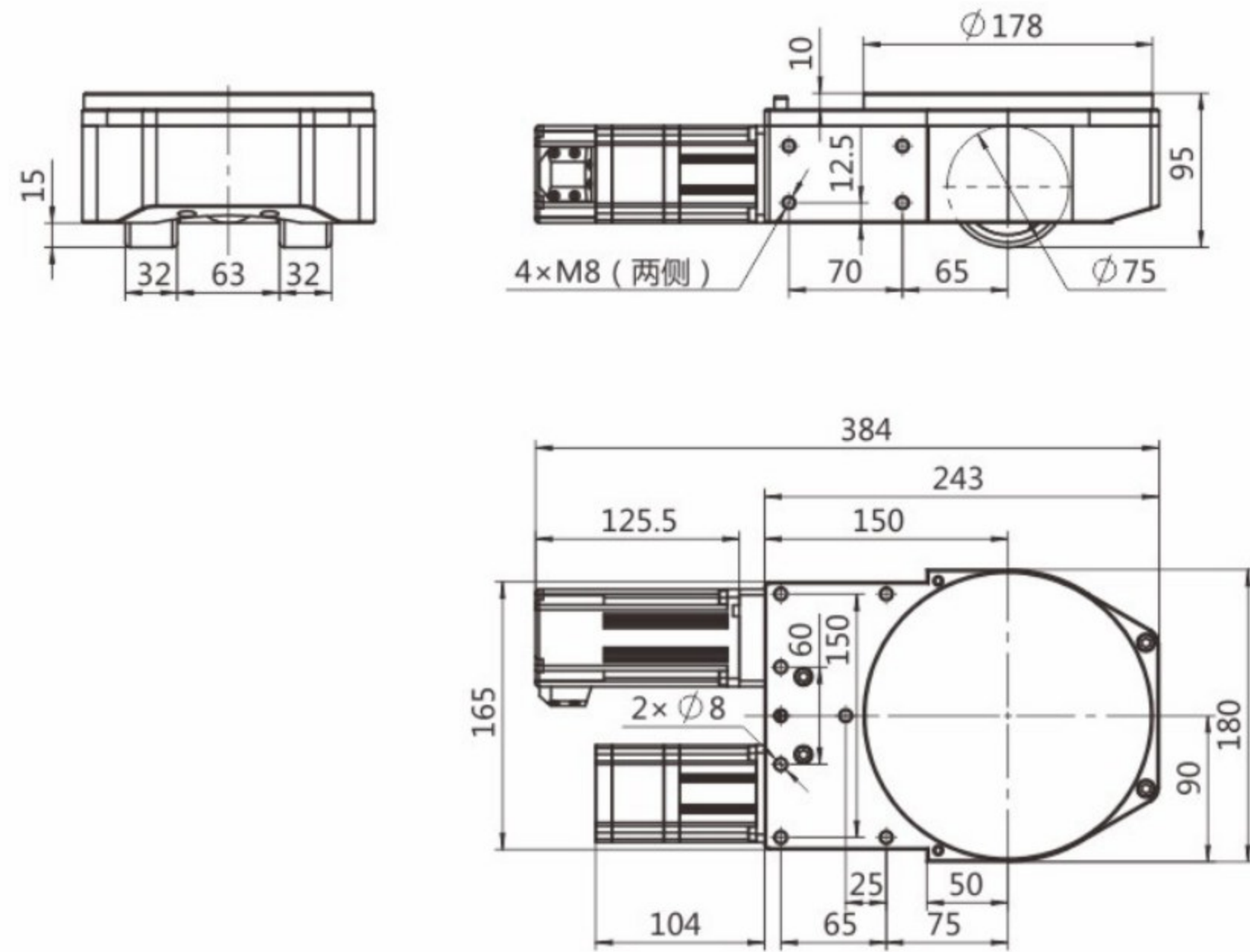
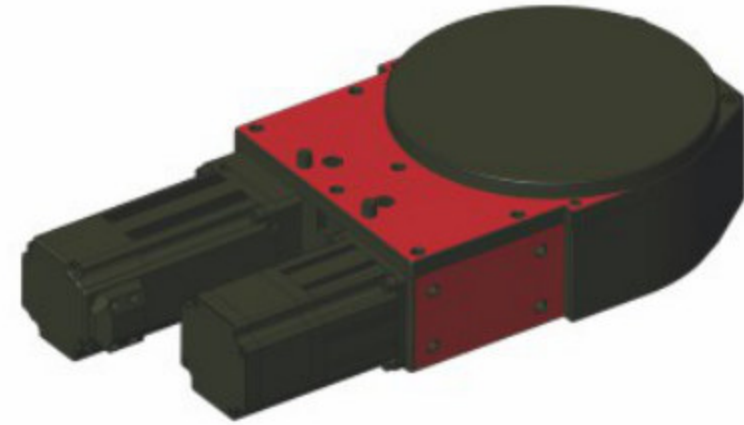
QXC系列型号说明

