

Z18 SERIES SERVO SPINDLE MOTOR

(1.1~400kW)



Z18 series servo spindle motor, which is developed, designed and produced by Z18, is a new type of AC spindle induction servo motor with international advanced level which is making it go international.

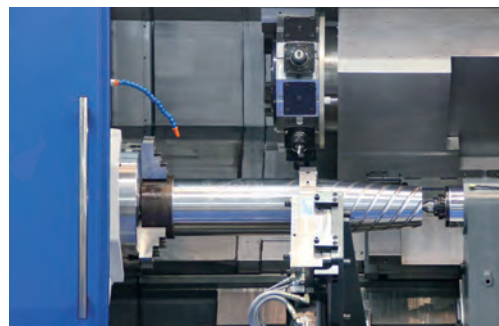
Z18 series servo spindle motor has a compact structure, superior function, good shape and high efficiency, widely used in various fields of machinery manufacturing with very good cost performance.

The design and production of Z18 series servo spindle meet is accord with relevant standards, such as ISO, IEC, GB, etc.

Z18 series servo spindle motor can reach energy efficiency grade 2 of GBZ18613-2012 standard and IE3 of IEC60034-30 standard.

The latest patent design

- ◆ Good shape
- ◆ Compact structure
- ◆ Low noise
- ◆ High efficiency
- ◆ Enclosed cooling air duct
- ◆ Optimal energy-saving design



Industry applications

- ◆ CNC lathe, turn-milling machine tool, vertical lathe, Heavy duty horizontal lathe
- ◆ CNC milling machine, vertical machine center, horizontal machine center
- ◆ CNC boring lathe, double housing planer, planer type milling machine
- ◆ CNC grinding machine, vertical grinder, floor type boring and milling machine
- ◆ Drilling and tapping center, engraving and milling machine, gear hobbing machine, gear shaping machine, gear milling machine

Standard spindle control function

- ◆ High torque cutting at low speed
- ◆ Constant power cutting with high speed
- ◆ Zero speed spindle lock
- ◆ C-axis function
- ◆ Accurate stop control
- ◆ Rigid tapping

Series specification and standard

- ◆ Power range: 1.1 - 400kw (1500rpm)
- ◆ Pole number: 4 pole
- ◆ Max speed: 15000r/m
- ◆ Encoder: Built-in(incremental encoder, rotary transformer, sin-cos encoder, absolute encoder)
- ◆ Cooling method: forced-air cooling
- ◆ Working system: continuous duty (S1)
- ◆ Installation structure type: B3/B5/B35(according to IEC60034-7standard)
- ◆ Noise: ≤70dB(A)
- ◆ Protection class: IP55(IEC60034-5)
- ◆ Insulation and voltage resistance: AC1800V
- ◆ Insulation class: F class
- ◆ Vibration class: A
- ◆ Environment temperature: -15-45°C
- ◆ Environment humidity: below 95%RH (Non-condensate)



SPINDLE MOTOR

TYPE: Z18-47P5CB15-60H5G-A00BE-F1

kW V A Hz r/min cosφ

7.5 305 18 51.8 1500 0.87

n_{max}:8000 r/min Ins F IP55 S1 Y

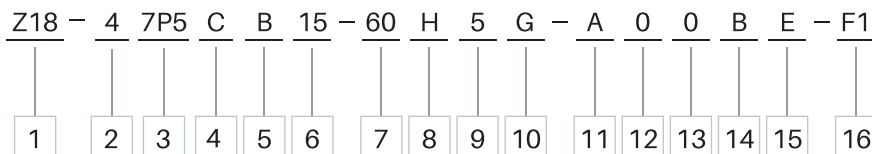
Encoder: CE9-1024-0L 57Kg NO.CM00844617

FAN: 3P-AC380V 50Hz 0.17A 55W CODE: Z2263

CTB Co.,Ltd. Made in China



◆ Model Explanation (For Example 7.5KW Spindle Motor)



Model Explanation

No	ITEM	Description	Model Meaning
1	Plant Code	Z18: Motor Series Code	CTB Company Product
2	Voltage Class	2: 200V 4: 400V	400V
3	Power Code	See Standard Specification Table	7.5KW
4	Encoder Code	Code Encoder Type B: Without Encoder C: Magnetic Encoder 128T 256T (Standard Configuration) G: Incremental Encoder 1024P 2500P 8192P R: Resolver 1024P S: Sin-Cos Encoder 2048P A: Absolute Encoder 23 bit	Inbuilt Incremental Encoder
5	Motor Frame Size Code	Code Flange Size (Length x Width) 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	B Frame Size
6	BasicSpeed Code	Code Speed r/min 05: 500 45: 4500 07: 750 60: 6000 10: 1000 80: 8000 15: 1500 90: 9000	Rated Speed:1500r/min
7	Constant Power Max SpeedCode	20: 2000 A0: 10000 30: 3000 A2: 12000 40: 4000 A5: 15000	Constant Power Max Speed:6000 r/min
8	Max SpeedCode	Code Speed r/min L: 3000 HF: 10000 (A B Motor Base) M: 6000 F: 12000 (A B Motor Base) H: 8000 FF: 15000 (A Motor Base)	Max Speed:8000 r/min
9	Mounting Type Code	3: Horizontally - Mounted 5: Flanged - Mounting 35: Horizontally - Flanged Mounting	Flanged Mounting
10	Motor Shaft Structure	G: Without Keyslot J: With Keyslot	Without Keyslot
11	Smart card	A: Smart card N: None	With smart-card
12	Terminal box incoming direction	0: Plastic-right 1: Plastic-left 2: Aluminum-right 3: Aluminum-left 4: Sheet metal-right 5: Sheet metal-left	Plastic-right
13	Terminal Box type	0: Standard junction box + encoder black plug 1: Standard junction box + encoder aviation plug 2: Waterproof junction box + encoder black plug 3: Waterproof junction box + encoder aviation plug	Standard junction box + Encoder black plug
14	Brake	B-motor with brake; no brake omit this option	Motor with brake
15	Sales region	E-export motors; domestic sales omit this item	Sales region
16	Un-standard	F1: Shaft extension non-standard F2: Flange non-standard F3: Foundation non-standard F4: Stator non-standard F5: Fan non-standard F6: Terminal box non-standard F7: encoder non-standard F8: Brake non-standard(omit this item for standard motor)	Shaft extension non-standard

Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : A1

DIMENSION : 175X175X325 mm

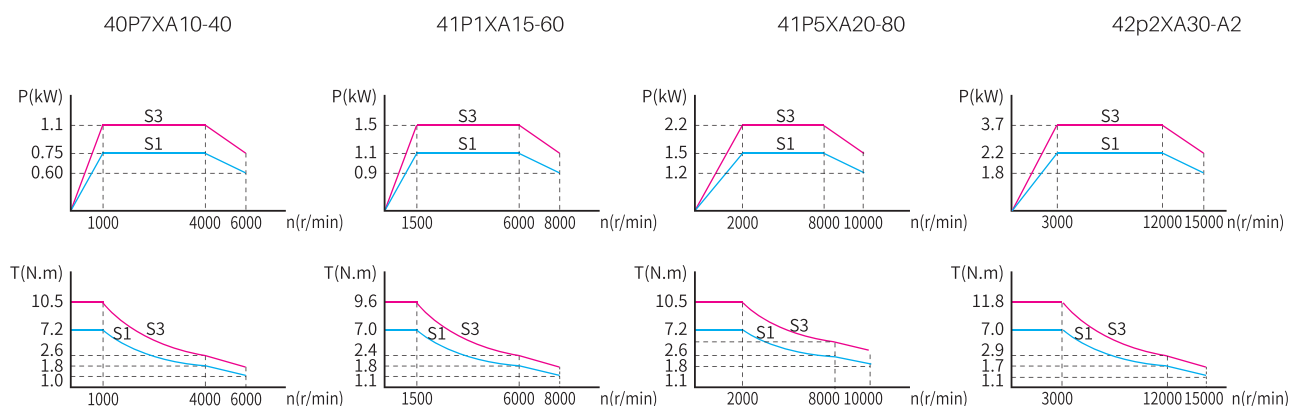


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 25W Fan Voltage : 380V

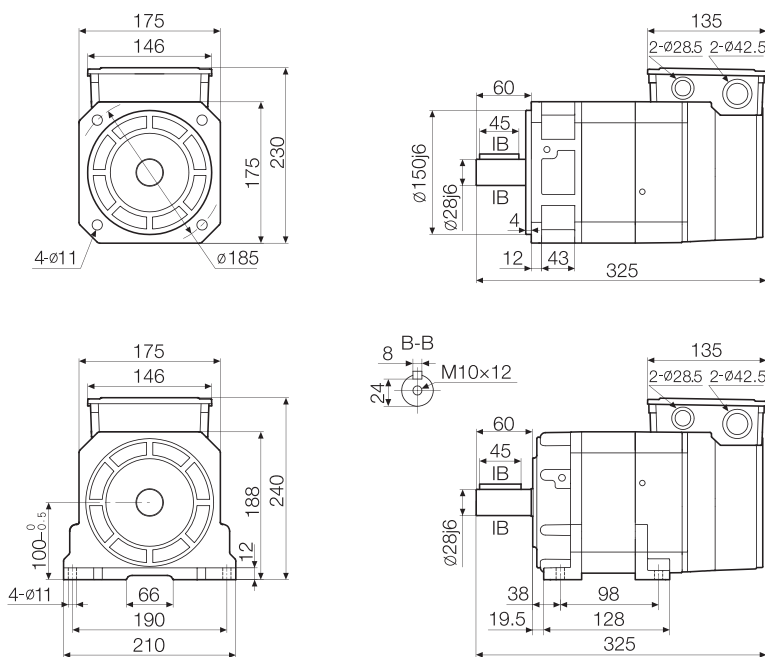
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-40P7XA10-XXXX	0.75	1.8/2.0/2.2	7.2	380/335/305	4	36.5	1000	2000/3000/4000	6000	0.0034
Z18-41P1XA15-XXXX	1.1	2.5/2.7/3.0	7.0	380/350/320	4	53.1	1500	3000/4500/6000	8000	0.0034
Z18-41P5XA20-XXXX	1.5	3.3/3.6/3.9	7.2	380/350/320	4	69.9	2000	4000/6000/8000	10000	0.0034
Z18-42P2XA30-XXXX	2.2	4.7/5.1/5.5	7.0	380/350/320	4	103.1	3000	6000/9000/12000	15000	0.0034

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	18 (25) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : A2

DIMENSION : 175X175X335 mm

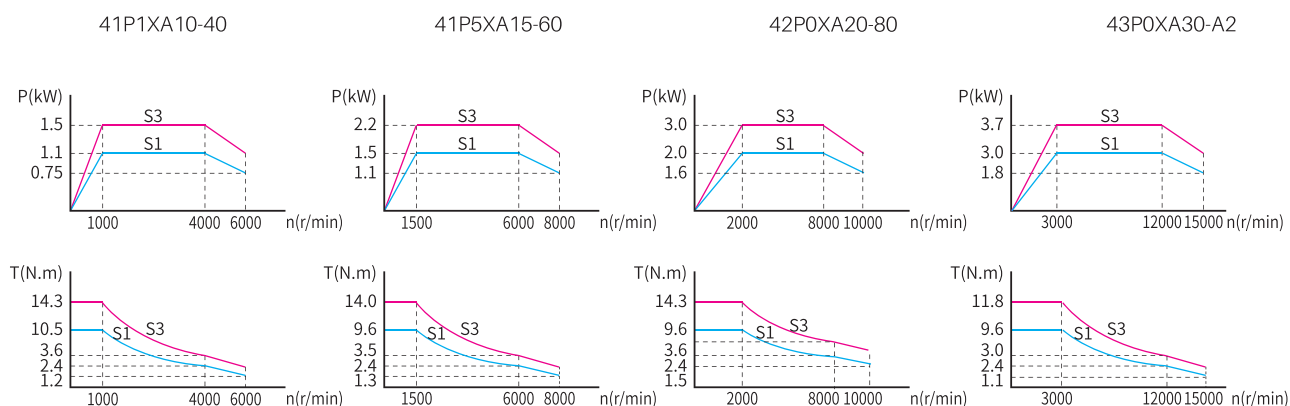


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 25W Fan Voltage : 380V

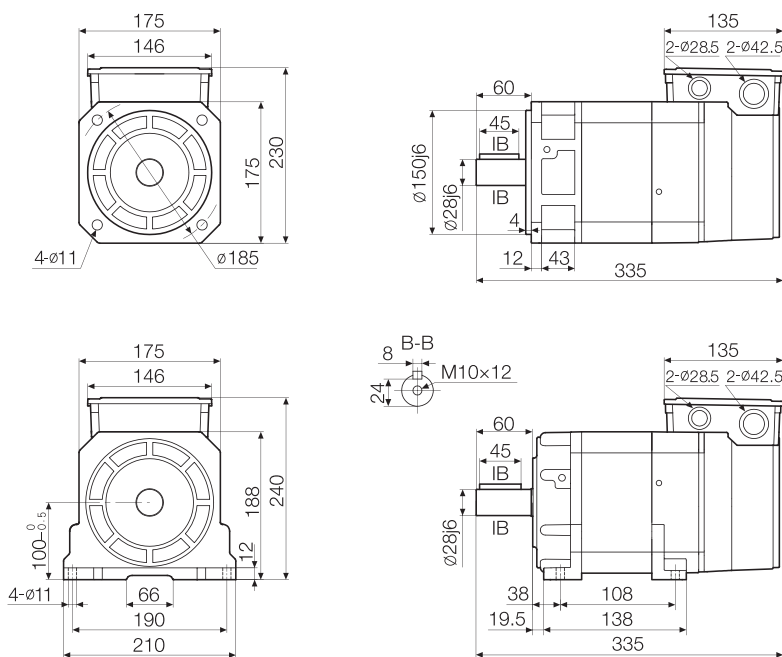
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-41P1XA10-XXXX	1.1	2.6/2.9/3.2	10.5	380/340/305	4	36.9	1000	2000/3000/4000	6000	0.0039
Z18-41P5XA15-XXXX	1.5	3.3/3.6/4.0	9.6	380/345/320	4	53.3	1500	3000/4500/6000	8000	0.0039
Z18-42P0XA20-XXXX	2.0	4.3/4.7/5.3	9.6	380/345/305	4	69.9	2000	4000/6000/8000	10000	0.0039
Z18-43P0XA30-XXXX	3.0	6.2/6.6/7.5	9.6	380/355/310	4	103.4	3000	6000/9000/12000	15000	0.0039

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	20 (27) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : A3

DIMENSION : 175X175X360 mm

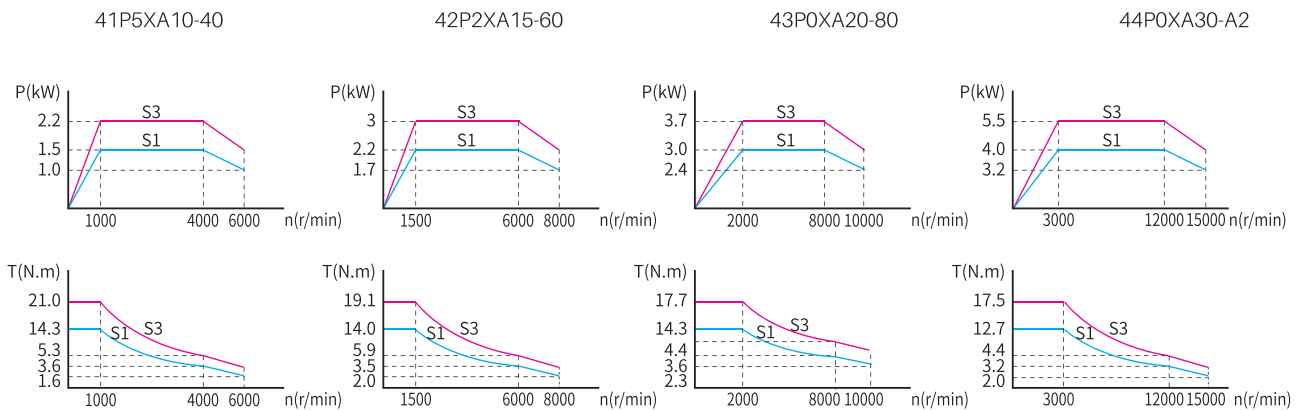


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 25W Fan Voltage : 380V

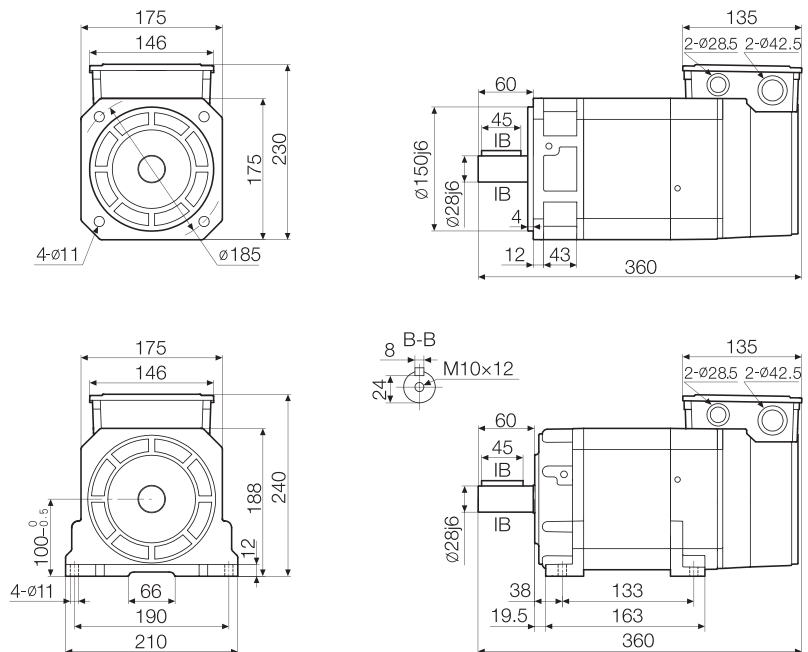
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-41P5XA10-XXXX	1.5	3.3/3.6/4.0	14.3	380/360/320	4	36.4	1000	2000/3000/4000	6000	0.0054
Z18-42P2XA15-XXXX	2.2	4.7/5.0/5.6	14.0	380/355/320	4	53.0	1500	3000/4500/6000	8000	0.0054
Z18-43P0XA20-XXXX	3.0	6.2/6.7/7.4	14.3	380/350/315	4	69.8	2000	4000/6000/8000	10000	0.0054
Z18-44P0XA30-XXXX	4.0	8.2/8.2/9.4	12.7	380/375/335	4	102.8	3000	6000/9000/12000	15000	0.0054

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	24 (31) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : A4

