

Servo Motor Selection Manual



COMPANY PROFILE

CTB Co., Ltd. was established in 2008, focusing on the field of intelligent manufacturing, providing core components such as servo motors, torque motors, motorized spindles, and professional automation servo control solutions. The company has two wholly-owned subsidiaries, Beijing CTB technology Co., Ltd. (established in 2000) and Shandong CTB Intelligent Equipment Co., Ltd. (established in 2017).

The company is a national high-tech enterprise, a national specialized and innovative "little giant" enterprise, and a listed enterprise on the New Third Board. The company has been recognized as a "National Green Factory" and a "Smart Factory" in Beijing. It is a Beijing patent demonstration unit, a Beijing enterprise technology research and development institution, and a Beijing enterprise technology center.

The company's products include a full range of industrial automation products such as AC servo motors, AC servo drives, PLC, motion controllers, core functional components such as torque motors, motorized spindles, direct drive turntables. The core technology has reached the international advanced level, and key products can replace imported similar products, widely used in CNC machine tools, industrial robots, industrial automation and other fields.

The company has core technologies with independent intellectual property rights, over 300 patents and software copyrights, including more than 30 invention patents. Its servo control system technology is at the leading level in China, and it has mastered core technologies such as servo control space vector algorithm, control software development, servo drive design, servo motor electromagnetic design, and manufacturing processes.

The company has two intelligent equipment industrial parks in Beijing and Shandong, with a business area of 100000 square meters. Advanced equipment, strict management, sufficient production capacity, and strong production and supply capabilities. There are 30 offices nationwide, with a sales and service network covering the north and south of China, providing efficient and professional pre-sales, in sales, and after-sales services for our customers.



CONTENTS

| | |
|--|------|
| Z18 Servo Spindle Motor | P 03 |
| Z18B Servo Motor with Brake | P 12 |
| Z18P Two Speed Servo Spindle Motor | P 21 |
| Z18H Series High speed servo spindle motor | P 26 |
| Z18L Through-Spindle Coolant Servo Spindle Motor | P 30 |
| S18 Permanent Magnet Synchronous Servo Motor | P 34 |
| S18B Series Universal servo motor | P 39 |
| P18S series high response permanent magnet synchronous servo motor | P 43 |
| HPM series low-speed high torque direct drive servo motor | P 49 |
| PWM series high seismic permanent magnet synchronous servo motor | P 54 |
| PDM Series Direct Drive Motors for Screw Presses | P 58 |
| YH Series AC Asynchronous Servo Motors for Slides | P 61 |

Z18 Servo Spindle Motor

- ◆ Power range: 1.1 ~ 400kW
- ◆ Pole number: 4, 6, 8
- ◆ Max. speed: 8000r/min
- ◆ Encoder: Built-in (options: incremental, rotary, SinCos, absolute, single-turn absolute encoder)
- ◆ Cooling: Forced air cooling
- ◆ Duty type: Continuous (S1)
- ◆ Installation structure: B3(V5 V6)/B5(V1 V3)/B35(V15 V35)
- ◆ Noise: $\leq 70\text{dB(A)}$
- ◆ IP rating: IP55 (IEC40034-5)
- ◆ Dielectric strength: AC1800V
- ◆ Class of insulation: Class F
- ◆ Class of vibration: A
- ◆ Ambient temperature: -15 to 45°C
- ◆ Ambient humidity: <95%RH (non-condensing)



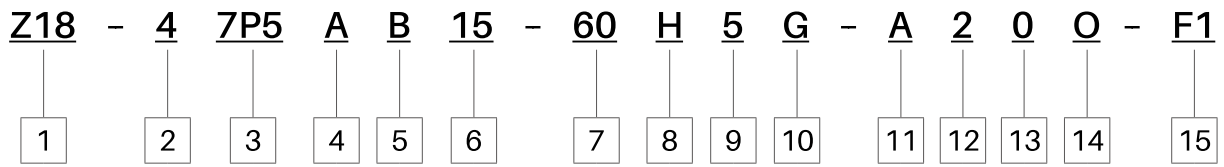
Product Features

- 1、 Optimized structures of stator and rotor models.
- 2、 Closed rotor slots reduce high harmonics and high-speed noise.
- 3、 Absence of casing and built-in air path facilitate efficient heat radiation.
- 4、 Integration of feet with body enhances resistance to vibration.
- 5、 Built-in high precision magnetic encoder facilitates little speed fluctuation.
- 6、 Maintenance-free built-in smart motor data card.

Industry Applications



Model Description (Take 7.5 kW spindle motor for example)



| Code | Description | Instructions | | | | Example Model | |
|------|---|--|------------------------------|------------|----------------------|--|-------|
| 1 | Product series | Z18: Code of the motor series | | | | Z18 series spindle motor | |
| 2 | Voltage rating | 2: 200 V 4: 400 V | | | | 400 V | |
| 3 | Power | See 'Standard Specifications'. | | | | 7.5 kW | |
| 4 | Encoder | Code | Type of Encoder | | | Absolute encoder | |
| | | B | None | | | | |
| | | G | Incremental encoder | 1024p | 2500p | | 8192P |
| | | R | Rotary transformer | | | | 1024P |
| | | S | SinCos encoder | | | | 2048P |
| | | A | Absolute encoder | | | | 23bit |
| | | E | single-turn absolute encoder | | | 17bit | |
| 5 | Frame code | Frame Code | Flange Size (L×W) mm | Frame Code | Flange Size (L×W) mm | Frame B | |
| | | A | 175×175 | E | 320×320 | | |
| | | B | 205×205 | F | 380×380 | | |
| | | C | 265×265 | G | 480×480 | | |
| | | D | 300×300 | H | 580×580 | | |
| 6 | Basic speed | Code | Speed (rpm) | Code | Speed (rpm) | Basic speed : 1500 rpm | |
| | | 05 | 500 | 30 | 3000 | | |
| | | 07 | 750 | 40 | 4000 | | |
| 7 | Speed at constant power | 10 | 1000 | 45 | 4500 | Speed at constant power: 6000 rpm | |
| | | 15 | 1500 | 60 | 6000 | | |
| | | 20 | 2000 | 80 | 8000 | | |
| 8 | Max. speed | Code | Max. Speed (rpm) | Code | Max. Speed (rpm) | Max. speed : 8000 r/min | |
| | | LL | 2500 | H | 8000 | | |
| | | L | 3000 | HF | 10000 | | |
| | | LM | 4500 | F | 12000 | | |
| | | M | 6000 | | | | |
| 9 | Mode of installation | 3: Horizontal 5: Flange mounted 35: Horizontal + flange mounted | | | | Flange mounted | |
| 10 | Shaft extension | G: Bare shaft J: Splined shaft | | | | Bare shaft | |
| 11 | Smart card | A: with N: without | | | | With smart card | |
| 12 | Line incoming direction of junction box | 2: Right incoming line of junction box 3: Left incoming line of junction box 5: Front line of junction box | | | | Right incoming line of junction box | |
| 13 | Incoming line of junction box | 0: Standard junction box + black encoder plug 1: Standard junction box + aerospace encoder plug 2: Waterproof junction box + black encoder plug 3: Waterproof junction box + aerospace encoder plug | | | | Standard junction box + black encoder plug | |
| 14 | Export marking | O: Export motor (not for motors sold nationwide) | | | | Export product | |
| 15 | Code of nonstandard motor part | F1: Shaft extension F4: Stator F7: Encoder F2: Flange F5: Fan F3: Feet F6: Junction box | | | | Nonstandard shaft extension | |

Electrical Specifications

| Frame Code | Motor Model | Rated Power kW | Power for Duty S3 kW | Rated Torque N-m | Torque for Duty S3 N-m | Rated Current A | Rated Voltage V | Pole No. P | Rated Frequency Hz | Rated Speed r/min | Max. Speed at Constant Power r/min | Max. Speed r/min | Rotational Inertia kg·m ² | Weight kg |
|------------|-------------------|----------------|----------------------|------------------|------------------------|----------------------|-------------------|------------|--------------------|-------------------|------------------------------------|------------------|--------------------------------------|-----------|
| Z18A1 | Z18-41P1XA15-XXXX | 1.1 | 1.5 | 7 | 9.6 | 2.5 2.7 3.0 | 380 350 320 | 4 | 53.1 | 1500 | 3000 4500 6000 | 8000 | 0.0034 | 18 |
| Z18A2 | Z18-41P5XA15-XXXX | 1.5 | 2.2 | 9.6 | 14 | 3.3 3.6 4.0 | 380 345 320 | 4 | 53.3 | 1500 | 3000 4500 6000 | 8000 | 0.0039 | 20 |
| Z18A3 | Z18-42P2XA15-XXXX | 2.2 | 3 | 14 | 19.1 | 4.7 5.0 5.6 | 380 355 320 | 4 | 53 | 1500 | 3000 4500 6000 | 8000 | 0.0054 | 24 |
| Z18A4 | Z18-43P7XA15-XXXX | 3.7 | 5.5 | 23.6 | 35 | 7.7 8.1 8.7 | 380 360 335 | 4 | 52.6 | 1500 | 3000 4500 6000 | 8000 | 0.0086 | 33 |
| Z18B1 | Z18-42P2XB10-XXXX | 2.2 | 3.7 | 21 | 35.3 | 4.6 4.8 5.4 | 380 360 320 | 4 | 34.9 | 1000 | 2000 3000 4000 | 6000 | 0.0154 | 38 |
| | Z18-43P7XB15-XXXX | 3.7 | 5.5 | 23.6 | 35 | 7.4 8.1 9.3 | 380 340 300 | 4 | 51.8 | 1500 | 3000 4500 6000 | 8000 | | |
| Z18B2 | Z18-43P7XB10-XXXX | 3.7 | 5.5 | 35.3 | 52.5 | 7.5 8.4 9.3 | 380 335 305 | 4 | 35.1 | 1000 | 2000 3000 4000 | 6000 | 0.0199 | 46 |
| | Z18-45P5XB15-XXXX | 5.5 | 7.5 | 35 | 47.8 | 10.7 12.3 13.4 | 380 330 305 | 4 | 51.8 | 1500 | 3000 4500 6000 | 8000 | | |
| Z18B3 | Z18-45P5XB10-XXXX | 5.5 | 7.5 | 52.5 | 71.6 | 10.9 12.8 14.8 | 380 325 280 | 4 | 35.2 | 1000 | 2000 3000 4000 | 6000 | 0.0256 | 57 |
| | Z18-47P5XB15-XXXX | 7.5 | 11 | 47.8 | 70 | 14.4 15.9 18.0 | 380 345 305 | 4 | 51.8 | 1500 | 3000 4500 6000 | 8000 | | |
| Z18B4 | Z18-46P5XB10-XXXX | 6.5 | 10 | 62.1 | 95.5 | 12.8 14.1 15.9 | 380 345 305 | 4 | 35 | 1000 | 2000 3000 4000 | 6000 | 0.0325 | 71 |
| | Z18-49P5XB15-XXXX | 9.5 | 13 | 60.5 | 82.8 | 17.9 20.3 23.9 | 380 340 290 | 4 | 51.8 | 1500 | 3000 4500 6000 | 8000 | | |
| Z18C1 | Z18-47P5XC10-XXXX | 7.5 | 11 | 71.6 | 105 | 14.4 16.0 18.5 | 380 340 295 | 4 | 34.4 | 1000 | 2000 3000 4000 | 6000 | 0.0717 | 93 |
| | Z18-4011XC15-XXXX | 11 | 15 | 70 | 95.5 | 20.6 23.4 27.2 | 380 335 290 | 4 | 51.1 | 1500 | 3000 4500 6000 | 8000 | | |
| Z18C2 | Z18-47P5XC07-XXXX | 7.5 | 11 | 95.5 | 140 | 14.4 16.4 19.0 | 380 335 290 | 4 | 26.1 | 750 | 1500 2200 3000 | 4500 | 0.089 | 111 |
| | Z18-4011XC10-XXXX | 11 | 15 | 105.1 | 143.3 | 20.6 23.5 26.7 | 380 335 295 | 4 | 34.7 | 1000 | 2000 3000 4000 | 6000 | | |
| | Z18-4015XC15-XXXX | 15 | 22 | 95.5 | 140 | 27.4 31.1 37.8 | 380 340 280 | 4 | 51.2 | 1500 | 3000 4500 6000 | 8000 | | |
| | Z18-4022XC20-XXXX | 22 | 30 | 105.1 | 143.3 | 40.9 46.1 52.6 | 380 335 295 | 4 | 67.7 | 2000 | 4000 6000 8000 | 8000 | | |
| Z18C3 | Z18-4010XC07-XXXX | 10 | 15 | 127.3 | 191 | 19.1 21.8 25.1 | 380 335 290 | 4 | 26.1 | 750 | 1500 2200 3000 | 4500 | 0.1057 | 126 |
| | Z18-4013XC10-XXXX | 13 | 18.5 | 124.2 | 176.7 | 24.4 28.1 33.1 | 380 330 280 | 4 | 34.4 | 1000 | 2000 3000 4000 | 6000 | | |
| | Z18-4018XC15-XXXX | 18.5 | 26 | 117.8 | 166 | 34.5 38.7 43.4 | 380 335 300 | 4 | 51.1 | 1500 | 3000 4500 6000 | 8000 | | |
| Z18C4 | Z18-4011XC07-XXXX | 11 | 15 | 140.1 | 191 | 20.8 24.2 28.3 | 380 330 280 | 4 | 26.1 | 750 | 1500 2200 3000 | 4500 | 0.1186 | 138 |

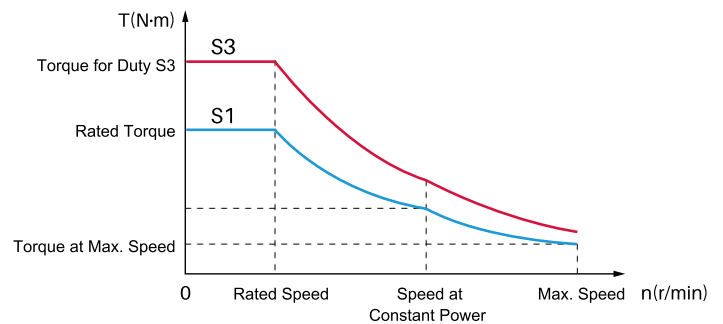
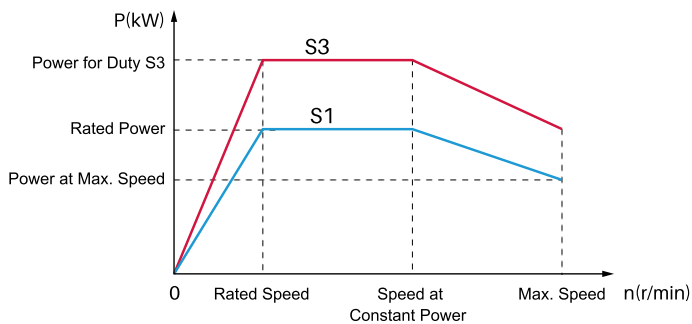
| Frame Code | Motor Model | Rated Power kW | Power for Duty S3 kW | Rated Torque N·m | Torque for Duty S3 N·m | Rated Current A | Rated Voltage V | Pole No. P | Rated Frequency Hz | Rated Speed r/min | Max. Speed at Constant Power r/min | Max. Speed r/min | Rotational Inertia kg·m ² | Weight kg |
|------------|-------------------|----------------|----------------------|------------------|------------------------|----------------------|-------------------|------------|--------------------|-------------------|------------------------------------|------------------|--------------------------------------|-----------|
| Z18C4 | Z18-4015XC10-XXXX | 15 | 22 | 143.3 | 210.1 | 28.3 33.3 36.9 | 380 315 290 | 4 | 34.4 | 1000 | 2000 3000 4000 | 6000 | 0.1186 | 138 |
| | Z18-4022XC15-XXXX | 22 | 30 | 140.1 | 191 | 40.5 45.8 52.1 | 380 335 295 | 4 | 51 | 1500 | 3000 4500 6000 | 8000 | | |
| Z18D1 | Z18-4011XD07-XXXX | 11 | 15 | 140 | 191 | 20.3 21.7 24.5 | 380 355 315 | 4 | 25.8 | 750 | 1500 2200 3000 | 4500 | 0.1587 | 187 |
| | Z18-4015XD10-XXXX | 15 | 22 | 143 | 210.1 | 27.3 28.7 32.3 | 380 360 320 | 4 | 34.1 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4022XD15-XXXX | 22 | 30 | 140 | 191 | 39.0 40.3 45.8 | 380 370 325 | 4 | 50.8 | 1500 | 3000 4500 6000 | 6000 | | |
| Z18D2 | Z18-4013XD07-XXXX | 13 | 18.5 | 166 | 236 | 23.9 25.3 27.5 | 380 360 330 | 4 | 25.7 | 750 | 1500 2200 3000 | 4500 | 0.1882 | 208 |
| | Z18-4018XD10-XXXX | 18.5 | 26 | 177 | 248 | 33.4 36.3 40.9 | 380 350 310 | 4 | 34.1 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4026XD15-XXXX | 26 | 37 | 166 | 236 | 46.1 48.9 53.2 | 380 360 330 | 4 | 50.7 | 1500 | 3000 4500 6000 | 6000 | | |
| Z18D3 | Z18-4011XD05-XXXX | 11 | 15 | 210.1 | 286.5 | 20.7 21.4 24.0 | 380 370 330 | 4 | 17.5 | 500 | 1000 1500 2000 | 2500 | 0.2046 | 221 |
| | Z18-4015XD07-XXXX | 15 | 18.5 | 191 | 235.6 | 27.3 28.0 32.6 | 380 370 320 | 4 | 25.8 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4022XD10-XXXX | 22 | 30 | 210.1 | 286.5 | 39.3 40.7 45.6 | 380 370 330 | 4 | 34.2 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4030XD15-XXXX | 30 | 37 | 191 | 235.6 | 52.7 55.9 65.7 | 380 360 305 | 4 | 50.8 | 1500 | 3000 4500 6000 | 6000 | | |
| Z18D4 | Z18-4013XD05-XXXX | 13 | 18.5 | 248 | 353 | 24.4 26.9 29.9 | 380 345 310 | 4 | 17.4 | 500 | 1000 1500 2000 | 2500 | 0.2505 | 255 |
| | Z18-4018XD07-XXXX | 18.5 | 26 | 236 | 331 | 33.4 34.4 39.9 | 380 370 320 | 4 | 25.8 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4026XD10-XXXX | 26 | 37 | 248 | 353 | 46.7 50.4 57.9 | 380 350 305 | 4 | 34.1 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4037XD15-XXXX | 37 | 55 | 236 | 350 | 65.3 71.9 79.9 | 380 345 310 | 4 | 50.7 | 1500 | 3000 4500 6000 | 6000 | | |
| Z18E1 | Z18-4011XE05-XXXX | 11 | 15 | 210.1 | 286.5 | 20.9 22.0 26.0 | 380 360 305 | 4 | 17.7 | 500 | 1000 1500 2000 | 4500 | 0.2372 | 227 |
| | Z18-4015XE07-XXXX | 15 | 18.5 | 191 | 235.6 | 27.4 30.2 35.4 | 380 345 295 | 4 | 25.8 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4022XE10-XXXX | 22 | 30 | 210.1 | 286.5 | 39.3 44.1 48.5 | 380 340 310 | 4 | 34.3 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4030XE15-XXXX | 30 | 37 | 191 | 235.6 | 52.7 58.4 67.3 | 380 345 300 | 4 | 50.9 | 1500 | 3000 4500 6000 | 6000 | | |
| Z18E2 | Z18-4013XE05-XXXX | 13 | 18.5 | 248 | 353 | 24.4 27.3 30.4 | 380 340 305 | 4 | 17.5 | 500 | 1000 1500 2000 | 2500 | 0.2918 | 260 |
| | Z18-4018XE07-XXXX | 18.5 | 26 | 236 | 331 | 33.8 37.1 42.7 | 380 345 300 | 4 | 25.7 | 750 | 1500 2200 3000 | 4500 | | |

| Frame Code | Motor Model | Rated Power kW | Power for Duty S3 kW | Rated Torque N-m | Torque for Duty S3 N-m | Rated Current A | Rated Voltage V | Pole No. P | Rated Frequency Hz | Rated Speed r/min | Max. Speed at Constant Power r/min | Max. Speed r/min | Rotational Inertia kg-m ² | Weight kg |
|------------|-------------------|----------------|----------------------|------------------|------------------------|------------------------|-------------------|------------|--------------------|-------------------|------------------------------------|------------------|--------------------------------------|-----------|
| Z18E2 | Z18-4026XE10-XXXX | 26 | 37 | 248 | 353 | 46.5 53.3 59.9 | 380 330 295 | 4 | 34.1 | 1000 | 2000 3000 4000 | 4500 | 0.2918 | 260 |
| | Z18-4037XE15-XXXX | 37 | 55 | 236 | 350 | 64.6 72.9 81.0 | 380 340 300 | 4 | 50.8 | 1500 | 3000 4500 6000 | 6000 | | |
| Z18E3 | Z18-4015XE05-XXX | 15 | 22 | 287 | 420 | 27.8 29.4 34.1 | 380 360 310 | 4 | 17.4 | 500 | 1000 1500 2000 | 2500 | 0.3602 | 301 |
| | Z18-4022XE07-XXX | 22 | 30 | 280 | 382 | 39.5 43.0 48.5 | 380 350 310 | 4 | 25.8 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4030XE10-XXX | 30 | 45 | 287 | 430 | 53.2 56.3 66.2 | 380 360 305 | 4 | 34.1 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4045XE15-XXX | 45 | 60 | 287 | 382 | 78.8 87.9 98.2 | 380 340 305 | 4 | 50.7 | 1500 | 3000 4500 6000 | 6000 | | |
| Z18E4 | Z18-4018XE05-XXXX | 18.5 | 26 | 353 | 497 | 34.1 37.1 40.6 | 380 350 320 | 4 | 17.4 | 500 | 1000 1500 2000 | 2500 | 0.4467 | 353 |
| | Z18-4030XE07-XXXX | 30 | 45 | 382 | 573 | 54.3 58.6 68.4 | 380 350 300 | 4 | 25.7 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4037XE10-XXXX | 37 | 55 | 353 | 525 | 65.4 69.7 77.8 | 380 360 320 | 4 | 34 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4055XE15-XXXX | 55 | 75 | 350 | 478 | 96.1 109.2 128.1 | 380 335 285 | 4 | 50.7 | 1500 | 3000 4500 6000 | 6000 | | |
| Z18F1 | Z18-4015XF05-XXXX | 15 | 22 | 287 | 420 | 28 28 31 | 380 375 340 | 4 | 17.3 | 500 | 1000 1500 2000 | 2500 | 0.4133 | 355 |
| | Z18-4022XF07-XXXX | 22 | 30 | 280 | 382 | 40 41 45 | 380 375 335 | 4 | 25.6 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4030XF10-XXXX | 30 | 45 | 287 | 430 | 53 54 60 | 380 375 335 | 4 | 34 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4045XF15-XXXX | 45 | 60 | 287 | 382 | 79 80 | 380 375 | 4 | 50.6 | 1500 | 3000 4500 | 4500 | | |
| Z18F2 | Z18-4018XF05-XXX | 18.5 | 26 | 353 | 497 | 34 35 38 | 380 375 340 | 4 | 17.3 | 500 | 1000 1500 2000 | 2500 | 0.4996 | 398 |
| | Z18-4030XF07-XXX | 30 | 45 | 382 | 573 | 54 55 62 | 380 375 330 | 4 | 25.6 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4037XF10-XXX | 37 | 55 | 353 | 525 | 66 67 74 | 380 375 335 | 4 | 33.9 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4055XF15-XXX | 55 | 75 | 350 | 478 | 97 98 | 380 375 | 4 | 50.6 | 1500 | 3000 4500 | 4500 | | |
| Z18F3 | Z18-4026XF05-XXXX | 26 | 30 | 497 | 573 | 47 48 55 | 380 375 330 | 4 | 17.3 | 500 | 1000 1500 2000 | 2500 | 0.6565 | 478 |
| | Z18-4037XF07-XXXX | 37 | 45 | 471 | 573 | 66 66 75 | 380 375 335 | 4 | 25.6 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4050XF10-XXXX | 50 | 60 | 478 | 573 | 88 89 99 | 380 375 340 | 4 | 33.9 | 1000 | 2000 3000 4000 | 4500 | | |

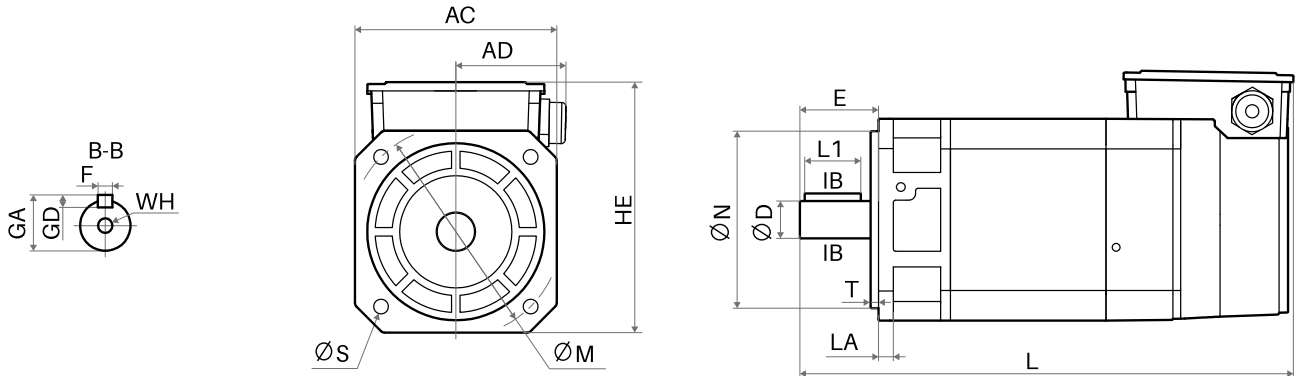
| Frame Code | Motor Model | Rated Power kW | Power for Duty S3 kW | Rated Torque N·m | Torque for Duty S3 N·m | Rated Current A | Rated Voltage V | Pole No. P | Rated Frequency Hz | Rated Speed r/min | Max. Speed at Constant Power r/min | Max. Speed r/min | Rotational Inertia kg·m ² | Weight kg |
|------------|-------------------|----------------|----------------------|------------------|------------------------|-------------------|-------------------|------------|--------------------|-------------------|------------------------------------|------------------|--------------------------------------|-----------|
| Z18F3 | Z18-4075XF15-XXXX | 75 | 90 | 478 | 573 | 131 133 | 380 375 | 4 | 50.6 | 1500 | 3000 4500 | 4500 | 0.6565 | 478 |
| Z18F4 | Z18-4030XF05-XXXX | 30 | 45 | 573 | 860 | 54 55 61 | 380 375 340 | 4 | 17.2 | 500 | 1000 1500 2000 | 2500 | 0.782 | 542 |
| | Z18-4045XF07-XXXX | 45 | 65 | 573 | 828 | 80 80 92 | 380 375 330 | 4 | 25.6 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4060XF10-XXXX | 60 | 90 | 573 | 860 | 106 107 122 | 380 375 330 | 4 | 33.9 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4090XF15-XXXX | 90 | 132 | 573 | 840 | 157 159 | 380 375 | 4 | 50.6 | 1500 | 3000 4500 | 4500 | | |
| Z18G1 | Z18-4030XG05-XXXX | 30 | 45 | 573 | 860 | 55 56 61 | 380 375 345 | 6 | 25.5 | 500 | 1000 1500 2000 | 2500 | 1.813 | 566 |
| | Z18-4045XG07-XXXX | 45 | 65 | 573 | 828 | 81 82 92 | 380 375 335 | 6 | 38 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4060XG10-XXXX | 60 | 90 | 573 | 860 | 106 107 122 | 380 375 335 | 6 | 50.5 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4090XG15-XXXX | 90 | 132 | 573 | 840 | 158 160 | 380 375 | 6 | 75.5 | 1500 | 3000 4500 | 4500 | | |
| Z18G2 | Z18-4037XG05-XXXX | 37 | 45 | 707 | 1051 | 67 68 73 | 380 375 350 | 6 | 25.5 | 500 | 1000 1500 2000 | 2500 | 2.063 | 642 |
| | Z18-4055XG07-XXXX | 55 | 75 | 700 | 955 | 98 99 108 | 380 375 345 | 6 | 38 | 750 | 1500 2200 3000 | 4000 | | |
| | Z18-4075XG10-XXXX | 75 | 110 | 716 | 1051 | 132 133 147 | 380 375 345 | 6 | 50.5 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4110XG15-XXXX | 110 | 160 | 700 | 1019 | 195 197 | 380 375 | 6 | 75.5 | 1500 | 3000 4500 | 4500 | | |
| Z18G3 | Z18-4045XG05-XXXX | 45 | 65 | 860 | 1242 | 82 82 88 | 380 375 350 | 6 | 25.5 | 500 | 1000 1500 2000 | 2500 | 2.555 | 735 |
| | Z18-4066XG07-XXXX | 66 | 90 | 840 | 1146 | 117 118 130 | 380 375 345 | 6 | 38 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4090XG10-XXXX | 90 | 132 | 860 | 1261 | 161 162 176 | 380 375 345 | 6 | 50.5 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4132XG15-XXXX | 132 | 175 | 840 | 1114 | 232 234 | 380 375 | 6 | 75.5 | 1500 | 3000 4500 | 4500 | | |
| Z18G4 | Z18-4055XG05-XXXX | 55 | 75 | 1051 | 1433 | 99 100 107 | 380 375 355 | 6 | 25.5 | 500 | 1000 1500 2000 | 2500 | 3.232 | 877 |
| | Z18-4090XG07-XXXX | 90 | 132 | 1146 | 1681 | 159 160 184 | 380 375 330 | 6 | 38 | 750 | 1500 2200 3000 | 4500 | | |
| | Z18-4110XG10-XXXX | 110 | 160 | 1051 | 1528 | 192 194 205 | 380 375 360 | 6 | 50.5 | 1000 | 2000 3000 4000 | 4500 | | |
| | Z18-4160XG15-XXXX | 160 | 210 | 1019 | 1337 | 284 286 | 380 375 | 6 | 75.5 | 1500 | 3000 4500 | 4500 | | |

| Frame Code | Motor Model | Rated Power kW | Power for Duty S3 kW | Rated Torque N·m | Torque for Duty S3 N·m | Rated Current A | Rated Voltage V | Pole No. P | Rated Frequency Hz | Rated Speed r/min | Max. Speed at Constant Power r/min | Max. Speed r/min | Rotational Inertia kg·m ² | Weight kg |
|------------|-------------------|----------------|----------------------|------------------|------------------------|-------------------|-------------------|------------|--------------------|-------------------|------------------------------------|------------------|--------------------------------------|-----------|
| Z18H1 | Z18-4065XH05-XXXX | 65 | 90 | 1242 | 1719 | 124 141 164 | 380 335 285 | 8 | 33.7 | 500 | 1000 1500 2000 | 2500 | 5.206 | 942 |
| | Z18-4090XH07-XXXX | 90 | 132 | 1146 | 1681 | 168 191 224 | 380 340 290 | 8 | 50.4 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18-4132XH10-XXXX | 132 | 175 | 1261 | 1671 | 245 295 | 380 320 | 8 | 67.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18-4200XH15-XXXX | 200 | 250 | 1273 | 1592 | 378 | 380 | 8 | 100.5 | 1500 | 3000 | 3000 | | |
| Z18H2 | Z18-4090XH05-XXXX | 90 | 132 | 1719 | 2521 | 170 202 223 | 380 320 290 | 8 | 33.7 | 500 | 1000 1500 2000 | 2500 | 6.804 | 1119 |
| | Z18-4132XH07-XXXX | 132 | 175 | 1681 | 2228 | 246 295 344 | 380 320 275 | 8 | 50.4 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18-4160XH10-XXXX | 160 | 200 | 1528 | 1910 | 298 346 | 380 335 | 8 | 67.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18-4250XH15-XXXX | 250 | 315 | 1592 | 2006 | 455 | 380 | 8 | 100.5 | 1500 | 3000 | 3000 | | |
| Z18H3 | Z18-4110XH05-XXXX | 110 | 160 | 2101 | 3056 | 208 245 277 | 380 320 285 | 8 | 33.7 | 500 | 1000 1500 2000 | 2500 | 8.402 | 1300 |
| | Z18-4160XH07-XXXX | 160 | 210 | 2037 | 2674 | 295 336 405 | 380 340 280 | 8 | 50.4 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18-4210XH10-XXXX | 210 | 250 | 2006 | 2388 | 397 442 | 380 340 | 8 | 67.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18-4315XH15-XXXX | 315 | 375 | 2006 | 2388 | 579 | 380 | 8 | 100.5 | 1500 | 3000 | 3000 | | |
| Z18H4 | Z18-4132XH05-XXXX | 132 | 175 | 2521 | 3343 | 250 267 312 | 380 360 305 | 8 | 33.7 | 500 | 1000 1500 2000 | 2500 | 11.278 | 1622 |
| | Z18-4200XH07-XXXX | 200 | 250 | 2547 | 3183 | 378 421 472 | 380 340 305 | 8 | 50.3 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18-4265XH10-XXXX | 265 | 350 | 2531 | 3343 | 485 539 | 380 350 | 8 | 67.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18-4400XH15-XXXX | 400 | 500 | 2547 | 3183 | 754 | 380 | 8 | 100.4 | 1500 | 3000 | 3000 | | |

