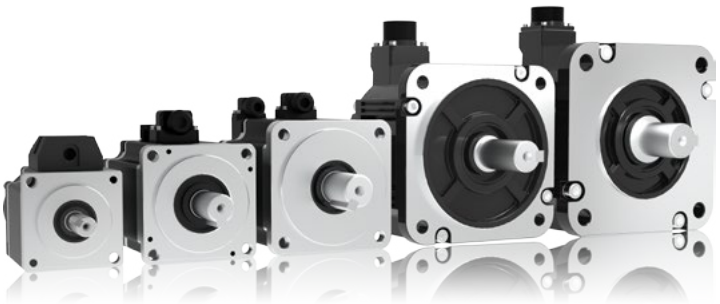
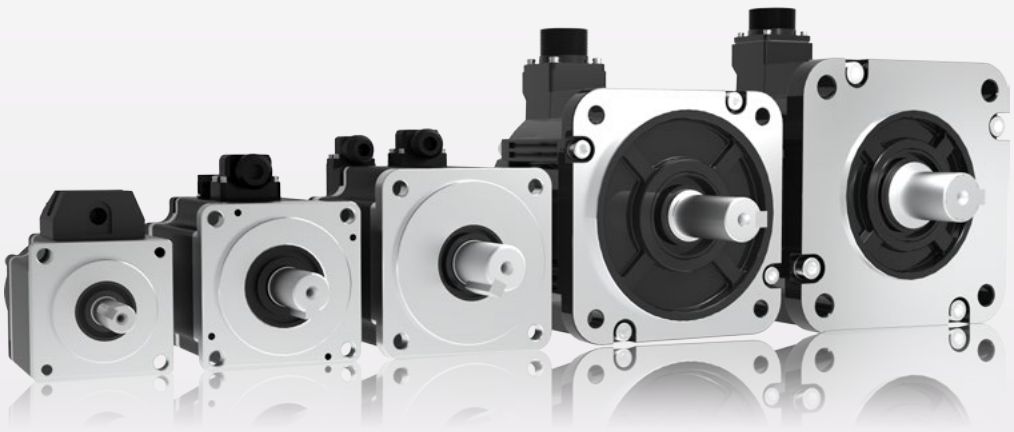
清能德创
TSINO DYNATRON



TD Series Servo Motor Selection Guide

TD series servo motor

- High-performance rare-earth permanent magnet material with high endowment coercivity and strong antidemagnetization ability
- With high power density and super overload capacity
- Very low torque pulsation, low noise, beautiful appearance, etc.
- Three-phase sine wave magnetic field design with good dynamic response and excellent low-speed smoothness
- Class F insulation, IP65 protection level, strong environmental adaptability, safe and reliable use



Catalog

Product Overview

▶ Safety operating instructions

Mechanical installers: operation by personnel with professional knowledge of mechanical installation is required.

Electrical installation attention: operation by personnel with professional knowledge of electrical installation is required.

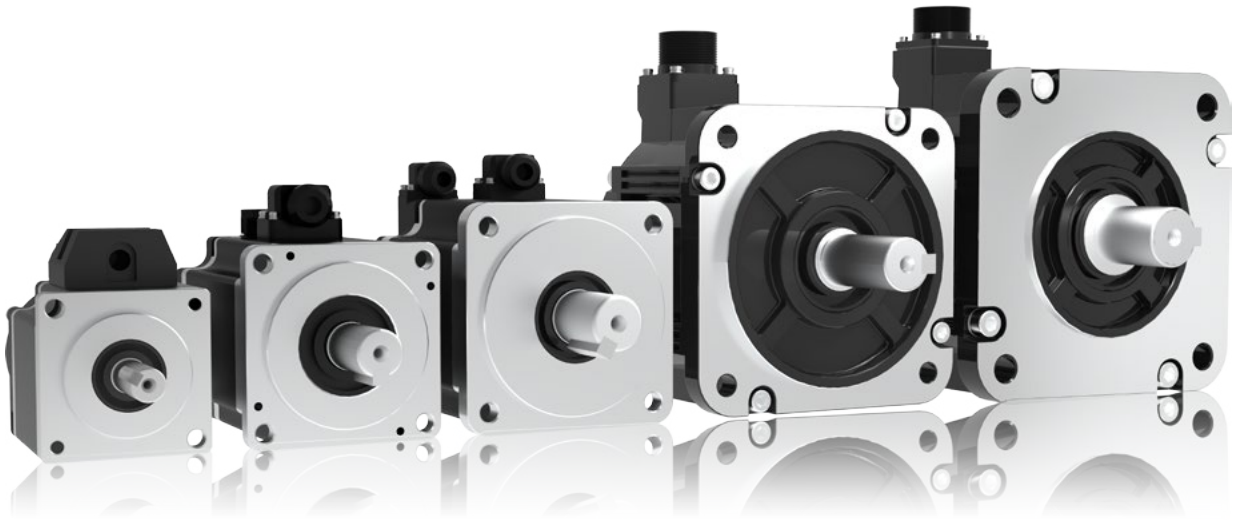
Loss-of-power brake (optional): When the motor has no excitation or a sudden power failure, the loss-of-power brake works to keep the motor shaft from rotating to avoid causing equipment damage or personal injury. When the motor is working in positive production, the power loss brake is energized to keep the free state.