DIMENSION : 175X175X415 mm

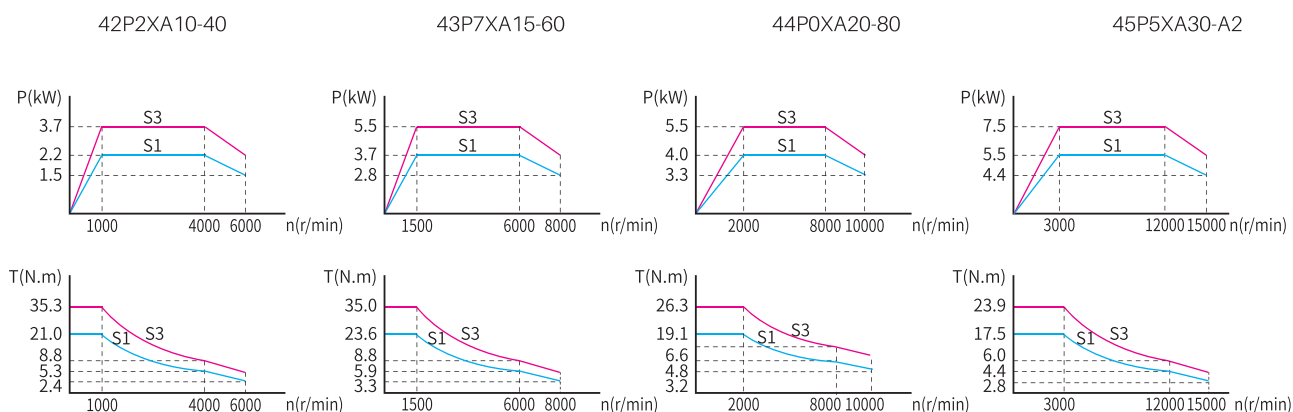


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 25W Fan Voltage : 380V

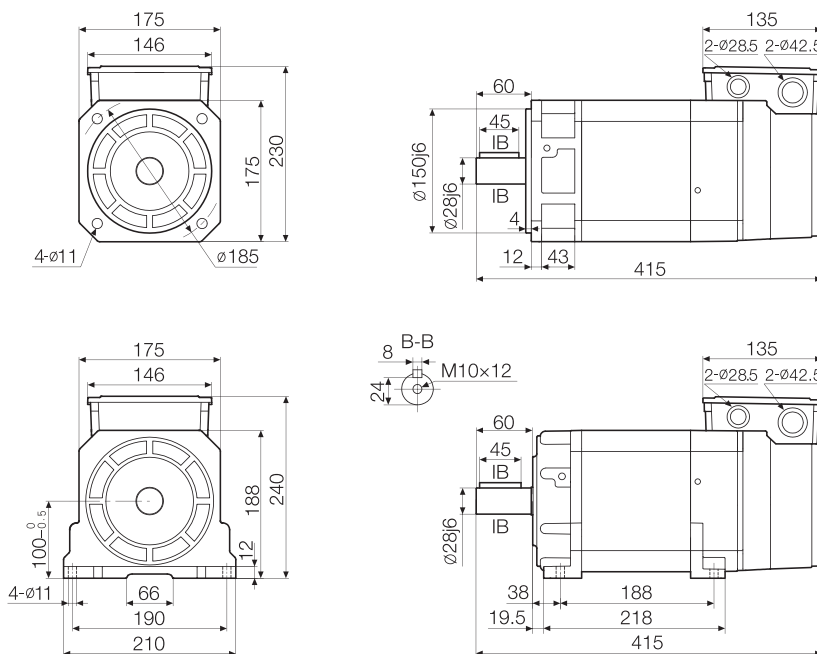
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-42P2XA10-XXXX	2.2	4.8/4.9/5.3	21.0	380/375/345	4	35.8	1000	2000/3000/4000	6000	0.0086
Z18-43P7XA15-XXXX	3.7	7.7/8.1/8.7	23.6	380/360/335	4	52.6	1500	3000/4500/6000	8000	0.0086
Z18-44P0XA20-XXXX	4.0	8.2/8.5/9.0	19.1	380/375/355	4	69.0	2000	4000/6000/8000	10000	0.0086
Z18-45P5XA30-XXXX	5.5	11.2/12.1/12.1	17.5	380/365/365	4	102.1	3000	6000/9000/12000	15000	0.0086

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	33 (40) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : B1

DIMENSION : 205X205X440 mm

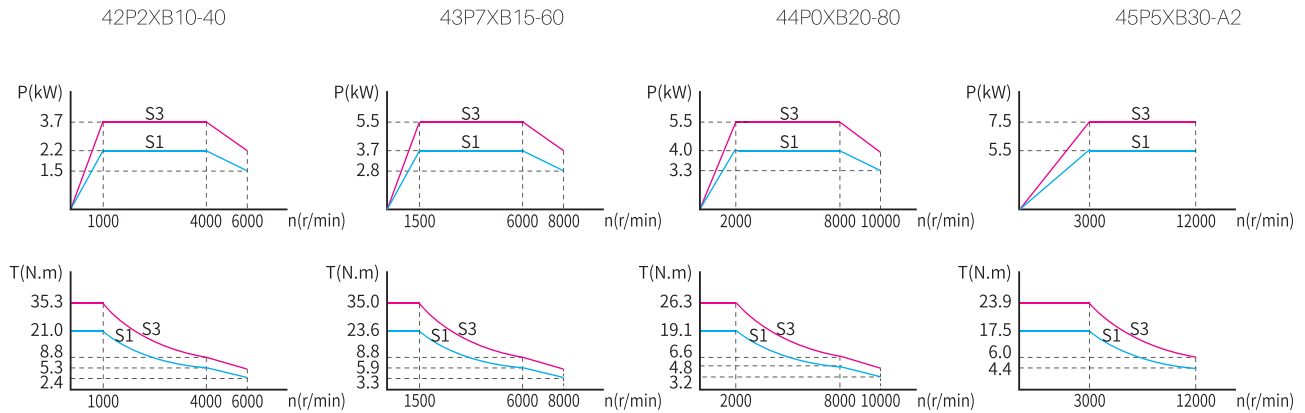


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 60W Fan Voltage : 380V

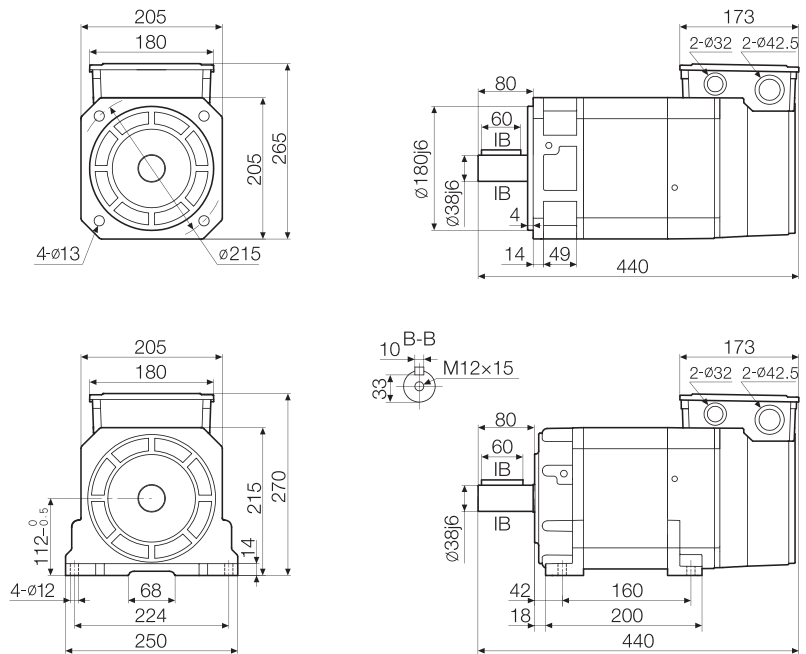
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-42P2XB10-XXXX	2.2	4.6/4.8/5.4	21.0	380/360/320	4	34.9	1000	2000/3000/4000	6000	0.0154
Z18-43P7XB15-XXXX	3.7	7.4/8.1/9.3	23.6	380/340/300	4	51.8	1500	3000/4500/6000	8000	0.0154
Z18-44P0XB20-XXXX	4.0	7.8/8.1/9.2	19.1	380/375/330	4	68.2	2000	4000/6000/8000	10000	0.0154
Z18-45P5XB30-XXXX	5.5	10.9/11.0/12.4	17.5	380/375/335	4	101.3	3000	6000/9000/12000	12000	0.0154

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	38 (45) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : B2

DIMENSION : 205X205X475 mm

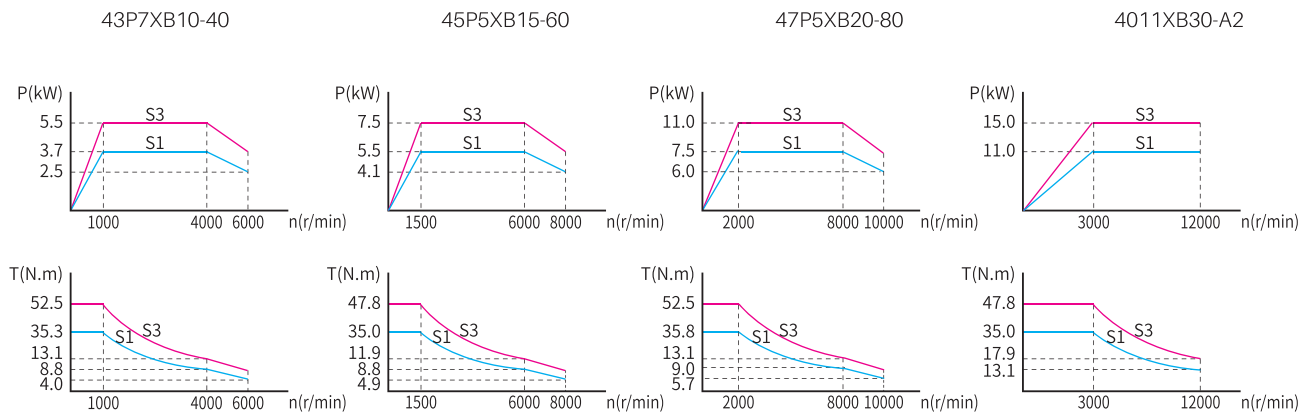


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 60W Fan Voltage : 380V

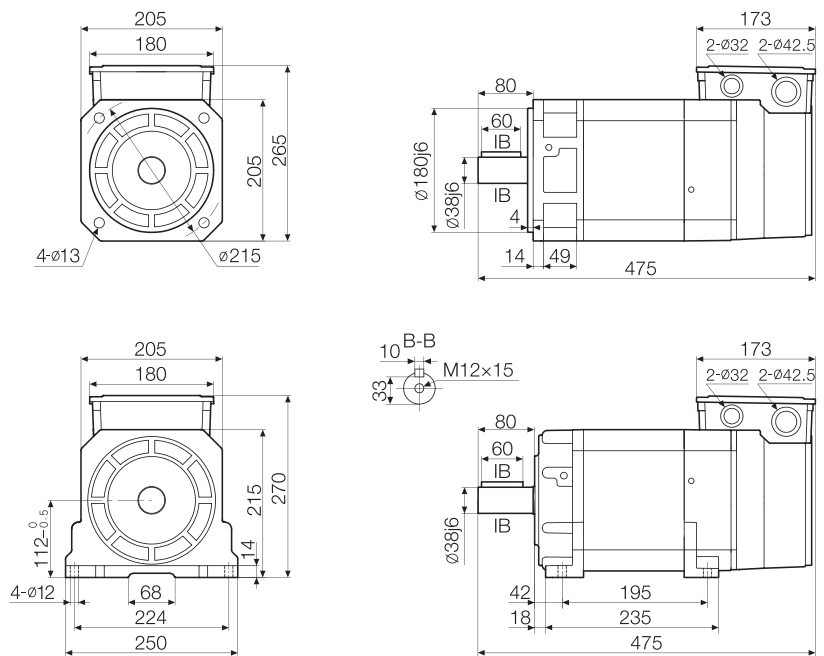
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-43P7XB10-XXXX	3.7	7.5/8.4/9.3	35.3	380/335/305	4	35.1	1000	2000/3000/4000	6000	0.0199
Z18-45P5XB15-XXXX	5.5	10.7/12.3/13.4	35.0	380/330/305	4	51.8	1500	3000/4500/6000	8000	0.0199
Z18-47P5XB20-XXXX	7.5	14.4/16.1/18.2	35.8	380/340/300	4	68.5	2000	4000/6000/8000	10000	0.0199
Z18-4011XB30-XXXX	11	20.7/24.5/26.8	35.0	380/320/295	4	101.8	3000	6000/9000/12000	12000	0.0199

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	46 (53) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : B3

DIMENSION : 205X205X520 mm

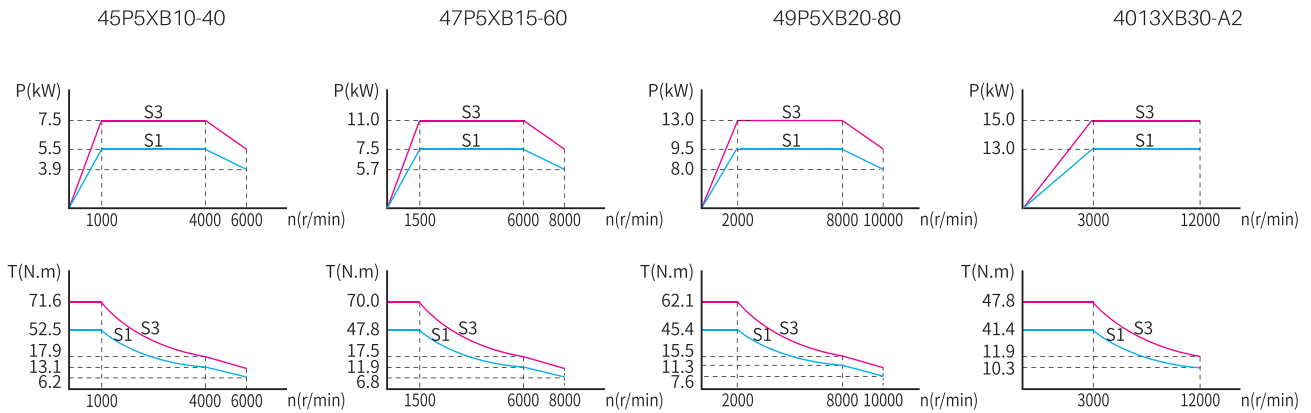


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 60W Fan Voltage : 380V

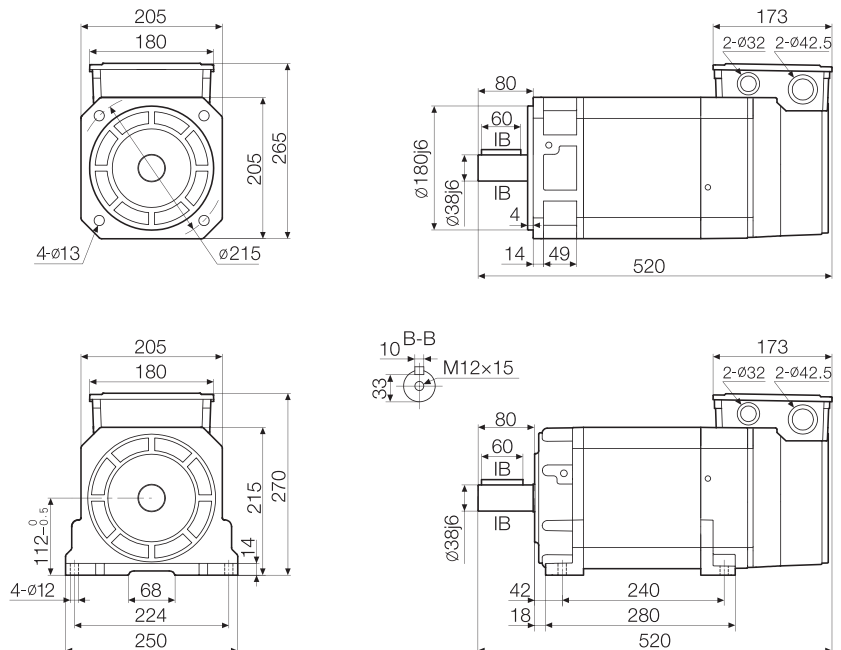
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-45P5XB10-XXXX	5.5	10.9/12.8/14.8	52.5	380/325/280	4	35.2	1000	2000/3000/4000	6000	0.0256
Z18-47P5XB15-XXXX	7.5	14.4/15.9/18.0	47.8	380/345/305	4	51.8	1500	3000/4500/6000	8000	0.0256
Z18-49P5XB20-XXXX	9.5	17.8/20.0/23.5	45.4	380/345/300	4	68.3	2000	4000/6000/8000	10000	0.0256
Z18-4013XB30-XXXX	13	24.3/26.8/30.2	41.4	380/350/310	4	101.6	3000	6000/9000/12000	12000	0.0256

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	57 (65) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : B4

DIMENSION : 205X205X575 mm

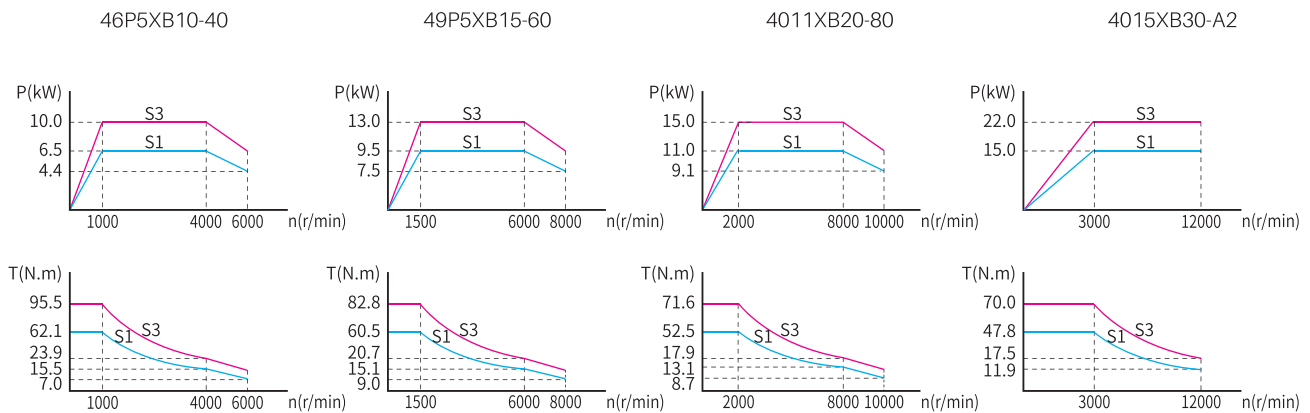


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 60W Fan Voltage : 380V

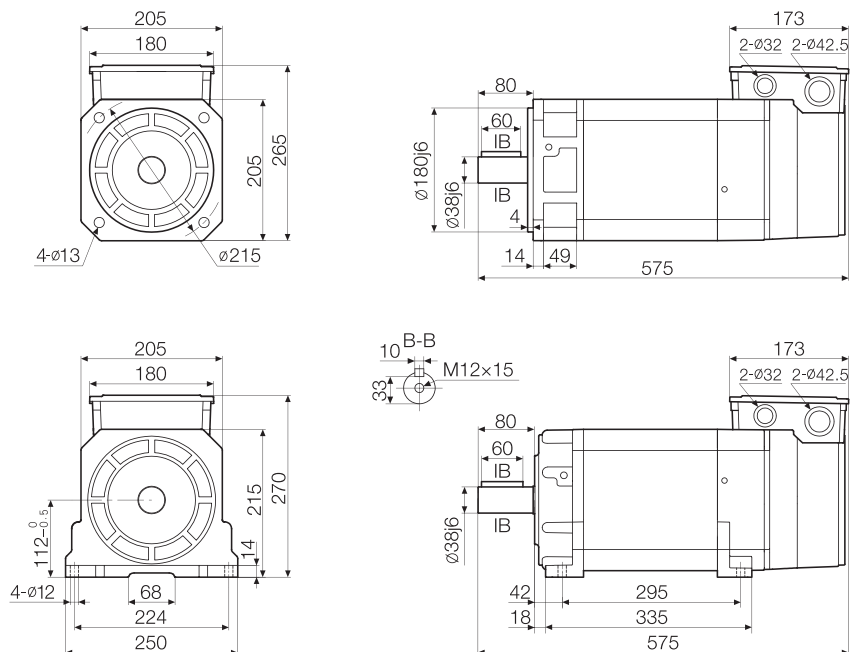
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-46P5XB10-XXXX	6.5	12.8/14.1/15.9	62.1	380/345/305	4	35.0	1000	2000/3000/4000	6000	0.0325
Z18-49P5XB15-XXXX	9.5	17.9/20.3/23.0	60.5	380/340/290	4	51.8	1500	3000/4500/6000	8000	0.0325
Z18-4011XB20-XXXX	11	21.3/21.3/26.0	52.5	380/375/305	4	68.0	2000	4000/6000/8000	10000	0.0325
Z18-4015XB30-XXXX	15	27.7/30.9/36.1	47.8	380/355/300	4	101.5	3000	6000/9000/12000	12000	0.0325