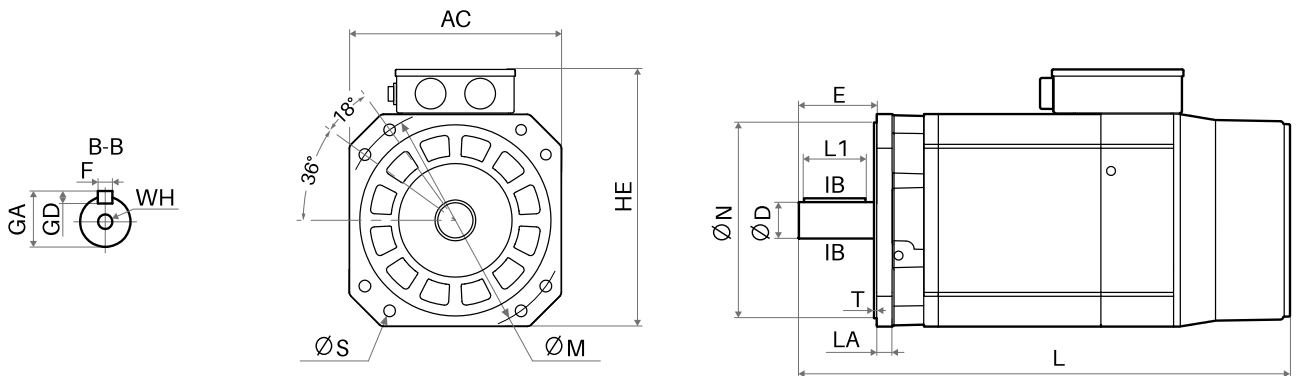
Power Torque Curves



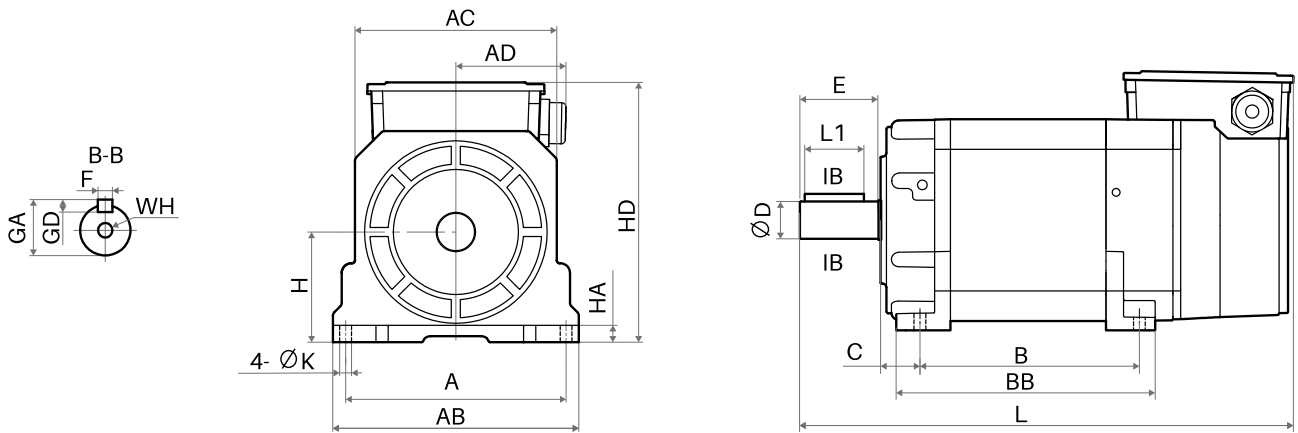
Overall Dimensions



Z18A-Z18E



Z18F-Z18H



Z18A-Z18H

Unit: mm

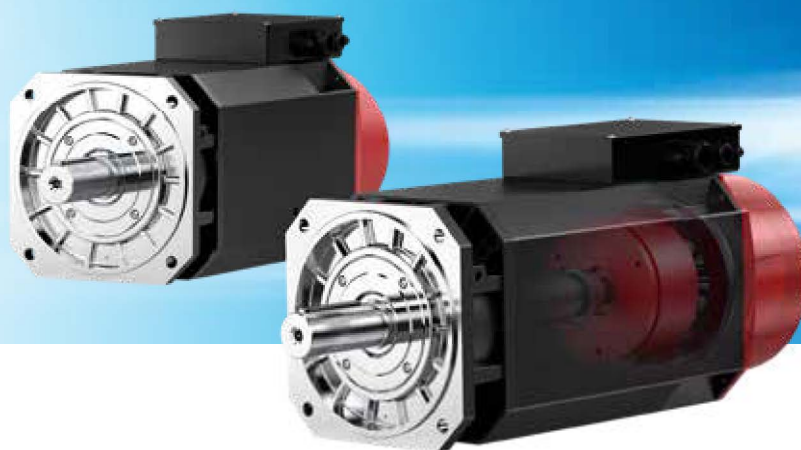
| Frame Code | A | AB | S | K | H | HD | HE | HA | AC | AD | D | E | C | T | B | BB | L | M | N | F | GD | GA | WH | LA | L1 |
|------------|-----|-----|-------|----|-----|-----|-----|----|-----|-----|----|----|----|---|-----|-----|-----|-----|-----|---|----|----|-----|----|----|
| Z18A1 | | | | | | | | | | | | | | | 98 | 128 | 335 | | | | | | | | |
| Z18A2 | 190 | 210 | 4-Φ11 | 11 | 100 | 250 | 230 | 12 | 175 | 132 | 28 | 60 | 38 | 4 | 108 | 138 | 345 | 185 | 150 | 8 | 7 | 31 | M10 | 12 | 45 |
| Z18A3 | | | | | | | | | | | | | | | 133 | 163 | 370 | | | | | | | | |
| Z18A4 | | | | | | | | | | | | | | | 188 | 218 | 425 | | | | | | | | |

Unit: mm

| Frame Code | A | AB | S | K | H | HD | HE | HA | AC | AD | D | E | C | T | B | BB | L | M | N | F | GD | GA | WH | LA | L1 |
|------------|-----|-----|-------|----|-----|-----|-----|----|-----|-----|-----|-----|----|---|-----|-----|------|-----|-----|----|----|------|-----|----|-----|
| Z18B1 | 224 | 250 | 4-Φ13 | 13 | 112 | 275 | 265 | 14 | 205 | 140 | 38 | 80 | 42 | 4 | 160 | 200 | 440 | 215 | 180 | 10 | 8 | 41 | M12 | 14 | 60 |
| Z18B2 | | | | | | | | | | | | | | | 195 | 235 | 475 | | | | | | | | |
| Z18B3 | | | | | | | | | | | | | | | 240 | 280 | 520 | | | | | | | | |
| Z18B4 | | | | | | | | | | | | | | | 295 | 335 | 575 | | | | | | | | |
| Z18C1 | 280 | 315 | 4-Φ15 | 15 | 160 | 365 | 340 | 20 | 265 | 155 | 48 | 110 | 38 | 4 | 235 | 272 | 555 | 265 | 230 | 14 | 9 | 51.5 | M12 | 19 | 90 |
| Z18C2 | | | | | | | | | | | | | | | 280 | 317 | 600 | | | | | | | | |
| Z18C3 | | | | | | | | | | | | | | | 320 | 357 | 640 | | | | | | | | |
| Z18C4 | | | | | | | | | | | | | | | 350 | 387 | 670 | | | | | | | | |
| Z18D1 | 315 | 350 | 4-Φ19 | 15 | 180 | 405 | 375 | 21 | 300 | 155 | 55 | 110 | 50 | 5 | 305 | 360 | 690 | 325 | 280 | 16 | 10 | 59 | M12 | 20 | 90 |
| Z18D2 | | | | | | | | | | | | | | | 360 | 415 | 745 | | | | | | | | |
| Z18D3 | | | | | | | | | | | | | | | 385 | 440 | 770 | | | | | | | | |
| Z18D4 | | | | | | | | | | | | | | | 455 | 510 | 840 | | | | | | | | |
| Z18E1 | 340 | 380 | 4-Φ19 | 17 | 180 | 415 | 395 | 21 | 320 | 155 | 60 | 140 | 55 | 5 | 345 | 410 | 770 | 350 | 300 | 18 | 11 | 64 | M16 | 23 | 110 |
| Z18E2 | | | | | | | | | | | | | | | 405 | 470 | 830 | | | | | | | | |
| Z18E3 | | | | | | | | | | | | | | | 480 | 545 | 905 | | | | | | | | |
| Z18E4 | | | | | | | | | | | | | | | 575 | 640 | 1000 | | | | | | | | |
| Z18F1 | 400 | 440 | 8-Φ19 | 19 | 225 | 505 | 470 | 30 | 380 | 155 | 65 | 140 | 45 | 5 | 380 | 475 | 825 | 400 | 350 | 18 | 11 | 69 | M20 | 25 | 110 |
| Z18F2 | | | | | | | | | | | | | | | 435 | 530 | 880 | | | | | | | | |
| Z18F3 | | | | | | | | | | | | | | | 535 | 614 | 980 | | | | | | | | |
| Z18F4 | | | | | | | | | | | | | | | 615 | 694 | 1060 | | | | | | | | |
| Z18G1 | 500 | 550 | 8-Φ19 | 23 | 280 | 620 | 580 | 35 | 480 | 170 | 80 | 170 | 45 | 5 | 395 | 468 | 910 | 500 | 450 | 22 | 14 | 85 | M20 | 30 | 140 |
| Z18G2 | | | | | | | | | | | | | | | 455 | 528 | 970 | | | | | | | | |
| Z18G3 | | | | | | | | | | | | | | | 535 | 608 | 1050 | | | | | | | | |
| Z18G4 | | | | | | | | | | | | | | | 645 | 718 | 1160 | | | | | | | | |
| Z18H1 | 620 | 680 | 8-Φ24 | 27 | 315 | 712 | 690 | 45 | 580 | 190 | 105 | 170 | 45 | 5 | 460 | 531 | 995 | 600 | 550 | 28 | 16 | 111 | M24 | 38 | 140 |
| Z18H2 | | | | | | | | | | | | | | | 560 | 631 | 1095 | | | | | | | | |
| Z18H3 | | | | | | | | | | | | | | | 660 | 731 | 1195 | | | | | | | | |
| Z18H4 | | | | | | | | | | | | | | | 840 | 911 | 1375 | | | | | | | | |

Z18B Servo Motor With Brake

- ◆ Power range: 1.1 ~ 265kW
- ◆ Pole number: 4, 6, 8
- ◆ Max. speed: 3000r/min
- ◆ Encoder: Built-in (options: incremental, absolute)
- ◆ Cooling: Forced air cooling
- ◆ Duty type: Continuous (S1)
- ◆ Installation structure: B3(V5 V6)/B5(V1 V3)/B35(V15 V35)
- ◆ Noise: $\leq 70\text{dB(A)}$
- ◆ IP rating: IP55 (IEC60034-5)
- ◆ Dielectric strength: AC1800V
- ◆ Class of insulation: Class F
- ◆ Class of vibration: A
- ◆ Ambient temperature: -15 to 45°C
- ◆ Ambient humidity: $<95\%\text{RH}$ (non-condensing)



Product Features

- 1、 Built-in brake.
- 2、 Closed rotor slots reduce high harmonics and high-speed noise.
- 3、 Closed rotor slots reduce high harmonics and high-speed noise.
- 4、 Integration of feet with body enhances resistance to vibration.
- 5、 Built-in high precision magnetic encoder facilitates little speed fluctuation.
- 6、 Maintenance-free built-in smart motor data card.

Industry Applications



Model Description (Take 7.5 kW spindle motor for example)

Z18B - 4 7P5 G B 15 - 30 L 5 G - A 4 0 O - F1

1
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15

| Code | Description | Instructions | Example Model |
|------|---|--|--|
| 1 | Product series | Z18: Code of the motor series | Z18 series spindle motor |
| 2 | Voltage rating | 2: 200V 4: 400V | 400V |
| 3 | Power | See 'Standard Specifications'. | 7.5kW |
| 4 | Encoder | Code Type of Encoder B None G Incremental encoder : 1024p 2500p 8192P A Absolute encoder: 23bit | Incremental encoder |
| 5 | Frame code | Frame Code Flange Size (L×W) mm Frame Code Flange Size (L×W) mm A 175×175 E 320×320 B 205×205 F 380×380 C 265×265 G 480×480 D 300×300 H 580×580 | Frame B |
| 6 | Basic speed | Code Speed (rpm) Code Speed (rpm) 05 500 20 2000 07 750 30 3000 | Basic speed: 1500r/min |
| 7 | Speed at constant power | 10 1000 40 4000 15 1500 45 4500 | Speed at constant power: 3000 r/min |
| 8 | Max. speed | Code Max.Speed (rpm) LL 2500 L 3000 | Max. speed: 3000r/min |
| 9 | Mode of installation | 3: Horizontal 5: Flange mounted 35: Horizontal + flange mounted | Flange mounted |
| 10 | Shaft extension | G: Bare shaft J: Splined shaft | Bare shaft |
| 11 | Smart card | A: with N: without | With smart card |
| 12 | Line incoming direction of junction box | 4: Right incoming line of junction box 5: Front line of junction box | Right incoming line of junction box |
| 13 | Incoming line of junction box | 0: Standard junction box + black encoder plug 1: Standard junction box + aerospace encoder plug | Standard junction box + black encoder plug |
| 14 | Export marking | O: Export motor (not for motors sold nationwide) | Export product |
| 15 | Code of nonstandard motor part | F1: Shaft extension F4: Stator F7: Encoder F2: Flange F5: Fan F3: Feet F6: Junction box | Nonstandard shaft extension |

Electrical Specifications

| Frame Code | Motor Model | Rated Power | Power for Duty S3 | Rated Torque | Torque for Duty S3 | Rated Current | Rated Voltage | Pole No. | Rated Frequency | Rated Speed | Max. Speed at Constant Power | Max. Speed | Rotational Inertia | Weight |
|------------|--------------------|-------------|-------------------|--------------|--------------------|----------------------|-------------------|----------|-----------------|-------------|------------------------------|------------|--------------------|--------|
| | | kW | kW | N·m | N·m | A | V | P | Hz | r/min | r/min | r/min | kg·m ² | kg |
| Z18BA1 | Z18B-41P1XA15-XXXX | 1.1 | 1.5 | 7 | 9.6 | 2.5 | 380 | 4 | 53.1 | 1500 | 3000 | 3000 | 0.0038 | 26 |
| Z18BA2 | Z18B-41P5XA15-XXXX | 1.5 | 2.2 | 9.6 | 14 | 3.3 | 380 | 4 | 53.3 | 1500 | 3000 | 3000 | 0.0043 | 28 |
| Z18BA3 | Z18B-42P2XA15-XXXX | 2.2 | 3 | 14 | 19.1 | 4.7 | 380 | 4 | 53 | 1500 | 3000 | 3000 | 0.0058 | 32 |
| Z18BA4 | Z18B-43P7XA15-XXXX | 3.7 | 5.5 | 23.6 | 35 | 7.7 | 380 | 4 | 52.6 | 1500 | 3000 | 3000 | 0.009 | 41 |
| Z18BB1 | Z18B-42P2XB10-XXXX | 2.2 | 3.7 | 21 | 35.3 | 4.6 4.8 | 380 360 | 4 | 34.9 | 1000 | 2000 3000 | 3000 | 0.0169 | 58 |
| | Z18B-43P7XB15-XXXX | 3.7 | 5.5 | 23.6 | 35 | 7.4 | 380 | 4 | 51.8 | 1500 | 3000 | 3000 | | |
| Z18BB2 | Z18B-43P7XB10-XXXX | 3.7 | 5.5 | 35.3 | 52.5 | 7.5 8.4 | 380 335 | 4 | 35.1 | 1000 | 2000 3000 | 3000 | 0.0214 | 66 |
| | Z18B-45P5XB15-XXXX | 5.5 | 7.5 | 35 | 47.8 | 10.7 | 380 | 4 | 51.8 | 1500 | 3000 | 3000 | | |
| Z18BB3 | Z18B-45P5XB10-XXXX | 5.5 | 7.5 | 52.5 | 71.6 | 10.9 12.8 | 380 325 | 4 | 35.2 | 1000 | 2000 3000 | 3000 | 0.0271 | 77 |
| | Z18B-47P5XB15-XXXX | 7.5 | 11 | 47.8 | 70 | 14.4 | 380 | 4 | 51.8 | 1500 | 3000 | 3000 | | |
| Z18BB4 | Z18B-46P5XB10-XXXX | 6.5 | 10 | 62.1 | 95.5 | 12.8 14.1 | 380 345 | 4 | 35 | 1000 | 2000 3000 | 3000 | 0.034 | 91 |
| | Z18B-49P5XB15-XXXX | 9.5 | 13 | 60.5 | 82.8 | 17.9 | 380 | 4 | 51.8 | 1500 | 3000 | 3000 | | |
| Z18BC1 | Z18B-45P5XC07-XXXX | 5.5 | 7.5 | 70 | 95.5 | 10.7 12.1 13.7 | 380 340 300 | 4 | 26.1 | 750 | 1500 2200 3000 | 3000 | 0.0738 | 118 |
| | Z18B-47P5XC10-XXXX | 7.5 | 11 | 71.6 | 105 | 14.4 16.0 | 380 340 | 4 | 34.4 | 1000 | 2000 3000 | 3000 | | |
| | Z18-4011XC15-XXXX | 11 | 15 | 70 | 95.5 | 20.6 | 380 | 4 | 51.1 | 1500 | 3000 | 3000 | | |
| Z18BC2 | Z18B-47P5XC07-XXXX | 7.5 | 11 | 95.5 | 140 | 14.4 16.4 19.0 | 380 335 290 | 4 | 26.1 | 750 | 1500 2200 3000 | 3000 | 0.0911 | 136 |
| | Z18B-4010XC10-XXXX | 10 | 15 | 95.5 | 143 | 18.7 21.4 | 380 335 | 4 | 34.5 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4015XC15-XXXX | 15 | 22 | 95.5 | 140 | 27.4 | 380 | 4 | 51.2 | 1500 | 3000 | 3000 | | |
| Z18BC3 | Z18B-4010XC07-XXXX | 10 | 15 | 127.3 | 191 | 19.1 21.8 25.1 | 380 335 290 | 4 | 26.1 | 750 | 1500 2200 3000 | 3000 | 0.1078 | 151 |
| | Z18B-4013XC10-XXXX | 13 | 18.5 | 124.2 | 176.7 | 24.4 28.1 | 380 330 | 4 | 34.4 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4018XC15-XXXX | 18.5 | 26 | 117.8 | 166 | 34.5 | 380 | 4 | 51.1 | 1500 | 3000 | 3000 | | |

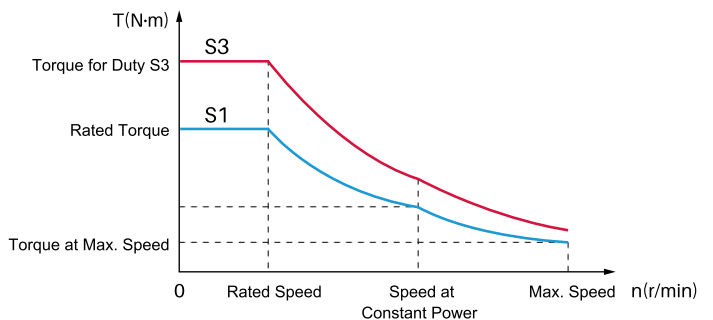
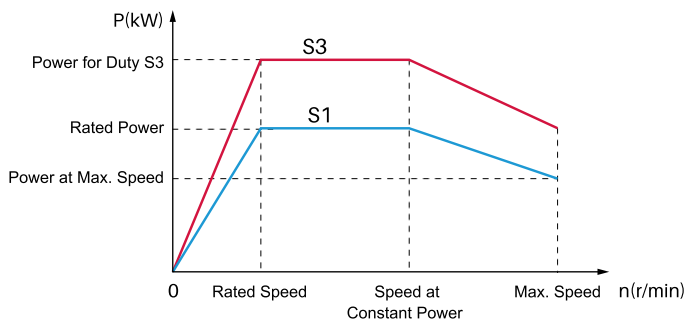
| Frame Code | Motor Model | Rated Power | Power for Duty S3 | Rated Torque | Torque for Duty S3 | Rated Current | Rated Voltage | Pole No. | Rated Frequency | Rated Speed | Max. Speed at Constant Power | Max. Speed | Rotational Inertia | Weight |
|------------|--------------------|-------------|-------------------|--------------|--------------------|----------------------|-------------------|----------|-----------------|-------------|------------------------------|------------|--------------------|--------|
| | | kW | kW | N·m | N·m | A | V | P | Hz | r/min | r/min | r/min | kg·m ² | kg |
| Z18BC4 | Z18B-4011XC07-XXXX | 11 | 15 | 140.1 | 191 | 20.8 24.2 28.3 | 380 330 280 | 4 | 26.1 | 750 | 1500 2200 3000 | 3000 | 0.1207 | 163 |
| | Z18B-4015XC10-XXXX | 15 | 22 | 143.3 | 210.1 | 28.3 33.3 | 380 315 | 4 | 34.4 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4022XC15-XXXX | 22 | 30 | 140.1 | 191 | 40.5 | 380 | 4 | 51 | 1500 | 3000 | 3000 | | |
| Z18BD1 | Z18B-47P5XD05-XXXX | 7.5 | 11 | 143 | 210 | 14.3 15.6 17.6 | 380 350 310 | 4 | 17.5 | 500 | 1000 1500 2000 | 2000 | 0.1618 | 217 |
| | Z18B-4011XD07-XXXX | 11 | 15 | 140 | 191 | 20.3 21.7 24.5 | 380 355 315 | 4 | 25.8 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4015XD10-XXXX | 15 | 22 | 143 | 210 | 27.3 28.7 | 380 360 | 4 | 34.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4022XD15-XXXX | 22 | 30 | 140 | 191 | 39 | 380 | 4 | 50.8 | 1500 | 3000 | 3000 | | |
| Z18BD2 | Z18B-49P5XD05-XXXX | 9.5 | 13 | 181 | 248 | 18.1 19.6 22.1 | 380 350 310 | 4 | 17.4 | 500 | 1000 1500 2000 | 2000 | 0.1913 | 238 |
| | Z18B-4013XD07-XXXX | 13 | 18.5 | 166 | 236 | 23.9 25.3 27.5 | 380 360 330 | 4 | 25.7 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4018XD10-XXXX | 18.5 | 26 | 177 | 248 | 33.4 36.3 | 380 350 | 4 | 34.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4026XD15-XXXX | 26 | 37 | 166 | 236 | 46.1 | 380 | 4 | 50.7 | 1500 | 3000 | 3000 | | |
| Z18BD3 | Z18B-4010XD05-XXXX | 10 | 15 | 191 | 248 | 18.9 19.9 22.4 | 380 360 320 | 4 | 17.4 | 500 | 1000 1500 2000 | 2000 | 0.2077 | 241 |
| | Z18B-4015XD07-XXXX | 15 | 18.5 | 191 | 235.6 | 27.3 28.0 32.6 | 380 370 320 | 4 | 25.8 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4020XD10-XXXX | 20 | 30 | 191 | 248 | 36.0 37.9 | 380 360 | 4 | 34.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4030XD15-XXXX | 30 | 37 | 191 | 235.6 | 52.7 | 380 | 4 | 50.8 | 1500 | 3000 | 3000 | | |
| Z18BD4 | Z18B-4013XD05-XXXX | 13 | 18.5 | 248 | 353 | 24.4 26.9 29.9 | 380 345 310 | 4 | 17.4 | 500 | 1000 1500 2000 | 2000 | 0.2536 | 285 |
| | Z18B-4018XD07-XXXX | 18.5 | 26 | 236 | 331 | 33.4 34.4 39.9 | 380 370 320 | 4 | 25.8 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4026XD10-XXXX | 26 | 37 | 248 | 353 | 46.7 50.4 | 380 350 | 4 | 34.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4037XD15-XXXX | 37 | 55 | 236 | 350 | 65.3 | 380 | 4 | 50.7 | 1500 | 3000 | 3000 | | |
| Z18BE1 | Z18B-4015XE07-XXXX | 15 | 18.5 | 191 | 235.6 | 27.4 30.2 35.4 | 380 345 295 | 4 | 25.8 | 750 | 1500 2200 3000 | 3000 | 0.2413 | 267 |
| | Z18B-4020XE10-XXXX | 20 | 30 | 191 | 248 | 35.8 40.4 | 380 340 | 4 | 34.2 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4030XE15-XXXX | 30 | 37 | 191 | 235.6 | 52.7 | 380 | 4 | 50.9 | 1500 | 3000 | 3000 | | |

| Frame Code | Motor Model | Rated Power | Power for Duty S3 | Rated Torque | Torque for Duty S3 | Rated Current | Rated Voltage | Pole No. | Rated Frequency | Rated Speed | Max. Speed at Constant Power | Max. Speed | Rotational Inertia | Weight |
|------------|--------------------|-------------|-------------------|--------------|--------------------|----------------------|-------------------|----------|-----------------|-------------|------------------------------|------------|--------------------|--------|
| | | kW | kW | N·m | N·m | A | V | P | Hz | r/min | r/min | r/min | kg·m ² | kg |
| Z18BE2 | Z18B-4013XE05-XXXX | 13 | 18.5 | 248 | 353 | 24.4 27.3 30.4 | 380 340 305 | 4 | 17.5 | 500 | 1000 1500 2000 | 2500 | 0.2959 | 300 |
| | Z18B-4018XE07-XXXX | 18.5 | 26 | 236 | 331 | 33.8 37.1 42.7 | 380 345 300 | 4 | 25.7 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4026XE10-XXXX | 26 | 37 | 248 | 353 | 46.5 53.3 | 380 330 | 4 | 34.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4037XE15-XXXX | 37 | 55 | 236 | 350 | 64.6 | 380 | 4 | 50.8 | 1500 | 3000 | 3000 | | |
| Z18BE3 | Z18B-4015XE05-XXX | 15 | 22 | 287 | 420 | 27.8 29.4 34.1 | 380 360 310 | 4 | 17.4 | 500 | 1000 1500 2000 | 2500 | 0.3643 | 341 |
| | Z18B-4022XE07-XXX | 22 | 30 | 280 | 382 | 39.5 43.0 48.5 | 380 350 310 | 4 | 25.8 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4030XE10-XXX | 30 | 45 | 287 | 430 | 53.2 56.3 | 380 360 | 4 | 34.1 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4045XE15-XXX | 45 | 60 | 287 | 382 | 78.8 | 380 | 4 | 50.7 | 1500 | 3000 | 3000 | | |
| Z18BE4 | Z18B-4018XE05-XXXX | 18.5 | 26 | 353 | 497 | 34.1 37.1 40.6 | 380 350 320 | 4 | 17.4 | 500 | 1000 1500 2000 | 2500 | 0.4508 | 393 |
| | Z18B-4030XE07-XXXX | 30 | 45 | 382 | 573 | 54.3 58.6 68.4 | 380 350 300 | 4 | 25.7 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4037XE10-XXXX | 37 | 55 | 353 | 525 | 65.4 69.7 | 380 360 | 4 | 34 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4055XE15-XXXX | 55 | 75 | 350 | 478 | 96.1 | 380 | 4 | 50.7 | 1500 | 3000 | 3000 | | |
| Z18BF1 | Z18B-4015XF05-XXXX | 15 | 22 | 287 | 420 | 28 28 31 | 380 375 340 | 4 | 17.3 | 500 | 1000 1500 2000 | 2500 | 0.4313 | 425 |
| | Z18B-4022XF07-XXXX | 22 | 30 | 280 | 382 | 40 41 45 | 380 375 335 | 4 | 25.6 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4030XF10-XXXX | 30 | 45 | 287 | 430 | 53 54 | 380 375 | 4 | 34 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4045XF15-XXXX | 45 | 60 | 287 | 382 | 79 | 380 | 4 | 50.6 | 1500 | 3000 | 3000 | | |
| Z18BF2 | Z18B-4018XF05-XXX | 18.5 | 26 | 353 | 497 | 34 35 38 | 380 375 340 | 4 | 17.3 | 500 | 1000 1500 2000 | 2500 | 0.5176 | 468 |
| | Z18B-4030XF07-XXX | 30 | 45 | 382 | 573 | 54 55 62 | 380 375 330 | 4 | 25.6 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4037XF10-XXX | 37 | 55 | 353 | 525 | 66 67 | 380 375 | 4 | 33.9 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4055XF15-XXX | 55 | 75 | 350 | 478 | 97 | 380 | 4 | 50.6 | 1500 | 3000 | 3000 | | |
| Z18BF3 | Z18B-4026XF05-XXXX | 26 | 30 | 497 | 573 | 47 48 55 | 380 375 330 | 4 | 17.3 | 500 | 1000 1500 2000 | 2500 | 0.6745 | 548 |