▶ Electrical technical description

Electrical technical characteristics include servo units to avoid electromagnetic interference from peripheral equipment and servo power interference with other equipment, so good shielding measures are required. The ground of the motor must be thick and short and reliably grounded (standard earth), while the shield must be connected to a large enough metal surface to prevent high-frequency interference, requiring a strict distinction between ground and shield connections, which cannot be mixed.

▶ Mechanical technical description

The motor shell part cannot have heavy pressure or impact external force to avoid damaging the motor. During the installation of the servo motor, the load shaft system must be concentric with the servo motor shaft to avoid causing the motor to break the shaft or the load mechanism to be damaged.



TD series servo motor Overview

Model Description

TDA	130	-	054	15	F	A	1	-	0	1	B	1	0
1,2,3	4,5,6		7,8,9	10,11	12	13	14		15	16	17	18	19

1,2,3

Symbols	Motor Series
TDA	TDA series (5 pairs of poles)

4,5,6

Symbols	Flange
040	No. 40 flange
060	No. 60 flange
080	No. 80 flange
130	No. 130 flange
180	No. 180 flange

7,8,9

Symbols	Rated Torque
P16	0.16 N·m
P32	0.32 N·m
P48	0.48 N·m
P64	0.64 N·m
013	1.3 N·m
024	2.4 N·m
048	4.8 N·m
054	5.4 N·m
072	7.2N·m
083	8.3 N·m
096	9.6 N·m
115	11.5 N·m
143	14.3 N·m
191	19.1 N·m
260	26 N·m
287	28.7 N·m
350	35 N·m

10,11

Symbols	Rated Speed
15	1500rpm
20	2000rpm
25	2500rpm
30	3000rpm
35	3500rpm

12

Symbols	Voltage Rating
F	220V
G	380V

13,14※1

Symbols	Encoder
A0	23-bit multi-turn absolute split optical encoder※2
A1	23-bit multi-turn absolute integrated optical encoder※4
B1	Multi-turn absolute Hiperface optical encoders※3
C0	24-bit multi-turn absolute split Nikon optical encoder
C1	24-bit multi-turn absolute integrated Nikon optical encoder
M0	17-bit multi-turn absolute split magnetic encoder

15

Symbols	Brake
0	without brake
1	with brake

16

Symbols	Oil Seal
0	without oil seal
1	with oil seal

17

Symbols	Shaft
A	Plain shaft
B	With keys
C	Flat shaft
D	Tapered shaft

18※1

Symbols	Product Line
0	Standard Series※4
1	High Overload Series※4
A	Standard one-piece housing series※2

19※1

Symbols	Product Specifications
0	Standard
1~9	Customized

※1 Please contact our technical engineers if you have any customized requirements.
※2 For 40 - 80 flange motors.
※3 For 60 - 180 flange motors.
※4 For 130 - 180 flange motors.