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	71 (81) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : C1

DIMENSION : 265X265X555 mm

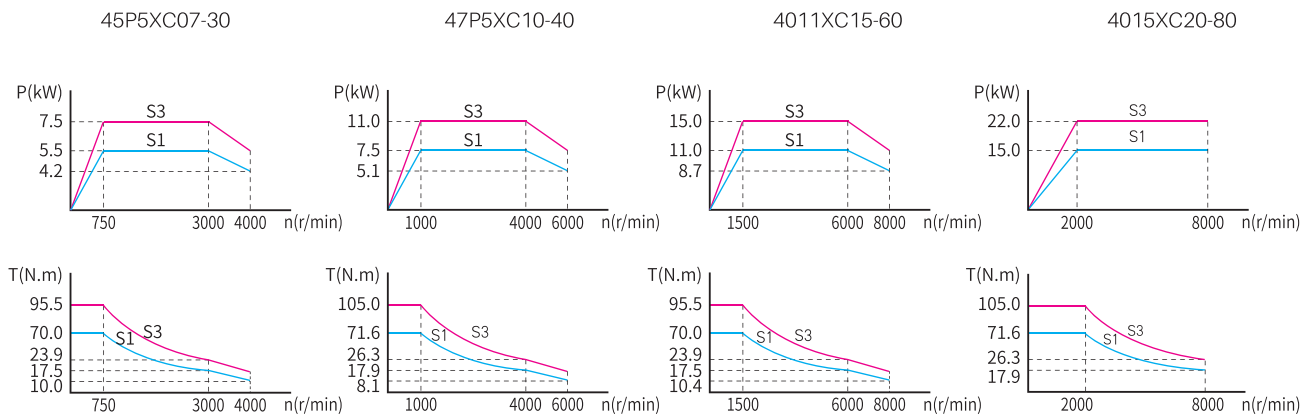


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 110W Fan Voltage : 380V

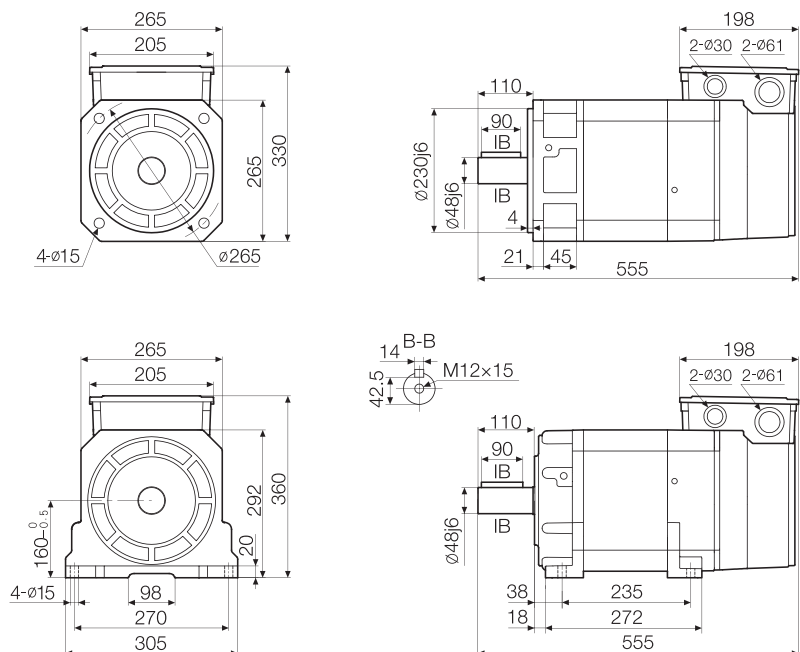
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-45P5XC07-XXXX	5.5	10.7/12.1/13.7	70.0	380/340/300	4	26.1	750	1500/2200/3000	4000	0.0717
Z18-47P5XC10-XXXX	7.5	14.4/16.0/18.5	71.6	380/340/295	4	34.4	1000	2000/3000/4000	6000	0.0717
Z18-4011XC15-XXXX	11	20.6/23.4/27.2	70.0	380/335/290	4	51.1	1500	3000/4500/6000	8000	0.0717
Z18-4015XC20-XXXX	15	27.9/30.6/37.2	71.6	380/345/285	4	67.7	2000	4000/6000/8000	8000	0.0717

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	93 (103) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : C2

DIMENSION : 265X265X600 mm

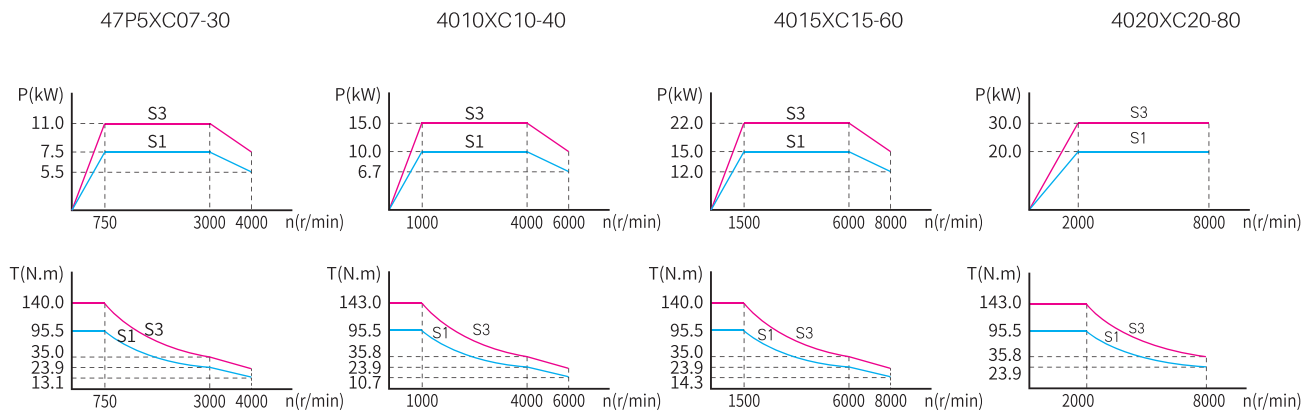


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 110W Fan Voltage : 380V

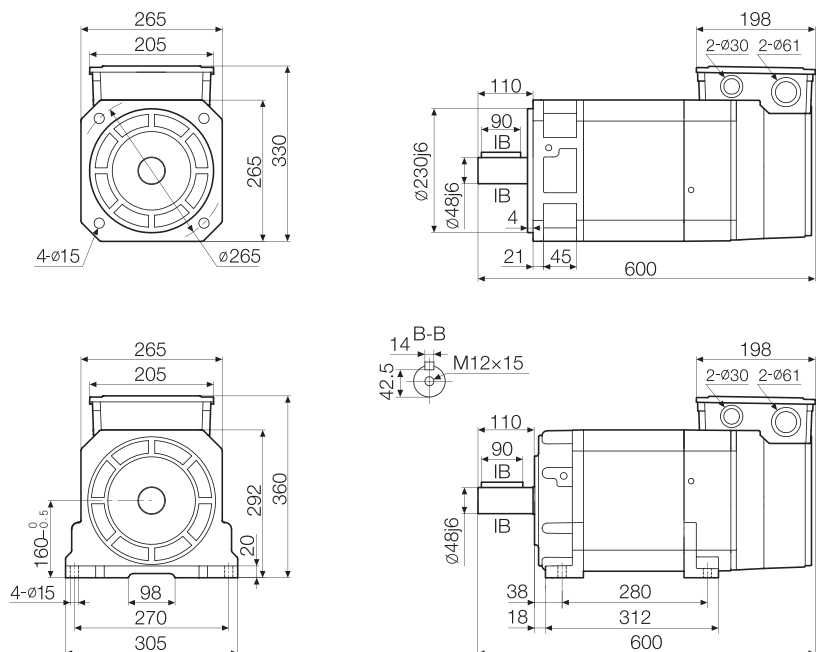
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-47P5XC07-XXXX	7.5	14.4/16.4/19.0	95.5	380/335/290	4	26.1	750	1500/2200/3000	4000	0.0890
Z18-4010XC10-XXXX	10	18.7/21.4/24.4	95.5	380/335/295	4	34.5	1000	2000/3000/4000	6000	0.0890
Z18-4015XC15-XXXX	15	27.4/31.1/37.8	95.5	380/340/280	4	51.2	1500	3000/4500/6000	8000	0.0890
Z18-4020XC20-XXXX	20	37.6/42.9/48.9	95.5	380/325/285	4	67.6	2000	4000/6000/8000	8000	0.0890

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	111 (121) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : C3

DIMENSION : 265X265X640 mm



Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 110W Fan Voltage : 380V

Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4010XC07-XXXX	10	19.1/21.8/25.1	127.3	380/335/290	4	26.1	750	1500/2200/3000	4000	0.1057
Z18-4013XC10-XXXX	13	24.4/28.1/33.1	124.2	380/330/280	4	34.4	1000	2000/3000/4000	6000	0.1057
Z18-4018XC15-XXXX	18.5	34.5/38.7/43.4	117.8	380/335/300	4	51.1	1500	3000/4500/6000	8000	0.1057
Z18-4025XC20-XXXX	25	45.2/50.8/58.9	119.4	380/340/295	4	67.8	2000	4000/6000/8000	8000	0.1057

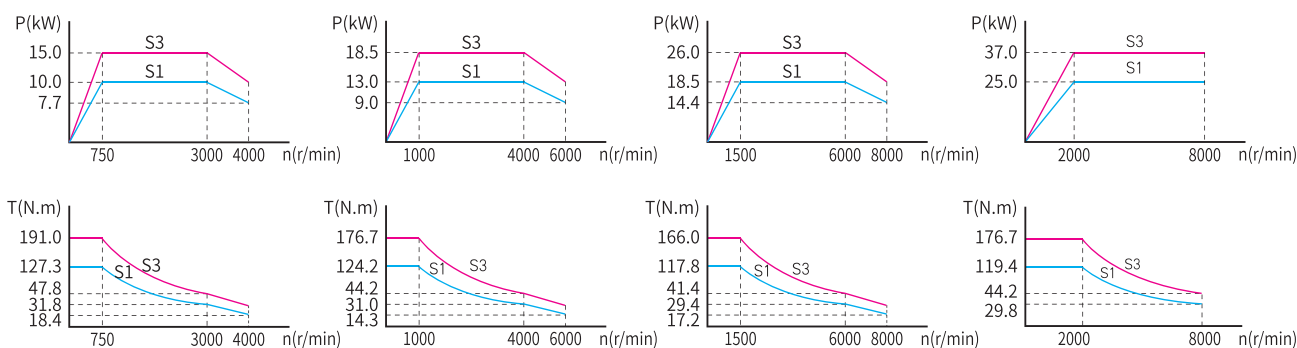
Characteristic Curve

4010XC07-30

4013XC10-40

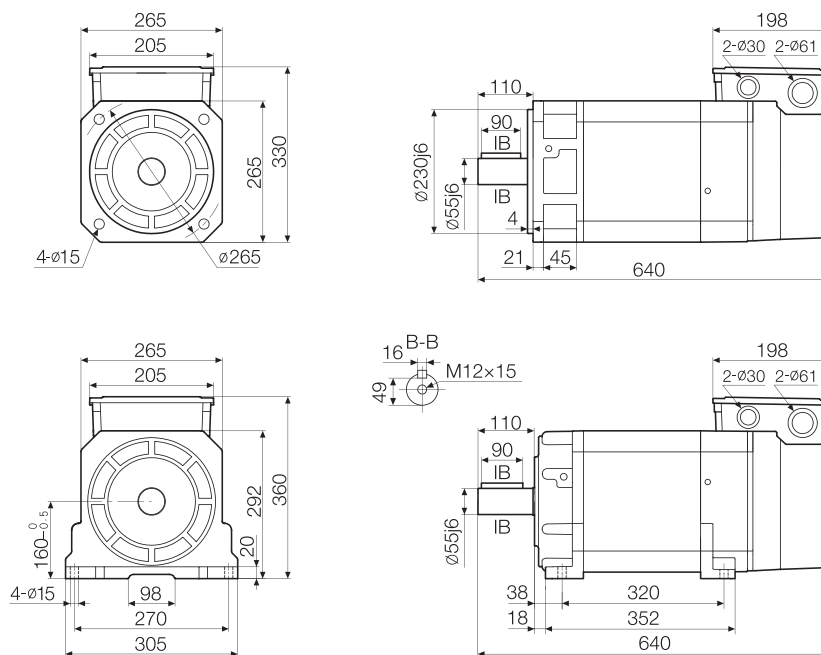
4018XC15-60

4026XC20-80



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	126 (136) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : C4

DIMENSION : 265X265X670 mm



Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 110W Fan Voltage : 380V

Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4011XC07-XXXX	11	20.8/24.2/28.3	140.1	380/330/280	4	26.1	750	1500/2200/3000	4000	0.1186
Z18-4015XC10-XXXX	15	28.3/33.3/36.9	143.3	380/315/290	4	34.4	1000	2000/3000/4000	6000	0.1186
Z18-4022XC15-XXXX	22	40.5/45.8/52.1	140.1	380/335/295	4	51.0	1500	3000/4500/6000	8000	0.1186
Z18-4030XC20-XXXX	30	54.2/62.6/74.3	143.3	380/330/280	4	67.8	2000	4000/6000/8000	8000	0.1186

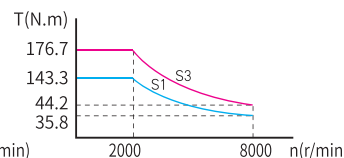
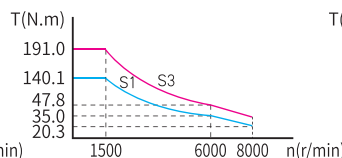
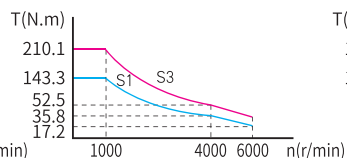
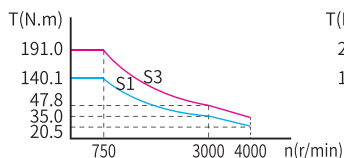
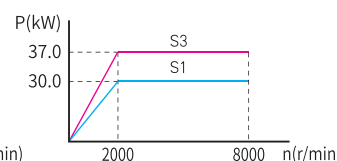
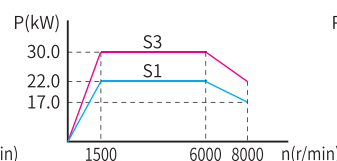
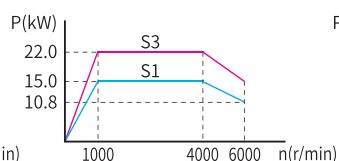
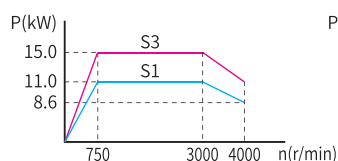
Characteristic Curve

4011XC07-30

4015XC10-40

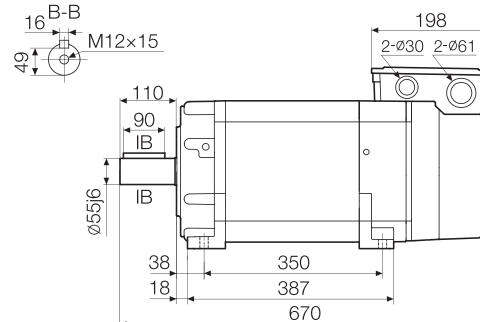
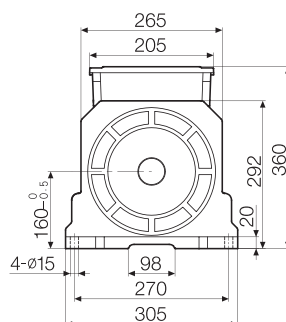
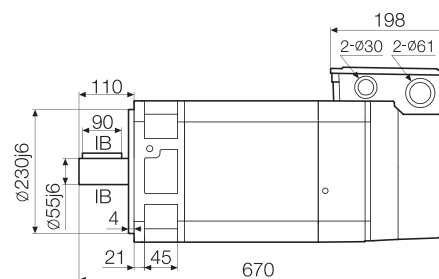
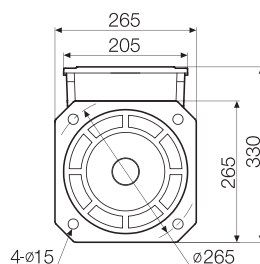
4022XC15-60

4030XC20-80



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	138 (148) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : D1