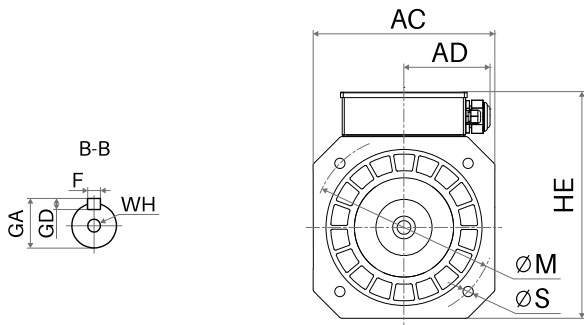
| Frame Code | Motor Model | Rated Power | Power for Duty S3 | Rated Torque | Torque for Duty S3 | Rated Current | Rated Voltage | Pole No. | Rated Frequency | Rated Speed | Max. Speed at Constant Power | Max. Speed | Rotational Inertia | Weight |
|------------|--------------------|-------------|-------------------|--------------|--------------------|-------------------|-------------------|----------|-----------------|-------------|------------------------------|------------|--------------------|--------|
| | | kW | kW | N·m | N·m | A | V | P | Hz | r/min | r/min | r/min | kg·m ² | kg |
| Z18BF3 | Z18B-4037XF07-XXXX | 37 | 45 | 471 | 573 | 66 66 75 | 380 375 335 | 4 | 25.6 | 750 | 1500 2200 3000 | 3000 | 0.6745 | 548 |
| | Z18B-4050XF10-XXXX | 50 | 60 | 478 | 573 | 88 89 | 380 375 | 4 | 33.9 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4075XF15-XXXX | 75 | 90 | 478 | 573 | 131 | 380 | 4 | 50.6 | 1500 | 3000 | 3000 | | |
| Z18BF4 | Z18B-4030XF05-XXXX | 30 | 45 | 573 | 860 | 54 55 61 | 380 375 340 | 4 | 17.2 | 500 | 1000 1500 2000 | 2500 | 0.8 | 612 |
| | Z18B-4045XF07-XXXX | 45 | 65 | 573 | 828 | 80 80 92 | 380 375 330 | 4 | 25.6 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4060XF10-XXXX | 60 | 90 | 573 | 860 | 106 107 | 380 375 | 4 | 33.9 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4090XF15-XXXX | 90 | 132 | 573 | 840 | 157 | 380 | 4 | 50.6 | 1500 | 3000 | 3000 | | |
| Z18BG1 | Z18B-4030XG05-XXXX | 30 | 45 | 573 | 860 | 55 56 61 | 380 375 345 | 6 | 25.5 | 500 | 1000 1500 2000 | 2500 | 1.882 | 666 |
| | Z18B-4045XG07-XXXX | 45 | 65 | 573 | 828 | 81 82 92 | 380 375 335 | 6 | 38 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4060XG10-XXXX | 60 | 90 | 573 | 860 | 106 107 | 380 375 | 6 | 50.5 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4090XG15-XXXX | 90 | 132 | 573 | 840 | 158 | 380 | 6 | 75.5 | 1500 | 3000 | 3000 | | |
| Z18BG2 | Z18B-4037XG05-XXXX | 37 | 45 | 707 | 860 | 67 68 73 | 380 375 350 | 6 | 25.5 | 500 | 1000 1500 2000 | 2500 | 2.132 | 742 |
| | Z18B-4055XG07-XXXX | 55 | 75 | 700 | 955 | 98 99 108 | 380 375 345 | 6 | 38 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4075XG10-XXXX | 75 | 110 | 716 | 1051 | 132 133 | 380 375 | 6 | 50.5 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4110XG15-XXXX | 110 | 160 | 700 | 1019 | 195 | 380 | 6 | 75.5 | 1500 | 3000 | 3000 | | |
| Z18BG3 | Z18B-4045XG05-XXXX | 45 | 65 | 860 | 1242 | 82 82 88 | 380 375 350 | 6 | 25.5 | 500 | 1000 1500 2000 | 2500 | 2.624 | 835 |
| | Z18B-4066XG07-XXXX | 66 | 90 | 840 | 1146 | 117 118 130 | 380 375 345 | 6 | 38 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4090XG10-XXXX | 90 | 132 | 860 | 1261 | 161 162 | 380 375 | 6 | 50.5 | 1000 | 2000 3000 | 3000 | | |
| | Z18B-4132XG15-XXXX | 132 | 175 | 840 | 1114 | 232 | 380 | 6 | 75.5 | 1500 | 3000 | 3000 | | |
| Z18BG4 | Z18B-4055XG05-XXXX | 55 | 75 | 1051 | 1433 | 99 100 107 | 380 375 355 | 6 | 25.5 | 500 | 1000 1500 2000 | 2500 | 3.301 | 977 |
| | Z18B-4090XG07-XXXX | 90 | 132 | 1146 | 1681 | 159 160 184 | 380 375 330 | 6 | 38 | 750 | 1500 2200 3000 | 3000 | | |
| | Z18B-4110XG10-XXXX | 110 | 160 | 1051 | 1528 | 192 194 | 380 375 | 6 | 50.5 | 1000 | 2000 3000 | 3000 | | |

| Frame Code | Motor Model | Rated Power | Power for Duty S3 | Rated Torque | Torque for Duty S3 | Rated Current | Rated Voltage | Pole No. | Rated Frequency | Rated Speed | Max. Speed at Constant Power | Max. Speed | Rotational Inertia | Weight |
|------------|--------------------|-------------|-------------------|--------------|--------------------|-------------------|-------------------|----------|-----------------|-------------|------------------------------|------------|--------------------|--------|
| | | kW | kW | N·m | N·m | A | V | P | Hz | r/min | r/min | r/min | kg·m ² | kg |
| Z18BG4 | Z18B-4160XG15-XXXX | 160 | 210 | 1019 | 1337 | 284 | 380 | 6 | 75.5 | 1500 | 3000 | 3000 | 3.301 | 977 |
| Z18BH1 | Z18B-4065XH05-XXXX | 65 | 90 | 1242 | 1719 | 124 141 164 | 380 335 285 | 8 | 33.7 | 500 | 1000 1500 2000 | 2500 | 5.353 | 1132 |
| | Z18B-4090XH07-XXXX | 90 | 132 | 1146 | 1681 | 168 191 | 380 340 | 8 | 50.4 | 750 | 1500 2200 | 2500 | | |
| | Z18B-4132XH10-XXXX | 132 | 175 | 1261 | 1671 | 245 | 380 | 8 | 67.1 | 1000 | 2000 | 2500 | | |
| Z18BH2 | Z18B-4090XH05-XXXX | 90 | 132 | 1719 | 2521 | 170 202 223 | 380 320 290 | 8 | 33.7 | 500 | 1000 1500 2000 | 2500 | 6.951 | 1309 |
| | Z18B-4132XH07-XXXX | 132 | 175 | 1681 | 2228 | 246 295 | 380 320 | 8 | 50.4 | 750 | 1500 2200 | 2500 | | |
| | Z18B-4160XH10-XXXX | 160 | 200 | 1528 | 1910 | 298 | 380 | 8 | 67.1 | 1000 | 2000 | 2500 | | |
| Z18BH3 | Z18B-4110XH05-XXXX | 110 | 160 | 2101 | 3056 | 208 245 277 | 380 320 285 | 8 | 33.7 | 500 | 1000 1500 2000 | 2500 | 8.549 | 1490 |
| | Z18B-4160XH07-XXXX | 160 | 210 | 2037 | 2674 | 295 336 | 380 340 | 8 | 50.4 | 750 | 1500 2200 | 2500 | | |
| | Z18B-4210XH10-XXXX | 210 | 250 | 2006 | 2388 | 397 | 380 | 8 | 67.1 | 1000 | 2000 | 2500 | | |
| Z18BH4 | Z18B-4132XH05-XXXX | 132 | 175 | 2521 | 3343 | 250 267 312 | 380 360 305 | 8 | 33.7 | 500 | 1000 1500 2000 | 2500 | 11.425 | 1812 |
| | Z18B-4200XH07-XXXX | 200 | 250 | 2547 | 3183 | 378 421 | 380 340 | 8 | 50.3 | 750 | 1500 2200 | 2500 | | |
| | Z18B-4265XH10-XXXX | 265 | 350 | 2531 | 3343 | 485 | 380 | 8 | 67.1 | 1000 | 2000 | 2500 | | |

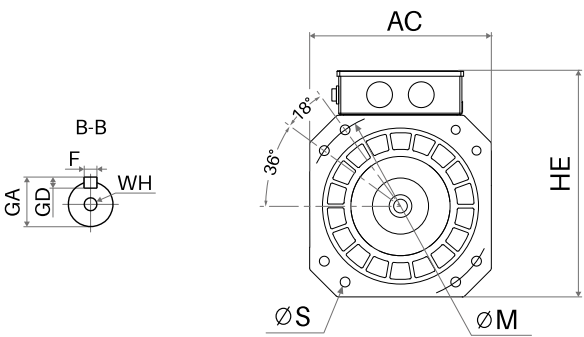
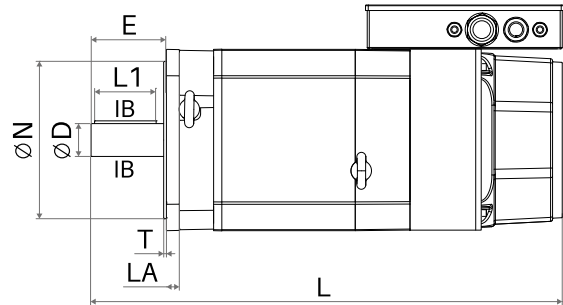
Power Torque Curves



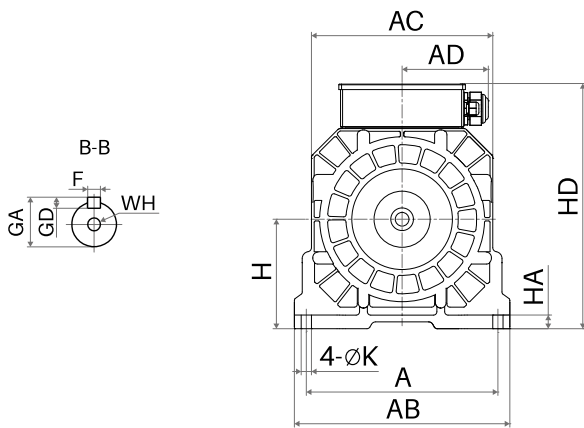
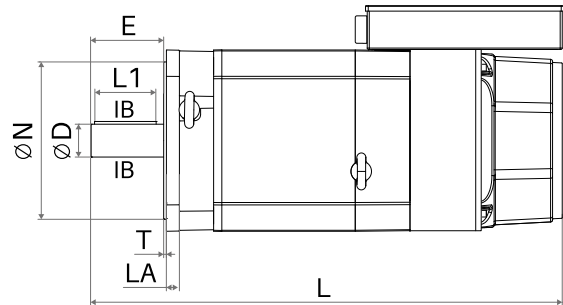
Overall Dimensions



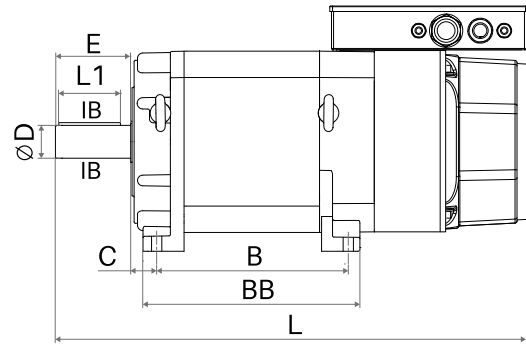
Z18BA-Z18BE



Z18BF-Z18BH



Z18BA-Z18BH



Unit: mm

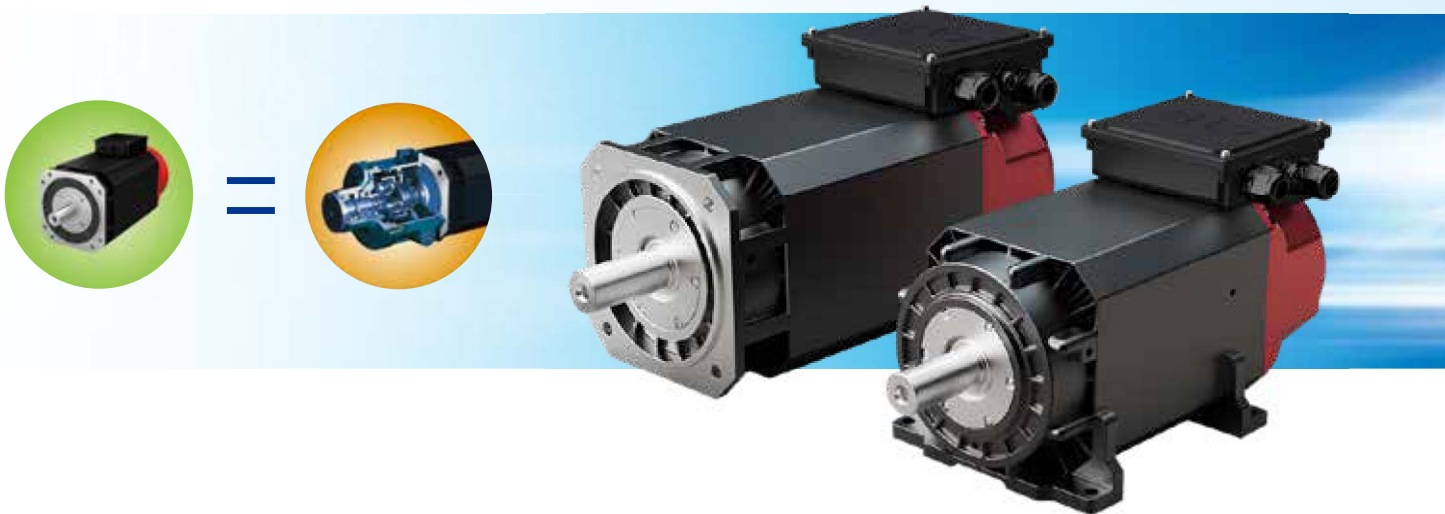
| Frame Code | A | AB | S | K | H | HD | HE | HA | AC | AD | D | E | C | T | B | BB | L | M | N | F | GD | GA | WH | LA | L1 |
|------------|-----|-----|-------|----|-----|-----|-----|----|-----|-----|----|----|----|---|-----|-----|-----|-----|-----|---|----|----|-----|----|----|
| Z18BA1 | | | | | | | | | | | | | | | 98 | 128 | 395 | | | | | | | | |
| Z18BA2 | | | | | | | | | | | | | | | 108 | 138 | 405 | | | | | | | | |
| Z18BA3 | 190 | 210 | 4-Ø11 | 11 | 100 | 250 | 230 | 12 | 175 | 132 | 28 | 60 | 38 | 4 | 133 | 163 | 430 | 185 | 150 | 8 | 7 | 31 | M10 | 12 | 45 |
| Z18BA4 | | | | | | | | | | | | | | | 188 | 218 | 485 | | | | | | | | |

Unit: mm

| Frame Code | A | AB | S | K | H | HD | HE | HA | AC | AD | D | E | C | T | B | BB | L | M | N | F | GD | GA | WH | LA | L1 |
|------------|-----|-----|-------|----|-----|-----|-----|----|-----|-----|-----|-----|----|---|-----|-----|------|-----|-----|----|----|------|-----|----|-----|
| Z18BB1 | 224 | 250 | 4-Φ13 | 13 | 112 | 280 | 270 | 14 | 205 | 140 | 38 | 80 | 42 | 4 | 160 | 200 | 525 | 215 | 180 | 10 | 8 | 41 | M12 | 14 | 60 |
| Z18BB2 | | | | | | | | | | | | | | | 195 | 235 | 560 | | | | | | | | |
| Z18BB3 | | | | | | | | | | | | | | | 240 | 280 | 605 | | | | | | | | |
| Z18BB4 | | | | | | | | | | | | | | | 295 | 335 | 660 | | | | | | | | |
| Z18BC1 | 280 | 315 | 4-Φ15 | 15 | 160 | 370 | 350 | 20 | 265 | 155 | 48 | 110 | 38 | 4 | 235 | 272 | 650 | 265 | 230 | 14 | 9 | 51.5 | M12 | 19 | 90 |
| Z18BC2 | | | | | | | | | | | | | | | 280 | 317 | 695 | | | | | | | | |
| Z18BC3 | | | | | | | | | | | | | | | 320 | 357 | 735 | | | | | | | | |
| Z18BC4 | | | | | | | | | | | | | | | 350 | 387 | 765 | | | | | | | | |
| Z18BD1 | 315 | 350 | 4-Φ19 | 15 | 180 | 405 | 375 | 21 | 300 | 155 | 55 | 110 | 50 | 5 | 305 | 360 | 810 | 325 | 280 | 16 | 10 | 59 | M12 | 20 | 90 |
| Z18BD2 | | | | | | | | | | | | | | | 360 | 415 | 865 | | | | | | | | |
| Z18BD3 | | | | | | | | | | | | | | | 385 | 440 | 890 | | | | | | | | |
| Z18BD4 | | | | | | | | | | | | | | | 455 | 510 | 960 | | | | | | | | |
| Z18BE1 | 340 | 380 | 4-Φ19 | 17 | 180 | 410 | 390 | 21 | 320 | 155 | 60 | 140 | 55 | 5 | 345 | 410 | 900 | 350 | 300 | 18 | 11 | 64 | M16 | 23 | 110 |
| Z18BE2 | | | | | | | | | | | | | | | 405 | 470 | 960 | | | | | | | | |
| Z18BE3 | | | | | | | | | | | | | | | 480 | 545 | 1035 | | | | | | | | |
| Z18BE4 | | | | | | | | | | | | | | | 575 | 640 | 1130 | | | | | | | | |
| Z18BF1 | 400 | 440 | 8-Φ19 | 19 | 225 | 505 | 470 | 30 | 380 | 155 | 65 | 140 | 45 | 5 | 380 | 459 | 1020 | 400 | 350 | 18 | 11 | 69 | M20 | 25 | 110 |
| Z18BF2 | | | | | | | | | | | | | | | 435 | 514 | 1075 | | | | | | | | |
| Z18BF3 | | | | | | | | | | | | | | | 535 | 614 | 1175 | | | | | | | | |
| Z18BF4 | | | | | | | | | | | | | | | 615 | 694 | 1255 | | | | | | | | |
| Z18BG1 | 500 | 550 | 8-Φ19 | 23 | 280 | 620 | 580 | 35 | 480 | 170 | 80 | 170 | 45 | 5 | 395 | 468 | 1070 | 500 | 450 | 22 | 14 | 85 | M20 | 30 | 140 |
| Z18BG2 | | | | | | | | | | | | | | | 455 | 528 | 1130 | | | | | | | | |
| Z18BG3 | | | | | | | | | | | | | | | 535 | 608 | 1210 | | | | | | | | |
| Z18BG4 | | | | | | | | | | | | | | | 645 | 718 | 1320 | | | | | | | | |
| Z18BH1 | 620 | 680 | 8-Φ24 | 27 | 315 | 712 | 690 | 45 | 580 | 190 | 105 | 170 | 45 | 5 | 460 | 531 | 1195 | 600 | 550 | 28 | 16 | 111 | M24 | 38 | 140 |
| Z18BH2 | | | | | | | | | | | | | | | 560 | 631 | 1295 | | | | | | | | |
| Z18BH3 | | | | | | | | | | | | | | | 660 | 731 | 1395 | | | | | | | | |
| Z18BH4 | | | | | | | | | | | | | | | 840 | 911 | 1575 | | | | | | | | |

Z18P Two Speed Servo Spindle Motor

- ◆ Power range: 3.7 ~ 90kW
- ◆ Pole number: 4, 6, 8
- ◆ Max. speed: 12000r/min
- ◆ Encoder: Built-in (options: magnetic, incremental, rotary, SinCos, absolute)
- ◆ Cooling: Forced air cooling
- ◆ Class of vibration: A
- ◆ Duty type: continuous (S1)
- ◆ Installation structure: B3(V5 V6)/B5(V1 V3)/B35(V15 V35)
- ◆ Ambient temperature: -15 to 45°C
- ◆ Ambient humidity: <95%RH (non-condensing)



Product Features

- 1、Laminated yoke, small size, and high output torque;
- 2、Dual-winding electromagnetic design, high torque at low speeds, and rapid response at high speeds;
- 3、Wide speed range, high overload capacity, and high stability;
- 4、Substitute drive for two-stage gear reducers, little noise, and easy maintenance.

Industry Applications



Model Description

Z18P - **4** **3P7 / 5P5** - **05 / 07** **A B H 5 J** - **A 2 0 O** - **F1**

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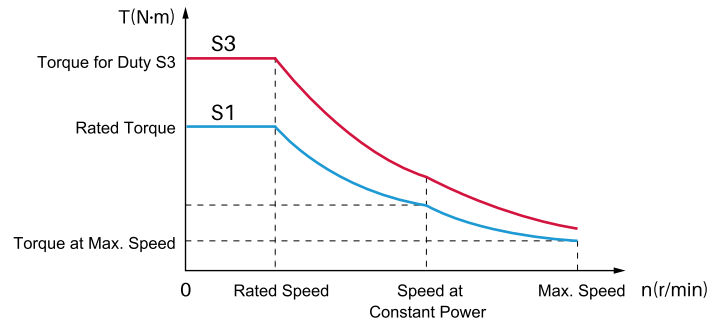
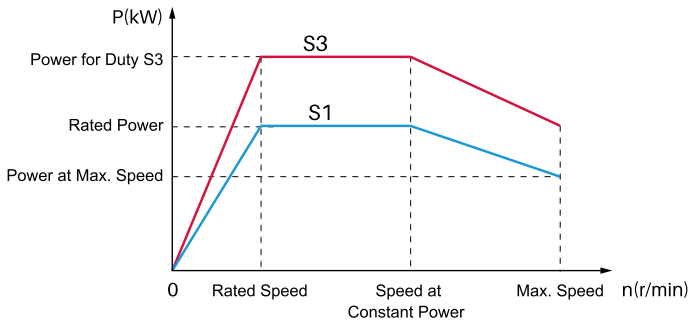
| Code | Description | Instructions | | | | Example Model | |
|------|---|--|----------------------|---------------------------------|------------|--|----------------|
| 1 | Product series | Z18P: code of the motor series | | | | Z18P series two speed motor | |
| 2 | Voltage rating | 2: 200V 4: 400V | | | | 400V | |
| 3 | Power | Rated power at low/high speed; see 'Standard Specifications'. | | | | 3.7kW / 5.5kW | |
| 4 | Rating at low speed | Code | Speed(rpm) | Code | Speed(rpm) | Low speed winding: 500r/min | |
| 5 | Rating at high speed | Code | Speed(rpm) | Code | Speed(rpm) | | |
| | | 02 | 250 | 10 | 1000 | 45 | 4500 |
| | | 03 | 375 | 12 | 1200 | 60 | 6000 |
| | | 04 | 400 | 15 | 1500 | 80 | 8000 |
| | | 05 | 500 | 20 | 2000 | 90 | 9000 |
| | | 06 | 575 | 25 | 2500 | A0 | 10000 |
| | | 07 | 750 | 30 | 3000 | A2 | 12000 |
| | | 08 | 800 | 40 | 4000 | | |
| 6 | Encoder | Code | Type of Encoder | | | Absolute encoder | |
| | | B | None | | | | |
| | | G | Incremental encoder | 1024P, 2500P, 8192P | | | |
| | | R | Rotary transformer | 1024P | | | |
| | | S | SinCos encoder | 2048P | | | |
| | | A | Absolute encoder | 23 bit | | | |
| 7 | Frame code | Frame Code | Flange Size (L×W) mm | | Frame Code | Flange Size (L×W) mm | |
| | | B | 205×205 | | F | 380×380 | |
| | | C | 265×265 | | G | 480×480 | |
| | | E | 320×320 | | H | 580×580 | |
| 8 | Max. speed | Code | Max. Speed (rpm) | | Code | Max. Speed (rpm) | |
| | | LL | 2500 | | H | 8000 | |
| | | L | 3000 | | HF | 10000 | |
| | | LM | 4500 | | F | 12000 | |
| | | M | 6000 | | | | |
| 9 | Mode of installation | 3: Horizontal | 5: Flange mounted | 35: Horizontal + flange mounted | | | Flange mounted |
| 10 | Shaft extension | G: Bare shaft J: Splined shaft | | | | Bare shaft | |
| 11 | Smart card | A: with N: without | | | | With smart card | |
| 12 | Line incoming direction of junction box | 2: Right incoming line of junction box 3: Left incoming line of junction box 5: Front line of junction box | | | | Right incoming line of junction box | |
| 13 | Incoming line of junction box | 0: Standard junction box + black encoder plug 1: Standard junction box + aerospace encoder plug 2: Waterproof junction box + black encoder plug 3: Waterproof junction box + aerospace encoder plug | | | | Standard junction box + black encoder plug | |
| 14 | Export marking | O: Export motor (not for motors sold nationwide) | | | | Export product | |
| 15 | Code of nonstandard motor part | F1: Shaft extension | F4: Stator | F7: Encoder | | Nonstandard shaft extension | |
| | | F2: Flange | F5: Fan | | | | |
| | | F3: Feet | F6: Junction box | | | | |

Electrical Specifications

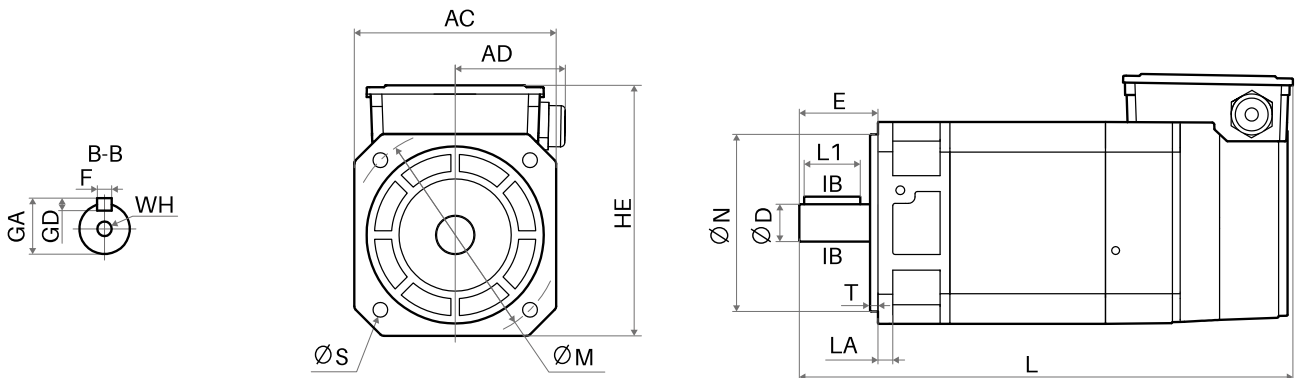
| Frame Code | Motor Model | Type of Winding | Rated Power kW | Power for Duty S3 kW | Rated Torque N·m | Torque for Duty S3 N·m | Rated Current A | Rated Voltage V | Rated Frequency Hz | Rated Speed r/min | Max. Speed at Constant Power r/min | Max. Speed r/min | Rotational Inertia kg·m ² | Weight kg |
|------------|--------------------------|-----------------|-------------------|-------------------------|---------------------|---------------------------|--------------------|--------------------|-----------------------|----------------------|---------------------------------------|---------------------|---|--------------|
| Z18B4 | Z18P-43P7/5P5-05/10XBXXX | Low speed | 3.7 | 5.5 | 71 | 105 | 11.5 | 265 | 18.5 | 500 | 2500 | 2500 | 0.0325 | 71 |
| | | High speed | 5.5 | 7.5 | 52.5 | 71 | 15.5 | 265 | 34.8 | 1000 | 6000 | 8000 | | |
| | Z18P-4011/11-15/40XBXXX | Low speed | 11 | 15 | 70 | 95.5 | 28.1 | 290 | 51.7 | 1500 | 6000 | 8000 | | |
| | | High speed | 11 | 15 | 26.3 | 35.8 | 26.5 | 290 | 134.7 | 4000 | 12000 | 12000 | | |
| Z18C1 | Z18P-43P7/5P5-05/07XCXXX | Low speed | 3.7 | 5.5 | 71 | 105 | 11 | 260 | 17.7 | 500 | 2800 | 2800 | 0.0717 | 93 |
| | | High speed | 5.5 | 7.5 | 70 | 95.5 | 18.7 | 220 | 26 | 750 | 6000 | 8000 | | |
| | Z18P-4011/11-15/40XCXXX | Low speed | 11 | 15 | 70 | 95.5 | 27.1 | 290 | 51 | 1500 | 6000 | 8000 | | |
| | | High speed | 11 | 15 | 26.3 | 35.8 | 26.3 | 290 | 134.2 | 4000 | 12000 | 12000 | | |
| Z18C2 | Z18P-45P5/7P5-05/07XCXXX | Low speed | 5.5 | 7.5 | 105 | 143 | 14.2 | 295 | 17.8 | 500 | 2000 | 2000 | 0.089 | 111 |
| | | High speed | 7.5 | 11 | 95.5 | 140 | 22.6 | 245 | 26 | 750 | 4500 | 6000 | | |
| Z18C4 | Z18P-47P5/11-05/07XCXXX | Low speed | 7.5 | 11 | 143 | 210 | 19.5 | 290 | 17.7 | 500 | 2000 | 2000 | 0.1186 | 138 |
| | | High speed | 11 | 15 | 140 | 191 | 33.2 | 240 | 26.1 | 750 | 4500 | 6000 | | |
| Z18E1 | Z18P-4011/15-05/10EXXXX | Low speed | 11 | 15 | 210 | 287 | 24.5 | 325 | 17.5 | 500 | 1500 | 1500 | 0.2372 | 227 |
| | | High speed | 15 | 18.5 | 143 | 177 | 31.2 | 325 | 34 | 1000 | 4000 | 4500 | | |
| Z18E3 | Z18P-4013/18-04/08EXXXX | Low speed | 13 | 18.5 | 310 | 442 | 28.1 | 335 | 14.1 | 400 | 1200 | 1500 | 0.3602 | 301 |
| | | High speed | 18.5 | 22 | 221 | 263 | 35.8 | 355 | 27.2 | 800 | 3000 | 4000 | | |
| Z18E4 | Z18P-4015/15-03/10EXXXX | Low speed | 15 | 18.5 | 382 | 471 | 31.9 | 340 | 13.2 | 375 | 1200 | 1500 | 0.4467 | 353 |
| | | High speed | 15 | 18.5 | 143 | 177 | 26.4 | 380 | 33.8 | 1000 | 4000 | 4500 | | |
| | Z18P-4022/22-06/12EXXXX | Low speed | 22 | 30 | 365 | 498 | 40 | 380 | 19.9 | 575 | 1200 | 1500 | | |
| | | High speed | 22 | 30 | 175 | 239 | 39 | 380 | 40.4 | 1200 | 4800 | 6000 | | |
| Z18F3 | Z18P-4018/18-03/10FXXXX | Low speed | 18.5 | 22 | 471 | 560 | 34.5 | 380 | 13.1 | 375 | 1200 | 1500 | 0.6565 | 478 |
| | | High speed | 18.5 | 22 | 177 | 210 | 32.5 | 380 | 33.8 | 1000 | 3000 | 4500 | | |
| Z18F4 | Z18P-4022/22-03/10FXXXX | Low speed | 22 | 30 | 560 | 764 | 47 | 330 | 13.1 | 375 | 1500 | 1500 | 0.782 | 542 |
| | | High speed | 22 | 30 | 210 | 287 | 44.1 | 330 | 33.8 | 1000 | 4500 | 4500 | | |
| Z18G2 | Z18P-4018/22-02/07GXXXX | Low speed | 18.5 | 22 | 707 | 840 | 41.9 | 320 | 13 | 250 | 1000 | 1500 | 2.063 | 642 |
| | | High speed | 22 | 30 | 280 | 382 | 39.6 | 380 | 37.8 | 750 | 3000 | 4500 | | |
| | Z18P-4030/37-03/10GXXXX | Low speed | 30 | 37 | 764 | 942 | 63.9 | 330 | 19.3 | 375 | 1500 | 1500 | | |
| | | High speed | 37 | 45 | 353 | 430 | 65.7 | 380 | 50.4 | 1000 | 4000 | 4500 | | |
| Z18G3 | Z18P-4037/37-03/10GXXXX | Low speed | 37 | 45 | 942 | 1146 | 70.5 | 365 | 19.3 | 375 | 1200 | 1500 | 2.555 | 735 |
| | | High speed | 37 | 45 | 353 | 430 | 67.4 | 365 | 50.4 | 1000 | 4000 | 4500 | | |
| Z18G4 | Z18P-4045/45-03/07GXXXX | Low speed | 45 | 55 | 1146 | 1400 | 84.5 | 370 | 19.2 | 375 | 1200 | 1500 | 3.232 | 877 |
| | | High speed | 45 | 55 | 573 | 700 | 85.5 | 370 | 37.8 | 750 | 4000 | 4500 | | |