TD series servo motor Selection

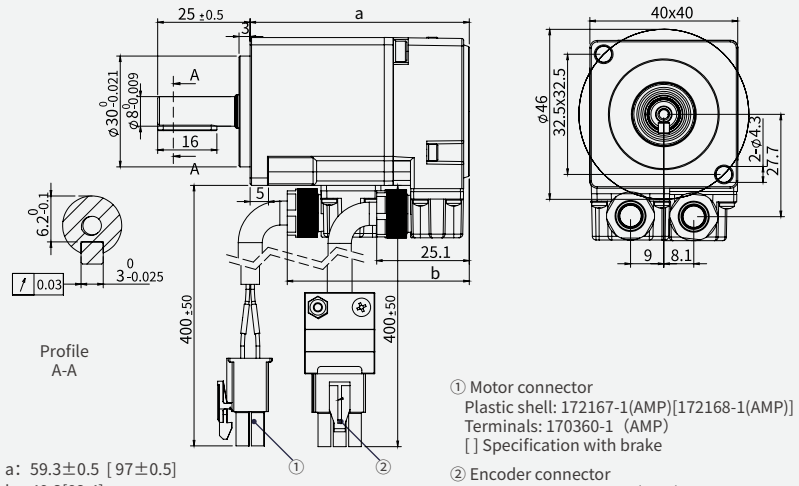
TDA040 Series | 50W | AC 220V / 3000rpm

Technical Parameters

Type	TDA040-P1630FA0-01BA0	TDA040-P1630FA0-11BA0
Rated Power (W)	50	50
Rated Current (A rms)	1.25	1.25
Rated Torque (N·m)	0.159	0.159
Max Torque (N·m)	0.477	0.477
Rated Speed (rpm)	3000	3000
Max Speed (rpm)	6000	6000
Back EMF (V/1000rpm)	8.6	19
Torque Constant (N·m/A)	0.13	0.13
Line Resistance (Ω)	8.9	8.9
Electrical Time Constant (ms)	1.0	1.0
Rotor Inertia (kg·m^2)	0.034×10^{-4}	0.037×10^{-4}
Mass (kg)	0.4	0.5
Body Length (mm)	59.3	92.4
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

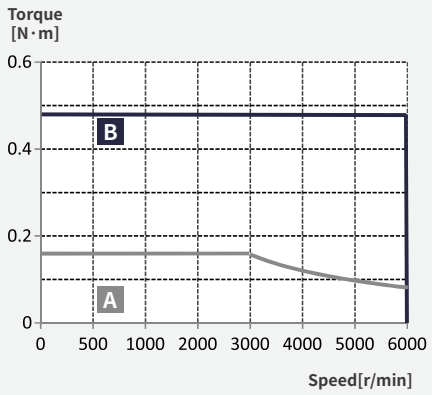
Dimensions

unit[mm]



a: 59.3±0.5 [97±0.5]
b: 49.3[82.4]
[ ] Size with brake

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

TDA040 Series | 100W

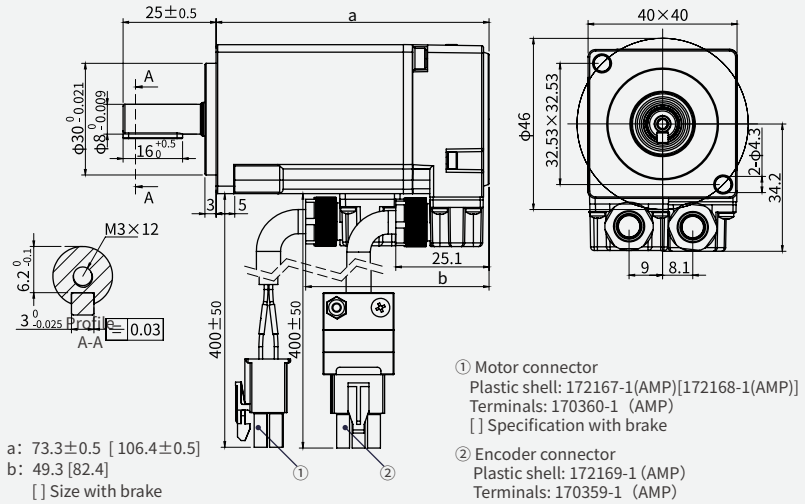
AC 220V / 3000rpm

Technical Parameters

Type	TDA040-P3230FA0-01BA0	TDA040-P3230FA0-11BA0
Rated Power (W)	100	100
Rated Current (A rms)	1.2	1.2
Rated Torque (N·m)	0.318	0.318
Max Torque (N·m)	0.954	0.954
Rated Speed (rpm)	3000	3000
Max Speed (rpm)	6000	6000
Back EMF (V/1000rpm)	18.4	18.4
Torque Constant (N·m/A)	0.27	0.27
Line Resistance (Ω)	14.4	14.4
Electrical Time Constant (ms)	1.14	1.14
Rotor Inertia (kg·m^2)	0.065×10^{-4}	0.068×10^{-4}
Mass (kg)	0.5	0.6
Body Length (mm)	73.3	106.4
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