DIMENSION : 300X300X690 mm

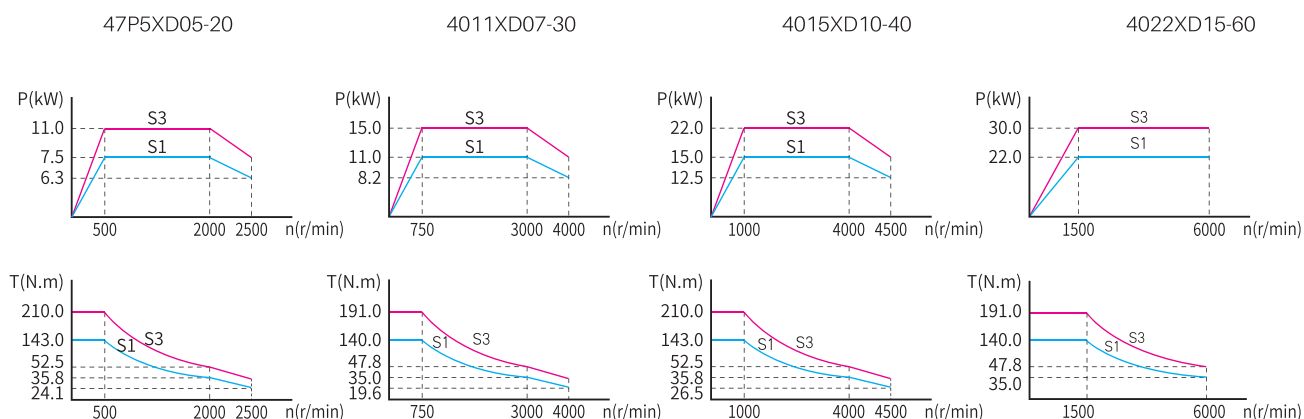


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 70W Fan Voltage : 380V

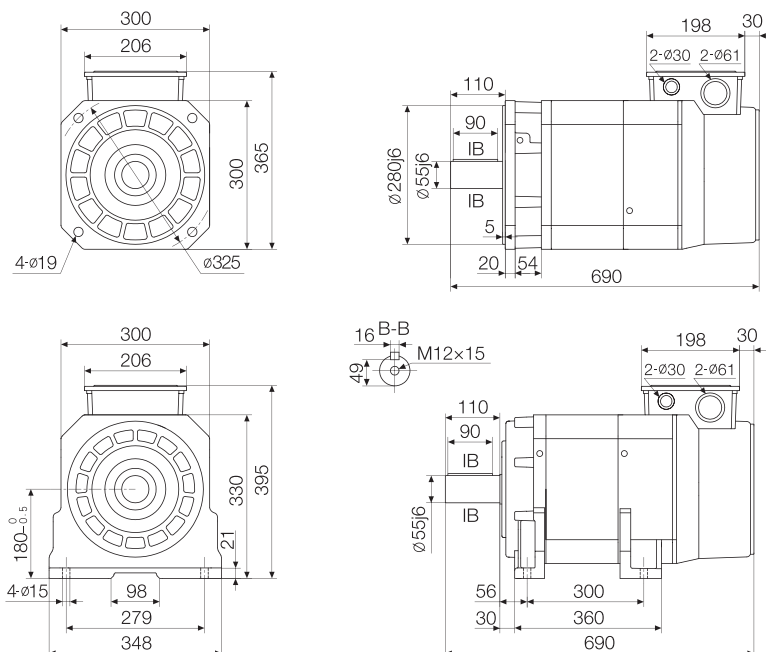
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-47P5XD05-XXXX	7.5	14.3/15.6/17.6	143	380/350/310	4	17.5	500	1000/1500/2000	2500	0.1587
Z18-4011XD07-XXXX	11	20.3/21.7/24.5	140	380/355/315	4	25.8	750	1500/2200/3000	4000	0.1587
Z18-4015XD10-XXXX	15	27.3/28.7/32.3	143	380/360/320	4	34.1	1000	2000/3000/4000	4500	0.1587
Z18-4022XD15-XXXX	22	39.0/40.3/45.8	140	380/370/325	4	50.8	1500	3000/4500/6000	6000	0.1587

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	187 (199) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : D2
DIMENSION : 300X300X745 mm

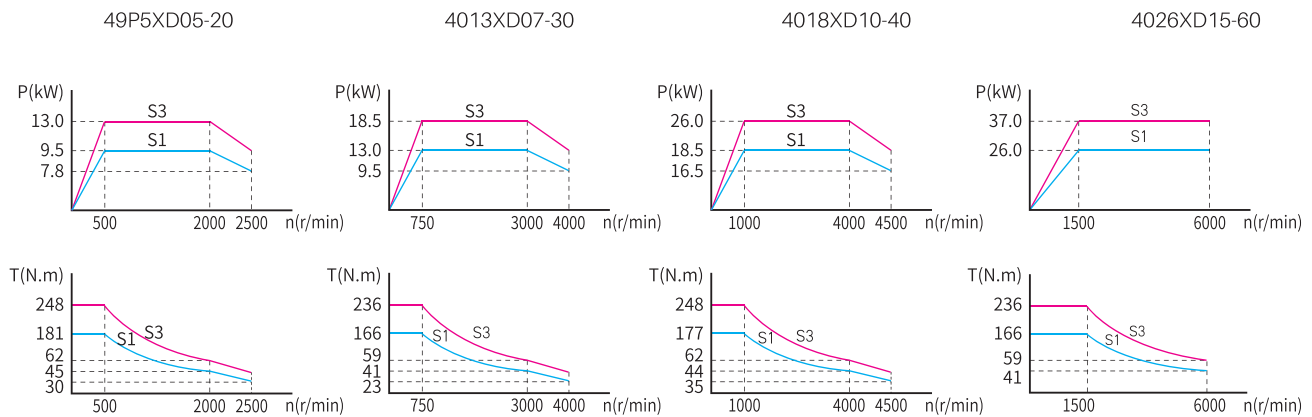


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 70W Fan Voltage : 380V

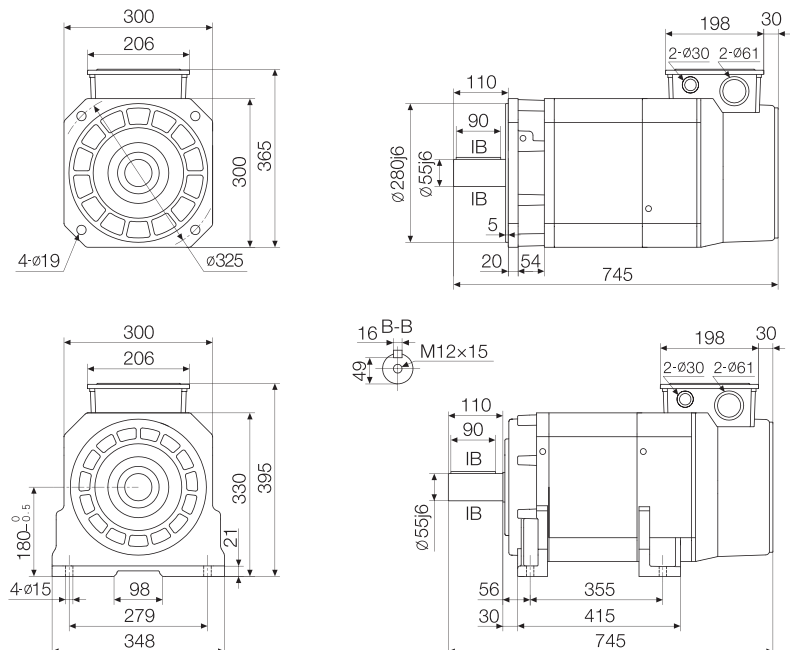
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-49P5XD05-XXXX	9.5	18.1/19.6/22.1	181	380/350/310	4	17.4	500	1000/1500/2000	2500	0.1882
Z18-4013XD07-XXXX	13	23.9/25.3/27.5	166	380/360/330	4	25.7	750	1500/2200/3000	4000	0.1882
Z18-4018XD10-XXXX	18.5	33.4/36.3/40.9	177	380/350/310	4	34.1	1000	2000/3000/4000	4500	0.1882
Z18-4026XD15-XXXX	26	46.1/48.9/53.2	166	380/360/330	4	50.7	1500	3000/4500/6000	6000	0.1882

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	208 (220) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : D3

DIMENSION : 300X300X770 mm

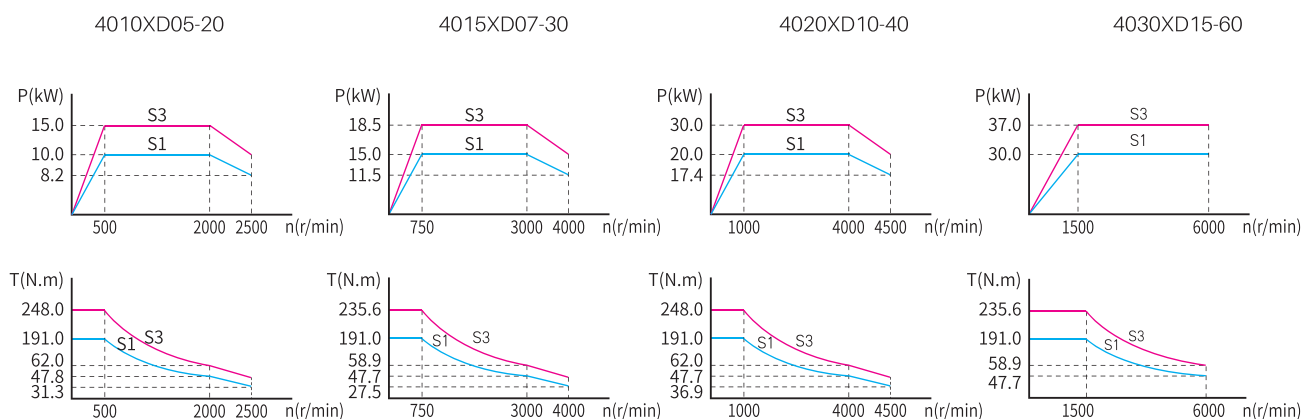


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 70W Fan Voltage : 380V

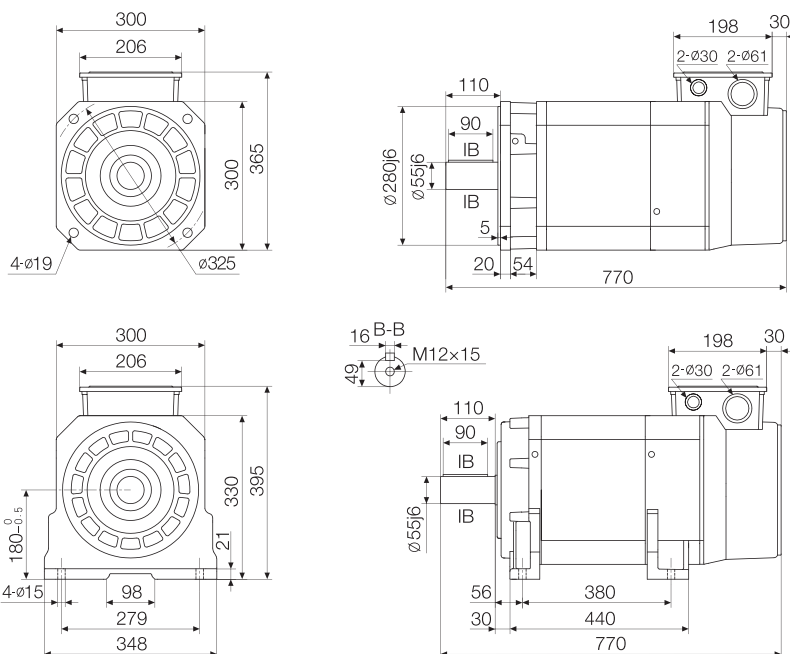
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4010XD05-XXXX	10	18.9/19.9/22.4	191	380/360/320	4	17.4	500	1000/1500/2000	2500	0.2046
Z18-4015XD07-XXXX	15	27.3/28.0/32.6	191	380/370/320	4	25.8	750	1500/2200/3000	4000	0.2046
Z18-4020XD10-XXXX	20	36.0/37.9/42.6	191	380/360/320	4	34.1	1000	2000/3000/4000	4500	0.2046
Z18-4030XD15-XXXX	30	52.7/55.9/65.7	191	380/360/305	4	50.8	1500	3000/4500/6000	6000	0.2046

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	221 (233) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : D4

DIMENSION : 300X300X840 mm



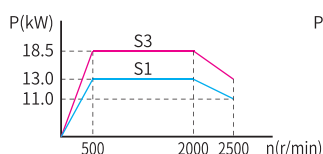
Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 70W Fan Voltage : 380V

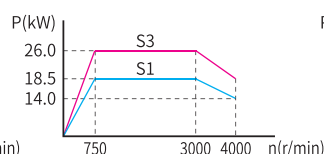
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4013XD05-XXXX	13	24.4/26.9/29.9	248	380/345/310	4	17.4	500	1000/1500/2000	2500	0.2505
Z18-4018XD07-XXXX	18.5	33.4/34.4/39.9	236	380/370/320	4	25.8	750	1500/2200/3000	4000	0.2505
Z18-4026XD10-XXXX	26	46.7/50.4/57.9	248	380/350/305	4	34.1	1000	2000/3000/4000	4500	0.2505
Z18-4037XD15-XXXX	37	65.3/71.9/79.9	236	380/345/310	4	50.7	1500	3000/4500/6000	6000	0.2505

Characteristic Curve

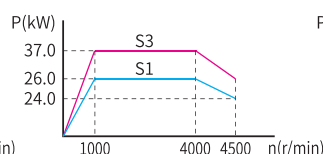
4013XD05-20



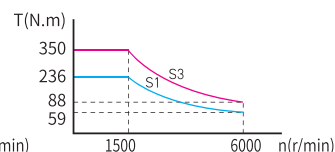
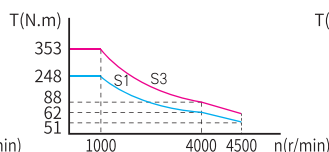
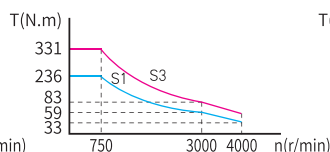
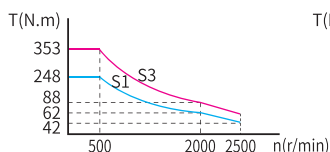
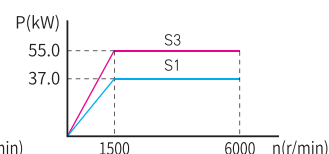
4018XD07-30



4026XD10-40

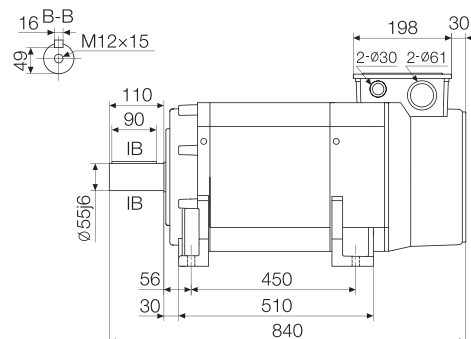
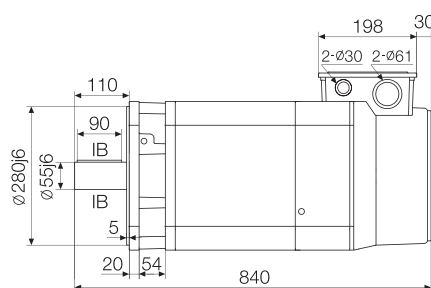
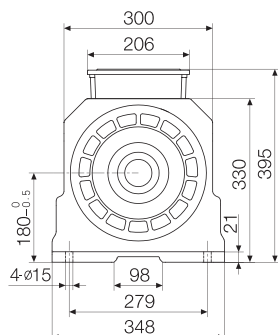
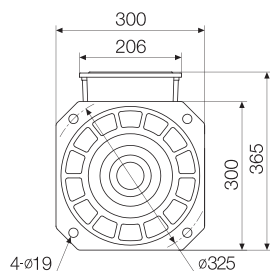


4037XD15-60



Performance Index

ITEM	INDEX
Encoder (optional)	MG-128(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	255 (267) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : E1

DIMENSION : 320X320X770 mm

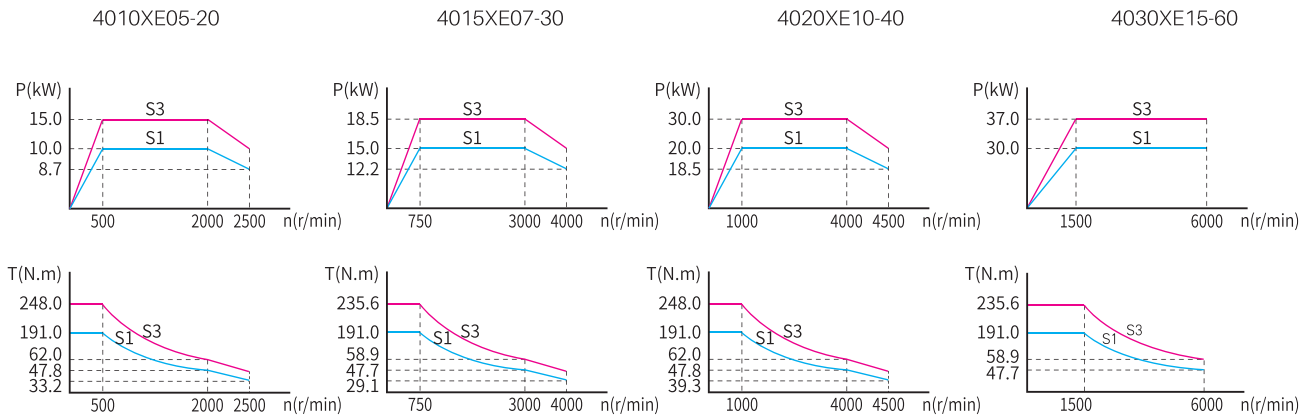


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 70W Fan Voltage : 380V

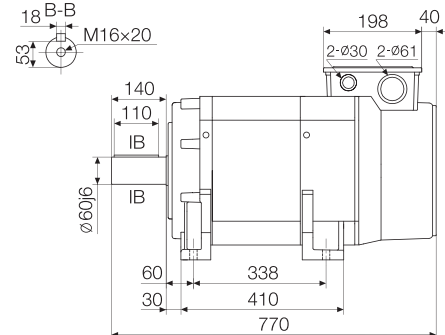
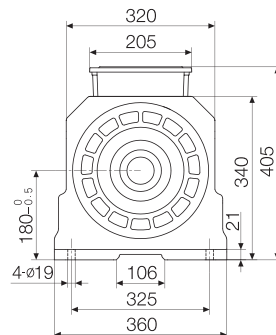
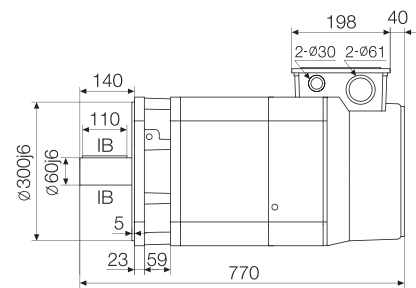
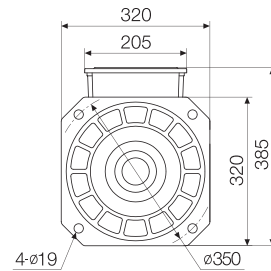
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4010XE05-XXXX	10	18.9/20.6/24.0	191	380/350/300	4	17.5	500	1000/1500/2000	2500	0.2372
Z18-4015XE07-XXXX	15	27.4/30.2/35.4	191	380/345/295	4	25.8	750	1500/2200/3000	4000	0.2372
Z18-4020XE10-XXXX	20	35.8/40.4/45.3	191	380/340/300	4	34.2	1000	2000/3000/4000	4500	0.2372
Z18-4030XE15-XXXX	30	52.7/58.4/67.3	191	380/345/300	4	50.9	1500	3000/4500/6000	6000	0.2372