| Frame Code | Motor Model | Type of Winding | Rated Power kW | Power for Duty S3 kW | Rated Torque N·m | Torque for Duty S3 N·m | Rated Current A | Rated Voltage V | Rated Frequency Hz | Rated Speed r/min | Max. Speed at Constant Power r/min | Max. Speed r/min | Rotational Inertia kg·m ² | Weight kg |
|------------|-------------------------|-----------------|-------------------|-------------------------|---------------------|---------------------------|--------------------|--------------------|-----------------------|----------------------|---------------------------------------|---------------------|---|--------------|
| Z18H1 | Z18P-4030/30-02/07XHXXX | Low speed | 30 | 37 | 1146 | 1413 | 75.6 | 300 | 17 | 250 | 1000 | 1000 | 5.206 | 942 |
| | | High speed | 30 | 37 | 382 | 471 | 71.1 | 300 | 50.3 | 750 | 3000 | 3000 | | |
| Z18H2 | Z18P-4037/37-02/07XHXXX | Low speed | 37 | 45 | 1413 | 1719 | 79.4 | 350 | 17 | 250 | 750 | 1000 | 6.804 | 1119 |
| | | High speed | 37 | 45 | 471 | 573 | 70.5 | 380 | 50.2 | 750 | 2500 | 3000 | | |
| | Z18P-4055/55-03/07XHXXX | Low speed | 55 | 75 | 1401 | 1910 | 113.7 | 360 | 25.3 | 375 | 1000 | 1000 | | |
| | | High speed | 55 | 75 | 700 | 955 | 119.5 | 360 | 50.2 | 750 | 3000 | 3000 | | |
| Z18H3 | Z18P-4075/75-03/07XHXXX | Low speed | 75 | 90 | 1910 | 2292 | 147.5 | 370 | 25.3 | 375 | 1000 | 1000 | 8.402 | 1300 |
| | | High speed | 75 | 90 | 955 | 1146 | 152.3 | 370 | 50.2 | 750 | 3000 | 3000 | | |
| Z18H4 | Z18P-4090/90-03/07XHXXX | Low speed | 90 | 110 | 2292 | 2801 | 199.4 | 340 | 25.3 | 375 | 1200 | 1500 | 11.278 | 1622 |
| | | High speed | 90 | 110 | 1146 | 1401 | 209.1 | 340 | 50.2 | 750 | 3000 | 4000 | | |

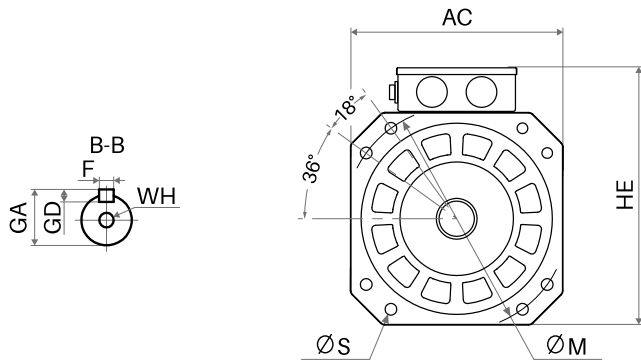
Power Torque Curves



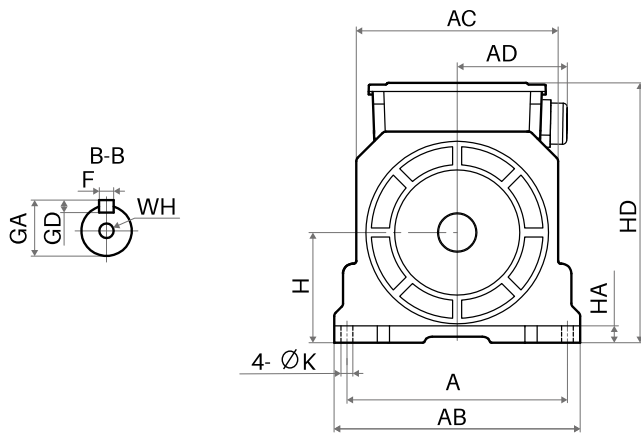
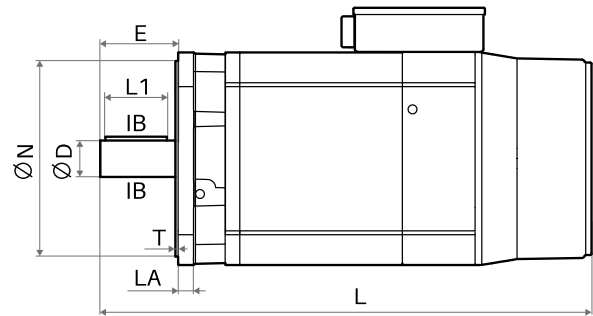
Overall Dimensions



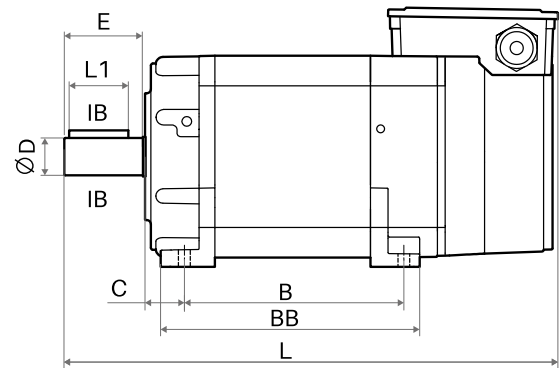
Z18PB、Z18PC、Z18P



Z18PF-Z18PH



Z18PB Z18PC Z18PE-Z18PH

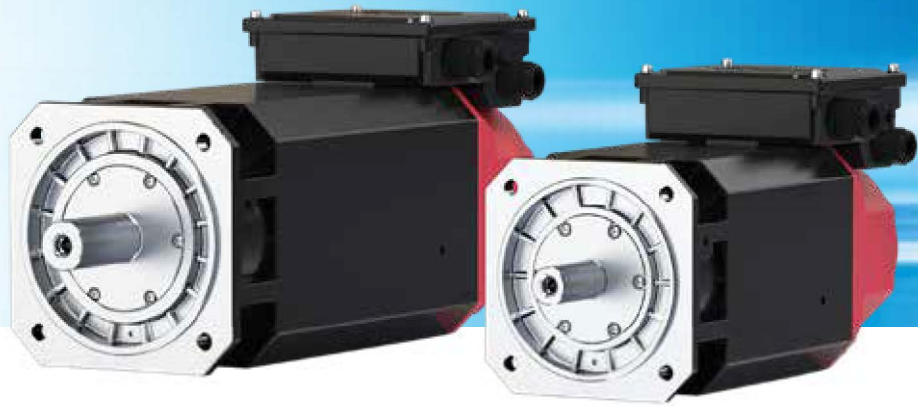


Unit: mm

| Frame Code | A | AB | S | K | H | HD | HE | HA | AC | AD | D | E | C | T | B | BB | L | M | N | F | GD | GA | WH | LA | L1 |
|------------|-----|-----|-------|----|-----|-----|-----|----|-----|-----|-----|-----|----|---|-----|-----|------|-----|-----|----|----|------|-----|----|-----|
| Z18B4 | 224 | 250 | 4-Φ13 | 13 | 112 | 275 | 265 | 14 | 205 | 140 | 38 | 80 | 42 | 4 | 295 | 335 | 575 | 215 | 180 | 10 | 8 | 41 | M12 | 14 | 60 |
| Z18C1 | | | | | | | | | | | 48 | | | | 235 | 272 | 555 | | | 14 | 9 | 51.5 | M12 | 19 | 90 |
| Z18C2 | 280 | 315 | 4-Φ15 | 15 | 160 | 365 | 340 | 20 | 265 | 155 | | 110 | 38 | 4 | 280 | 317 | 600 | 265 | 230 | 16 | 10 | 59 | | | |
| Z18C4 | | | | | | | | | | | 55 | | | | 350 | 387 | 670 | | | | | | | | |
| Z18E1 | | | | | | | | | | | | | | | 345 | 410 | 770 | | | | | | | | |
| Z18E3 | 340 | 380 | 4-Φ19 | 17 | 180 | 415 | 395 | 21 | 320 | 155 | 60 | 140 | 55 | 5 | 480 | 545 | 905 | 350 | 300 | 18 | 11 | 64 | M16 | 23 | 110 |
| Z18E4 | | | | | | | | | | | | | | | 575 | 640 | 1000 | | | | | | | | |
| Z18F3 | | | | | | | | | | | | | | | 535 | 614 | 980 | | | | | | | | |
| Z18F4 | 400 | 440 | 8-Φ19 | 19 | 225 | 505 | 470 | 30 | 380 | 155 | 65 | 140 | 45 | 5 | 615 | 694 | 1060 | 400 | 350 | 18 | 11 | 69 | M20 | 25 | 110 |
| Z18G2 | | | | | | | | | | | | | | | 455 | 528 | 970 | | | | | | | | |
| Z18G3 | 500 | 550 | 8-Φ19 | 23 | 280 | 620 | 580 | 35 | 480 | 170 | 80 | 170 | 45 | 5 | 535 | 608 | 1050 | 500 | 450 | 22 | 14 | 85 | M20 | 30 | 140 |
| Z18G4 | | | | | | | | | | | | | | | 645 | 718 | 1160 | | | | | | | | |
| Z18H1 | | | | | | | | | | | | | | | 460 | 531 | 995 | | | | | | | | |
| Z18H2 | | | | | | | | | | | | | | | 560 | 631 | 1095 | | | | | | | | |
| Z18H3 | 620 | 680 | 8-Φ24 | 27 | 315 | 712 | 690 | 45 | 580 | 190 | 105 | 170 | 45 | 5 | 660 | 731 | 1195 | 600 | 550 | 28 | 16 | 111 | M24 | 38 | 140 |
| Z18H4 | | | | | | | | | | | | | | | 840 | 911 | 1375 | | | | | | | | |

Z18H Series High Speed Servo Spindle Motor

- ◆ Torque range: 7 ~ 52N.m, Overload factor 3-5 times
- ◆ Voltage rating: 400V
- ◆ Max. speed: 24000 r/min
- ◆ Class of insulation: Class F
- ◆ Ambient temperature: -15°C~+45°C
- ◆ Ambient humidity: <20%~90%RH (non-condensing)



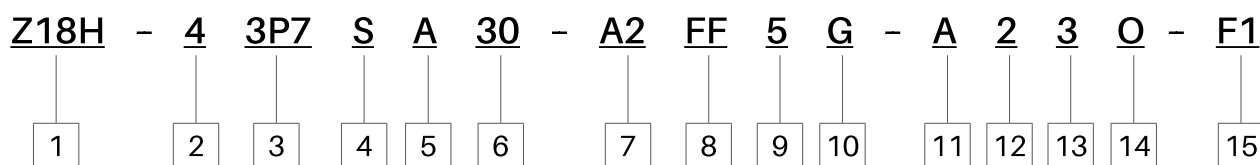
Product Features

- 1、Laminated yoke, small size, and high output torque;
- 2、Low rotational inertia, and rapid response;
- 3、Wide range of operating speed (0-24000 rpm);
- 4、Output of rated torque even at zero speed;
- 5、High reliability, high stability, and high overload capacity;
- 6、Little vibration, and low noise.

Industry Applications



Model Description

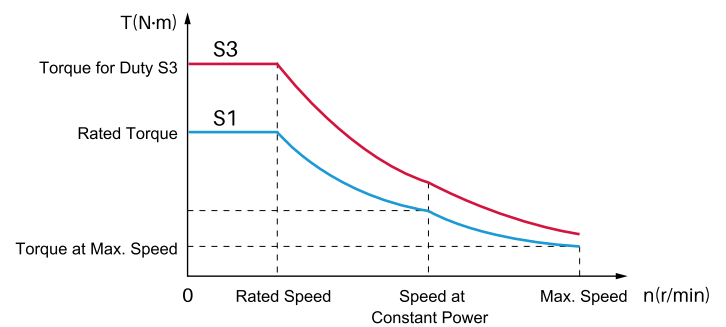
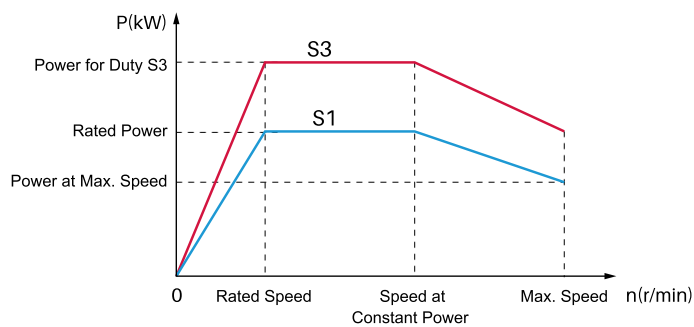


| Code | Description | Instructions | Example Model |
|------|---|--|--|
| 1 | Product series | Z18H: Code of the motor series | Z18H Series High Speed Servo Spindle Motor |
| 2 | Voltage rating | 2: 200V 4: 400V | 400V |
| 3 | Power | See 'Standard Specifications'. | 3.7kW |
| 4 | Encoder | Code Type of Encoder B None G Incremental encoder 512p 1024p S SinCos encoder 2048P | SinCos encoder |
| 5 | Frame code | Code Flange Size (L×W) mm S 145×145 A 175×175 B 205×205 | Frame A |
| 6 | Basic speed | Code Speed (rpm) Code Speed (rpm) 05 500 60 6000 07 750 80 8000 10 1000 90 9000 | Basic speed : 3000rpm |
| 7 | Speed at constant power | 15 1500 A0 10000 20 2000 A2 12000 30 3000 B1 21000 40 4000 B4 24000 45 4500 | Speed at constant power: 12000 rpm |
| 8 | Max. speed | Code Speed (rpm) F 12000 FF 15000 EF 18000 TF 24000 | Max. speed : 15000 r/min |
| 9 | Mode of installation | 5: Flange mounted | Flange mounted |
| 10 | Shaft extension | G: Bare shaft | Bare shaft |
| 11 | Smart card | A: with N: without | With smart card |
| 12 | Line incoming direction of junction box | 2: Right incoming line of junction box 3: Left incoming line of junction box 5: Front line of junction box | Right incoming line of junction box |
| 13 | Incoming line of junction box | 2: Waterproof junction box + black encoder plug 3: Waterproof junction box + aerospace encoder plug | Waterproof junction box + aerospace encoder plug |
| 14 | Export marking | O: Export motor (not for motors sold nationwide) | Export product |
| 15 | Code of nonstandard motor part | F1: Shaft extension F4: Stator F7: Encoder F2: Flange F5: Fan F3: Feet F6: Junction box | Nonstandard shaft extension |

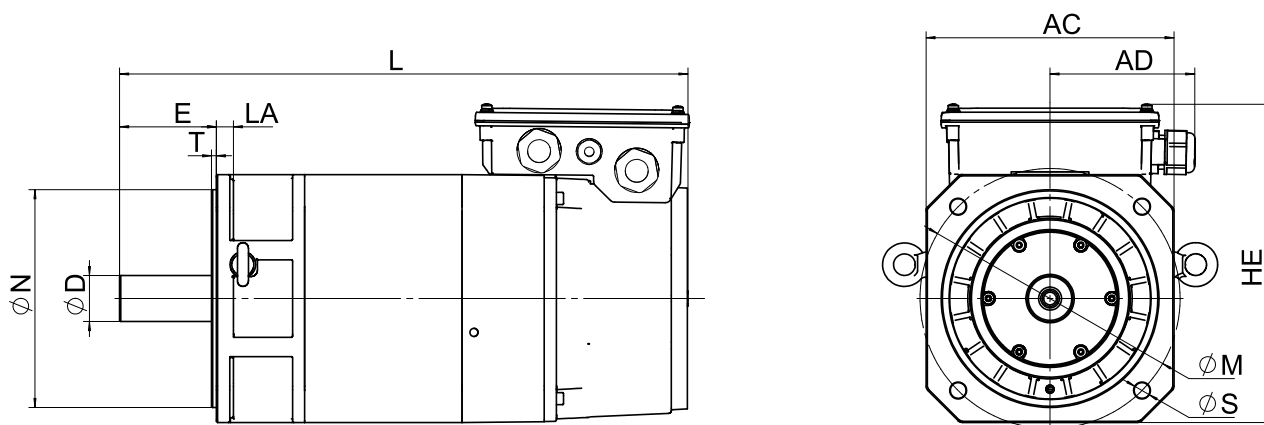
Electrical Specifications

| Motor Model | Rated Power kW | Power for Duty S3 kW | Rated Torque N·m | Torque for Duty S3 N·m | Rated Current A | Rated Voltage V | Rated Frequency Hz | Rated Speed r/min | Max. Speed at Constant Power r/min | Max. Speed r/min | Rotational Inertia kg·m ² | Weight kg |
|--------------------|-------------------|----------------------------|------------------------|------------------------------|-----------------------|-----------------------|--------------------------|-------------------------|---|------------------------|--|--------------|
| Z18H-42P2XS30-XXXX | 2.2 | 3 | 7 | 9.6 | 9.5 | 200 | 105.3 | 3000 | 24000 | 24000 | 0.0027 | 27.5 |
| Z18H-43P7XS30-XXXX | 3.7 | 4.5 | 11.8 | 14.3 | 16.1 | 200 | 106.1 | 3000 | 21000 | 24000 | 0.0039 | 33 |
| Z18H-43P7XA30-XXXX | 3.7 | 4.5 | 11.8 | 14.3 | 8.4 | 330 | 103.3 | 3000 | 12000 | 15000 | 0.0043 | 28 |
| Z18H-45P5XA30-XXXX | 5.5 | 7.5 | 17.5 | 23.9 | 12.4 | 355 | 102.5 | 3000 | 12000 | 15000 | 0.0069 | 38.5 |
| Z18H-45P5XA20-XXXX | 5.5 | 7.5 | 26 | 35.8 | 11.9 | 340 | 69.5 | 2000 | 8000 | 15000 | 0.009 | 47 |
| Z18H-47P5XA30-XXXX | 7.5 | 11 | 23 | 35 | 15.6 | 350 | 102.6 | 3000 | 12000 | 15000 | 0.009 | 47 |
| Z18H-47P5XB20-XXXX | 7.5 | 11 | 35 | 52.5 | 18.2 | 300 | 68.5 | 2000 | 8000 | 12000 | 0.0199 | 58 |
| Z18H-47P5XB15-XXXX | 7.5 | 11 | 47.8 | 70 | 24.1 | 240 | 51.2 | 1500 | 12000 | 12000 | 0.0325 | 84 |
| Z18H-4011XB20-XXXX | 11 | 15 | 52 | 71.6 | 26 | 305 | 68.1 | 2000 | 8000 | 12000 | 0.0325 | |
| Z18H-4015XB30-XXXX | 15 | 22 | 47.8 | 70 | 36.1 | 300 | 101.5 | 3000 | 12000 | 12000 | 0.0325 | |

Power Torque Curves



Overall Dimensions

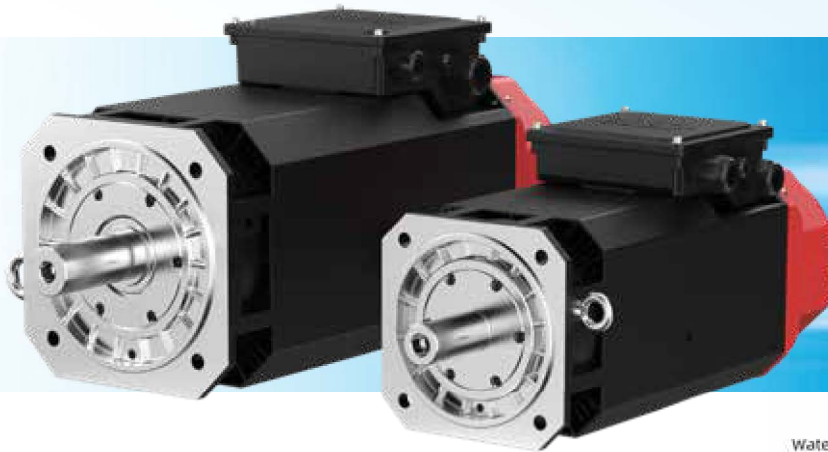


Unit: mm

| Motor Model | S | HE | AC | AD | D | E | T | L | M | N | LA |
|--------------------|--------------|-----|-----|-----|----|----|---|-----|-----|-----|----|
| Z18H-42P2XS30-XXXX | 4- $\phi 9$ | 205 | 145 | 115 | 24 | 50 | 4 | 400 | 145 | 110 | 10 |
| Z18H-43P7XS30-XXXX | | | | | | | | 450 | | | |
| Z18H-43P7XA30-XXXX | 4- $\phi 11$ | 235 | 175 | 115 | 28 | 60 | 4 | 375 | 185 | 150 | 12 |
| Z18H-45P5XA30-XXXX | | | | | | | | 430 | | | |
| Z18H-45P5XA20-XXXX | | | | | | | | 475 | | | |
| Z18H-47P5XA30-XXXX | | | | | | | | 475 | | | |
| Z18H-47P5XB20-XXXX | 4- $\phi 13$ | 265 | 205 | 120 | 38 | 80 | 4 | 475 | 215 | 180 | 14 |
| Z18H-47P5XB15-XXXX | | | | | | | | 575 | | | |
| Z18H-4011XB20-XXXX | | | | | | | | 575 | | | |
| Z18H-4015XB30-XXXX | | | | | | | | 575 | | | |

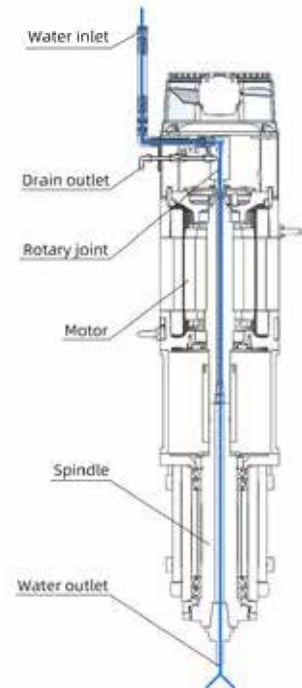
Z18L Through-Spindle Coolant Servo Spindle Motor

- ◆ Torque range: 11.8 ~ 143.3N.m
 - ◆ Voltage rating: 400V
 - ◆ Max. speed: 12000 r/min
 - ◆ Class of insulation: Class F
 - ◆ Ambient temperature: -15°C~+45°C
 - ◆ Ambient humidity: <20%-90%RH (non-condensing)
- ◆ Recommended minimum sealing pressure for different media for rotary joints:
Cutting fluid: pressure greater than 0.5Mpa, flow rate greater than 10L/min;
Oil mist: pressure greater than 0.2Mpa;
There will be leakage at the drainage outlet below the above pressure.



Product Features

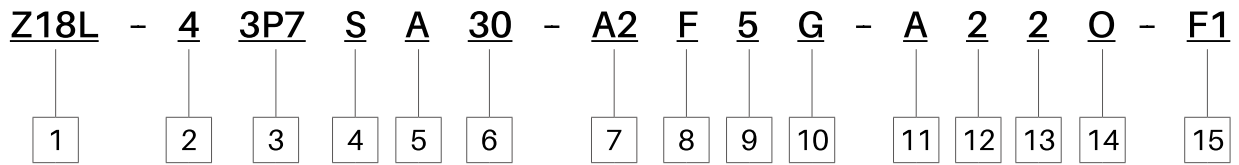
1. Fully laminated magnetic yoke, small size and high power density.
2. Supports wide speed operation (0~12000rpm).
3. Low vibration and noise.
4. High Efficiency and overload capacity.
5. The flexible connection of the rotary joint ensures reliable operation and high lifespan.
6. The Rotary Joint support operation without water/oil mist (dry running).