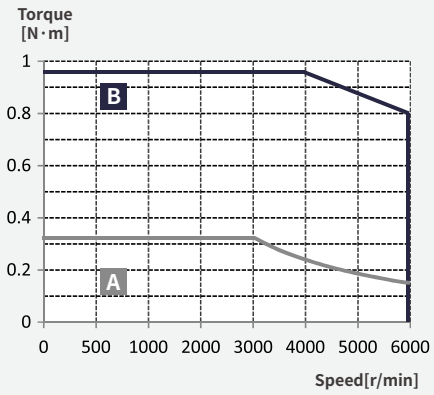


a: 73.3±0.5 [106.4±0.5]
b: 49.3 [82.4]
[ ] Size with brake

① Motor connector
Plastic shell: 172167-1(AMP)[172168-1(AMP)]
Terminals: 170360-1（AMP）
[ ] Specification with brake

② Encoder connector
Plastic shell: 172169-1 (AMP)
Terminals: 170359-1（AMP）

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

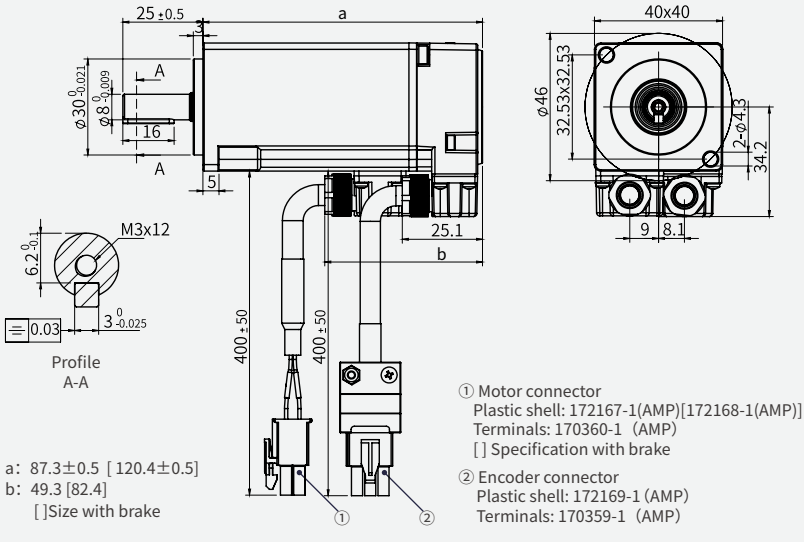
TDA040 Series | 150W | AC 220V / 3000rpm

Technical Parameters

Type	TDA040-P4830FA0-01BA0	TDA040-P4830FA0-11BA0
Rated Power (W)	150	150
Rated Current (A rms)	1.2	1.2
Rated Torque (N·m)	0.477	0.477
Max Torque (N·m)	1.432	1.432
Rated Speed (rpm)	3000	3000
Max Speed (rpm)	6000	6000
Back EMF (V/1000rpm)	28	28
Torque Constant (N·m/A)	0.4	0.4
Line Resistance (Ω)	22	22
Electrical Time Constant (ms)	1.14	1.14
Rotor Inertia (kg·m^2)	0.097×10^{-4}	0.1×10^{-4}
Mass (kg)	0.6	0.7
Body Length (mm)	87.3	120.4
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