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	227 (239) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : E2

DIMENSION : 320X320X830 mm



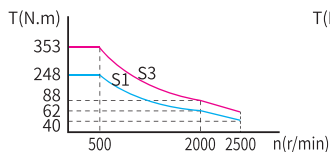
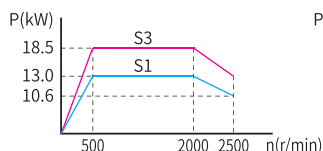
Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 70W Fan Voltage : 380V

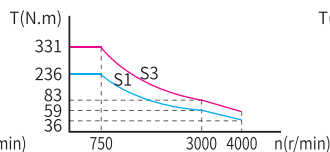
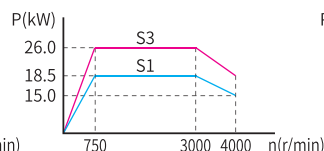
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4013XE05-XXXX	13	24.4/27.3/30.4	248	380/340/305	4	17.5	500	1000/1500/2000	2500	0.2918
Z18-4018XE07-XXXX	18.5	33.8/37.1/42.7	236	380/345/300	4	25.7	750	1500/2200/3000	4000	0.2918
Z18-4026XE10-XXXX	26	46.5/53.3/59.9	248	380/330/295	4	34.1	1000	2000/3000/4000	4500	0.2918
Z18-4037XE15-XXXX	37	64.6/72.9/81.0	236	380/340/300	4	50.8	1500	3000/4500/6000	6000	0.2918

Characteristic Curve

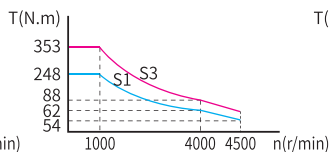
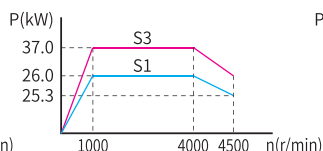
4013XE05-20



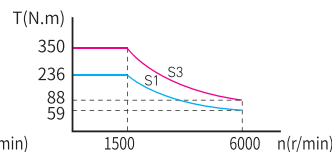
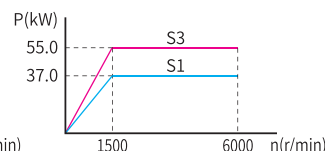
4018XE07-30



4026XE10-40

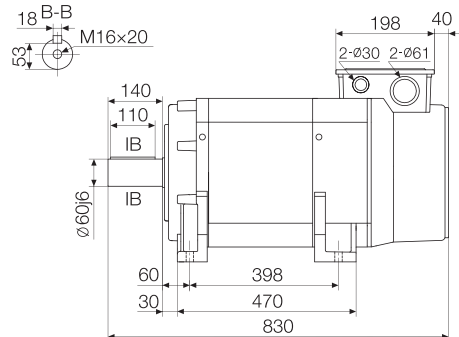
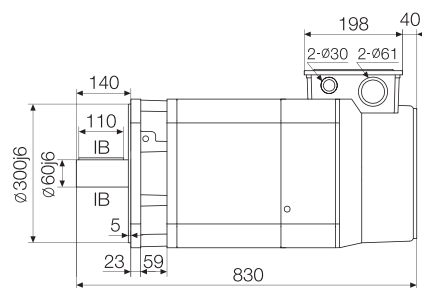
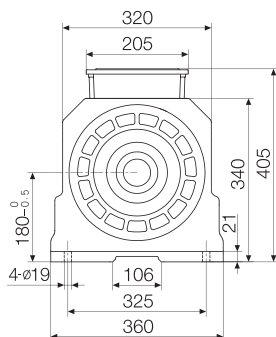
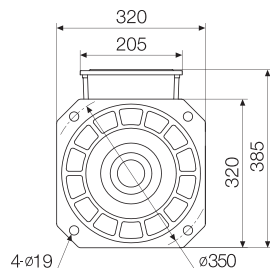


4037XE15-60



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	260 (272) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : E3
DIMENSION : 320X320X905 mm

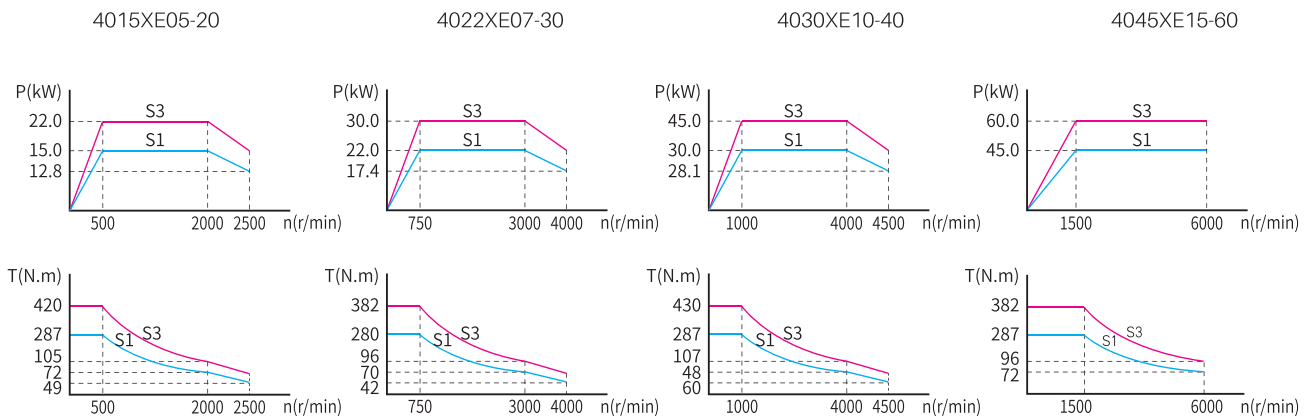


Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 70W Fan Voltage : 380V

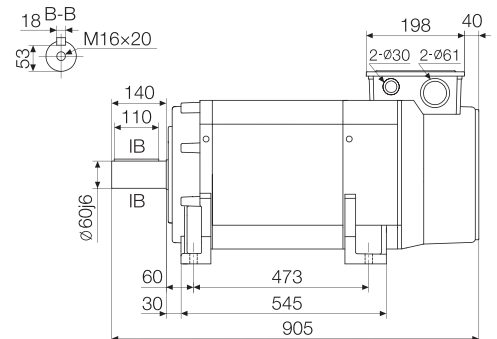
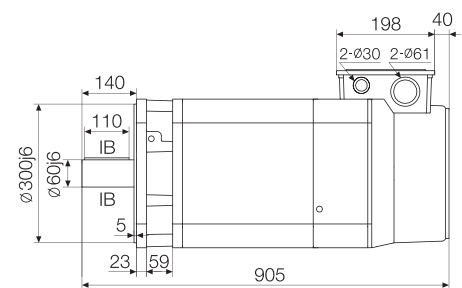
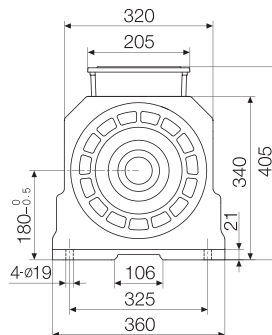
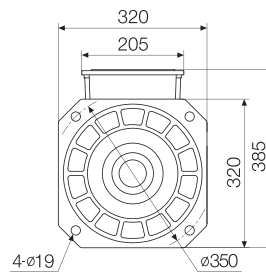
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4015XE05-XXX	15	27.8/29.4/34.1	287	380/360/310	4	17.4	500	1000/1500/2000	2500	0.3602
Z18-4022XE07-XXX	22	39.5/43.0/48.5	280	380/350/310	4	25.8	750	1500/2200/3000	4000	0.3602
Z18-4030XE10-XXX	30	53.2/56.3/66.2	287	380/360/305	4	34.1	1000	2000/3000/4000	4500	0.3602
Z18-4045XE15-XXX	45	78.8/87.9/98.2	287	380/340/305	4	50.7	1500	3000/4500/6000	6000	0.3602

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	301 (313) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : E4
DIMENSION : 320X320X1000 mm



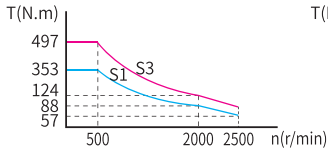
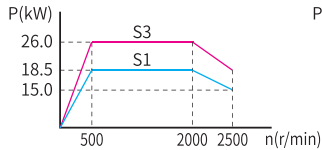
Electrical Parameter

Voltage Class : 400V Connection : Y Fan Power : 70W Fan Voltage : 380V

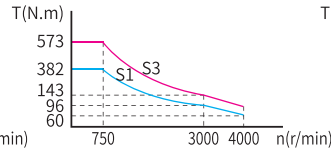
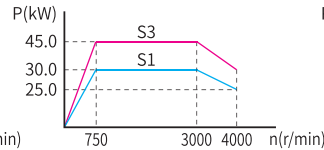
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (H)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4018XE05-XXXX	18.5	34.1/37.1/40.6	353	380/350/320	4	17.4	500	1000/1500/2000	2500	0.4467
Z18-4030XE07-XXXX	30	54.3/58.6/68.4	382	380/350/300	4	25.7	750	1500/2200/3000	4000	0.4467
Z18-4037XE10-XXXX	37	65.4/69.7/77.8	353	380/360/320	4	34.0	1000	2000/3000/4000	4500	0.4467
Z18-4055XE15-XXXX	55	96.1/109.2/128.1	350	380/335/285	4	50.7	1500	3000/4500/6000	6000	0.4467

Characteristic Curve

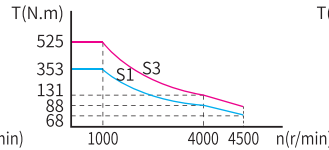
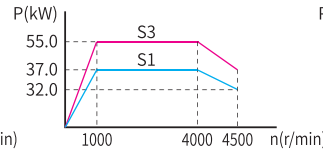
4018XE05-20



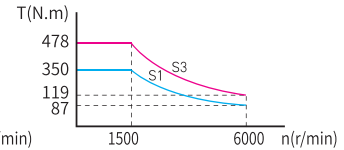
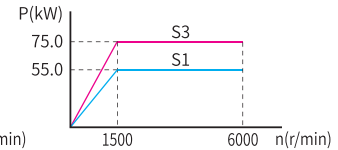
4030XE07-30



4037XE10-40

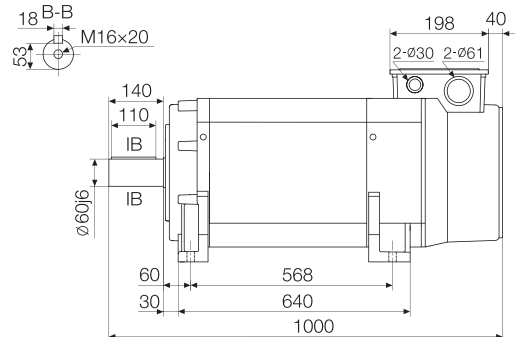
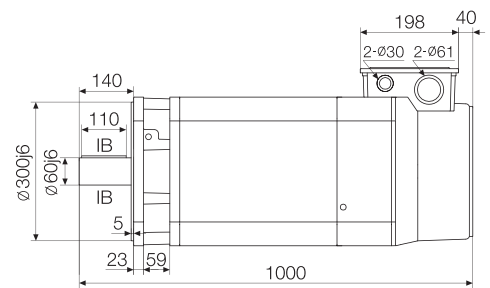
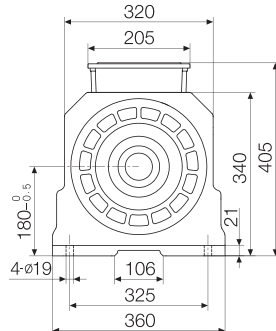
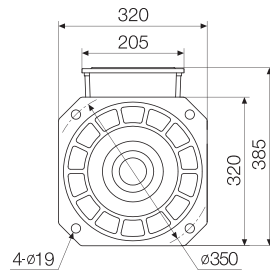


4055XE15-60



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE9-2500(Incremental)
	CE9-23B(Absolute)
	RZ12-1024(Resolver)
	SC-2048(SIN-COS)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	353 (365) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : F1
DIMENSION : 380X380X825 mm

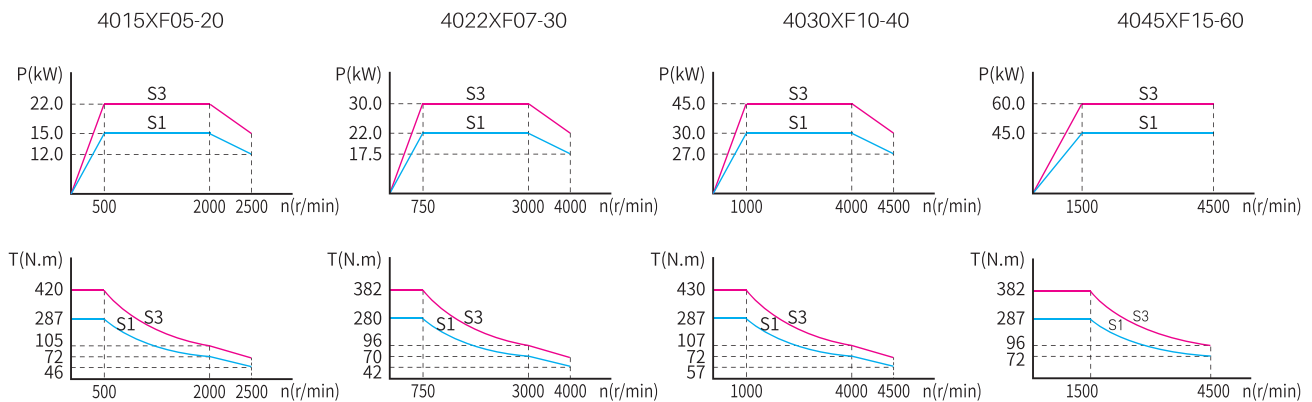


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 310W Fan Voltage : 380V

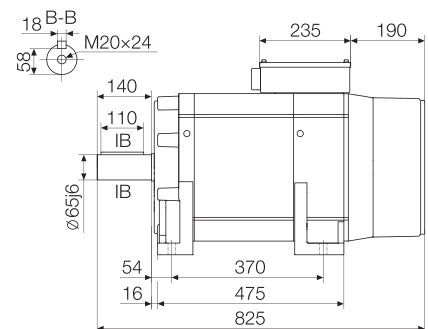
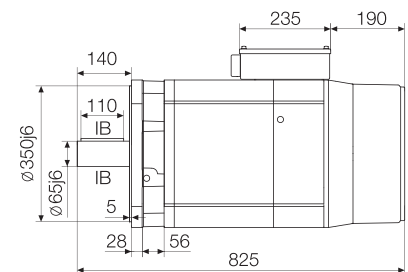
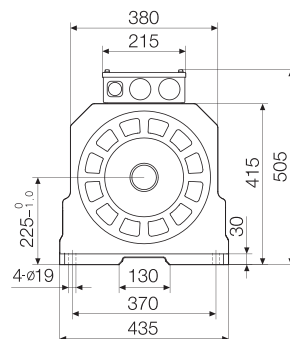
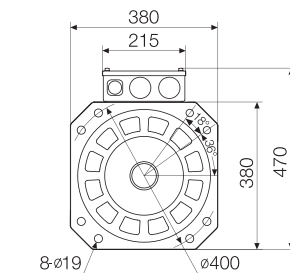
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4015XF05-XXXX	15	28/28/31	287	380/375/340	4	17.3	500	1000/1500/2000	2500	0.4133
Z18-4022XF07-XXXX	22	40/41/45	280	380/375/335	4	25.6	750	1500/2200/3000	4000	0.4133
Z18-4030XF10-XXXX	30	53/54/60	287	380/375/335	4	34.0	1000	2000/3000/4000	4500	0.4133
Z18-4045XF15-XXXX	45	79/80/93	287	380/375/325	4	50.6	1500	3000/4500	4500	0.4133

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	355 (367) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : F2

DIMENSION : 380X380X880 mm



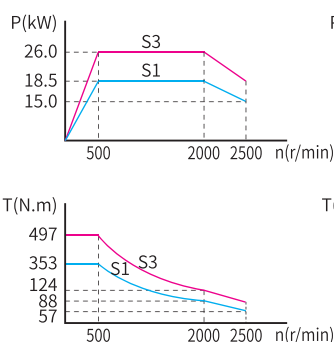
Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 310W Fan Voltage : 380V

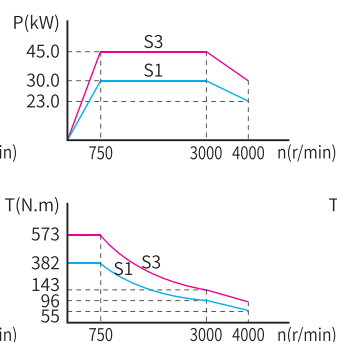
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4018XF05-XXX	18.5	34/35/38	353	380/375/340	4	17.3	500	1000/1500/2000	2500	0.4996
Z18-4030XF07-XXX	30	54/55/62	382	380/375/330	4	25.6	750	1500/2200/3000	4000	0.4996
Z18-4037XF10-XXX	37	66/67/74	353	380/375/335	4	33.9	1000	2000/3000/4000	4500	0.4996
Z18-4055XF15-XXX	55	97/98/111	350	380/375/330	4	50.6	1500	3000/4500	4500	0.4996

Characteristic Curve

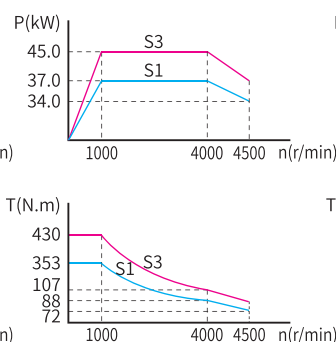
4018XF05-20



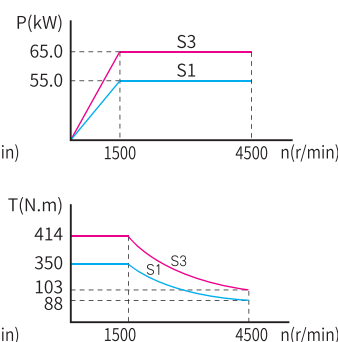
4030XF07-30



4037XF10-40

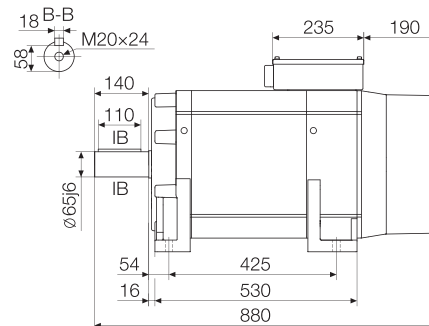
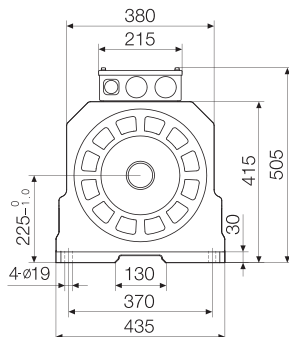
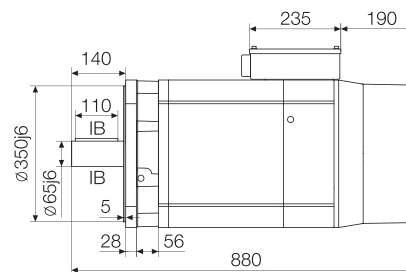
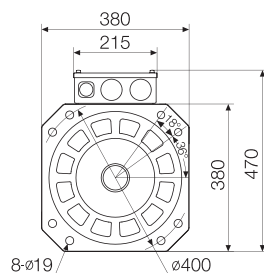