Industry Applications



Model Description

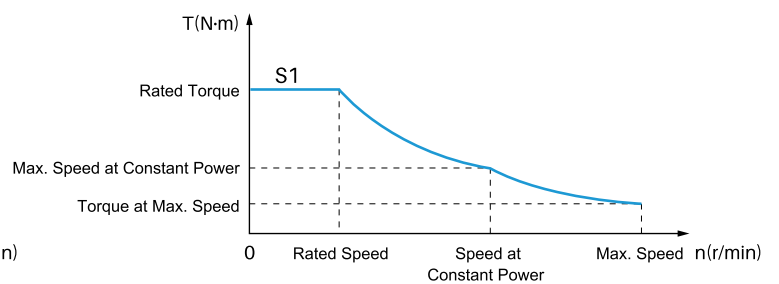
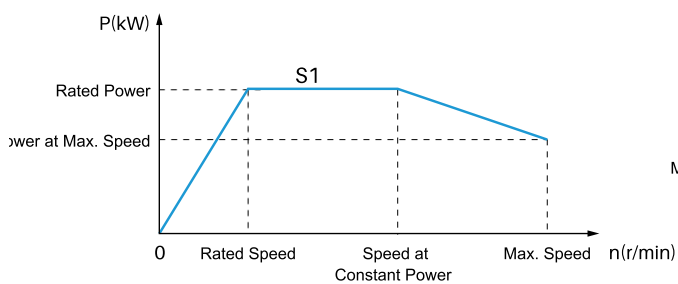


| Code | Description | Instructions | Example Model |
|------|---|---|--|
| 1 | Product series | Z18L: Code of the motor series | Z18L Through-Spindle Coolant Servo Spindle Motor |
| 2 | Voltage rating | 2: 200V 4: 400V | 400V |
| 3 | Power | See 'Standard Specifications'. | 3.7kW |
| 4 | Encoder | Code Type of Encoder B None G Incremental encoder 512p 1024p S SinCos encoder 2048P | SinCos encoder |
| 5 | Frame code | Code Flange Size (L×W) mm S 145×145 A 175×175 B 205×205 | Frame A |
| 6 | Basic speed | Code Speed (rpm) 15 1500 20 2000 30 3000 | Basic speed : 3000rpm |
| 7 | Speed at constant power | 60 6000 80 8000 A2 12000 | Speed at constant power: 12000 rpm |
| 8 | Max. speed | Code Speed (rpm) M 6000 H 8000 F 12000 | Max. speed: 12000r/min |
| 9 | Mode of installation | 5: Flange mounted | Flange mounted |
| 10 | Shaft extension | G: Bare shaft | Bare shaft |
| 11 | Smart card | A: with N: without | With smart card |
| 12 | Line incoming direction of junction box | 2: Right incoming line of junction box 3: Left incoming line of junction box | Right incoming line of junction box |
| 13 | Incoming line of junction box | 2: Waterproof junction box + black encoder plug 3: Waterproof junction box + aerospace encoder plug | Waterproof junction box + black encoder plug |
| 14 | Export marking | O: Export motor (not for motors sold nationwide) | Export product |
| 15 | Code of nonstandard motor part | F1: Shaft extension F4: Stator F7: Encoder F2: Flange F5: Fan F3: Feet F6: Junction box | Nonstandard shaft extension |

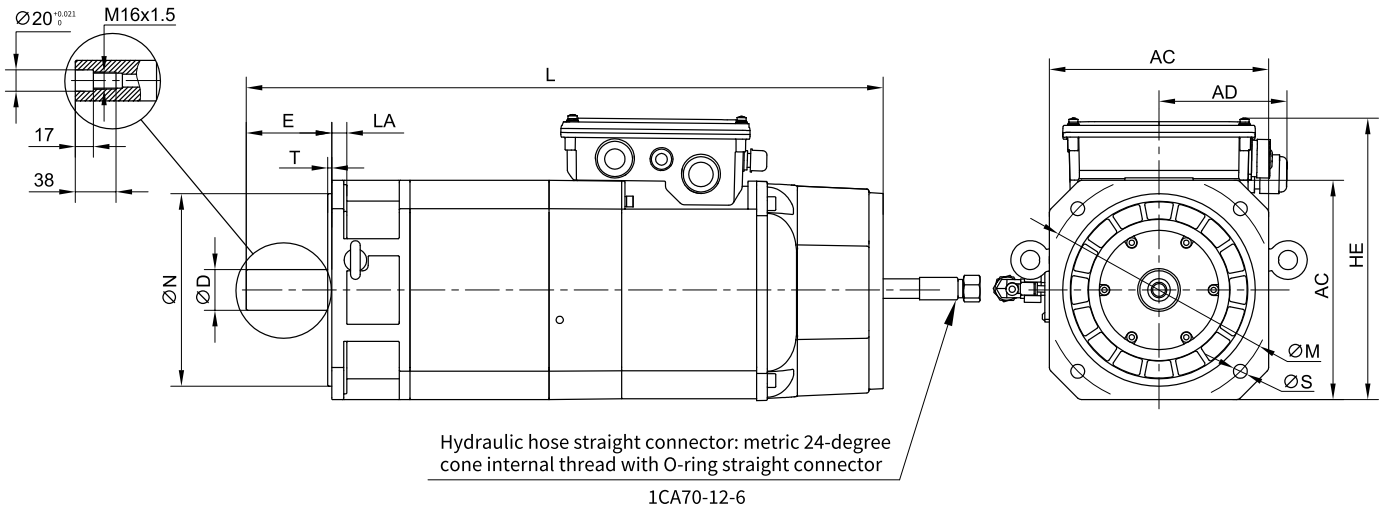
Electrical Specifications

| Motor Model | Rated Power (kW) | Rated Torque (N·m) | Rated Current (A) | Rated Voltage (V) | Rated Frequency (Hz) | Rated Speed (r/min) | Max. Speed at Constant Power (r/min) | Max. Speed (r/min) | Rotational Inertia (kg·m ²) | Weight (kg) |
|---------------------|------------------|--------------------|-------------------|-------------------|----------------------|---------------------|--------------------------------------|--------------------|---|-------------|
| Z18L-43P7XA30-A2FXX | 3.7 | 11.8 | 8.4 | 330 | 103.3 | 3000 | 12000 | 12000 | 0.0043 | 31 |
| Z18L-45P5XA30-A2FXX | 5.5 | 17.5 | 12.4 | 355 | 102.5 | 3000 | 12000 | 12000 | 0.0069 | 42 |
| Z18L-45P5XA20-80FXX | 5.5 | 26 | 11.9 | 340 | 69.5 | 2000 | 8000 | 12000 | 0.009 | 50 |
| Z18L-47P5XA30-A2FXX | 7.5 | 23 | 15.6 | 350 | 102.6 | 3000 | 12000 | 12000 | | |
| Z18L-47P5XB20-80FXX | 7.5 | 35 | 18.2 | 300 | 68.5 | 2000 | 8000 | 12000 | 0.0199 | 64 |
| Z18L-47P5XB15-A2FXX | 7.5 | 47.8 | 24.1 | 240 | 51.2 | 1500 | 12000 | 12000 | 0.0325 | 89 |
| Z18L-4011XB20-80FXX | 11 | 52 | 26 | 305 | 68.1 | 2000 | 8000 | 12000 | | |
| Z18L-4015XB30-A2FXX | 15 | 47.8 | 36.1 | 300 | 101.5 | 3000 | 12000 | 12000 | | |
| Z18L-4011XC15-60HXX | 11 | 70 | 27.2 | 290 | 51.1 | 1500 | 6000 | 8000 | 0.0717 | 114 |
| Z18L-4015XC20-80HXX | 15 | 71.6 | 37.2 | 285 | 67.7 | 2000 | 8000 | 8000 | | |
| Z18L-4015XC15-60HXX | 15 | 95.5 | 37.8 | 280 | 51.2 | 1500 | 6000 | 8000 | 0.089 | 132 |
| Z18L-4020XC20-80HXX | 20 | 95.5 | 48.9 | 285 | 67.6 | 2000 | 8000 | 8000 | | |
| Z18L-4018XC15-60HXX | 18.5 | 117.8 | 43.4 | 300 | 51.1 | 1500 | 6000 | 8000 | 0.1057 | 147 |
| Z18L-4025XC20-80HXX | 25 | 119.4 | 58.9 | 295 | 67.8 | 2000 | 8000 | 8000 | | |
| Z18L-4022XC15-60HXX | 22 | 140.1 | 52.1 | 295 | 51 | 1500 | 6000 | 8000 | 0.1186 | 160 |
| Z18L-4030XC20-80HXX | 30 | 143.3 | 74.3 | 280 | 67.8 | 2000 | 8000 | 8000 | | |

Power Torque Curves



Overall Dimensions



Unit: mm

| Motor Model | S | HE | AC | AD | D | E | T | L | M | N | LA |
|---------------------|---------------------|-----|-----|-----|----|-----|---|-----|-----|-----|----|
| Z18L-43P7XA30-A2FXX | 4- $\varnothing 11$ | 235 | 175 | 115 | 28 | 60 | 4 | 495 | 185 | 150 | 12 |
| Z18L-45P5XA30-A2FXX | | | | | | | | 550 | | | |
| Z18L-45P5XA20-80FXX | | | | | | | | 595 | | | |
| Z18L-47P5XA30-A2FXX | | | | | | | | 595 | | | |
| Z18L-47P5XB20-80FXX | 4- $\varnothing 13$ | 265 | 205 | 120 | 38 | 80 | 4 | 595 | 215 | 180 | 14 |
| Z18L-47P5XB15-A2FXX | | | | | | | | 695 | | | |
| Z18L-4011XB20-80FXX | | | | | | | | 685 | | | |
| Z18L-4015XB30-A2FXX | | | | | | | | 730 | | | |
| Z18L-4011XC15-60HXX | 4- $\varnothing 15$ | 335 | 265 | 130 | 48 | 110 | 4 | 685 | 265 | 230 | 19 |
| Z18L-4015XC20-80HXX | | | | | | | | 730 | | | |
| Z18L-4015XC15-60HXX | | | | | | | | 770 | | | |
| Z18L-4020XC20-80HXX | | | | | 55 | | | 800 | | | |
| Z18L-4018XC15-60HXX | | | | | | | | 770 | | | |
| Z18L-4025XC20-80HXX | | | | | | | | 770 | | | |
| Z18L-4022XC15-60HXX | | | | | | | | 800 | | | |
| Z18L-4030XC20-80HXX | | | | | | | | | | | |

For installation and usage precautions, please refer to the "User Installation Manual for Z18L Through-Spindle Coolant Servo Spindle Motor"

S18 Permanent Magnet Synchronous Servo Motor

- ◆ Torque range: 6 ~ 56N.m
- ◆ Speed sensor: built-in absolute encoder, etc.
- ◆ Rated speed: 1500 ~ 3000rpm
- ◆ Voltage rating: 400V

Old



New



10-pole rotor

12-slot stator

Spliced stator



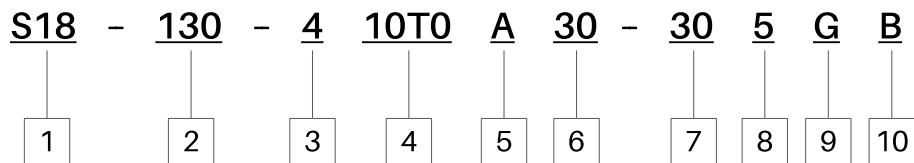
Product Features

- 1、 Built-in high precision absolute encoder for better positioning accuracy and operational stability at low speed; high precision and high dynamic response control.
- 2、 New magnetic field analysis and motor manufacturing technologies reduce torque ripples, thus improving speed stability and reducing torque ripples of the servo system.
- 3、 New stator lamination and splicing technology reduces temperature rise and improves electromagnetic performance of the motors, thus improving their efficiency and reliability.

Industry Applications



Model Description (Take 10N.m motor for example)



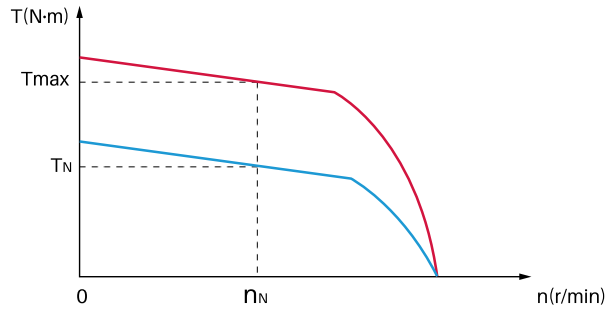
| Code | Description | Instructions | Example Model |
|------|----------------------|---|---|
| 1 | Product series | S18: manufacturer's motor code | S18 series permanent magnet synchronous servo motor |
| 2 | Frame code | Flange size: 130×130、180×180 | 130×130 |
| 3 | Voltage rating | 4: 400V | 400V |
| 4 | Torque | See 'Standard Specifications'. | 10N·m |
| 5 | Type of encoder | Code Type of Encoder B None A Absolute encoder | Built-in absolute encoder |
| 6 | Basic speed | Code Speed (rpm) 15 1500 20 2000 | Basic speed: 3000 rpm |
| 7 | Max. speed | 25 2500 30 3000 | Max. speed: 3000 rpm |
| 8 | Mode of installation | 5: Flange mounted | B5 flange mounted |
| 9 | Shaft extension | G: Bare shaft J: Shaft with standard key slots | Bare shaft |
| 10 | Brake | B: Electromagnetic power-off brake | Brake |

Electrical Specifications

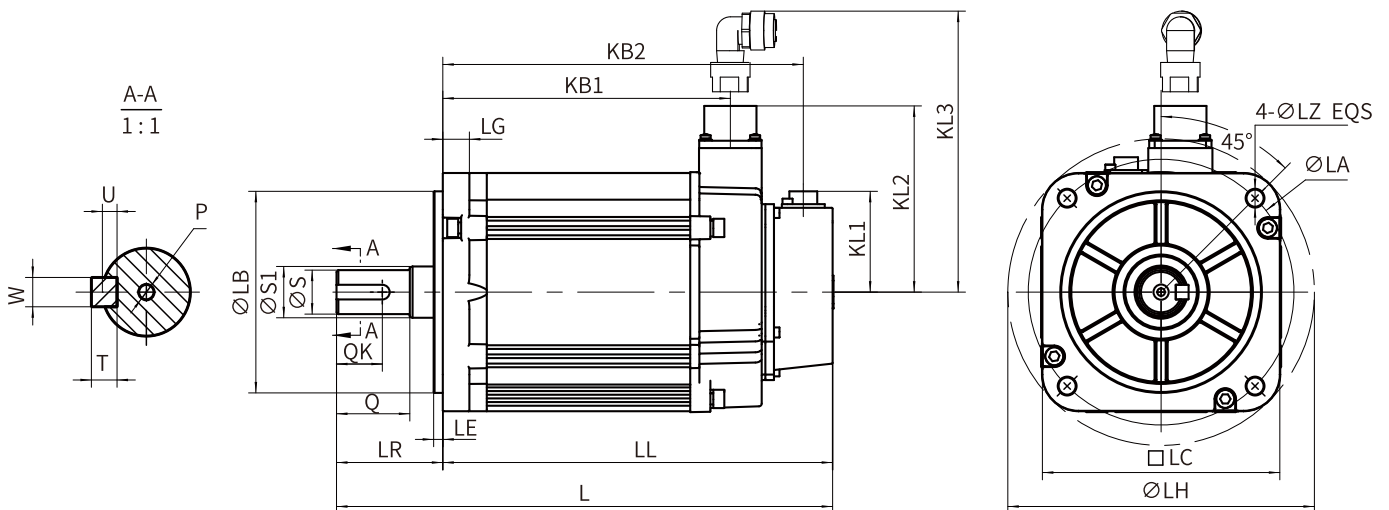
| Motor Model | Rated Torque | Max. Torque | Rated Speed | Rated Power | Rated Current | Back EMF Constant | Rotational Inertia (with brake) | Weight (with brake) |
|----------------------|--------------|-------------|-------------|-------------|---------------|-------------------|-------------------------------------|---------------------|
| | N·m | N·m | r/min | kW | A | V/kr/min | ×10 ⁻⁴ kg·m ² | kg |
| S18-130-406T0A30-30X | 6 | 11.8 | 3000 | 1.9 | 4 | 95 | 12.3 (12.4) | 5.4 (6.9) |
| S18-130-408T0A30-30X | 8 | 16.2 | 3000 | 2.5 | 5.8 | 88.7 | 17.9 (18.0) | 6.8 (9.2) |
| S18-130-410T0A30-30X | 10 | 18.3 | 3000 | 3.1 | 7.2 | 88.7 | 17.9 (18.0) | 6.8 (9.2) |
| S18-130-412T0A30-30X | 12 | 23.8 | 3000 | 3.8 | 9.0 | 85.3 | 23.5 (23.6) | 8.4 (11.8) |
| S18-130-416T0A30-30X | 16 | 31.6 | 3000 | 5.1 | 10.4 | 97.3 | 31.0 (31.1) | 10.4 (13.7) |

| Motor Model | Rated Torque | Max. Torque | Rated Speed | Rated Power | Rated Current | Back EMF Constant | Rotational Inertia (with brake) | Weight (with brake) |
|----------------------|--------------|-------------|-------------|-------------|---------------|-------------------|--|---------------------|
| | N·m | N·m | r/min | kW | A | V/kr/min | $\times 10^4 \text{kg}\cdot\text{m}^2$ | kg |
| S18-180-420T0A15-15X | 20 | 36 | 1500 | 3.2 | 6.1 | 211.3 | 46.6 (47.4) | 14.0 (19.0) |
| S18-180-430T0A15-15X | 30 | 48 | 1500 | 4.7 | 9.1 | 224 | 67.5 (68.3) | 17.5 (23.0) |
| S18-180-435T0A15-15X | 35 | 63 | 1500 | 5.5 | 10.2 | 216 | 90.1 (90.9) | 22.0 (27.5) |
| S18-180-448T0A15-15X | 48 | 77 | 1500 | 7.5 | 13.7 | 231.7 | 132.0 (132.8) | 29.5 (35.0) |
| S18-180-456T0A15-15X | 56 | 112 | 1500 | 8.8 | 16.6 | 216 | 173.8 (174.6) | 37.5 (43.0) |
| S18-180-420T0A30-30X | 20 | 36 | 3000 | 6.3 | 12.2 | 110.7 | 46.6 (47.4) | 14.0 (19.0) |
| S18-180-430T0A30-30X | 30 | 48 | 3000 | 9.4 | 18.3 | 112 | 67.5 (68.3) | 17.5 (23.0) |
| S18-180-435T0A30-30X | 35 | 63 | 3000 | 11 | 20.5 | 108 | 90.1 (90.9) | 22.0 (27.5) |
| S18-180-448T0A30-30X | 48 | 77 | 3000 | 15.0 | 27.7 | 115.8 | 132.0 (132.8) | 29.5 (35.0) |
| S18-180-456T0A30-30X | 56 | 112 | 3000 | 17.6 | 31.9 | 108 | 173.8 (174.6) | 37.5 (43.0) |

Power Torque Curves



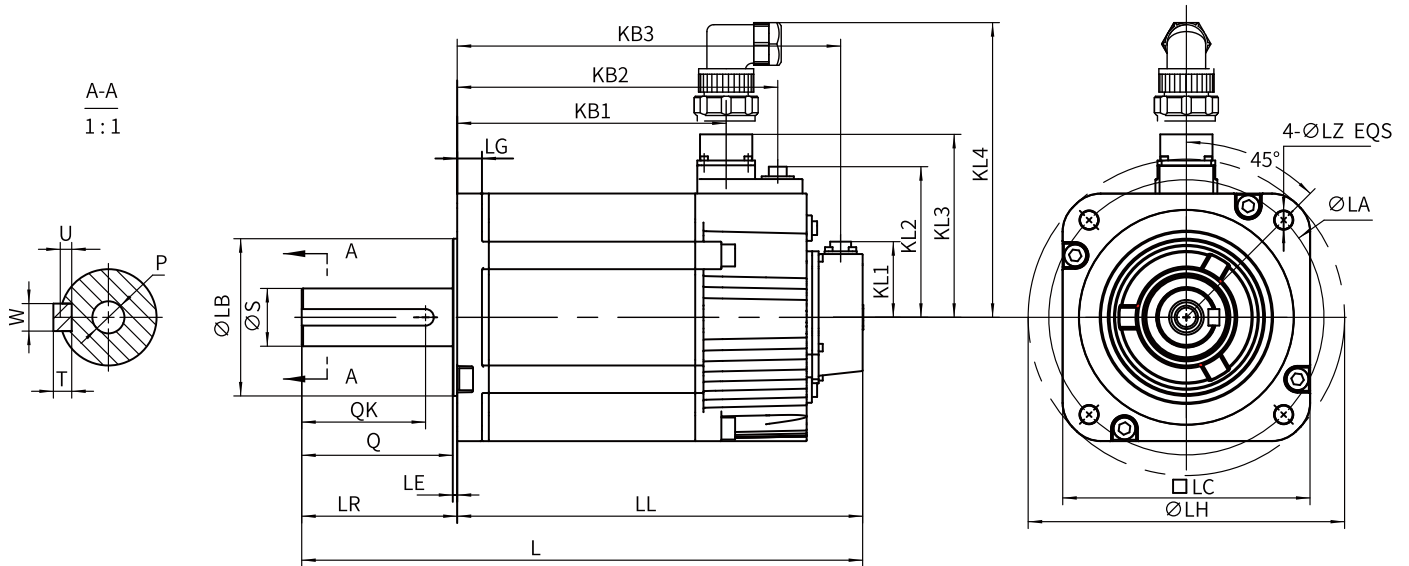
Overall Dimensions Frame Code: S18-130



Unit: mm

| Motor Model | L | LL | KB1 | KB2 | KL1 | KL2 | KL3 | Flange Size | | | | | | | Shaft Extension Spec | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-------------|-------|-----|----|------|-----|----|----------------------|----|------|----|---|---|---|---|---|---|-----|-------|------|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|--|
| | | | | | | | | LA | LB | LC | LE | LG | LH | LZ | S | S1 | LR | QK | Q | W | T | U | P | | | | | | | | | | | | | | | | | | | | | | | | |
| S18-130-406T0A30-30X | 197 | 139 | 83 | 123 | | | | | | | | | | | | | 19h6 | | | | | 5 | 5 | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| S18-130-408T0A30-30X | 214 | 156 | 100 | 140 | 55 | 102 | 160 | 145 | 110h7 | 130 | 5 | 14.5 | 168 | 9 | 28 | 58 | 25 | 40 | | | | | 6 | 6 | 3.5 | M5x12 | | | | | | | | | | | | | | | | | | | | | |
| S18-130-410T0A30-30X | | | | | | | | | | | | | | | | | | | | | | | | | | | 22h6 | | | | | | | | | | | | | | | | | | | | |
| S18-130-412T0A30-30X | 231 | 173 | 117 | 157 | | | | | | | | | | | | | | | | | | | | | | | 24h6 | 8 | 7 | 4 | | | | | | | | | | | | | | | | | |
| S18-130-416T0A30-30X | 253 | 195 | 139 | 179 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S18-130-406T0A30-30XB | 235 | 177 | 121 | 161 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 5 | 3 | |
| S18-130-408T0A30-30XB | 251 | 193 | 137 | 177 | 55 | 102 | 160 | 145 | 110h7 | 130 | 5 | 14.5 | 168 | 9 | 28 | 58 | 25 | 40 | | | | | 6 | 6 | 3.5 | M5x12 | | | | | | | | | | | | | | | | | | | | | |
| S18-130-410T0A30-30XB | | | | | | | | | | | | | | | | | | | | | | | | | | | 22h6 | | | | | | | | | | | | | | | | | | | | |
| S18-130-412T0A30-30XB | 271 | 213 | 157 | 197 | | | | | | | | | | | | | | | | | | | | | | | 24h6 | 8 | 7 | 4 | | | | | | | | | | | | | | | | | |
| S18-130-416T0A30-30XB | 293 | 235 | 179 | 219 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Overall Dimensions Frame Code: S18-180



Unit: mm

| Motor Model | L | LL | KB1 | KB2 | KB3 | KL1 | KL2 | KL3 | KL4 | Flange Size | | | | | | | Shaft Extension Spec | | | | | | | | | |
|----------------------|-------|-------|-------|-----|-------|-----|-----|-------|-----|-------------|---------|-----|-----|----|-----|----|----------------------|----|----|----|----|---|---|--------|--|--|
| | | | | | | | | | | LA | LB | LC | LE | LG | LH | LZ | S | LR | QK | Q | W | T | U | P | | |
| S18-180-420T0A15-15X | 281.2 | 202.2 | 145.5 | | 185.7 | | | | | | | | | | | | | | | | | | | | | |
| S18-180-420T0A30-30X | 281.2 | 202.2 | 145.5 | - | 185.7 | 55 | - | 132.5 | 200 | 200 | 114.3h6 | 180 | 3.2 | 18 | 230 | 13 | 35 | 79 | 60 | 76 | 10 | 8 | 5 | M12x25 | | |

Unit: mm

| Motor Model | L | LL | KB1 | KB2 | KB3 | KL1 | KL2 | KL3 | KL4 | Flange Size | | | | | | | Shaft Extension Spec | | | | | | | | |
|-----------------------|-------|-------|-------|-----|-------|-----|-------|-------|-----|-------------|---------|-----|-----|----|-----|----|----------------------|----|-----|----|-----|----|---|---|--------|
| | | | | | | | | | | LA | LB | LC | LE | LG | LH | LZ | S | LR | QK | Q | W | T | U | P | |
| S18-180-430T0A15-15X | 306.2 | 227.2 | 170.5 | | 210.7 | | | | | | | | | | | | | 35 | 79 | 60 | 76 | 10 | 8 | 5 | M12x25 |
| S18-180-430T0A30-30X | 306.2 | 227.2 | 170.5 | | 210.7 | | | | | | | | | | | | | | | | | | | | |
| S18-180-435T0A15-15X | 365.2 | 252.2 | 195.5 | | 235.7 | | | | | | | | | | | | | | | | | | | | |
| S18-180-435T0A30-30X | 365.2 | 252.2 | 195.5 | | 235.7 | | | | | | | | | | | | | | | | | | | | |
| S18-180-448T0A15-15X | 415.2 | 302.2 | 245.5 | | 285.7 | 55 | - | 132.5 | 200 | 200 | 114.3h6 | 180 | 3.2 | 18 | 230 | 13 | | 42 | 113 | 90 | 110 | 12 | 8 | 5 | M16x32 |
| S18-180-448T0A30-30X | 415.2 | 302.2 | 245.5 | | 285.7 | | | | | | | | | | | | | | | | | | | | |
| S18-180-456T0A15-15X | 465.2 | 352.2 | 296 | | 335.7 | | | | | | | | | | | | | | | | | | | | |
| S18-180-456T0A30-30X | 465.2 | 352.2 | 296 | | 335.7 | | | | | | | | | | | | | | | | | | | | |
| S18-180-420T0A15-15XB | 324.2 | 245.2 | 145.5 | 183 | 229 | | | | | | | | | | | | | | | | | | | | |
| S18-180-420T0A30-30XB | 324.2 | 245.2 | 145.5 | 183 | 229 | | | | | | | | | | | | | | | | | | | | |
| S18-180-430T0A15-15XB | 349.2 | 270.2 | 170.5 | 208 | 254 | | | | | | | | | | | | | | | | | | | | |
| S18-180-430T0A30-30XB | 349.2 | 270.2 | 170.5 | 208 | 254 | | | | | | | | | | | | | | | | | | | | |
| S18-180-435T0A15-15XB | 408.2 | 295.2 | 195.5 | 233 | 279 | 55 | 109.5 | 132.5 | 200 | 200 | 114.3h6 | 180 | 3.2 | 18 | 230 | 13 | | | | | | | | | |
| S18-180-435T0A30-30XB | 408.2 | 295.2 | 195.5 | 233 | 279 | | | | | | | | | | | | | | | | | | | | |
| S18-180-448T0A15-15XB | 458.2 | 345.2 | 245.5 | 283 | 329 | | | | | | | | | | | | | | | | | | | | |
| S18-180-448T0A30-30XB | 458.2 | 345.2 | 245.5 | 283 | 329 | | | | | | | | | | | | | | | | | | | | |
| S18-180-456T0A15-15XB | 508.2 | 395.2 | 296 | 333 | 379 | | | | | | | | | | | | | | | | | | | | |
| S18-180-456T0A30-30XB | 508.2 | 395.2 | 296 | 333 | 379 | | | | | | | | | | | | | | | | | | | | |

S18B Series Universal Servo Motor

- ◆ Torque range: 6 ~ 56N.m
- ◆ Speed sensor: built-in absolute encoder, etc.
- ◆ Rated speed: 1500 ~ 3000rpm
- ◆ Voltage rating: 400V

10-pole rotor

12-slot stator

Spliced stator



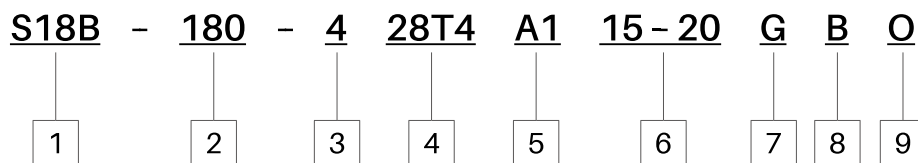
Product Features

- 1、 Built-in high precision absolute encoder for better positioning accuracy and operational stability at low speed; high precision and high dynamic response control.
- 2、 New magnetic field analysis and motor manufacturing technologies reduce torque ripples, thus improving speed stability and reducing torque ripples of the servo system.
- 3、 New stator lamination and splicing technology reduces temperature rise and improves electromagnetic performance of the motors, thus improving their efficiency and reliability.

Industry Applications



Model Description (Take 28.4N.m motor for example)



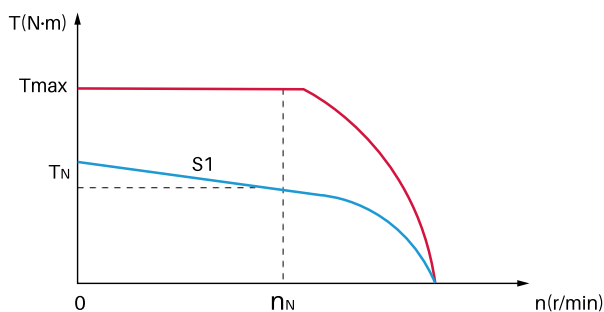
| Code | Description | Instructions | Example Model |
|------|-----------------|---|---|
| 1 | Product series | S18B: manufacturer's motor code | S18 series permanent magnet synchronous servo motor |
| 2 | Frame code | 130: 130×130 180 : 180×180 | 180×180 |
| 3 | Voltage rating | 4: 400V级 | 400V |
| 4 | Torque | See 'Standard Specifications'. | 28.4N·m |
| 5 | Type of encoder | Code Type of encoder A1 17bitSingle cycle absolute value encoder A3 23bit多 Multi cycle absolute value encoder B None | 17bitSingle cycle absolute value encoder |
| 6 | Basic speed | Code Speed r/min Code Speed r/min 15 1500 25 2500 | Basic speed: 1500r/min |
| | Max. speed | 20 2000 30 3000 | Max. speed: 2000r/min |
| 7 | Shaft extension | G: Bare shaft J: Shaft with standard key slots | Bare shaft |
| 8 | Brake | B: Electromagnetic power-off brake | Brake |
| 9 | Export marking | O: Export motor (not for motors sold nationwide) | Export product |

Electrical Specifications Frame Code: S18B-130

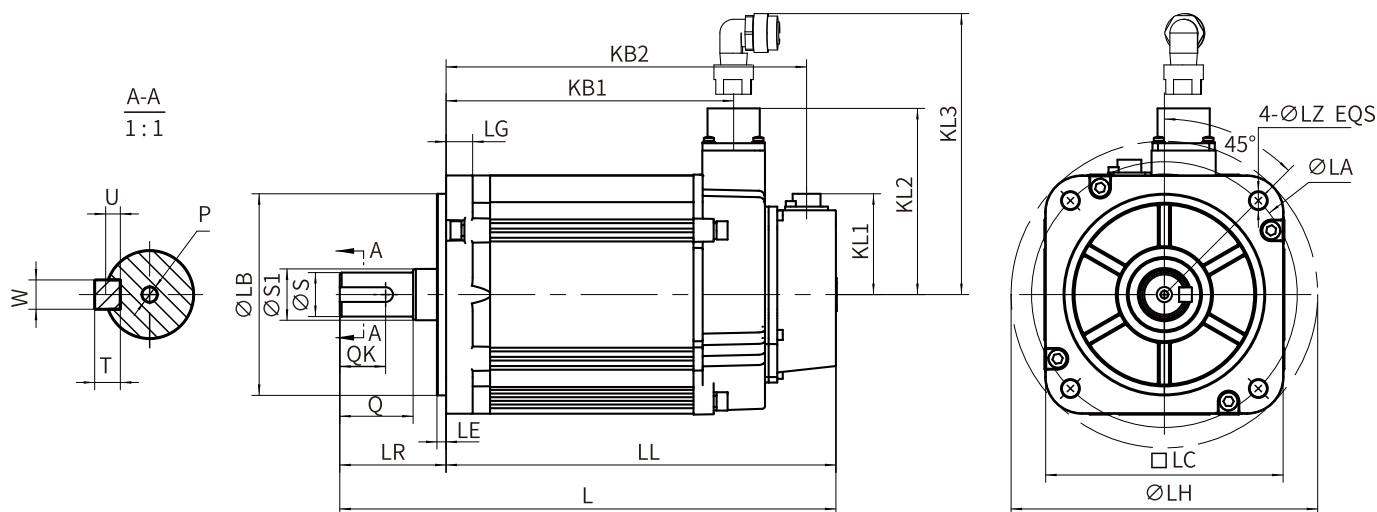
| Motor Model | Rated Torque N·m | Max. Torque N·m | Rated Speed r/min | Rated Power kW | Rated Current A | Back EMF Constant V/kr/min | Max. Speed r/min | Max. Current A | Rotational Inertia (with brake) ×10 ⁻⁴ kg·m ² | Weight (with brake) kg |
|-----------------------|---------------------|--------------------|----------------------|-------------------|--------------------|-------------------------------|---------------------|-------------------|---|------------------------------|
| S18B-130-405T4X15-20X | 5.4 | 13.5 | 1500 | 0.8 | 1.95 | 176.8 | 2000 | 4.9 | 17.9 (18) | 6.8(9.2) |
| S18B-130-408T4X15-20X | 8.4 | 21 | 1500 | 1.3 | 3.12 | 170.1 | 2000 | 7.9 | 23.5(23.6) | 8.4 (11.8) |
| S18B-130-411T5X15-20X | 11.5 | 28.8 | 1500 | 1.8 | 4 | 180.2 | 2000 | 10.2 | 31 (31.1) | 10.4 (13.7) |
| S18B-130-405T4X20-30X | 5.4 | 13.5 | 2000 | 1.1 | 2.9 | 122.0 | 3000 | 7.2 | 17.9 (18) | 6.8(9.2) |
| S18B-130-408T4X20-30X | 8.4 | 21 | 2000 | 1.8 | 4.5 | 119.0 | 3000 | 11.5 | 23.5(23.6) | 8.4 (11.8) |
| S18B-130-411T5X20-30X | 11.5 | 28.8 | 2000 | 2.4 | 6.8 | 108.0 | 3000 | 17.1 | 31 (31.1) | 10.4 (13.7) |

| Motor Model | Rated Torque N·m | Max. Torque N·m | Rated Speed r/min | Rated Power kW | Rated Current A | Back EMF Constant V/kr/min | Max. Speed r/min | Max. Current A | Rotational Inertia (with brake) $\times 10^{-4} \text{kg}\cdot\text{m}^2$ | Weight (with brake) kg |
|-----------------------|---------------------|--------------------|----------------------|-------------------|--------------------|-------------------------------|---------------------|-------------------|---|------------------------------|
| S18B-180-418T6X15-20X | 18.6 | 46.5 | 1500 | 2.9 | 6.7 | 177.3 | 2000 | 17.3 | 67.5 (68.3) | 17.5 (23) |
| S18B-180-428T4X15-20X | 28.4 | 71 | 1500 | 4.5 | 10.7 | 169.3 | 2000 | 28 | 90.1(90.9) | 22 (27.5) |
| S18B-180-435T0X15-20X | 35 | 87.5 | 1500 | 5.5 | 12.6 | 177.3 | 2000 | 32.4 | 132.0 (132.8) | 29.5 (35) |
| S18B-180-448T0X15-20X | 48 | 120 | 1500 | 7.5 | 17 | 179.9 | 2000 | 46 | 173.8 (174.6) | 37.5 (43) |
| S18B-180-418T6X20-30X | 18.6 | 46.5 | 2000 | 3.9 | 10.6 | 112.0 | 3000 | 27.5 | 67.5 (68.3) | 17.5 (23) |
| S18B-180-428T4X20-30X | 28.4 | 71 | 2000 | 6.0 | 16.8 | 108.0 | 3000 | 44.1 | 90.1(90.9) | 22 (27.5) |
| S18B-180-435T0X20-30X | 35 | 87.5 | 2000 | 7.3 | 19.3 | 115.5 | 3000 | 49.7 | 132.0 (132.8) | 29.5 (35) |