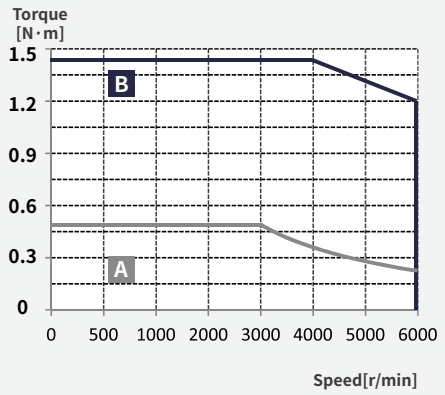


a: 87.3±0.5 [120.4±0.5]
b: 49.3 [82.4]
[ ]Size with brake

① Motor connector
Plastic shell: 172167-1(AMP)[172168-1(AMP)]
Terminals: 170360-1（AMP）
[ ] Specification with brake

② Encoder connector
Plastic shell: 172169-1 (AMP)
Terminals: 170359-1（AMP）

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

TDA060 Series | 200W

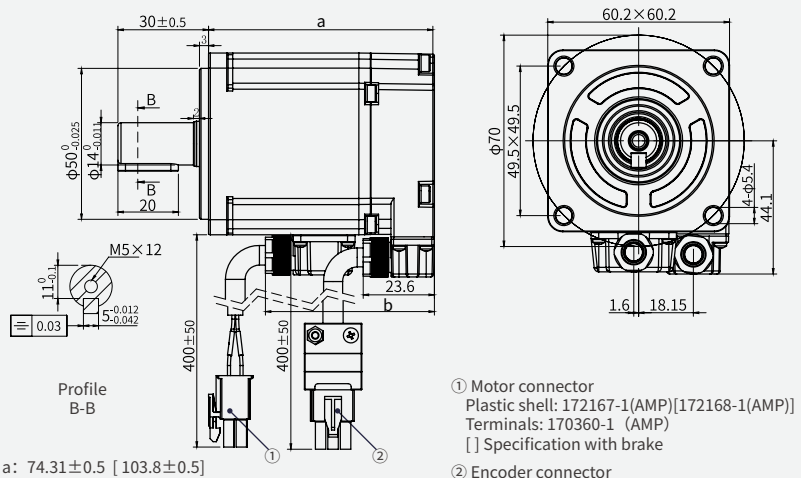
AC 220V / 3000rpm

Technical Parameters

Type	TDA060-P6430FA0-01BA0	TDA060-P6430FA0-11BA0
Rated Power (W)	200	200
Rated Current (A rms)	1.7	1.7
Rated Torque (N·m)	0.64	0.64
Max Torque (N·m)	1.91	1.91
Rated Speed (rpm)	3000	3000
Max Speed (rpm)	6000	6000
Back EMF (V/1000rpm)	23	23
Torque Constant (N·m/A)	0.38	0.38
Line Resistance (Ω)	4.57	4.57
Electrical Time Constant (ms)	1.62	1.62
Rotor Inertia (kg·m^2)	0.25×10^{-4}	0.34×10^{-4}
Mass (kg)	0.9	1.2
Body Length (mm)	74.31	103.8
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

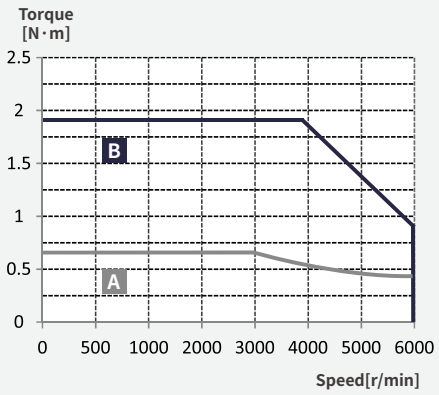


a: 74.31±0.5 [103.8±0.5]
b: 56 [85]
[ ]Size with brake

① Motor connector
Plastic shell: 172167-1(AMP)[172168-1(AMP)]
Terminals: 170360-1（AMP）
[ ] Specification with brake