4055XF15-60



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	398 (413) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : F3
DIMENSION : 380X380X980 mm

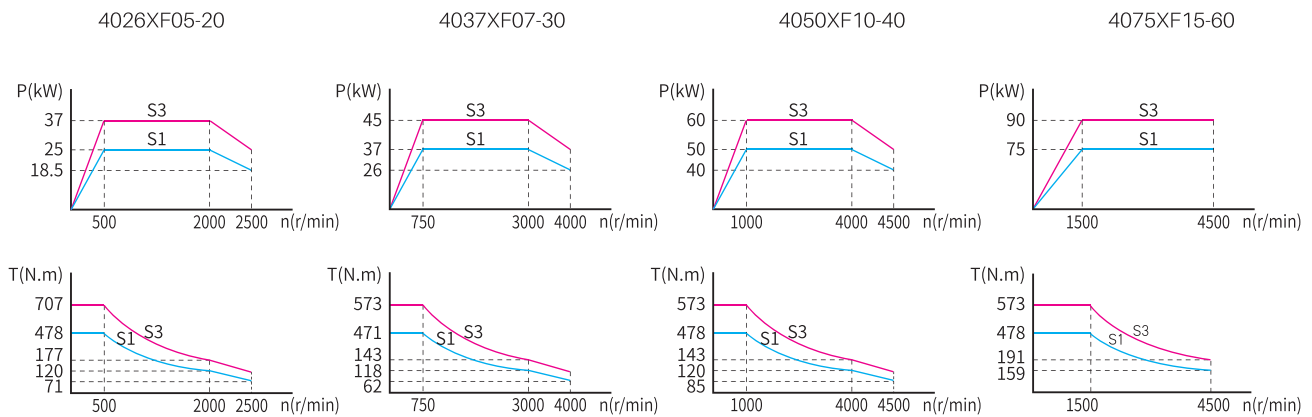


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 310W Fan Voltage : 380V

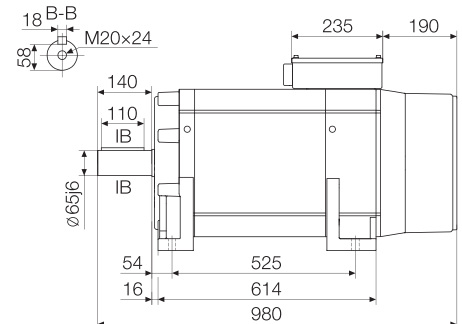
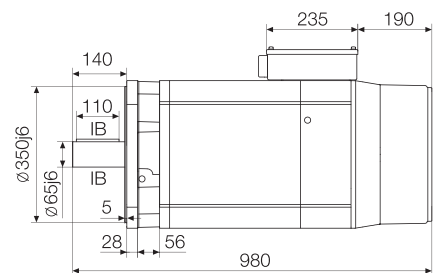
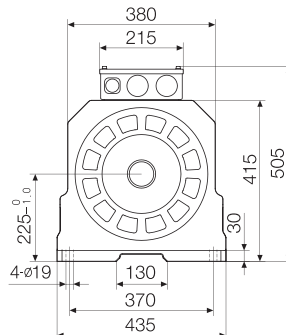
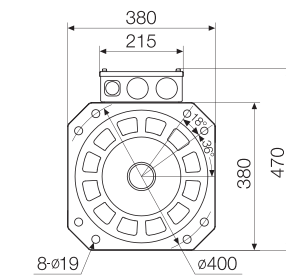
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4026XF05-XXXX	26	47/48/55	497	380/375/330	4	17.3	500	1000/1500/2000	2500	0.6565
Z18-4037XF07-XXXX	37	66/66/75	471	380/375/335	4	25.6	750	1500/2200/3000	4000	0.6565
Z18-4050XF10-XXXX	50	88/89/99	478	380/375/340	4	33.9	1000	2000/3000/4000	4500	0.6565
Z18-4075XF15-XXXX	75	131/133/146	478	380/375/340	4	50.6	1500	3000/4500	4500	0.6565

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	478 (493) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	$\leq 70\text{dB(A)}$
Environment	$-15\sim 45^{\circ}\text{C}$
Environment	$\leq 95\%\text{RH}$



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : F4
DIMENSION : 380X380X1060 mm

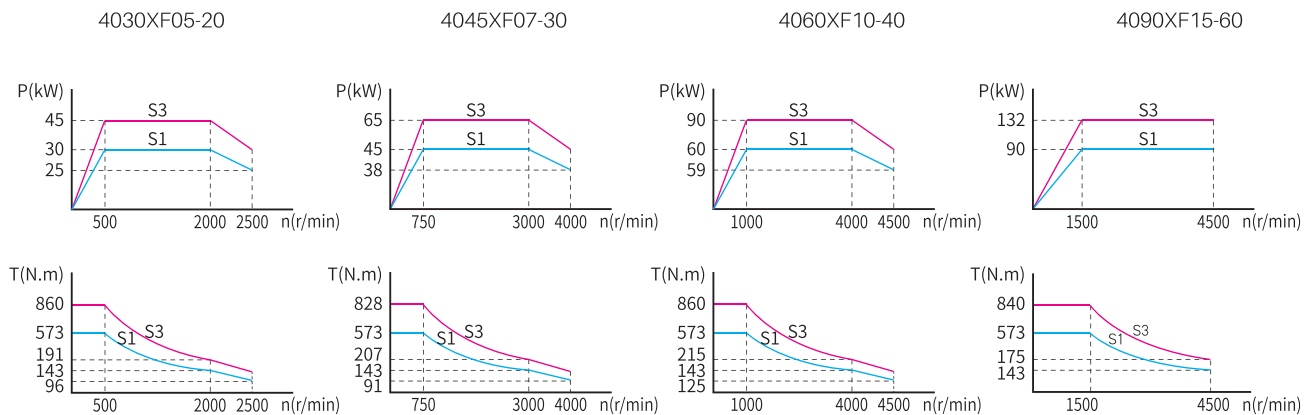


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 310W Fan Voltage : 380V

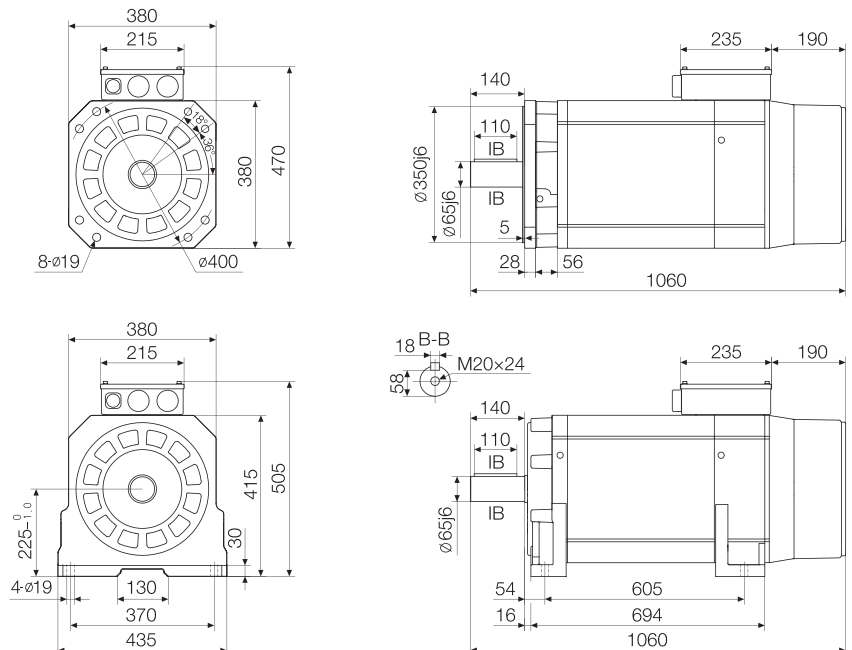
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (H)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4030XF05-XXXX	30	54/55/61	573	380/375/340	4	17.2	500	1000/1500/2000	2500	0.7820
Z18-4045XF07-XXXX	45	80/80/92	573	380/375/330	4	25.6	750	1500/2200/3000	4000	0.7820
Z18-4060XF10-XXXX	60	106/107/122	573	380/375/330	4	33.9	1000	2000/3000/4000	4500	0.7820
Z18-4090XF15-XXXX	90	157/159/175	573	380/375/340	4	50.6	1500	3000/4500	4500	0.7820

Characteristic Curve



Performance Index

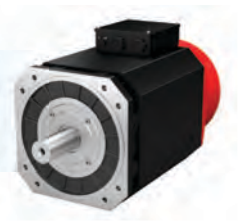
ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	542 (557) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	$\leq 70\text{dB(A)}$
Environment	$-15\sim 45^{\circ}\text{C}$
Environment	$\leq 95\%\text{RH}$



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : G1

DIMENSION : 480X480X910 mm

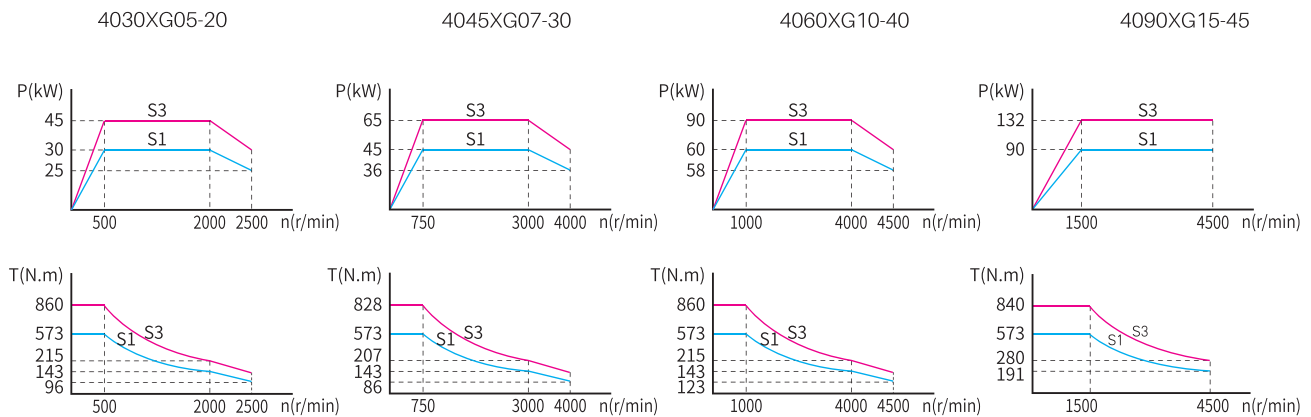


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 310W Fan Voltage : 380V

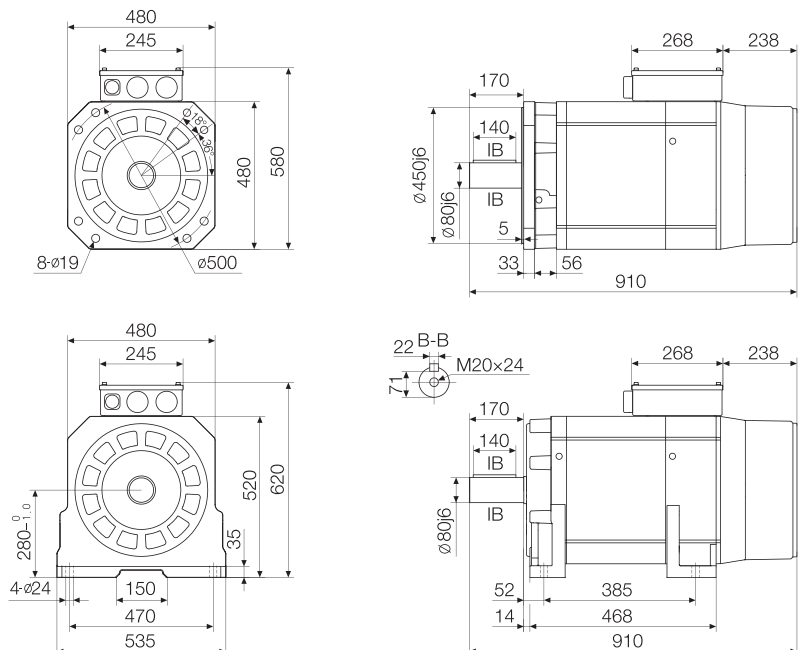
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (H)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4030XG05-XXXX	30	55/56/61	573	380/375/345	6	25.5	500	1000/1500/2000	2500	1.813
Z18-4045XG07-XXXX	45	81/82/92	573	380/375/335	6	38.0	750	1500/2200/3000	4000	1.813
Z18-4060XG10-XXXX	60	106/107/122	573	380/375/335	6	50.5	1000	2000/3000/4000	4500	1.813
Z18-4090XG15-XXXX	90	158/160	573	380/375	6	75.5	1500	3000/4500	4500	1.813

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	566 (586) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	$\leq 70\text{dB(A)}$
Environment	$-15\sim 45^{\circ}\text{C}$
Environment	$\leq 95\%\text{RH}$



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : G2

DIMENSION : 480X480X970 mm

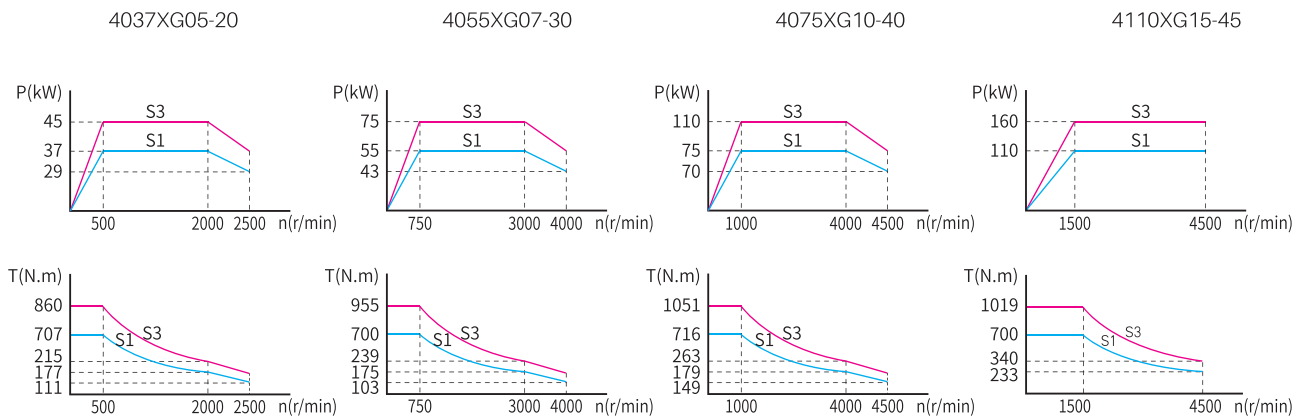


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 310W Fan Voltage : 380V

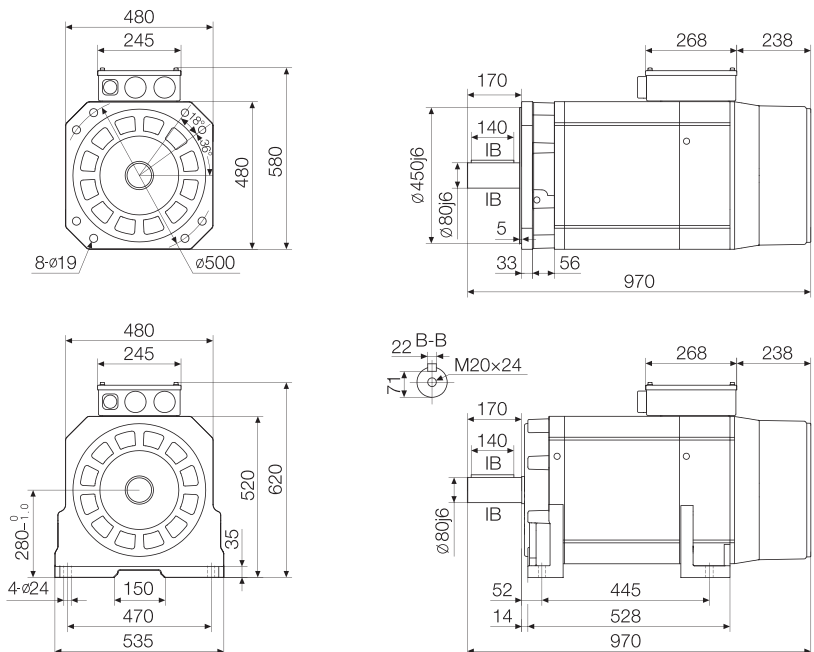
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4037XG05-XXXX	37	67/68/73	707	380/375/350	6	25.5	500	1000/1500/2000	2500	2.063
Z18-4055XG07-XXXX	55	98/99/108	700	380/375/345	6	38.0	750	1500/2200/3000	4000	2.063
Z18-4075XG10-XXXX	75	132/133/147	716	380/375/345	6	50.5	1000	2000/3000/4000	4500	2.063
Z18-4110XG15-XXXX	110	195/197	700	380/375	6	75.5	1500	3000/4500	4500	2.063

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	642 (662) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : G3
DIMENSION : 480X480X1050 mm



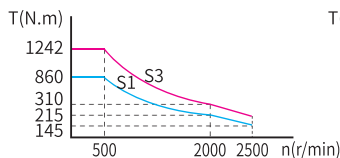
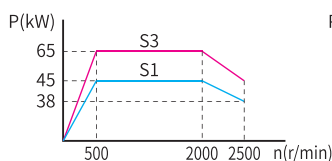
Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 310W Fan Voltage : 380V