Power Torque Curves



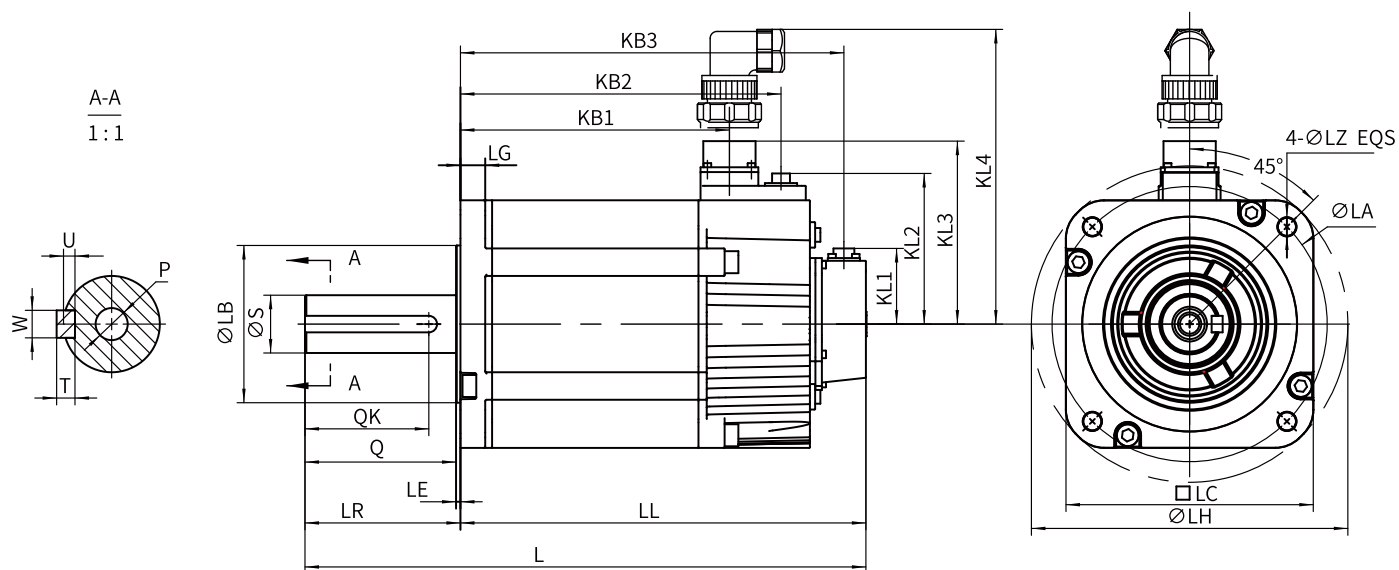
Overall Dimensions Frame Code: S18B-130



Unit: mm

| Motor Model | L | LL | KB1 | KB2 | KL1 | KL2 | KL3 | Flange Size | | | | | | | Shaft Extension Spec | | | | | | | | | | |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-------------|-------|-----|----|------|-----|----|----------------------|------|------|----|----|----|---|---|---|-----|-------|
| | | | | | | | | LA | LB | LC | LE | LG | LH | LZ | S | S1 | LR | QK | Q | W | T | U | P | | |
| S18B-130-405T4XXX-XX | 214 | 156 | 100 | 140 | | | | | | | | | | | | | 22h6 | | | | | 6 | 6 | 3.5 | |
| S18B-130-408T4XXX-XX | 231 | 173 | 117 | 157 | 55 | 102 | 160 | 145 | 110h7 | 130 | 5 | 14.5 | 168 | 9 | | 24h6 | 28 | 58 | 25 | 40 | | 8 | 7 | 4 | M5×12 |
| S18B-130-411T5XXX-XX | 253 | 195 | 139 | 179 | | | | | | | | | | | | 24h6 | | | | | | 8 | 7 | 4 | |
| S18B-130-405T4XXX-XXB | 251 | 193 | 137 | 177 | | | | | | | | | | | | 22h6 | | | | | | 6 | 6 | 3.5 | |
| S18B-130-408T4XXX-XXB | 271 | 213 | 157 | 197 | 55 | 102 | 160 | 145 | 110h7 | 130 | 5 | 14.5 | 168 | 9 | | 24h6 | 28 | 58 | 25 | 40 | | 8 | 7 | 4 | M5×12 |
| S18B-130-411T5XXX-XXB | 293 | 235 | 179 | 219 | | | | | | | | | | | | 24h6 | | | | | | 8 | 7 | 4 | |

Overall Dimensions Frame Code: S18B-180

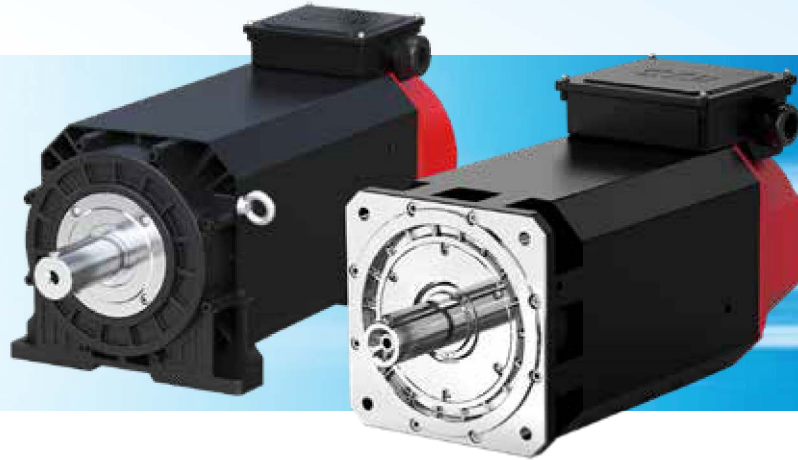


Unit: mm

| Motor Model | L | LL | KB1 | KB2 | KB3 | KL1 | KL2 | KL3 | KL4 | Flange Size | | | | | | | Shaft Extension Spec | | | | | | | | |
|-----------------------|-------|-------|-------|-----|-----|-----|-------|-------|-----|-------------|---------|-----|-----|----|-----|----|----------------------|-----|----|-----|----|---|---|--------|--|
| | | | | | | | | | | LA | LB | LC | LE | LG | LH | LZ | S | LR | QK | Q | W | T | U | P | |
| S18B-180-418T6XXX-XX | 306.2 | 227.2 | 170.5 | | 211 | | | | | | | | | | | | 35 | 79 | 60 | 76 | 10 | 8 | 5 | M12x25 | |
| S18B-180-428T4XXX-XX | 365.2 | 252.2 | 195.5 | | 236 | 55 | - | 132.5 | 200 | 200 | 114.3h6 | 180 | 3.2 | 23 | 230 | 13 | | | | | | | | | |
| S18B-180-435T0XXX-XX | 415.2 | 302.2 | 245.5 | | 286 | | | | | | | | | | | | 42 | 113 | 90 | 110 | 12 | 8 | 5 | M16x32 | |
| S18B-180-448T0XXX-XX | 465.2 | 352.2 | 295.5 | | 336 | | | | | | | | | | | | | | | | | | | | |
| S18B-180-418T6XXX-XXB | 349.2 | 270.2 | 170.5 | 208 | 254 | | | | | | | | | | | | 35 | 79 | 60 | 76 | 10 | 8 | 5 | M12x25 | |
| S18B-180-428T4XXX-XXB | 408.2 | 295.2 | 195.5 | 233 | 279 | 55 | 109.5 | 132.5 | 200 | 200 | 114.3h6 | 180 | 3.2 | 23 | 230 | 13 | | | | | | | | | |
| S18B-180-435T0XXX-XXB | 458.2 | 345.2 | 245.5 | 283 | 329 | | | | | | | | | | | | 42 | 113 | 90 | 110 | 12 | 8 | 5 | M16x32 | |
| S18B-180-448T0XXX-XXB | 508.2 | 395.2 | 295.5 | 333 | 379 | | | | | | | | | | | | | | | | | | | | |

P18S Series High Response Permanent Magnet Synchronous Servo Motor

- ◆ Power range: 5.5~450kW
- ◆ Duty type: continuous (S1)
- ◆ Max. speed: 6000 r/min
- ◆ Encoder: built-in (options: magnetic, incremental, rotary, SinCos, absolute)
- ◆ Heat radiation: forced air cooling
- ◆ Installation structure: B3(V5 V6)/B5(V1 V3)/B35(V15 V35)
- ◆ IP rating: IP55 (IEC60034-5)
- ◆ Class of vibration: A
- ◆ Noise: ≤ 70 dB(A)
- ◆ Class of insulation: Class F
- ◆ Ambient temperature: $-15^{\circ}\text{C}\sim+45^{\circ}\text{C}$
- ◆ Ambient humidity: $<20\%\sim90\%$ RH (non-condensing)



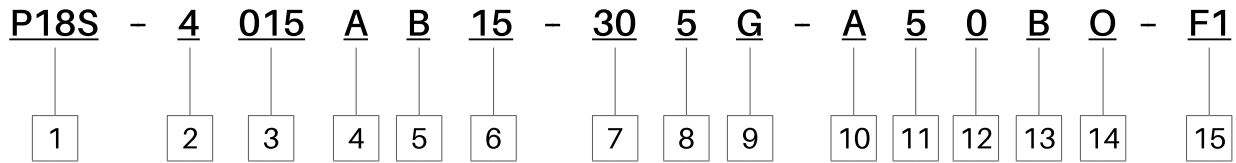
Product Features

1. Rich product variety: covering 6 machine base sizes, over 100 models, and can also be customized to meet customers' different usage scenarios.
2. High efficiency and wide high-efficiency zone: Special magnetic and thermal circuit designs not only result in low losses but also high heat dissipation efficiency.
3. High power density: High performance magnetic steel and silicon steel sheets achieve small size and high performance of the motor.
4. Wide speed range: adopting an embedded rotor structure, with strong weak magnetic expansion ability.
5. High dynamic response: The motor overload capacity can reach more than 3 times, and it has a small moment of inertia, achieving high dynamic response of the motor.
6. Smooth operation: Special pole slot coordination and winding form achieve weak tooth slot torque and small torque ripple.
7. Strong anti demagnetization ability: using high-performance neodymium iron boron material and anti demagnetization magnetic circuit design.
8. High reliability: The motor adopts high-performance effective materials and insulation materials to ensure the service life of the motor.

Industry Applications



Model Description (Take 15 kW, 1500 rpm motor for example)



| Code | Description | Instructions | Example Model |
|------|---|--|--|
| 1 | Product series | P18S: code of the motor series | P18S Series synchronous Servo Motors |
| 2 | Voltage rating | 2: 200V 4: 400V | 400V |
| 3 | Power code | See 'Standard Specifications'. | 15kW |
| 4 | Type of encoder | Code Type of encoder B None C Magnetic encode 128T、256T G Incremental encoder 1024p、2500p、8192P R Rotary transformer 1024P S SinCos encoder 2048P A Absolute encoder 23bit | Absolute encoder 23bit |
| 5 | Frame code | Code Flange Size (L×W) mm Code Flange Size (L×W) mm B 205×205 F 380×380 C 265×265 G 480×480 E 320×320 H 580×580 | Frame B |
| 6 | Basic speed | Code Speed r/min Code Speed r/min 05 500 30 3000 07 750 40 4000 | Basic speed: 1500 rpm |
| 7 | Speed at constant power | 10 1000 45 4500 15 1500 60 6000 20 2000 | Speed at constant power: 3000 rpm |
| 8 | Mode of installation | 3: Horizontal 5: Flange mounted 35: Horizontal + flange mounted | Flange mounted |
| 9 | Shaft extension | G: Bare shaf J: Splined shaft | Bare shaft |
| 10 | Smart card | A: with N: without | With smart card |
| 11 | Line incoming direction of junction box | 2: Right incoming line of junction box 3: Left incoming line of junction box 5: Front line of junction box | Front line of junction box |
| 12 | Incoming line of junction box | 0: Standard junction box + black encoder plug 1: Standard junction box + aerospace encoder plug 2: Waterproof junction box + black encoder plug 3: Waterproof junction box + aerospace encoder plug | Standard junction box + black encoder plug |
| 13 | Brake | B: With brake (not for motors without brake) | With brake |
| 14 | Export marking | O: Export motor (not for motors sold nationwide) | Export product |
| 15 | Code of nonstandard motor part | F1: Shaft extension F4: Stator F7: Encoder F2: Flange F5: Fan F3: Feet F6: Junction box | Nonstandard shaft extension |

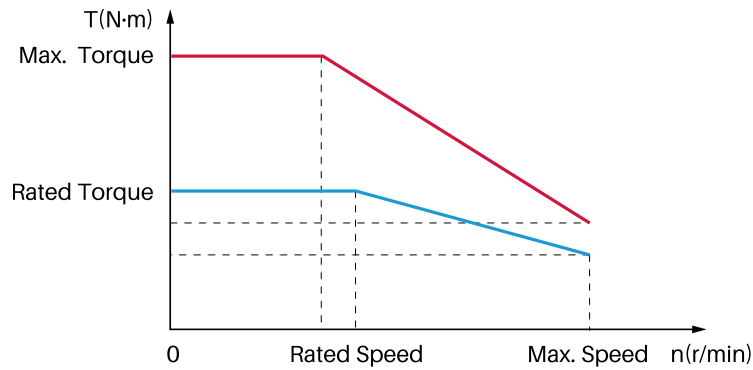
Electrical Specifications

| Frame Code | Motor Model | Rated Power kW | Rated Torque N·m | Rated Current A | Rated Speed r/min | Max. Torque N·m | Max. Current A | Max. Speed r/min | Rated Frequency Hz | Back EMF Constant V/kr/min | Rotational Inertia kg·m ² | Weight kg |
|------------|--------------------|----------------|------------------|-----------------|-------------------|-----------------|----------------|------------------|--------------------|----------------------------|--------------------------------------|-----------|
| P18SB1 | P18S-45P5XB10-20XX | 5.5 | 53 | 11 | 1000 | 142 | 34.5 | 2000 | 67 | 249 | 0.0067 | 55 |
| | P18S-47P5XB15-30XX | 7.5 | 48 | 14.1 | 1500 | 129 | 42.5 | 3000 | 100 | 175 | | |
| | P18S-4010XB20-40XX | 10 | 48 | 18.8 | 2000 | 129 | 55.2 | 4000 | 133 | 133 | | |
| | P18S-4014XB30-60XX | 14 | 45 | 26 | 3000 | 120 | 73 | 6000 | 200 | 90 | | |
| P18SB2 | P18S-47P5XB10-20XX | 7.5 | 72 | 14.6 | 1000 | 193 | 46 | 2000 | 67 | 271 | 0.0087 | 62 |
| | P18S-49P5XB15-30XX | 9.5 | 60 | 18 | 1500 | 163 | 50 | 3000 | 100 | 169 | | |
| | P18S-4011XB15-30XX | 11 | 70 | 21 | 1500 | 189 | 65 | 3000 | 100 | 178 | | |
| | P18S-4014XB20-40XX | 14 | 67 | 26.5 | 2000 | 180 | 80 | 4000 | 133 | 131 | | |
| | P18S-4018XB30-60XX | 18.5 | 59 | 34 | 3000 | 159 | 96 | 6000 | 200 | 91 | | |
| P18SB3 | P18S-49P5XB10-20XX | 9.5 | 91 | 18.2 | 1000 | 245 | 55 | 2000 | 67 | 259 | 0.0112 | 71 |
| | P18S-4015XB15-30XX | 15 | 96 | 28 | 1500 | 258 | 89 | 3000 | 100 | 176 | | |
| | P18S-4018XB20-40XX | 18.5 | 88 | 35 | 2000 | 239 | 104 | 4000 | 133 | 132 | | |
| | P18S-4022XB30-60XX | 22 | 70 | 40 | 3000 | 189 | 108 | 6000 | 200 | 93 | | |
| P18SB4 | P18S-4011XB10-20XX | 11 | 105 | 20.5 | 1000 | 284 | 57.5 | 2000 | 67 | 270 | 0.0143 | 83 |
| | P18S-4018XB15-30XX | 18.5 | 118 | 34 | 1500 | 318 | 102 | 3000 | 100 | 180 | | |
| | P18S-4022XB20-40XX | 22 | 105 | 41 | 2000 | 284 | 116 | 4000 | 133 | 135 | | |
| | P18S-4028XB30-60XX | 28 | 89 | 50 | 3000 | 241 | 131 | 6000 | 200 | 96 | | |
| P18SB5 | P18S-4015XB10-20XX | 15 | 143 | 28.5 | 1000 | 387 | 86 | 2000 | 67 | 261 | 0.0170 | 92 |
| | P18S-4022XB15-30XX | 22 | 140 | 42 | 1500 | 378 | 123 | 3000 | 100 | 177 | | |
| | P18S-4028XB20-40XX | 28 | 134 | 50 | 2000 | 361 | 146 | 4000 | 133 | 138 | | |
| | P18S-4037XB30-60XX | 37 | 118 | 68 | 3000 | 318 | 185 | 6000 | 200 | 92 | | |
| P18SC2 | P18S-4018XC10-20XX | 18.5 | 177 | 33.5 | 1000 | 530 | 124 | 2000 | 67 | 276 | 0.0297 | 138 |
| | P18S-4030XC15-30XX | 30 | 191 | 55 | 1500 | 573 | 222 | 3000 | 100 | 182 | | |
| | P18S-4037XC20-40XX | 37 | 177 | 69.5 | 2000 | 530 | 255 | 4000 | 133 | 134 | | |
| P18SC3 | P18S-4022XC10-20XX | 22 | 210 | 40 | 1000 | 630 | 146 | 2000 | 67 | 276 | 0.0359 | 152 |
| | P18S-4037XC15-30XX | 37 | 236 | 68 | 1500 | 707 | 285 | 3000 | 100 | 181 | | |
| | P18S-4045XC20-40XX | 45 | 215 | 85 | 2000 | 645 | 315 | 4000 | 133 | 133 | | |
| P18SC5 | P18S-4030XC10-20XX | 30 | 287 | 56 | 1000 | 860 | 220 | 2000 | 67 | 267 | 0.0470 | 174 |
| | P18S-4045XC15-30XX | 45 | 287 | 82.5 | 1500 | 860 | 323 | 3000 | 100 | 182 | | |
| | P18S-4060XC20-40XX | 60 | 287 | 112 | 2000 | 860 | 439 | 4000 | 133 | 134 | | |
| P18SC6 | P18S-4037XC10-20XX | 37 | 353 | 70 | 1000 | 1060 | 284 | 2000 | 67 | 262 | 0.0511 | 193 |
| | P18S-4055XC15-30XX | 55 | 350 | 105 | 1500 | 1051 | 418 | 3000 | 100 | 175 | | |
| | P18S-4075XC20-40XX | 75 | 358 | 142 | 2000 | 1074 | 588 | 4000 | 133 | 131 | | |
| P18SE1 | P18S-4030XE10-20XX | 30 | 287 | 53 | 1000 | 860 | 165 | 2000 | 67 | 284 | 0.1301 | 237 |
| | P18S-4045XE15-30XX | 45 | 287 | 85 | 1500 | 860 | 268 | 3000 | 100 | 185 | | |
| | P18S-4055XE20-40XX | 55 | 263 | 94 | 2000 | 788 | 282 | 4000 | 133 | 148 | | |
| P18SE2 | P18S-4037XE10-20XX | 37 | 353 | 67 | 1000 | 1060 | 206 | 2000 | 67 | 278 | 0.1624 | 266 |
| | P18S-4055XE15-30XX | 55 | 350 | 100 | 1500 | 1051 | 306 | 3000 | 100 | 185 | | |
| | P18S-4070XE20-40XX | 70 | 334 | 127 | 2000 | 1003 | 384 | 4000 | 133 | 139 | | |
| P18SE3 | P18S-4045XE10-20XX | 45 | 430 | 78 | 1000 | 1289 | 239 | 2000 | 67 | 289 | 0.1870 | 301 |
| | P18S-4065XE15-30XX | 65 | 414 | 113 | 1500 | 1242 | 342 | 3000 | 100 | 193 | | |
| | P18S-4080XE20-40XX | 80 | 382 | 132 | 2000 | 1146 | 388 | 4000 | 133 | 155 | | |
| P18SE4 | P18S-4055XE10-20XX | 55 | 525 | 96 | 1000 | 1576 | 297 | 2000 | 67 | 290 | 0.2328 | 312 |
| | P18S-4080XE15-30XX | 80 | 509 | 140 | 1500 | 1528 | 427 | 3000 | 100 | 193 | | |
| | P18S-4090XE20-40XX | 90 | 430 | 161 | 2000 | 1289 | 467 | 4000 | 133 | 145 | | |

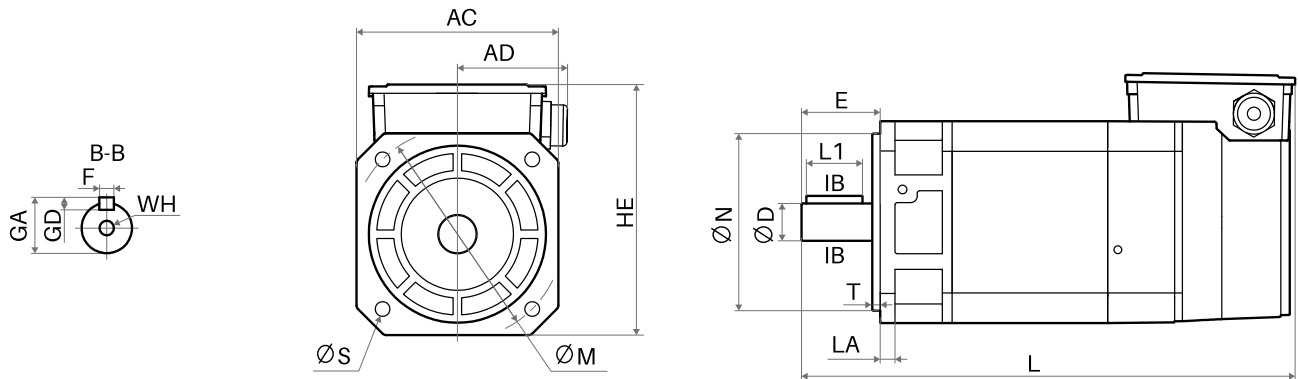
| Frame Code | Motor Model | Rated Power kW | Rated Torque N·m | Rated Current A | Rated Speed r/min | Max. Torque N·m | Max. Current A | Max. Speed r/min | Rated Frequency Hz | Back EMF Constant V/kr/min | Rotational Inertia kg·m ² | Weight kg |
|------------|--------------------|----------------|------------------|-----------------|-------------------|-----------------|----------------|------------------|--------------------|----------------------------|--------------------------------------|-----------|
| P18SF1 | P18S-4030XF05-10XX | 30 | 573 | 52.8 | 500 | 1433 | 141 | 1000 | 33 | 582 | 0.1896 | 355 |
| | P18S-4045XF07-15XX | 45 | 573 | 80.2 | 750 | 1433 | 214 | 1500 | 50 | 383 | | |
| | P18S-4060XF10-20XX | 60 | 573 | 109 | 1000 | 1433 | 290 | 2000 | 67 | 283 | | |
| | P18S-4090XF15-30XX | 90 | 573 | 154 | 1500 | 1433 | 412 | 3000 | 100 | 200 | | |
| P18SF2 | P18S-4037XF05-10XX | 37 | 707 | 66 | 500 | 1767 | 176 | 1000 | 33 | 576 | 0.2587 | 397 |
| | P18S-4055XF07-15XX | 55 | 700 | 102 | 750 | 1751 | 270 | 1500 | 50 | 369 | | |
| | P18S-4075XF10-20XX | 75 | 716 | 134 | 1000 | 1791 | 358 | 2000 | 67 | 287 | | |
| | P18S-4110XF15-30XX | 110 | 700 | 204 | 1500 | 1751 | 542 | 3000 | 100 | 185 | | |
| P18SF3 | P18S-4045XF05-10XX | 45 | 860 | 79.8 | 500 | 2149 | 207 | 1000 | 33 | 580 | 0.3036 | 462 |
| | P18S-4075XF07-15XX | 75 | 955 | 133 | 750 | 2388 | 354 | 1500 | 50 | 387 | | |
| | P18S-4090XF10-20XX | 90 | 860 | 153 | 1000 | 2149 | 395 | 2000 | 67 | 304 | | |
| | P18S-4125XF15-30XX | 125 | 796 | 223 | 1500 | 1990 | 567 | 3000 | 100 | 193 | | |
| P18SF4 | P18S-4055XF05-10XX | 55 | 1051 | 100 | 500 | 2626 | 260 | 1000 | 33 | 566 | 0.3592 | 513 |
| | P18S-4090XF07-15XX | 90 | 1146 | 168 | 750 | 2865 | 448 | 1500 | 50 | 367 | | |
| | P18S-4110XF10-20XX | 110 | 1051 | 189 | 1000 | 2626 | 490 | 2000 | 67 | 300 | | |
| | P18S-4160XF15-30XX | 160 | 1019 | 276 | 1500 | 2547 | 710 | 3000 | 100 | 200 | | |
| P18SG1 | P18S-4055XG05-10XX | 55 | 1051 | 99.5 | 500 | 2626 | 261 | 1000 | 50 | 538 | 0.7377 | 563 |
| | P18S-4075XG07-15XX | 75 | 955 | 131 | 750 | 2388 | 335 | 1500 | 75 | 373 | | |
| | P18S-4090XG10-20XX | 90 | 860 | 153 | 1000 | 2149 | 382 | 2000 | 100 | 290 | | |
| | P18S-4110XG15-30XX | 110 | 700 | 197 | 1500 | 1751 | 476 | 3000 | 150 | 187 | | |
| P18SG2 | P18S-4075XG05-10XX | 75 | 1433 | 142 | 500 | 3581 | 384 | 1000 | 50 | 514 | 0.9533 | 626 |
| | P18S-4090XG07-15XX | 90 | 1146 | 153 | 750 | 2865 | 386 | 1500 | 75 | 385 | | |
| | P18S-4110XG10-20XX | 110 | 1051 | 192 | 1000 | 2626 | 478 | 2000 | 100 | 283 | | |
| | P18S-4132XG15-30XX | 132 | 840 | 215 | 1500 | 2101 | 517 | 3000 | 150 | 205 | | |
| P18SG3 | P18S-4090XG05-10XX | 90 | 1719 | 169 | 500 | 4298 | 452 | 1000 | 50 | 518 | 1.1168 | 705 |
| | P18S-4110XG07-15XX | 110 | 1401 | 203 | 750 | 3502 | 510 | 1500 | 75 | 356 | | |
| | P18S-4132XG10-20XX | 132 | 1261 | 225 | 1000 | 3152 | 554 | 2000 | 100 | 291 | | |
| | P18S-4160XG15-30XX | 160 | 1019 | 277 | 1500 | 2547 | 665 | 3000 | 150 | 194 | | |
| P18SG4 | P18S-4110XG05-10XX | 110 | 2101 | 199 | 500 | 5253 | 522 | 1000 | 50 | 538 | 1.4147 | 818 |
| | P18S-4132XG07-15XX | 132 | 1681 | 233 | 750 | 4202 | 577 | 1500 | 75 | 373 | | |
| | P18S-4160XG10-20XX | 160 | 1528 | 274 | 1000 | 3820 | 669 | 2000 | 100 | 290 | | |
| | P18S-4200XG15-30XX | 200 | 1273 | 325 | 1500 | 3183 | 775 | 3000 | 150 | 207 | | |
| P18SH1 | P18S-4120XH05-10XX | 120 | 2292 | 207 | 500 | 5730 | 572 | 1000 | 50 | 594 | 2.5809 | 976 |
| | P18S-4160XH07-15XX | 160 | 2037 | 269 | 750 | 5093 | 711 | 1500 | 75 | 408 | | |
| | P18S-4185XH10-20XX | 185 | 1767 | 323 | 1000 | 4417 | 824 | 2000 | 100 | 297 | | |
| | P18S-4250XH15-22XX | 250 | 1592 | 468 | 1500 | 3979 | 1172 | 2200 | 150 | 185 | | |
| P18SH2 | P18S-4160XH05-10XX | 160 | 3056 | 277 | 500 | 7640 | 763 | 1000 | 50 | 592 | 3.3598 | 1125 |
| | P18S-4220XH07-15XX | 220 | 2801 | 381 | 750 | 7003 | 1016 | 1500 | 75 | 396 | | |
| | P18S-4250XH10-20XX | 250 | 2388 | 436 | 1000 | 5969 | 1116 | 2000 | 100 | 297 | | |
| | P18S-4315XH15-22XX | 315 | 2006 | 556 | 1500 | 5014 | 1376 | 2200 | 150 | 198 | | |
| P18SH3 | P18S-4200XH05-10XX | 200 | 3820 | 368 | 500 | 9550 | 1016 | 1000 | 50 | 556 | 4.1383 | 1275 |
| | P18S-4250XH07-15XX | 250 | 3183 | 463 | 750 | 7958 | 1203 | 1500 | 75 | 371 | | |
| | P18S-4315XH10-20XX | 315 | 3008 | 526 | 1000 | 7521 | 1351 | 2000 | 100 | 309 | | |
| | P18S-4355XH15-22XX | 355 | 2260 | 672 | 1500 | 5650 | 1643 | 2200 | 150 | 185 | | |

| Frame Code | Motor Model | Rated Power kW | Rated Torque N·m | Rated Current A | Rated Speed r/min | Max. Torque N·m | Max. Current A | Max. Speed r/min | Rated Frequency Hz | Back EMF Constant V/kr/min | Rotational Inertia kg·m ² | Weight kg |
|------------|--------------------|----------------|------------------|-----------------|-------------------|-----------------|----------------|------------------|--------------------|----------------------------|--------------------------------------|-----------|
| P18SH4 | P18S-4250XH05-10XX | 250 | 4775 | 436 | 500 | 11938 | 1165 | 1000 | 50 | 588 | 5.5405 | 1548 |
| | P18S-4355XH07-15XX | 355 | 4520 | 580 | 750 | 11301 | 1522 | 1500 | 75 | 420 | | |
| | P18S-4400XH10-20XX | 400 | 3820 | 822 | 1000 | 9550 | 2080 | 2000 | 100 | 252 | | |
| | P18S-4450XH15-22XX | 450 | 2865 | 942 | 1500 | 7163 | 2292 | 2200 | 150 | 168 | | |