② Encoder connector
Plastic shell: 172169-1 (AMP)
Terminals: 170359-1（AMP）

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

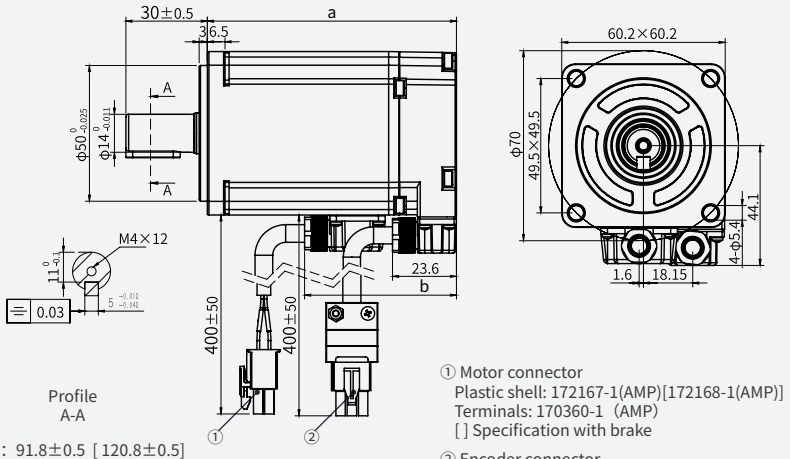
TDA060 Series | 400W | AC 220V / 3000rpm

Technical Parameters

Type	TDA060-01330FA0-01BA0	TDA060-01330FA0-11BA0
Rated Power (W)	400	400
Rated Current (A rms)	2.5	2.5
Rated Torque (N·m)	1.27	1.27
Max Torque (N·m)	3.81	3.81
Rated Speed (rpm)	3000	3000
Max Speed (rpm)	6000	6000
Back EMF (V/1000rpm)	34	34
Torque Constant (N·m/A)	0.51	0.51
Line Resistance (Ω)	3.24	3.24
Electrical Time Constant (ms)	1.79	1.79
Rotor Inertia (kg·m^2)	0.53×10^{-4}	0.55×10^{-4}
Mass (kg)	1.62	1.62
Body Length (mm)	91.8	120.8
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]



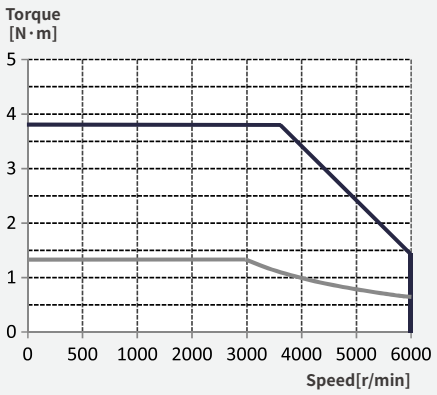
Profile
A-A

a: 91.8±0.5 [120.8±0.5]
b: 56 [85]
[ ]Size with brake

① Motor connector
Plastic shell: 172167-1(AMP)[172168-1(AMP)]
Terminals: 170360-1（AMP）
[ ] Specification with brake

② Encoder connector
Plastic shell: 172169-1 (AMP)
Terminals: 170359-1（AMP）

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

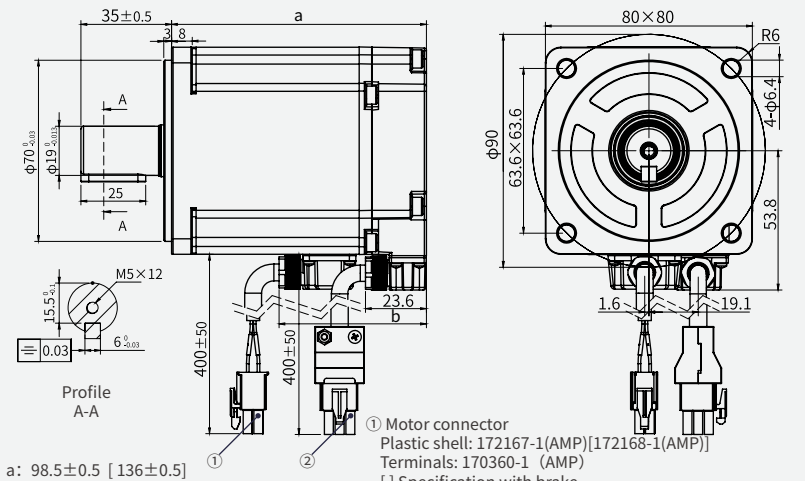
TDA080 Series | 750W | AC 220V / 3000rpm