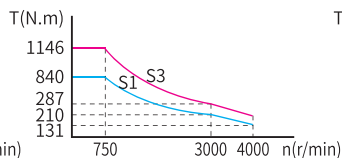
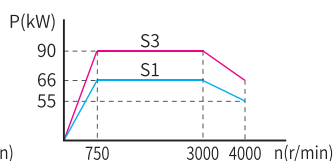
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (H)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4045XG05-XXXX	45	82/82/88	860	380/375/350	6	25.5	500	1000/1500/2000	2500	2.555
Z18-4066XG07-XXXX	66	117/118/130	840	380/375/345	6	38.0	750	1500/2200/3000	4000	2.555
Z18-4090XG10-XXXX	90	161/162/176	860	380/375/345	6	50.5	1000	2000/3000/4000	4500	2.555
Z18-4132XG15-XXXX	132	232/234	840	380/375	6	75.5	1500	3000/4500	4500	2.555

Characteristic Curve

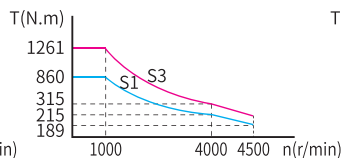
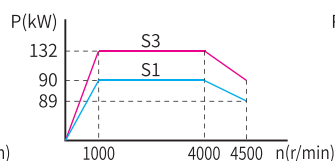
4045XG05-20



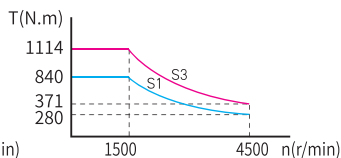
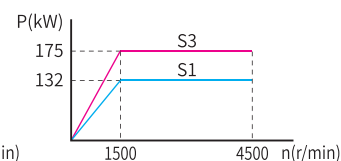
4066XG07-30



4090XG10-40

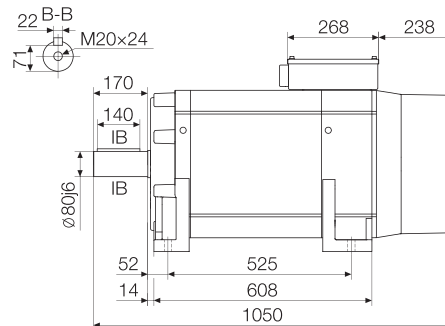
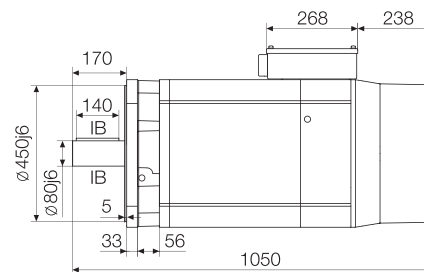
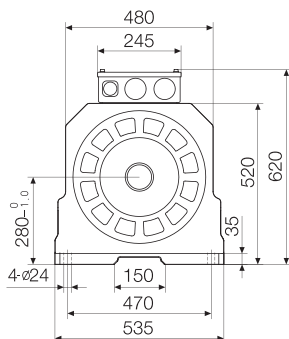
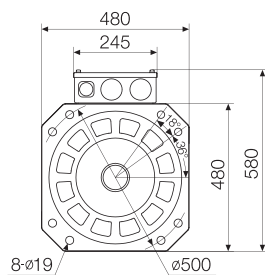


4132XG15-45



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	735 (755) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤ 70 dB(A)
Environment	-15~45°C
Environment	$\leq 95\%$ RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : G4
DIMENSION : 480X480X1160 mm

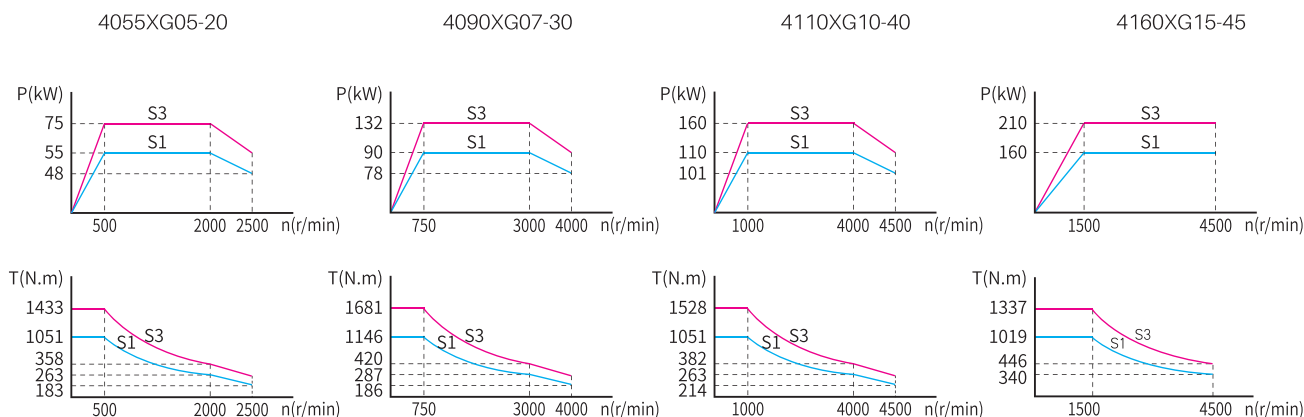


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 310W Fan Voltage : 380V

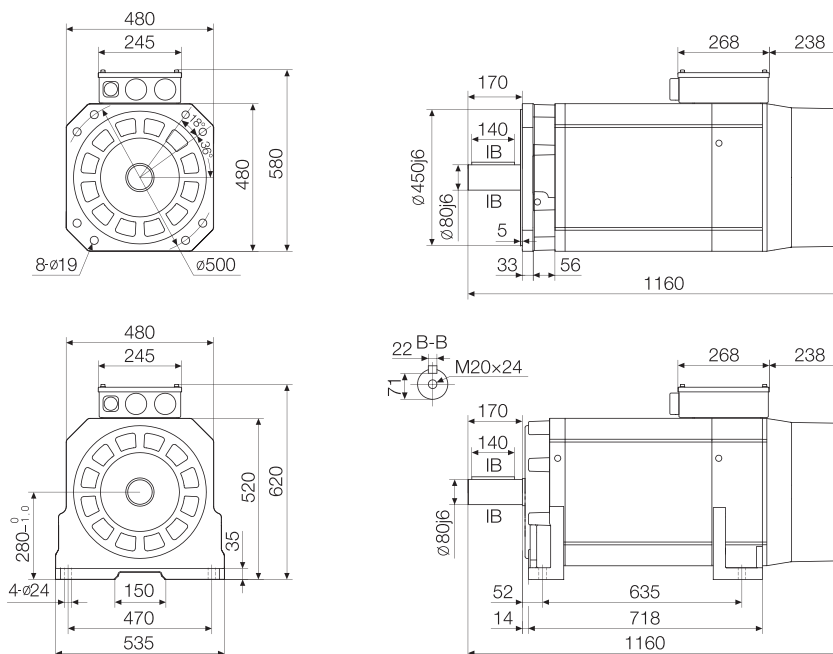
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (H)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m2)
Z18-4055XG05-XXXX	55	99/100/107	1051	380/375/355	6	25.5	500	1000/1500/2000	2500	3.232
Z18-4090XG07-XXXX	90	159/160/184	1146	380/375/330	6	38.0	750	1500/2200/3000	4000	3.232
Z18-4110XG10-XXXX	110	192/194/205	1051	380/375/360	6	50.5	1000	2000/3000/4000	4500	3.232
Z18-4160XG15-XXXX	160	284/286	1019	380/375	6	75.5	1500	3000/4500	4500	3.232

Characteristic Curve



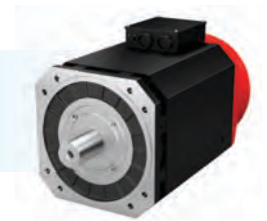
Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	877 (897) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	$\leq 70\text{dB(A)}$
Environment	$-15\sim 45^{\circ}\text{C}$
Environment	$\leq 95\%\text{RH}$



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : H1
DIMENSION : 580X580X995 mm

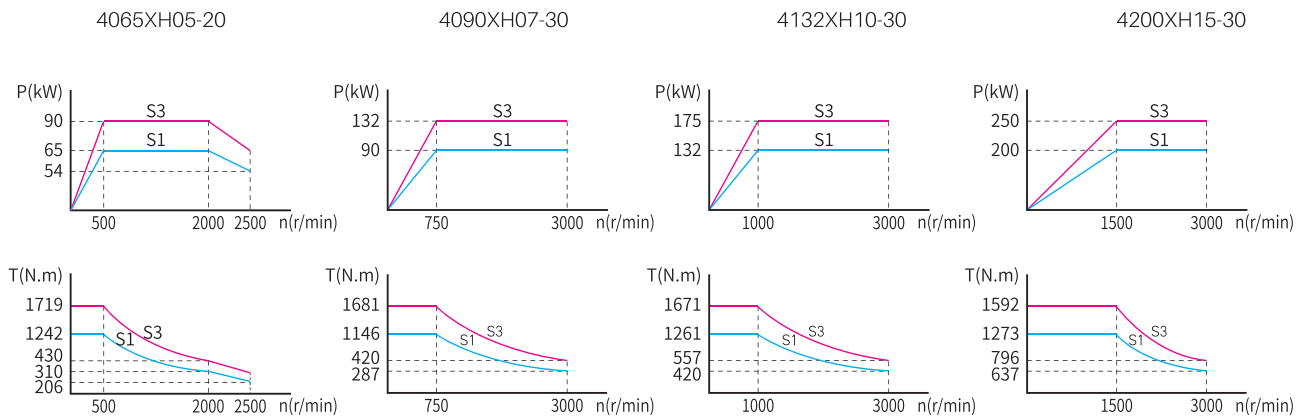


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 450W Fan Voltage : 380V

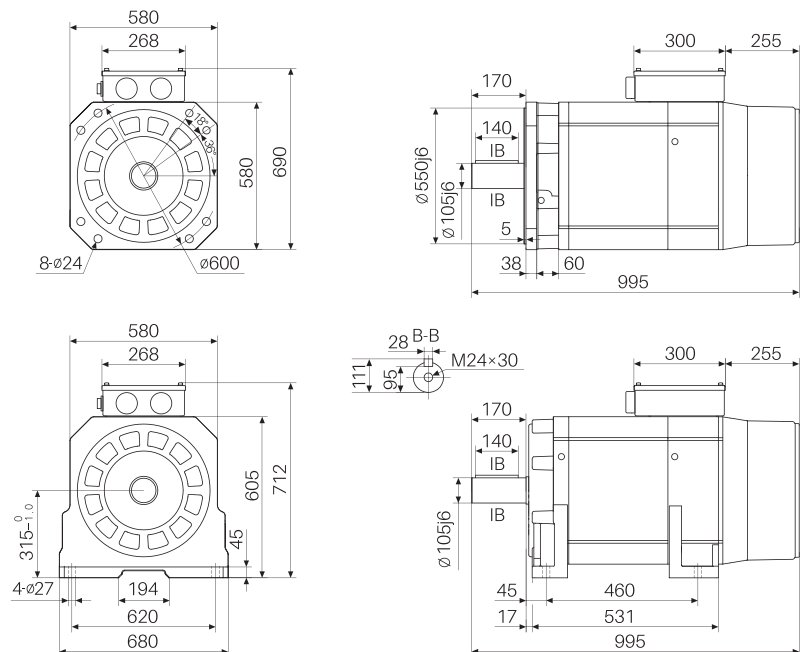
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4065XH05-XXXX	65	124/141/164	1242	380/335/285	8	33.7	500	1000/1500/2000	2500	5.206
Z18-4090XH07-XXXX	90	168/191/224	1146	380/340/290	8	50.4	750	1500/2200/3000	3000	5.206
Z18-4132XH10-XXXX	132	245/295	1261	380/320	8	67.1	1000	2000/3000	3000	5.206
Z18-4200XH15-XXXX	200	378	1273	380	8	100.5	1500	3000	3000	5.206

Characteristic Curve



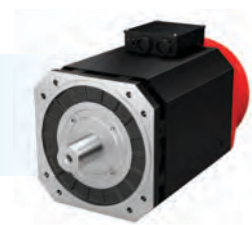
Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	942 (967) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : H2
DIMENSION : 580X580X1095 mm

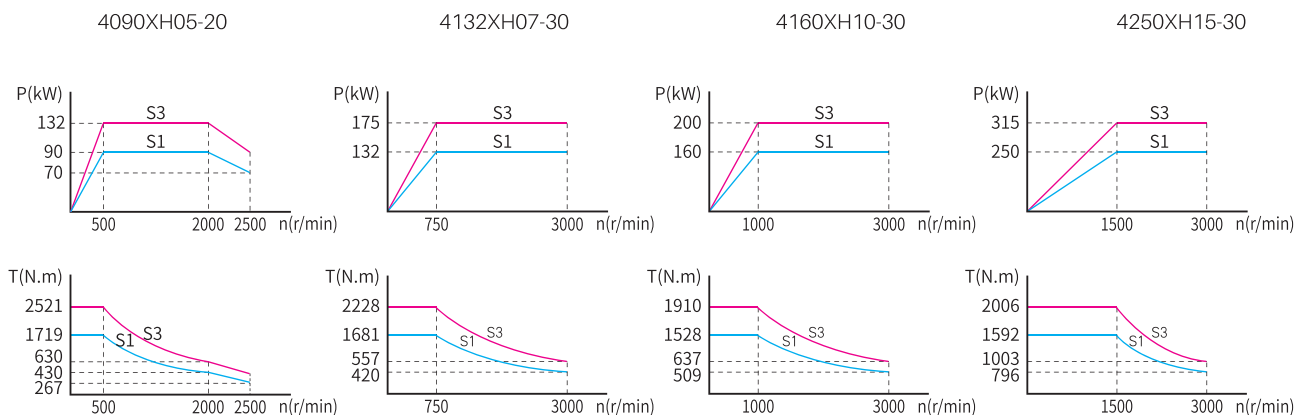


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 450W Fan Voltage : 380V

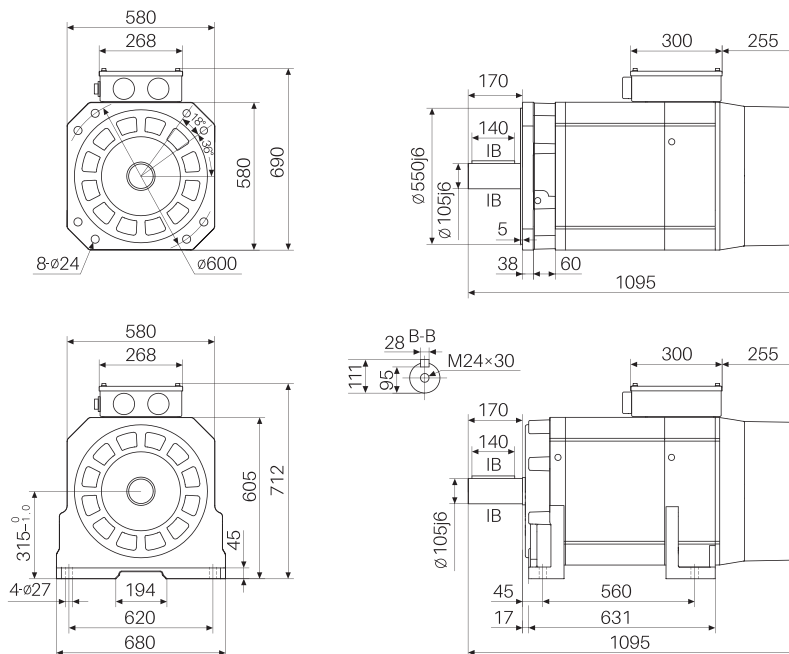
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4090XH05-XXXX	90	170/202/223	1719	380/320/290	8	33.7	500	1000/1500/2000	2500	6.804
Z18-4132XH07-XXXX	132	246/295/344	1681	380/320/275	8	50.4	750	1500/2200/3000	3000	6.804
Z18-4160XH10-XXXX	160	298/346	1528	380/335	8	67.1	1000	2000/3000	3000	6.804
Z18-4250XH15-XXXX	250	455	1592	380	8	100.5	1500	3000	3000	6.804

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	1119 (1144) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : H3
DIMENSION : 580X580X1195 mm

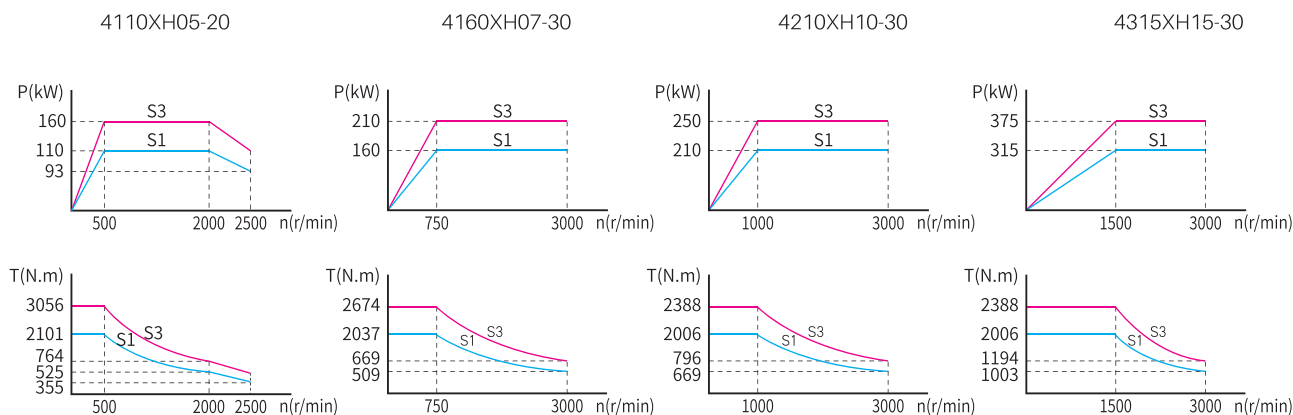


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 450W Fan Voltage : 380V

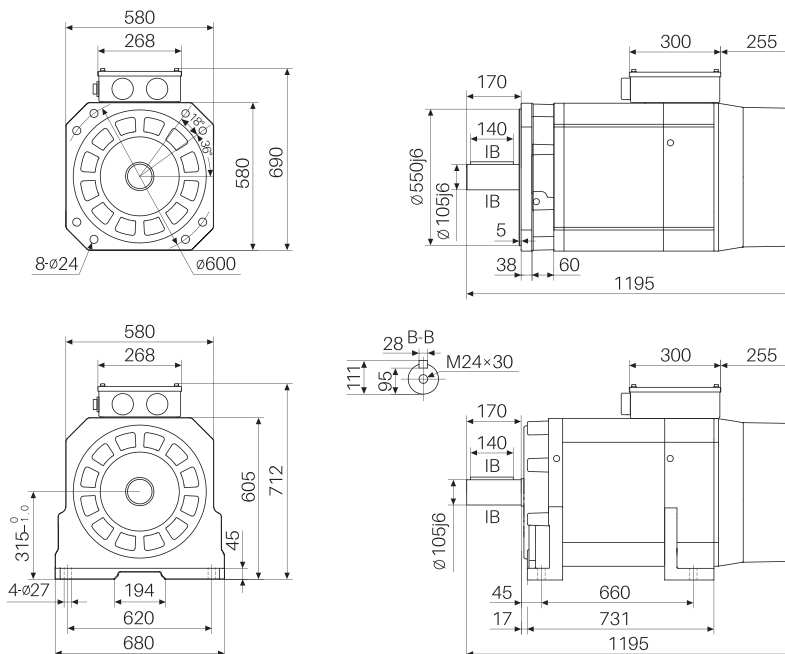
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4110XH05-XXXX	110	208/245/277	2101	380/320/285	8	33.7	500	1000/1500/2000	2500	8.402
Z18-4160XH07-XXXX	160	295/336/405	2037	380/340/280	8	50.4	750	1500/2200/3000	3000	8.402
Z18-4210XH10-XXXX	210	397/442	2006	380/340	8	67.1	1000	2000/3000	3000	8.402
Z18-4315XH15-XXXX	315	579	2006	380	8	100.5	1500	3000	3000	8.402