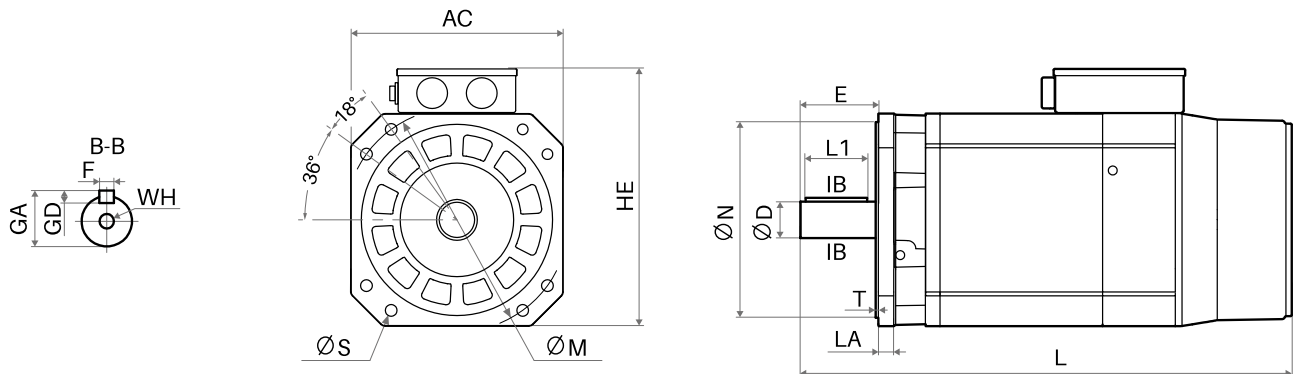
Torque Curves



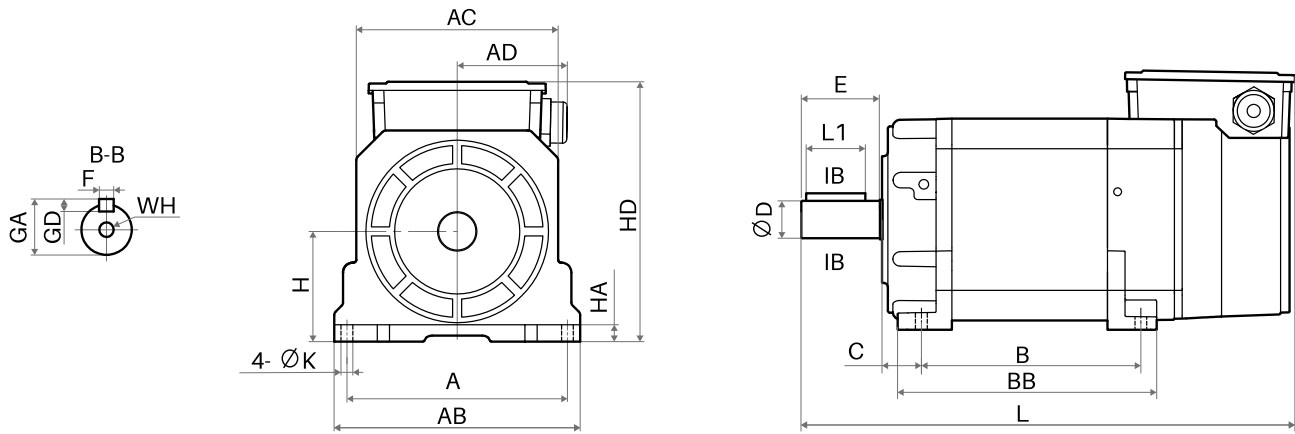
Overall Dimensions



P18SB-P18SE



P18SF-P18SH



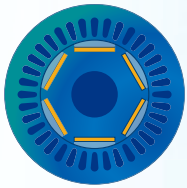
P18SB-P18SH

Unit: mm

| Frame Code | A | AB | S | K | H | HD | HE | HA | AC | AD | D | E | C | T | B | BB | L | M | N | F | GD | GA | WH | LA | L1 |
|------------|-----|-----|-------|----|-----|-----|-----|------|-----|-----|-----|-----|----|---|-----|-----|------|-----|-----|----|----|------|-----|----|-----|
| P18SB1 | 224 | 250 | 4-Φ13 | 13 | 112 | 275 | 265 | 10.5 | 205 | 140 | 42 | 82 | 42 | 4 | 177 | 221 | 455 | 215 | 180 | 12 | 8 | 45 | M12 | 14 | 56 |
| P18SB2 | | | | | | | | | | | | | | | 212 | 256 | 490 | | | | | | | | |
| P18SB3 | | | | | | | | | | | | | | | 257 | 301 | 535 | | | | | | | | |
| P18SB4 | | | | | | | | | | | | | | | 312 | 356 | 590 | | | | | | | | |
| P18SB5 | | | | | | | | | | | | | | | 357 | 401 | 635 | | | | | | | | |
| P18SC2 | 280 | 315 | 4-Φ15 | 15 | 160 | 365 | 340 | 27.5 | 265 | 155 | 48 | 110 | 49 | 4 | 300 | 359 | 630 | 300 | 250 | 14 | 9 | 51.5 | M12 | 18 | 90 |
| P18SC3 | | | | | | | | | | | | | | | 340 | 399 | 670 | | | | | | | | |
| P18SC5 | | | | | | | | | | | | | | | 405 | 464 | 735 | | | | | | | | |
| P18SC6 | | | | | | | | | | | | | | | 465 | 524 | 795 | | | | | | | | |
| P18SE1 | 340 | 380 | 4-Φ19 | 17 | 180 | 410 | 390 | 21 | 320 | 155 | 60 | 140 | 55 | 5 | 380 | 466 | 800 | 350 | 300 | 18 | 11 | 64 | M16 | 23 | 110 |
| P18SE2 | | | | | | | | | | | | | | | 440 | 526 | 860 | | | | | | | | |
| P18SE3 | | | | | | | | | | | | | | | 515 | 601 | 935 | | | | | | | | |
| P18SE4 | | | | | | | | | | | | | | | 610 | 696 | 1030 | | | | | | | | |
| P18SF1 | 400 | 440 | 8-Φ19 | 19 | 225 | 505 | 470 | 30 | 380 | 155 | 65 | 140 | 45 | 5 | 380 | 459 | 825 | 400 | 350 | 18 | 11 | 69 | M20 | 25 | 110 |
| P18SF2 | | | | | | | | | | | | | | | 435 | 514 | 880 | | | | | | | | |
| P18SF3 | | | | | | | | | | | | | | | 535 | 614 | 980 | | | | | | | | |
| P18SF4 | | | | | | | | | | | | | | | 615 | 694 | 1060 | | | | | | | | |
| P18SG1 | 500 | 550 | 8-Φ19 | 23 | 280 | 620 | 580 | 35 | 480 | 170 | 80 | 170 | 45 | 5 | 395 | 468 | 910 | 500 | 450 | 22 | 14 | 85 | M20 | 30 | 140 |
| P18SG2 | | | | | | | | | | | | | | | 455 | 528 | 970 | | | | | | | | |
| P18SG3 | | | | | | | | | | | | | | | 535 | 608 | 1050 | | | | | | | | |
| P18SG4 | | | | | | | | | | | | | | | 645 | 718 | 1160 | | | | | | | | |
| P18SH1 | 620 | 680 | 8-Φ24 | 27 | 315 | 712 | 690 | 45 | 580 | 190 | 105 | 170 | 45 | 5 | 460 | 531 | 995 | 600 | 550 | 28 | 16 | 111 | M24 | 38 | 140 |
| P18SH2 | | | | | | | | | | | | | | | 560 | 631 | 1095 | | | | | | | | |
| P18SH3 | | | | | | | | | | | | | | | 660 | 731 | 1195 | | | | | | | | |
| P18SH4 | | | | | | | | | | | | | | | 840 | 911 | 1375 | | | | | | | | |

HPM Series Low-speed High Torque Direct Drive Servo Motor

- ◆ Power range: 30~251kW
- ◆ Max. speed: 1000 r/min
- ◆ Encoder: built-in (Absolute encoder 17bit)
- ◆ Heat radiation: forced air cooling
- ◆ Duty type: continuous (S6)
- ◆ Installation structure: B5(V1 V3)
- ◆ IP rating: IP55 (IEC60034-5)
- ◆ Dielectric strength: AC1800V
- ◆ Class of insulation: Class F
- ◆ Class of vibration: A
- ◆ Ambient temperature: -15 to 45 °C
- ◆ Ambient humidity: <20%~90%RH (non-condensing)



Motor Internal Structure



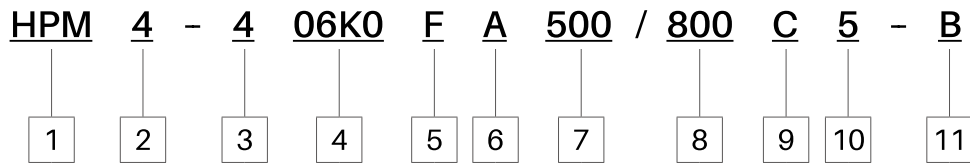
Product Features

- 1、 Strong overload: With IPM structural design, the overload capacity can reach 3 times, the low-speed and high torque characteristics can maximize the effect of curve modes such as punch pendulum.
- 2、 Electromagnetic design: Optimize electromagnetic design without the need for AFE (Active Front End Unit).
- 3、 Strong seismic resistance: Unique encoder seismic structural design, with a seismic rating of up to 5G.
- 4、 High precision: standard 17bit absolute value encoder, high precision.
- 5、 Torque range: 2500N. m~35000N. m, a total of 21 specifications, covering the needs of 45-2000T servo press machines.
- 6、 Holding brake device: a full series of holding brake design, avoiding complex installation problems of mechanical holding brakes.
- 7、 Maintenance free: The motor adopts an air-cooled design, completely avoiding the risk of condensation and scale in the water-cooled motor.

Industry Applications



Model Description



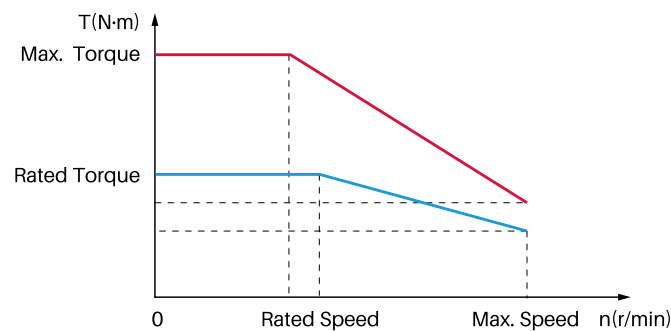
| Code | Description | Instructions | Example Model |
|------|----------------------|---|-------------------------------------|
| 1 | Product series | HPM: code of the motor series | HPM series synchronous servo motors |
| 2 | Frame Code | 4: 480 6: 680 8: 880 | 4: 480 |
| 3 | Voltage rating | 4: 400V | 400V |
| 4 | Code of torque | K: Thousands W: Tens of thousands (peak torque) | Peak torque: 6000 N-m |
| 5 | Motor cooling | F: Forced air cooling W: Water cooling N: Natural cooling | Forced air cooling |
| 6 | Encoder | B: None A: 23 bit absolute encoder | Absolute encoder |
| 7 | Rated speed | 500: 500r/min | Rated speed: 500 rpm |
| 8 | Max. speed | 800: 800r/min | Max. speed: 800 rpm |
| 9 | Shaft extension | G: Bare shaft J: With standard key slots C: Gear shaft | Gear shaft |
| 10 | Mode of installation | 5: B5/flange mounted 35: B35/horizontal + flange mounted | B5 flange mounted |
| 11 | Brake | B: With brake | With brake |

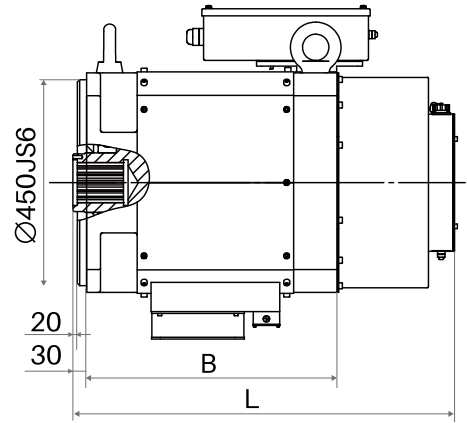
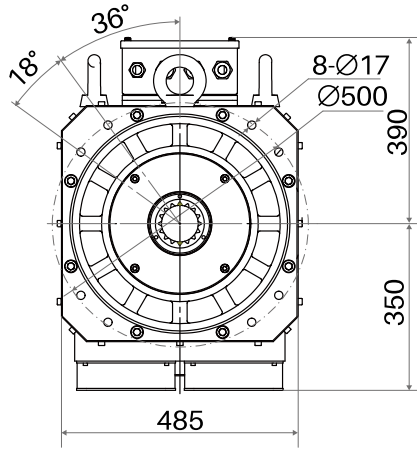
Overall Dimensions

| Frame Code | Motor Model | Rated Power | Rated Torque | Rated Current | Rated Speed | Max. Speed | Max. Torque | Max. Current | Rotational Inertia | Brake power supply | maximum braking torque | Weight |
|---------------|--------------------------|-------------|--------------|---------------|-------------|------------|-------------|--------------|--------------------|--------------------|------------------------|--------|
| | | kW | N-m | A | r/min | r/min | N-m | A | kg-m ² | V | N-m | kg |
| HPM4 (480) | HPM4-402K5FA-300/500C5B | 30 | 955 | 69.5 | 300 | 500 | 2500 | 225 | 0.8 | 380 | 1000 | 950 |
| | HPM4-402K5FA-500/1000C5B | 44 | 833 | 94.5 | 500 | 1000 | 2500 | 290 | 0.8 | 380 | 1000 | 950 |
| | HPM4-403K5FA-300/500C5B | 37 | 1178 | 84 | 300 | 500 | 3500 | 271 | 1.01 | 380 | 1000 | 1100 |
| | HPM4-403K5FA-500/1000C5B | 61 | 1167 | 137 | 500 | 1000 | 3500 | 440 | 1.01 | 380 | 1000 | 1100 |
| | HPM4-404K5FA-300/500C5B | 50 | 1592 | 111 | 300 | 500 | 4500 | 379 | 1.19 | 380 | 1000 | 1250 |
| | HPM4-404K5FA-500/1000C5B | 79 | 1500 | 165 | 500 | 1000 | 4500 | 543 | 1.19 | 380 | 1000 | 1250 |
| | HPM4-406K0FA-300/500C5B | 63 | 2000 | 145 | 300 | 500 | 6000 | 483 | 1.49 | 380 | 1000 | 1500 |
| | HPM4-406K0FA-500/1000C5B | 105 | 2000 | 246 | 500 | 1000 | 6000 | 817 | 1.49 | 380 | 1000 | 1500 |

| Frame Code | Motor Model | Rated Power | Rated Torque | Rated Current | Rated Speed | Max. Speed | Max. Torque | Max. Current | Rotational Inertia | Brake power supply | maximum braking torque | Weight |
|---------------|----------------------------|-------------|--------------|---------------|-------------|------------|-------------|--------------|--------------------|--------------------|------------------------|--------|
| | | kW | N·m | A | r/min | r/min | N·m | A | kg·m ² | V | N·m | kg |
| HPM6 (680) | HPM6-407K5FA-200/400C5B-F4 | 52 | 2500 | 111 | 200 | 400 | 7500 | 307 | 6.8 | 0.55 | 1300 | 1780 |
| | HPM6-407K5FA-300/500C5B-F4 | 79 | 2500 | 178 | 300 | 500 | 7500 | 536 | 6.8 | 0.55 | 1300 | 1780 |
| | HPM6-407K5FA-600/800C5B | 157 | 2500 | 306 | 600 | 800 | 7500 | 905 | 8.7 | 0.55 | 1300 | 1880 |
| | HPM6-409K0FA-200/400C5B-F4 | 63 | 3000 | 124 | 200 | 400 | 9000 | 401 | 8.7 | 0.55 | 1300 | 1880 |
| | HPM6-409K0FA-300/500C5B-F4 | 94 | 3000 | 196 | 300 | 500 | 9000 | 600 | 8.7 | 0.55 | 1300 | 1880 |
| | HPM6-409K0FA-600/800C5B | 188 | 3000 | 358 | 600 | 800 | 9000 | 1040 | 10.1 | 0.55 | 1300 | 2100 |
| | HPM6-412K0FA-200/400C5B-F4 | 84 | 4000 | 168 | 200 | 400 | 12000 | 559 | 10.1 | 0.55 | 1300 | 2100 |
| | HPM6-412K0FA-300/500C5B-F4 | 126 | 4000 | 251 | 300 | 500 | 12000 | 810 | 10.1 | 0.55 | 1300 | 2100 |
| | HPM6-412K0FA-600/800C5B | 251 | 4000 | 487 | 600 | 800 | 12000 | 1420 | 13.8 | 0.55 | 1300 | 2500 |
| | HPM6-415K0FA-150/300C5B-F4 | 79 | 5000 | 175 | 150 | 300 | 15000 | 525 | 13.8 | 0.55 | 1300 | 2500 |
| | HPM6-415K0FA-200/400C5B-F4 | 105 | 5000 | 228 | 200 | 400 | 15000 | 682 | 13.8 | 0.55 | 1300 | 2500 |
| HPM8 (880) | HPM8-418K0FA-150/300C5B | 94 | 6000 | 200 | 150 | 300 | 18000 | 585 | 33.8 | 0.55 | 2000 | 3500 |
| | HPM8-418K0FA-200/400C5B | 125 | 6000 | 265 | 200 | 400 | 18000 | 800 | 33.8 | 0.55 | 2000 | 3500 |
| | HPM8-418K0FA-300/500C5B | 188 | 6000 | 343 | 300 | 500 | 18000 | 1088 | 33.8 | 0.55 | 2000 | 3500 |
| | HPM8-422K0FA-150/300C5B | 115 | 7300 | 251 | 150 | 300 | 22000 | 747 | 37.5 | 0.55 | 2000 | 3500 |
| | HPM8-422K0FA-200/400C5B | 153 | 7300 | 310 | 200 | 400 | 22000 | 960 | 37.5 | 0.55 | 2000 | 4000 |
| | HPM8-422K0FA-300/500C5B | 229 | 7300 | 502 | 300 | 500 | 22000 | 1510 | 37.5 | 0.55 | 2000 | 4000 |
| | HPM8-424K0FA-150/300C5B | 126 | 8000 | 275 | 150 | 300 | 24000 | 828 | 37.5 | 0.55 | 2000 | 4000 |
| | HPM8-424K0FA-200/400C5B | 168 | 8000 | 342 | 200 | 400 | 24000 | 1048 | 37.5 | 0.55 | 2000 | 4000 |
| | HPM8-427K0FA-150/300C5B | 141 | 9000 | 295 | 150 | 300 | 27000 | 860 | 49.5 | 0.55 | 3000 | 4476 |
| | HPM8-427K0FA-200/400C5B | 189 | 9000 | 388 | 200 | 400 | 27000 | 1200 | 49.5 | 0.55 | 3000 | 4476 |
| | HPM8-435K0FA-150/300C5B | 184 | 11740 | 417 | 150 | 300 | 35000 | 1265 | 59.1 | 0.55 | 3000 | 5000 |
| | HPM8-435K0FA-200/400C5B | 246 | 11740 | 500 | 200 | 400 | 35000 | 1500 | 59.1 | 0.55 | 3000 | 5000 |

Torque Curves

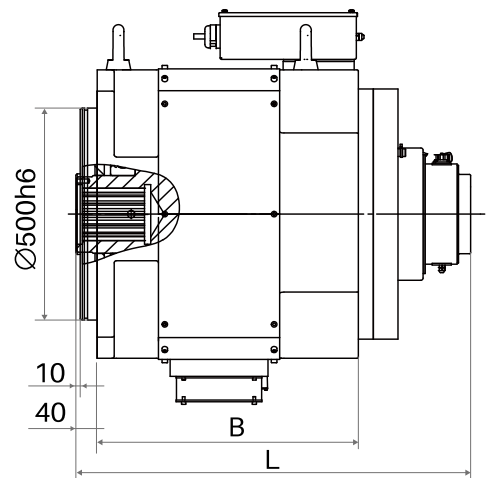
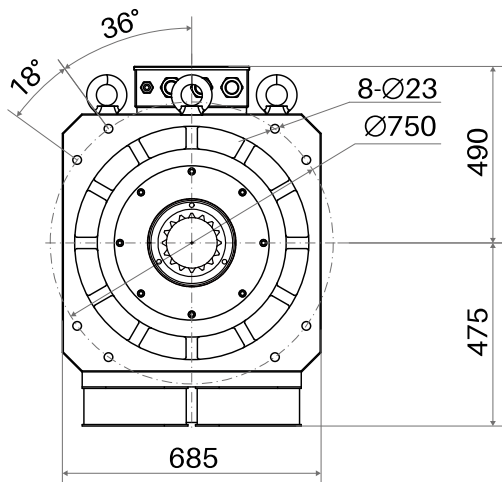




Frame Code: 480

Unit: mm

| Frame Code | Motor Model | B | L |
|------------|--------------------------|-----|------|
| HPM4 (480) | HPM4-402K5FA-300/500C5B | 544 | 830 |
| | HPM4-402K5FA-500/1000C5B | 544 | 830 |
| | HPM4-403K5FA-300/500C5B | 604 | 890 |
| | HPM4-403K5FA-500/1000C5B | 604 | 890 |
| | HPM4-404K5FA-300/500C5B | 684 | 970 |
| | HPM4-404K5FA-500/1000C5B | 684 | 970 |
| | HPM4-406K0FA-300/500C5B | 794 | 1080 |
| | HPM4-406K0FA-500/1000C5B | 794 | 1080 |



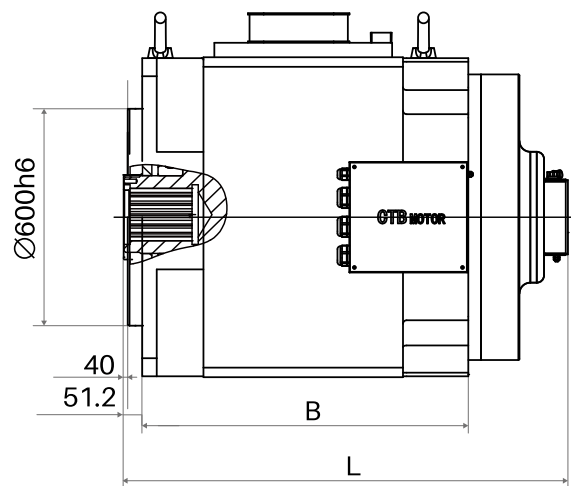
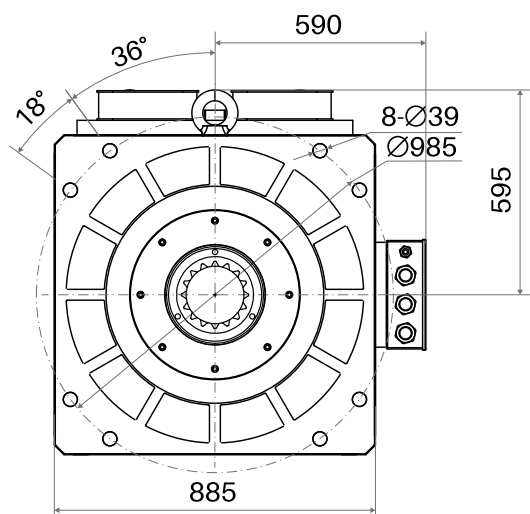
Frame Code: 680

Unit: mm

| Frame Code | Motor Model | B | L |
|------------|----------------------------|-------|-----|
| HPM6 (680) | HPM6-407K5FA-200/400C5B-F4 | 613.8 | 930 |
| | HPM6-407K5FA-300/500C5B-F4 | 613.8 | 930 |

Unit: mm

| Frame Code | Motor Model | B | L |
|------------|----------------------------|-------|------|
| HPM6 (680) | HPM6-407K5FA-600/800C5B | 673.8 | 990 |
| | HPM6-409K0FA-200/400C5B-F4 | 673.8 | 990 |
| | HPM6-409K0FA-300/500C5B-F4 | 673.8 | 990 |
| | HPM6-409K0FA-600/800C5B | 733.8 | 1050 |
| | HPM6-412K0FA-200/400C5B-F4 | 733.8 | 1050 |
| | HPM6-412K0FA-300/500C5B-F4 | 733.8 | 1050 |
| | HPM6-412K0FA-600/800C5B | 853.8 | 1170 |
| | HPM6-415K0FA-150/300C5B-F4 | 853.8 | 1170 |
| | HPM6-415K0FA-200/400C5B-F4 | 853.8 | 1170 |



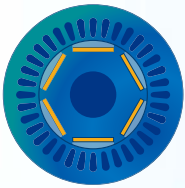
Frame Code: 880

Unit: mm

| Frame Code | Motor Model | B | L |
|------------|-------------------------|-------|------|
| HPM8 (880) | HPM8-418K0FA-150/300C5B | 728.8 | 1110 |
| | HPM8-418K0FA-200/400C5B | 728.8 | 1110 |
| | HPM8-418K0FA-300/500C5B | 728.8 | 1110 |
| | HPM8-422K0FA-150/300C5B | 778.8 | 1160 |
| | HPM8-422K0FA-200/400C5B | 778.8 | 1160 |
| | HPM8-422K0FA-300/500C5B | 778.8 | 1160 |
| | HPM8-424K0FA-150/300C5B | 778.8 | 1160 |
| | HPM8-424K0FA-200/400C5B | 778.8 | 1160 |
| | HPM8-427K0FA-150/300C5B | 898.8 | 1280 |
| | HPM8-427K0FA-200/400C5B | 898.8 | 1280 |
| | HPM8-435K0FA-150/300C5B | 998.8 | 1380 |
| | HPM8-435K0FA-200/400C5B | 998.8 | 1380 |

PWM Series High Seismic Permanent Magnet Synchronous Servo Motor

- ◆ Power range: 45~280kW
- ◆ Duty type: S1
- ◆ Center height: 280, 315
- ◆ Cooling: IC418
- ◆ Speed: 600rpm~2000rpm
- ◆ Encoder: built-in(rotary transformer/high precision magnetic encoder)
- ◆ Installation structure: B3(V5 V6)/B5(V1 V3)
- ◆ IP rating: IP54
- ◆ Class of insulation: Class F
- ◆ Class of vibration: A
- ◆ Ambient temperature: -15 to 45 °C
- ◆ Ambient humidity: <20%~90%RH (non-condensing)



Motor Internal Structure



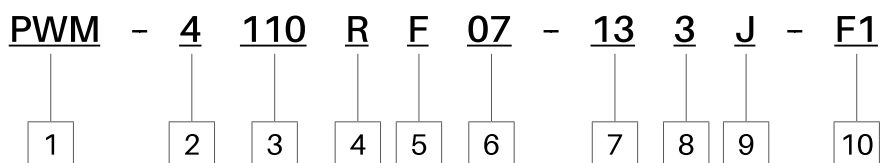
Product Features

- 1、 Strong vibration resistance: Motor base is welded with steel plates, and the end cover is made of cast steel parts. The shaft diameter is increased and the material is quenched and tempered with 42CrMo. Independent anti vibration fan for heat dissipation.
- 2、 Special design: C-shaped lifting hole at the shaft end. 3 anchor installation holes with enlarged aperture; Install lifting rings on both sides of the base. 315 and 355 frames adopt double key slots.
- 3、 Strong versatility: Reduce the size by 1-2 machine bases compared to conventional motors, which can be directly replaced.
- 4、 Superior performance: Adopting an embedded structural design. Unique slot fit of stator and rotor ensures less pulsation, low noise, low vibration.
- 5、 High reliability: reduced current. Temperature rise decreases. Improving motor life
Accurate control: effectively preventing deceleration overshoot and reducing damage to the belt/reducer.
Good consistency of itinerary. Good product consistency. Energy accuracy can reach within 0.5%.
- 6、 Significant advantages: smaller moment of inertia. Higher starting torque. Wider weak magnetic region. Wider speed regulation zone. Less speed fluctuation. Power density and torque density increased by 30% compared to conventional motors.
- 7、 Energy saving and efficient: using high-efficiency rare earth permanent magnet materials, the motor efficiency reaches IE4 or above.