Technical Parameters

Type	TDA080-02430FA0-01BA0	TDA080-02430FA0-11BA0
Rated Power (W)	750	750
Rated Current (A rms)	4.8	4.8
Rated Torque (N·m)	2.39	2.39
Max Torque (N·m)	7.17	7.17
Rated Speed (rpm)	3000	3000
Max Speed (rpm)	6000	6000
Back EMF (V/1000rpm)	33	33
Torque Constant (N·m/A)	0.50	0.50
Line Resistance (Ω)	1.03	1.03
Electrical Time Constant (ms)	0.79	0.79
Rotor Inertia (kg·m^2)	1.49×10^{-4}	1.54×10^{-4}
Mass (kg)	2.4	3.1
Body Length (mm)	98.5	136
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

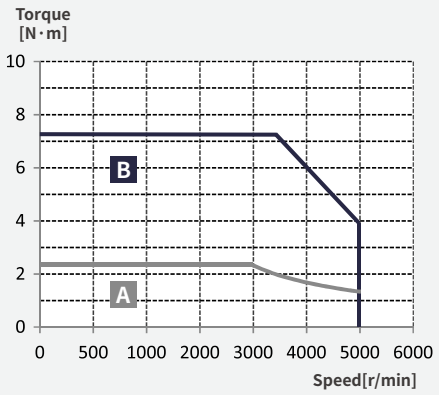
unit[mm]



a: 98.5±0.5 [136±0.5]
b: 56.95 [94.5]
[ ]Size with brake

① Motor connector
Plastic shell: 172167-1(AMP)[172168-1(AMP)]
Terminals: 170360-1（AMP）
[ ] Specification with brake
② Encoder connector
Plastic shell: 172169-1 (AMP)
Terminals: 170359-1（AMP）

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

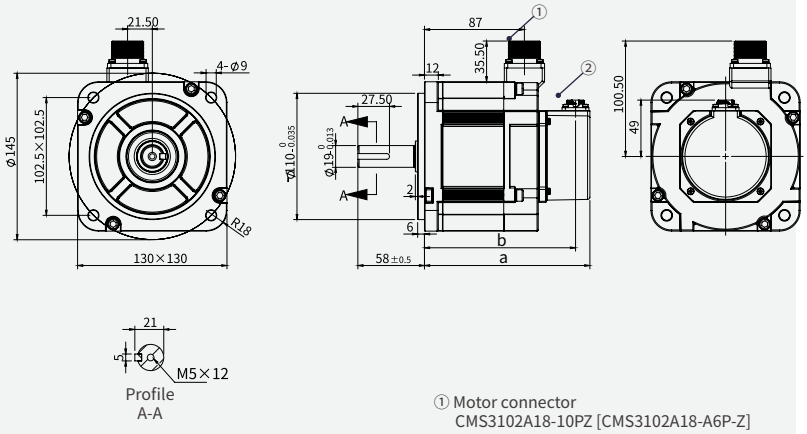
TDA130 Series | 850W | AC 220V / 1500rpm

Technical Parameters

Type	TDA130-05415FA1-01B12	TDA130-05415FA1-11B12
Rated Power (W)	850	850
Rated Current (A rms)	6.9	6.9
Rated Torque (N·m)	5.41	5.41
Max Torque (N·m)	16.23	16.23
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	48	48
Torque Constant (N·m/A)	0.78	0.78
Line Resistance (Ω)	0.89	0.89
Electrical Time Constant (ms)	7.9	7.9
Rotor Inertia (kg·m^2)	1.49×10^{-3}	1.68×10^{-3}
Mass (kg)	5.7	7.1
Body Length (mm)	144	163
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

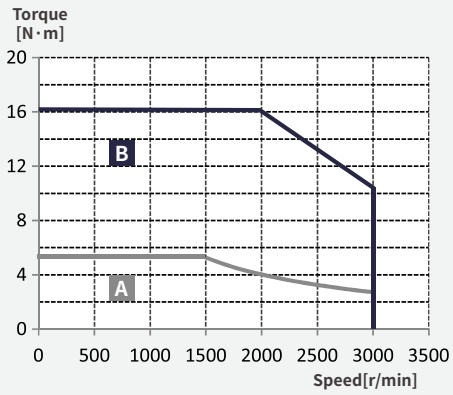


a: 144±0.5 [163±0.5]
b: 131.50 [150.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