QXC series model description



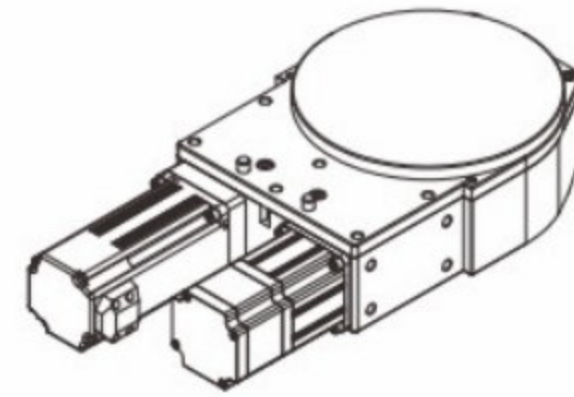
QXC Series

ZL-QXC-400-400



行走电机参数
Parameters of walking motor

| 电机类型 Motor type | | 伺服电机 Servo motor |
|----------------------------------|-------|--------------------|
| 电机额定功率 Rated power of motor | W | 400 |
| 电机额定电压 Rated voltage of motor | V(DC) | 48 |
| 电机额定电流 Rated current of motor | A | 11.95 |
| 电机额定转速 Rated speed of motor | rpm | 3000 |
| 电机额定扭矩 Rated Torque of motor | N-m | 1.27 |
| 防护等级 Protection level | IP | 54 |
| 电机编码器 Motor encoder | | 磁编 Magnetic coding |
| 电机线长 Motor length | m | 2 |
| 行走减速比 Walking reducer | | 7.5 |
| 行走速度 Walking speed | m/min | 94.2 |
| 输出扭矩 Output Torque | N-m | 8.5 |
| 牵引力 Traction | N | 226 |
| 参考牵引重量 Reference Traction weight | Kg | 400 |
| 聚氨酯承重 Polyurethane load-bearing | Kg | 400 |
| 电机制动器电压 Motor brake voltage | V(DC) | 24 |
| 制动器静扭矩 Static Torque of brake | N-m | ≥ 1.5 |



转向电机参数
Steering Motor parameters

| 电机类型 Motor type | | 伺服电机 Servo motor |
|-------------------------------|------------|--------------------|
| 电机额定功率 Rated power of motor | W | 400 |
| 电机额定电压 Rated voltage of motor | V(DC) | 48 |
| 电机额定电流 Rated current of motor | A | 12.5 |
| 电机额定转速 Rated speed of motor | rpm | 3000 |
| 电机额定扭矩 Rated Torque of motor | N-m | 1.27 |
| 防护等级 Protection level | IP | 65 |
| 电机编码器 Motor encoder type | | 绝对值 Absolute value |
| 电机线长 Motor length | m | 2 |
| 总转向速比 Total steering ratio | i | 75 |
| 转向角度 Steering Angle | $^{\circ}$ | 360 |