Industry Applications



Model Description (Take 110 kW, 750 rpm motor for example)



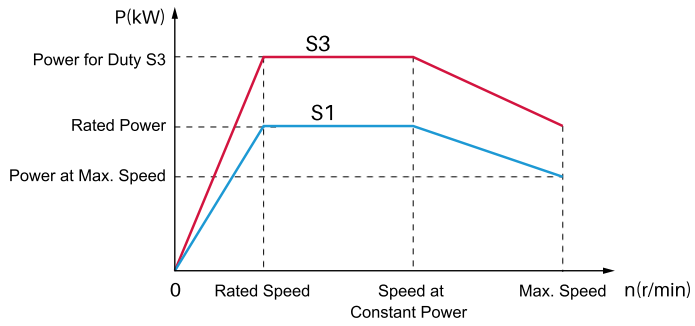
| Code | Description | Instructions | Example Model |
|------|--------------------------------|---|--|
| 1 | Product series | PWM: code of the motor series | PWM series AC permanent magnet synchronous servo motor |
| 2 | Voltage rating | 4: 400V | 400V |
| 3 | Power code | See 'Standard Specifications' | 110KW |
| 4 | Encoder | Code Type of Encoder B None R Rotating transformer S Sine cosine encoder | Rotating transformer |
| 5 | Frame code | Code Size mm F 280 G 315 | Frame code 280 |
| 6 | Basic speed | Code Speed (rpm) Code Speed (rpm) 06 600r/min 15 1500r/min 07 750r/min 18 1800r/min | Basic speed:750r/min |
| 7 | Speed at constant power | 10 1000r/min 20 2000r/min 13 1300r/min | Speed at constant power:1300r/min |
| 8 | Mode of installation | 3: B3 Horizontal | B3 Horizontal |
| 9 | Shaft extension | G: Bare shaft J: Splined shaft | Bare shaft |
| 10 | Code of nonstandard motor part | F1: Shaft extension F4: Stator F2: Flange F5: Fan F3: Feet F6: Junction box F7: Encoder | Nonstandard shaft extension |

Electrical Specifications

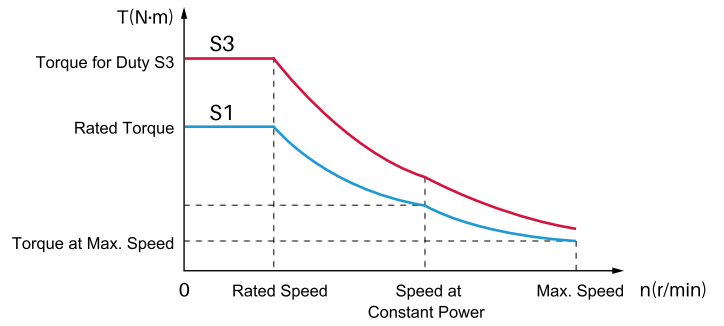
| Frame Code | Motor Model | Rated Power | Rated Torque | Max. Torque | Rated Current | Max. Current | Rated Frequency | Rated Speed | Max. Speed | Back EMF Constant | Rotational Inertia | Weight |
|------------|-------------------|-------------|--------------|-------------|---------------|--------------|-----------------|-------------|------------|-------------------|--------------------|--------|
| | | kW | N-m | N-m | A | A | HZ | r/min | r/min | V/kr/min | kg-m ² | kg |
| PWMF | PWM-4045XF06-10XX | 45 | 716 | 2149 | 84 | 296 | 60 | 600 | 1000 | 436 | 1.25 | 950 |
| | PWM-4055XF07-13XX | 55 | 700 | 2101 | 102 | 357 | 75 | 750 | 1300 | 354 | | |
| | PWM-4075XF10-18XX | 75 | 716 | 2149 | 142 | 476 | 100 | 1000 | 1800 | 257 | | |
| | PWM-4090XF15-20XX | 90 | 573 | 1719 | 166 | 505 | 150 | 1500 | 2000 | 184 | | |

| Frame Code | Motor Model | Rated Power | Rated Torque | Max. Torque | Rated Current | Max. Current | Rated Frequency | Rated Speed | Max. Speed | Back EMF Constant | Rotational Inertia | Weight |
|------------|-------------------|-------------|--------------|-------------|---------------|--------------|-----------------|-------------|------------|-------------------|--------------------|--------|
| | | kW | N·m | N·m | A | A | HZ | r/min | r/min | V/kr/min | kg·m ² | kg |
| PWWF | PWM-4055XF06-10XX | 55 | 875 | 2626 | 100 | 244 | 60 | 600 | 1000 | 454 | 1.68 | 1055 |
| | PWM-4075XF07-13XX | 75 | 955 | 2865 | 142 | 474 | 75 | 750 | 1300 | 343 | | |
| | PWM-4090XF10-18XX | 90 | 860 | 2579 | 206 | 575 | 100 | 1000 | 1800 | 215 | | |
| | PWM-4110XF15-20XX | 110 | 700 | 2101 | 230 | 622 | 1500 | 1500 | 2000 | 162 | | |
| | PWM-4075XF06-10XX | 75 | 1194 | 3581 | 142 | 473 | 60 | 600 | 1000 | 432 | 2.06 | 1160 |
| | PWM-4090XF07-13XX | 90 | 1146 | 3438 | 162 | 569 | 75 | 750 | 1300 | 364 | | |
| | PWM-4110XF10-18XX | 110 | 1051 | 3152 | 241 | 668 | 100 | 1000 | 1800 | 227 | | |
| | PWM-4132XF15-20XX | 132 | 840 | 2521 | 284 | 760 | 150 | 1500 | 2000 | 159 | | |
| | PWM-4090XF06-10XX | 90 | 1433 | 4298 | 168 | 575 | 60 | 600 | 1000 | 437 | 2.43 | 1265 |
| | PWM-4110XF07-13XX | 110 | 1401 | 4202 | 203 | 678 | 75 | 750 | 1300 | 355 | | |
| | PWM-4132XF10-18XX | 132 | 1261 | 3782 | 303 | 841 | 100 | 1000 | 1800 | 215 | | |
| | PWM-4160XF15-20XX | 160 | 1019 | 3056 | 337 | 903 | 150 | 1500 | 2000 | 161 | | |
| PWWG | PWM-4110XG06-10XX | 110 | 1751 | 5253 | 189 | 608 | 60 | 600 | 1000 | 412 | 2.09 | 1150 |
| | PWM-4132XG07-13XX | 132 | 1681 | 5043 | 231 | 734 | 75 | 750 | 1300 | 333 | | |
| | PWM-4185XG10-18XX | 185 | 1767 | 5301 | 334 | 1078 | 100 | 1000 | 1800 | 255 | | |
| | PWM-4200XG15-20XX | 200 | 1273 | 3819 | 328 | 977 | 150 | 1500 | 2000 | 178 | | |
| | PWM-4132XG06-10XX | 132 | 2101 | 6303 | 219 | 704 | 60 | 600 | 1000 | 426 | 2.46 | 1390 |
| | PWM-4160XG07-13XX | 160 | 2037 | 6111 | 284 | 902 | 75 | 750 | 1300 | 331 | | |
| | PWM-4200XG10-18XX | 200 | 1910 | 5730 | 343 | 1069 | 100 | 1000 | 1800 | 263 | | |
| | PWM-4220XG15-20XX | 220 | 1401 | 4203 | 361 | 1053 | 150 | 1500 | 2000 | 171 | | |
| | PWM-4185XG06-10XX | 185 | 2945 | 8835 | 311 | 1026 | 60 | 600 | 1000 | 406 | 3.23 | 1830 |
| | PWM-4200XG07-13XX | 200 | 2547 | 7641 | 348 | 1088 | 75 | 750 | 1300 | 342 | | |
| | PWM-4250XG10-18XX | 250 | 2388 | 7164 | 458 | 1408 | 100 | 1000 | 1800 | 249 | | |
| | PWM-4280XG15-20XX | 280 | 1782 | 5346 | 442 | 1273 | 150 | 1500 | 2000 | 161 | | |

Power Torque Curves

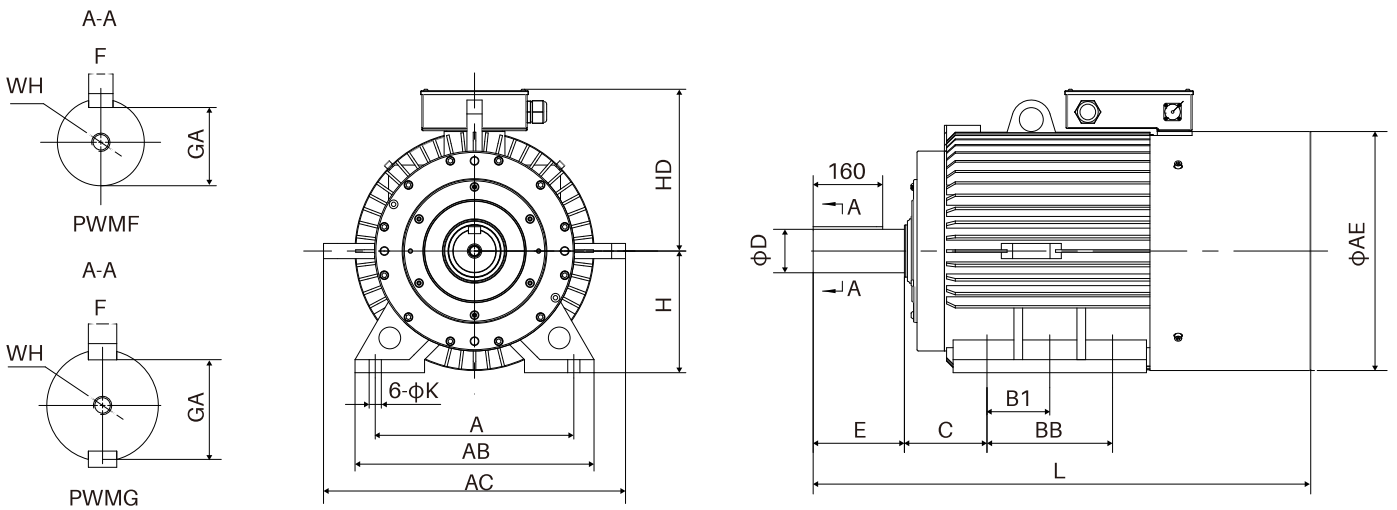


PWMF



PWMG

Overall Dimensions



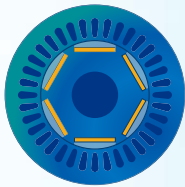
Unit: mm

| Frame Code | A | AB | K | H | HD | AC | D | E | C | B1 | BB | L | F | AE | GA | WH |
|------------|-----|-----|----|-----|-----|-----|-----|-----|-----|-------|-----|------|----|------|-----|-----|
| PWMF1 | 457 | 550 | 28 | 280 | 390 | 695 | 100 | 210 | 190 | 144.5 | 289 | 1155 | 28 | Ø550 | 90 | M24 |
| PWMF2 | | | | | | | | | | 189.5 | 379 | 1245 | | | | |
| PWMF3 | | | | | | | | | | 234.5 | 469 | 1335 | | | | |
| PWMF4 | | | | | | | | | | 279.5 | 559 | 1425 | | | | |
| PWMG1 | 508 | 635 | 35 | 315 | 450 | 775 | 110 | 210 | 216 | 151.5 | 303 | 1265 | 28 | Ø620 | 100 | M24 |
| PWMG2 | | | | | | | | | | 171.5 | 343 | 1305 | | | | |
| PWMG3 | | | | | | | | | | 226.5 | 453 | 1415 | | | | |

PDM Series Direct Drive Motors for Screw Presses

PDM series built-in torque motors consist of a stator, and a permanent magnet rotor with hollow shaft. They are liquid cooled. The stator is fixed on the body, and the rotor connected to the rotary mechanism. It forms an integral direct drive unit when combined with such feedback elements as encoder and properly matched with a drive. The design of a built-in rotor effectively prevents vibration.

- ◆ Torque range: $4050\text{N}\cdot\text{m} \sim 27000\text{N}\cdot\text{m}$
- ◆ Max. speed: 200 rpm
- ◆ Encoder: optional (rotary transformer/high precision magnetic encoder)
- ◆ Heat radiation: water cooling
- ◆ Duty type: continuous (S1)
- ◆ IP rating: IP23 (split structure)
- ◆ Dielectric strength: 1,800 VAC
- ◆ Class of insulation: Class F
- ◆ Ambient temperature: -15 to $45\text{ }^{\circ}\text{C}$
- ◆ Ambient humidity: $<20\% \sim 90\% \text{RH}$ (non-condensing)



Motor Internal Structure



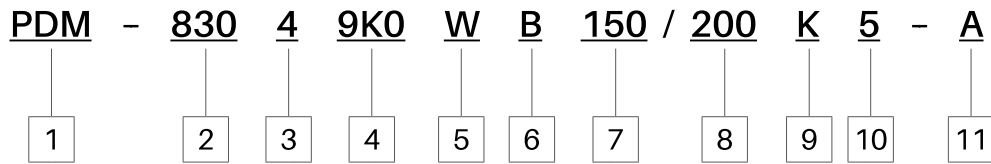
Product Features

- 1、 High torque, high drive rigidity.
- 2、 No gear clearance, no wear, long life, and stable accuracy.
- 3、 Built-in design for more compact equipment structure.
- 4、 Hollow shaft of rotor with a big bore facilitates installation and commissioning.
- 5、 Small size, light weight.

Industry Applications



Model Description

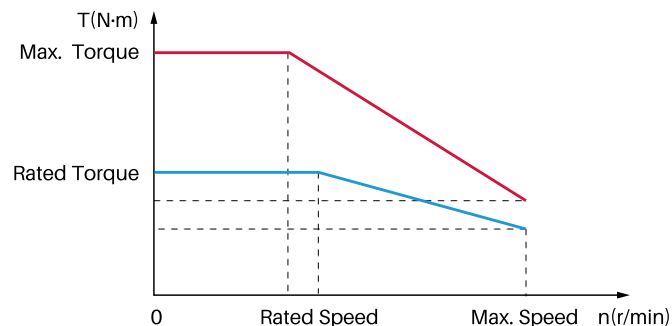


| Code | Description | Instructions | Example Model |
|------|----------------------|--|-----------------------|
| 1 | Product series | PDM: code of the motor series | PDM series motor |
| 2 | Frame code | 830, 1,400 | 830 frame |
| 3 | Voltage rating | 4: 400 V | 400 V |
| 4 | Code of torque | K: Thousands W: Tens of thousands (peak torque) | Peak torque: 9,000 Nm |
| 5 | Motor cooling | W: Water cooling N: Natural cooling | Water cooling |
| 6 | Encoder | B: NONE R: Rotary transformer C: Magnetic encoder | NONE |
| 7 | Rated speed | Actual motor speed, in: rpm | Rated speed: 150 rpm |
| 8 | Max. speed | Actual motor speed, in: rpm | Max. speed: 200 rpm |
| 9 | Shaft extension | K: Hollow shaft | Hollow shaft |
| 10 | Mode of installation | 5: B5/flange mounted | B5/flange mounted |
| 11 | Smart card | A: With smart card (not for motors without smart card) | With smart card |

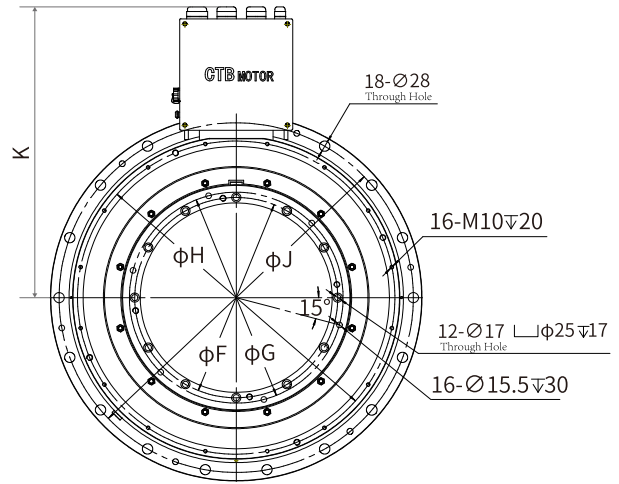
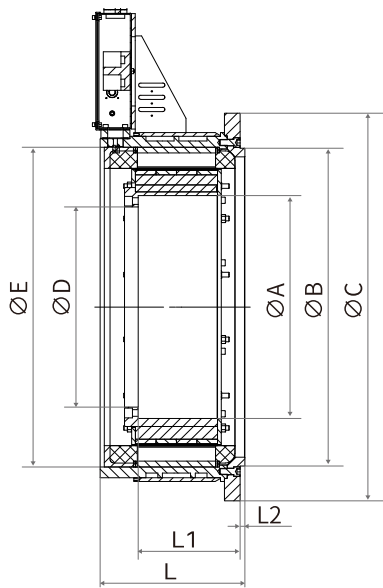
Electrical Specifications

| Frame Code | Motor Model | Rated Power | Rated Torque | Rated Current | Rated Frequency | Rated Speed | Max. Torque | Max. Current | Max. Speed | Back EMF Constant | Rotational Inertia | Weight |
|------------|----------------------------|-------------|--------------|---------------|-----------------|-------------|-------------|--------------|------------|-------------------|--------------------|--------|
| | | kW | N·m | A | Hz | r/min | N·m | A | r/min | V/kr/min | kg·m ² | kg |
| PDM830 | PDM830-44K0WB-150/200K5A | 42.4 | 2700 | 97 | 80 | 150 | 4050 | 165 | 200 | 280 | 16.6 | 609.5 |
| | PDM830-45K2WB-150/200K5A | 55 | 3500 | 107 | 80 | 150 | 5250 | 182 | 200 | 329 | 20.15 | 663.7 |
| | PDM830-49K0WB-150/200K5A | 90 | 5700 | 190 | 80 | 150 | 9000 | 380 | 200 | 306 | 27.1 | 815 |
| PDM1400 | PDM1400-413K5WB-140/200K5A | 132 | 9000 | 262 | 74.7 | 140 | 13500 | 445 | 200 | 322 | 125 | 1877.7 |
| | PDM1400-426K0WB-150/200K5A | 272 | 17320 | 511 | 80 | 150 | 25980 | 845 | 200 | 335 | 212 | 2520.7 |

Torque Curves

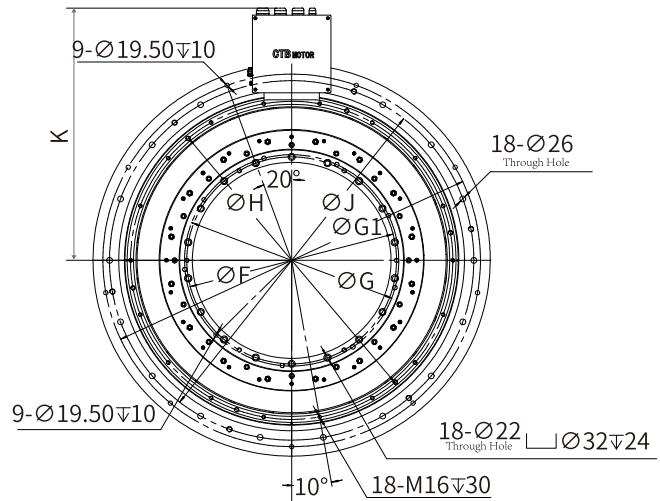
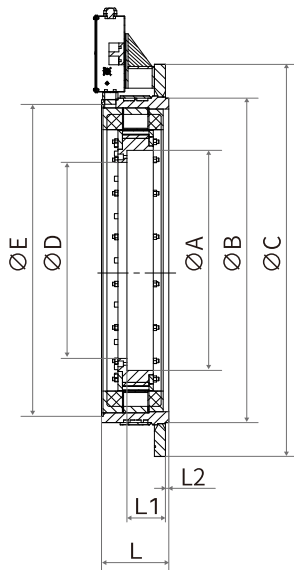


Overall Dimensions



Unit: mm

| Motor Model | A | B | C | D | E | F | G | H | J | K | L | L1 | L2 | G1 |
|--------------------------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-------|-----|----|----|
| PDM830-44K0WB-150/200K5A | 579 | 825 | 1006 | 520 | 830 | 550 | 579 | 860 | 960 | 800 | 280 | 171 | 12 | / |
| PDM830-45K2WB-150/200K5A | 579 | 825 | 1006 | 520 | 830 | 550 | 579 | 860 | 960 | 800 | 305.5 | 196 | 12 | / |
| PDM830-49K0WB-150/200K5A | 579 | 825 | 1006 | 520 | 830 | 550 | 579 | 860 | 960 | 800 | 370.5 | 261 | 12 | / |



Unit: mm

| Motor Model | A | B | C | D | E | F | G | H | J | K | L | L1 | L2 | G1 |
|----------------------------|------|------|------|-----|------|-----|-----|------|------|------|-----|-----|----|------|
| PDM1400-413K5WB-140/200K5A | 1010 | 1490 | 1800 | 900 | 1432 | 950 | 970 | 1460 | 1650 | 1160 | 305 | 164 | 15 | 1710 |
| PDM1400-426K0WB-150/200K5A | 1010 | 1490 | 1800 | 900 | 1432 | 950 | 970 | 1460 | 1650 | 1160 | 425 | 284 | 15 | 1710 |

YH Series AC Asynchronous Servo Motors for Slides

- ◆ Power range: 0.7-5.5 kW
- ◆ Pole number: 8
- ◆ Max. speed: 3,000 rpm
- ◆ Encoder: built-in (rotary transformer)
- ◆ Installation structure: B5
- ◆ IP rating: IP55 (IEC 60034-5)
- ◆ Noise: ≤ 70 dB(A)
- ◆ Dielectric strength: 1,800 VAC
- ◆ Class of insulation: Class F
- ◆ Class of vibration: A
- ◆ Ambient temperature: -15 to 45 °C
- ◆ Ambient humidity: <20%~90%RH (non-condensing)



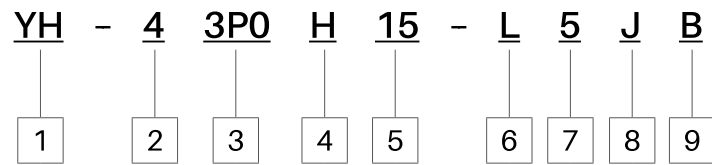
Product Features

- 1、 Reduced Mounting Space
- 2、 Easy Maintenance
- 3、 Pneumatic Brake Design with High Stability and Reliability

Industry Applications



Model Description

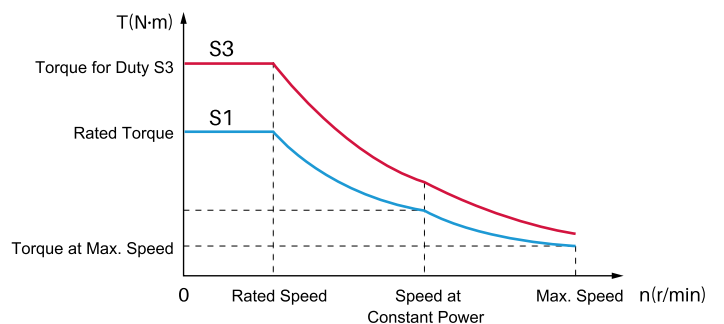
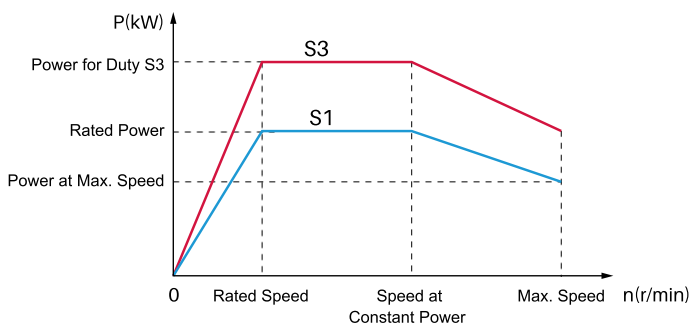


| Code | Description | Instructions | Example Model |
|------|----------------------|---|---|
| 1 | Product series | YH: code of the motor series | YH Series AC Asynchronous Servo Motors for Slides |
| 2 | Voltage rating | 2: 200V 4: 400V | 400V |
| 3 | Power code | See 'Standard Specifications'. | 3KW |
| 4 | Motor type | H: Slider motor | Slider motor |
| 5 | Rated speed | 15: 1500/min | 1500/min |
| 6 | Max. speed | L: 1500/min | 1500/min |
| 7 | Mode of installation | 5: Flange mounted | Flange mounted |
| 8 | Shaft extension | G: Bare shaft J: With standard key slots | Gear shaft |
| 9 | Brake | B: With brake | With brake |

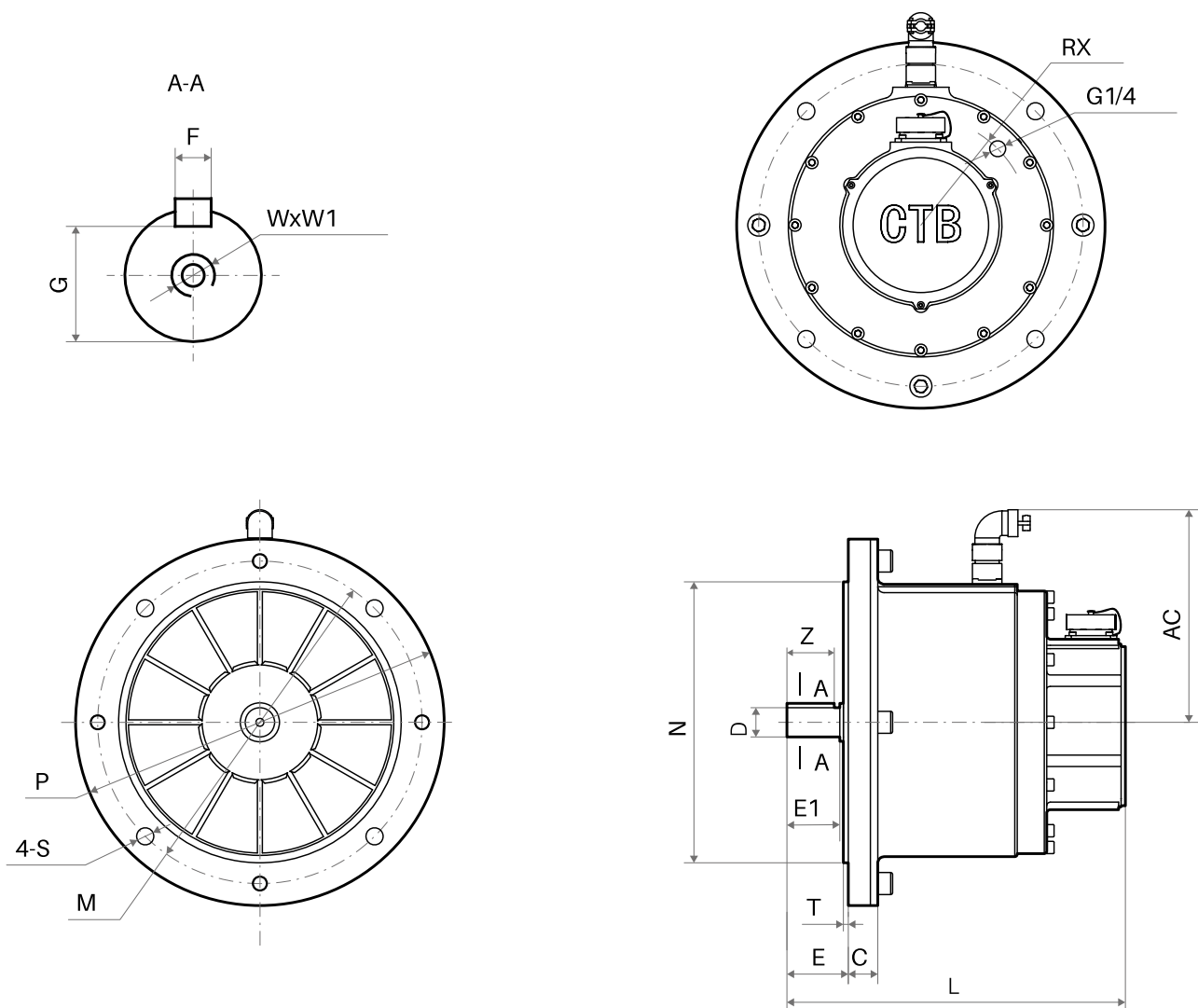
Electrical Specifications

| Frame Code | Motor Model | Rated Power | Power for Duty S3 | Rated Torque | Torque for Duty S3 | Rated Current | Rated Frequency | Rated Speed | Max. Speed at Constant Power | Brake pressure | Braking torque | Weight |
|------------|-----------------|-------------|-------------------|--------------|--------------------|---------------|-----------------|-------------|------------------------------|----------------|----------------|--------|
| | | kW | kW | N·m | N·m | A | Hz | r/min | N·m | MPa | N·m | kg |
| YHA | YH-40P7H15-L5XB | 0.75 | 1.1 | 4.8 | 7 | 2.1 | 105 | 1500 | 2.4 | > 0.55 | 7.2 | 28 |
| YHB | YH-41P5H15-L5XB | 1.5 | 2.2 | 9.6 | 14 | 4.0 | 103.1 | 1500 | 4.8 | > 0.55 | 14.3 | 45 |
| YHC1 | YH-43P0H15-L5XB | 3.0 | 4 | 19.1 | 25.5 | 7.1 | 102.8 | 1500 | 9.6 | > 0.55 | 28.7 | 70 |
| YHC2 | YH-43P7H15-L5XB | 3.7 | 5.5 | 23.6 | 35 | 8.5 | 102.6 | 1500 | 11.8 | > 0.55 | 35.4 | 72 |
| YHC3 | YH-45P5H15-L5XB | 5.5 | 7.5 | 35 | 47.8 | 12.6 | 102.1 | 1500 | 17.5 | > 0.55 | 52.5 | 82 |

Power Torque Curves



Overall Dimensions



Unit: mm

| Motor Model | C | D | E | E1 | F | G | M | L | N | P | S | T | W | W1 | Z | RX | AC |
|-----------------|----|----|----|----|---|------|-----|-----|-----|-----|----|---|----|----|------|------|-----|
| YH-40P7H15-L5XB | 21 | 22 | 36 | 30 | 6 | 18.5 | 215 | 270 | 180 | 236 | 14 | 4 | 6 | 18 | 28 | 77 | 160 |
| YH-41P5H15-L5XB | 24 | 24 | 50 | 50 | 7 | 20 | 264 | 280 | 230 | 300 | 14 | 4 | 8 | 18 | 38.5 | 88.5 | 182 |
| YH-43P0H15-L5XB | 25 | 28 | 56 | 50 | 8 | 24 | 320 | 300 | 260 | 350 | 17 | 4 | 10 | 18 | 40 | 106 | 215 |
| YH-43P7H15-L5XB | 25 | 28 | 56 | 50 | 8 | 24 | 320 | 300 | 260 | 350 | 17 | 4 | 10 | 18 | 40 | 106 | 215 |
| YH-45P5H15-L5XB | 25 | 28 | 56 | 50 | 8 | 24 | 320 | 340 | 260 | 350 | 17 | 4 | 10 | 18 | 40 | 106 | 215 |

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TikTok

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