Characteristic Curve



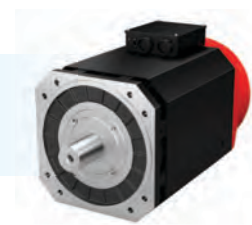
Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	1300 (1330) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH



Z18 SERIES SERVO SPINDLE MOTOR

MOTOR FRAME SIZE MODEL : H4
DIMENSION : 580X580X1375 mm

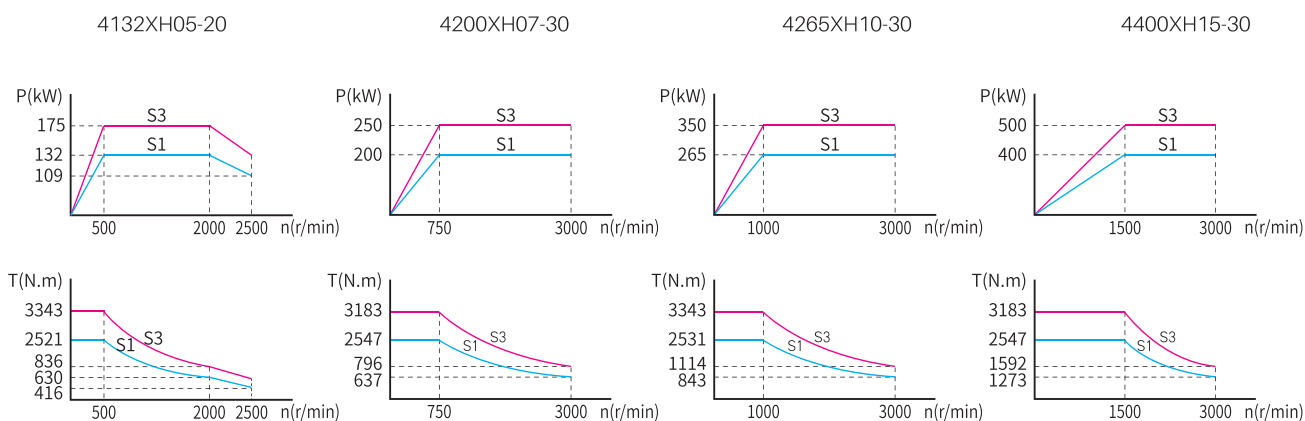


Electrical Parameter

Voltage Class : 400V Connection : Δ Fan Power : 450W Fan Voltage : 380V

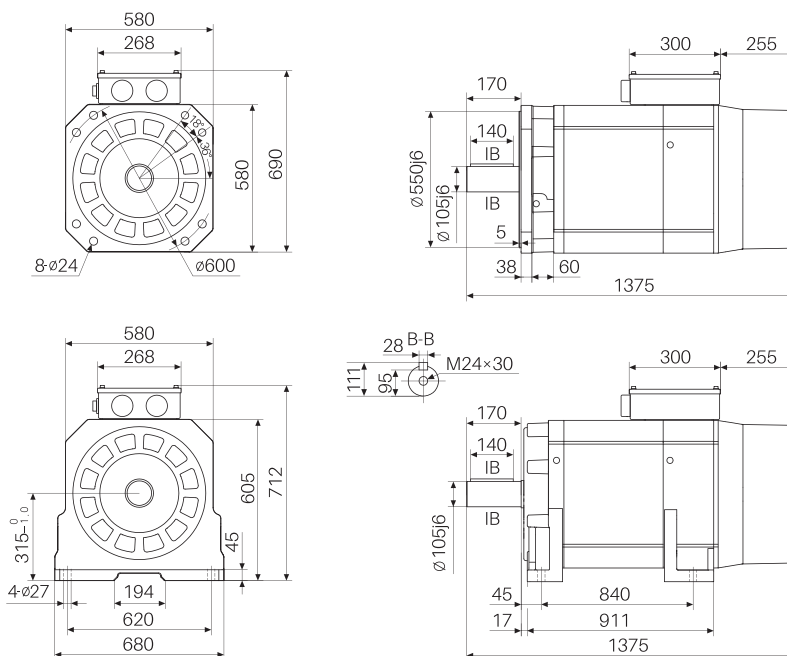
Motor Model	Rated Power (KW)	Rated Current (A)	Rated Torque (N.m)	Rated Voltage (V)	Pole Number (P)	Rated Frequency (Hz)	Rated Speed (r/min)	Constant Power Max Speed (r/min)	Max Speed (r/min)	Rotational Inertia (KG.m ²)
Z18-4132XH05-XXXX	132	250/267/312	2521	380/360/305	8	33.7	500	1000/1500/2000	2500	11.278
Z18-4200XH07-XXXX	200	378/421/472	2547	380/340/305	8	50.3	750	1500/2200/3000	3000	11.278
Z18-4265XH10-XXXX	265	485/539	2531	380/350	8	67.1	1000	2000/3000	3000	11.278
Z18-4400XH15-XXXX	400	754	2547	380	8	100.4	1500	3000	3000	11.278

Characteristic Curve



Performance Index

ITEM	INDEX
Encoder (optional)	MG-256(Magnetic)
	CE30-2500(Incremental)
	CE30-8192(Incremental)
	RZ30-1024(Resolver)
Shaft Type	G : Without Keyslot
	J : With Keyslot
Mounting Type	B3 B5 B35
Weight / Gross	1622 (1652) kg
Protection Class	IP55
Insulation Class	F Class
Rated Temperature Rise	90K
Vibration Class	A
Noise	≤70dB(A)
Environment	-15~45°C
Environment	≤95%RH

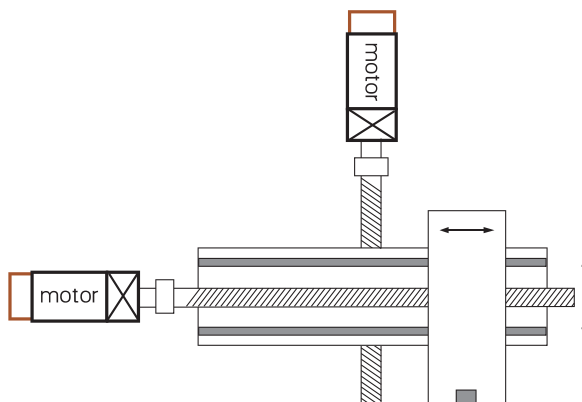


Servo motor applying solutions

◆ Vertical lathe's coordinate axis servo drive solution

CTB high power servo motor can supply power for coordinate axis drive of heavy duty machine tools such as single column vertical lathe, double column vertical lathe, heavy duty horizontal lathe, gantry machine tool, floor type boring and milling machine.etc, which can make the coordinate axis drive of heavy duty machine tools to realize their servo and automation control.

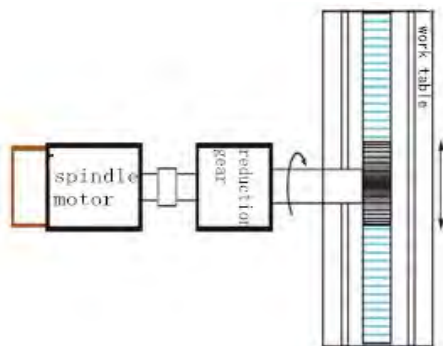
- ◇ Manual independent operation coordinated with CTB servo drive can achieve hand wheel control, single shaft locating, operation monitoring;
- ◇ Interface with various CNC control system to complete interpolation control and make machine tool numerical controlled;
- ◇ Ultra-low speed feed, operate smoothly, strong overload capacity;
- ◇ Rapid traverse with high speed,utilize constant power feature of the motor to achieve high-speed rapid traverse.



◆ Planer milling machine working table drive solutions

CTB high power servo motor with high control performance applied to working table drive of planer milling machine, which has greatly improved work efficiency and performance of planer milling machine, can completely replace DC motor, switch reluctance motor, variable-frequency and speed motor.

- ◇ Simple and reliable settings of work table travel via parameter to minimize idle stroke and improve working efficiency of planer milling machine;
- ◇ Smooth start and reversing, avoid mechanical shock, reduce equipment failure rate;
- ◇ Easy to interface with different CNC control system and realize the functions of planer milling machine.

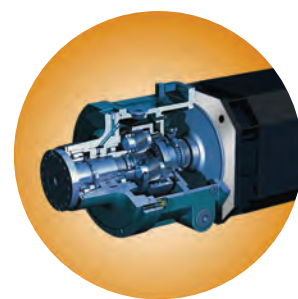
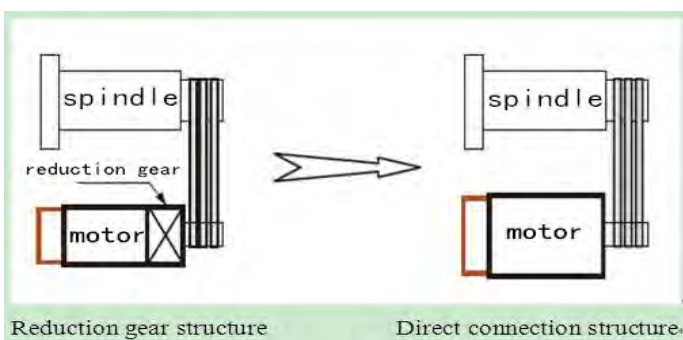


Spindle motor applying solutions

◆ Using the low speed motor without reduction gear

As CTB's low speed motor can drive machine tool spindle directly, so the reduction gear with the speed ratio within 1:10 can no longer be needed, as a result, the spindle mechanical drive can easily be achieved and has low noise; meanwhile, production cost and machinery failure rate go down.

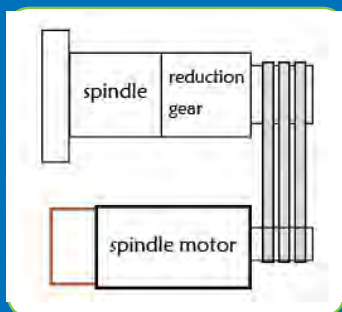
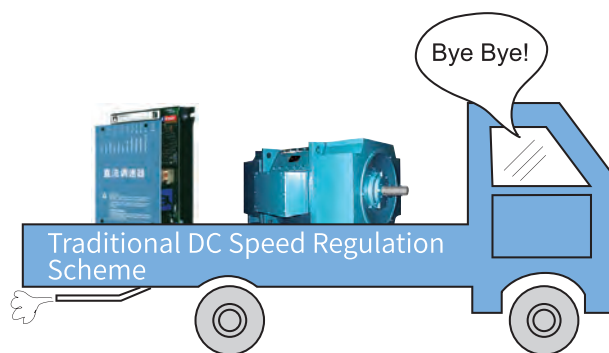
Can be widely used in spindle drive of floor type boring and milling machine, heavy duty horizontal lathe, vertical lathe, planer milling machine etc.



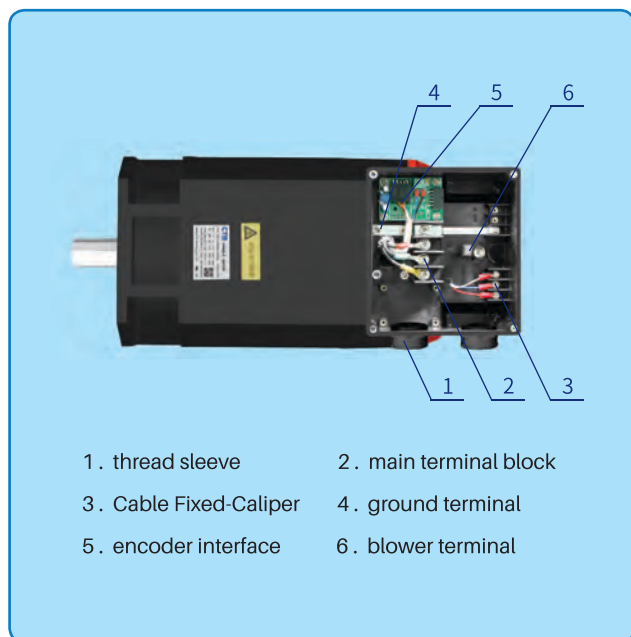
◆ Using the AC spindle motor for the substitute of DC motor

CTB's high-power AC spindle motor can replace traditional DC motor and can be widely used in spindle drive of floor type boring and milling machine, heavy duty horizontal lathe, vertical lathe, planer milling machine, etc.

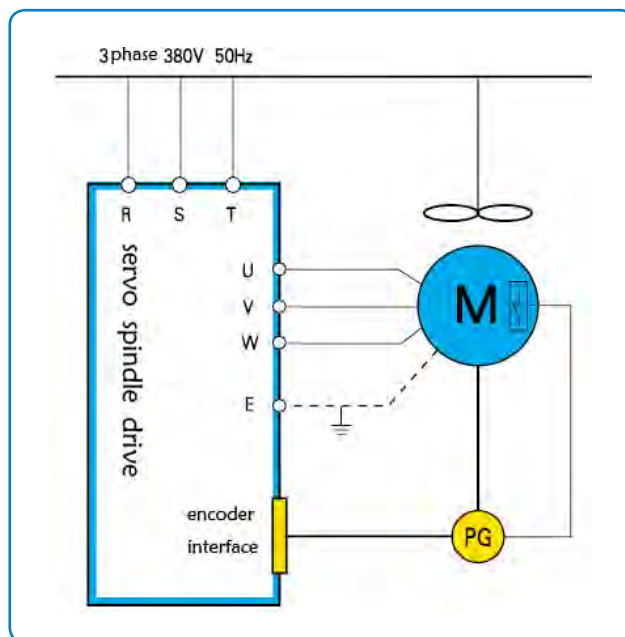
- ◇ Smaller volume compared with same power DC motor, easy installation;
- ◇ Wide range of speed and constant power speed;
- ◇ Low running noise, free maintenance.



◆ Connection wire and interface



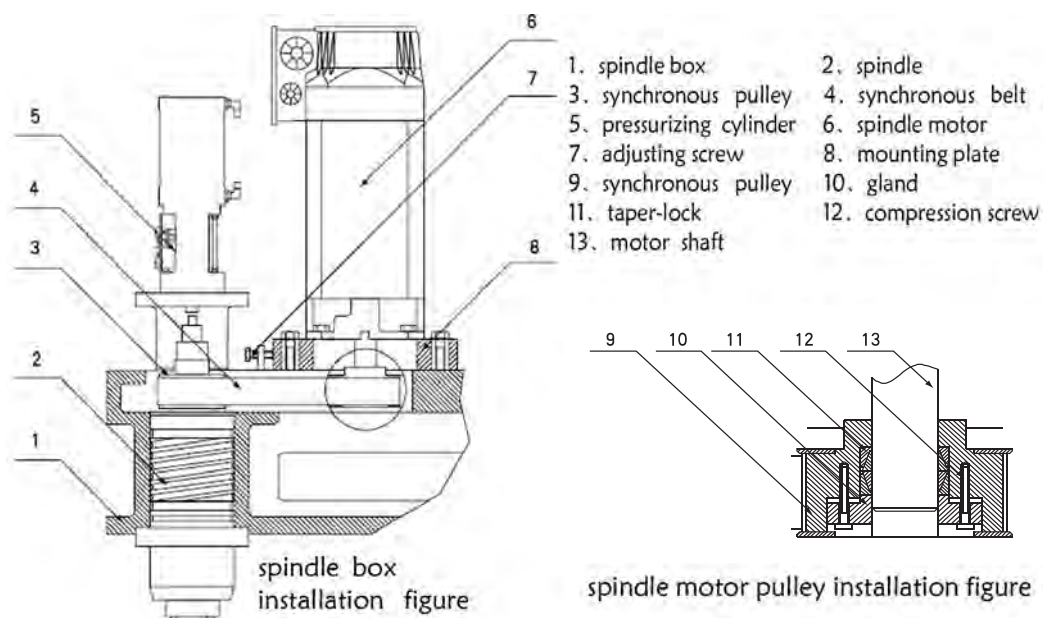
◆ Connection wire figure



◆ Terminal description

Interface	Terminal code	Electric function	Electric index	Remark
Main terminal block	U	U phase lead wire	Withstand voltage 1200V, 3 times rated current	Connected to U/V/W (drive)
	V	V phase lead wire		
	W	W phase lead wire		
Encoder interface (no such interface with variable frequency spindle motor)	1	Input power	DC5V, 100mA	Red
	2	Power supply	0V	Black
	3	A+ output	Wire drive output, RS422 standard Output current: max 30mA	White
	4	A- output		Gray
	5	B+ output		Green
	6	B- output		Blue
	7	Z+ output		Yellow
	8	Z- output		Orange
	9	E	Shielded wire, connected with ground interface	olive
	10	T1 thermal protection	24V, 20mA	Purple
Blower interface	R	R phase lead wire (blower)	3phase, 380V, 50Hz	Wind direction, blow to shaft end
	S	S phase lead wire (blower)		
	T	T phase lead wire (blower)		
Thermal protection terminal	T1	Motor thermal protection output	Normal closed output: AC 380V.1A	Normal: closed Overheating: break
	T2		DC 110V.1A	
Ground terminal	E	Ground terminal	ground resistance < 4Ω	

◆ Installation figure(suitable for vertical machining center)



The formulas below describe the relationship between power, torque and speed of spindle motor:

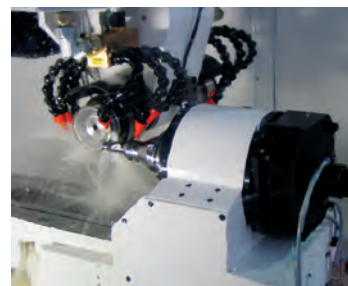
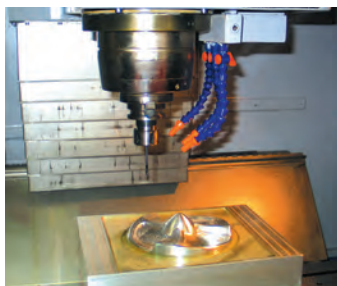
$$P=n \times T / 9550 (\text{kW})$$

$$T=P \times 9550 / n (\text{N}\cdot\text{m})$$

$$n=P \times 9550 / T (\text{r/min})$$

◆ Application area

Widely used in digit control machine tool. Woodworking machine, textile machinery, printing equipment, dyeing and finishing equipment. Papermaking equipment...



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