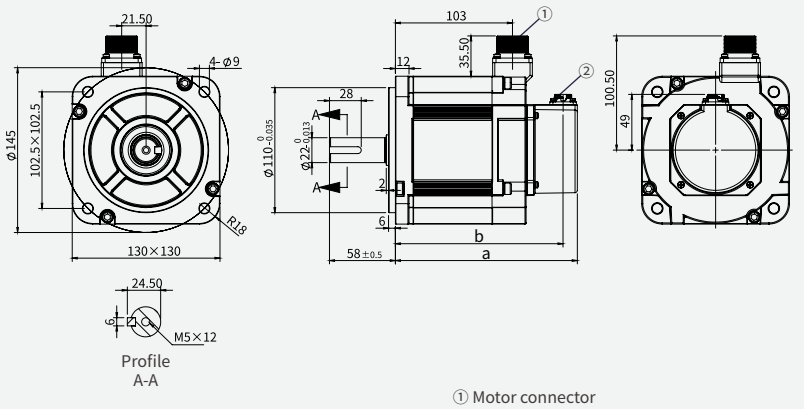
TDA130 Series | 1300W | AC 220V / 1500rpm

Technical Parameters

Type	TDA130-08315FA1-01B12	TDA130-08315FA1-11B12
Rated Power (W)	1300	1300
Rated Current (A rms)	10.7	10.7
Rated Torque (N·m)	8.28	8.28
Max Torque (N·m)	24.84	24.84
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	48	48
Torque Constant (N·m/A)	0.77	0.77
Line Resistance (Ω)	0.42	0.42
Electrical Time Constant (ms)	8.05	8.05
Rotor Inertia (kg·m^2)	2.03×10^{-3}	2.22×10^{-3}
Mass (kg)	7.1	8.5
Body Length (mm)	160	179
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

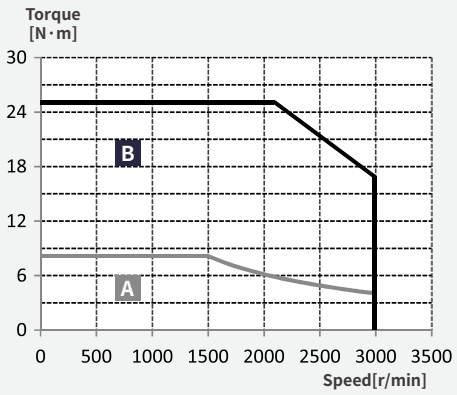


a: 160±0.5 [179±0.5]
b: 147.50 [166.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

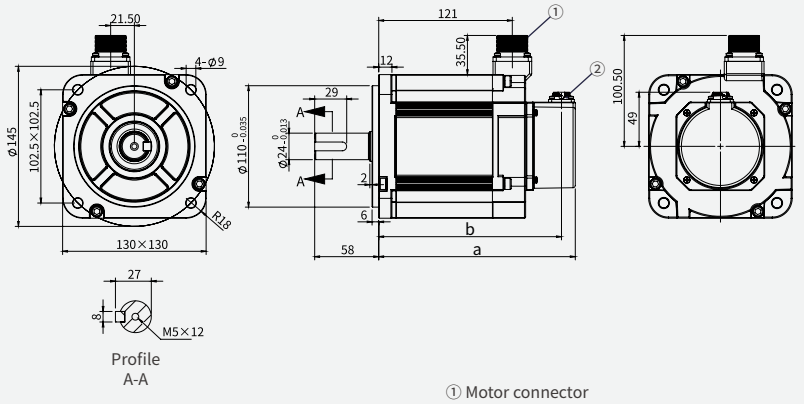
TDA130 Series | 1800W | AC 220V / 1500rpm

Technical Parameters

Type	TDA130-11515FA1-01B12	TDA130-11515FA1-11B12
Rated Power (W)	1800	1800
Rated Current (A rms)	16.7	16.7
Rated Torque (N·m)	11.46	11.46
Max Torque (N·m)	34.38	34.38
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	42	42
Torque Constant (N·m/A)	0.69	0.69
Line Resistance (Ω)	0.23	0.23
Electrical Time Constant (ms)	7.83	7.83
Rotor Inertia (kg·m^2)	2.65×10^{-3}	2.84×10^{-3}
Mass (kg)	8.6	10.0
Body Length (mm)	178	197
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]



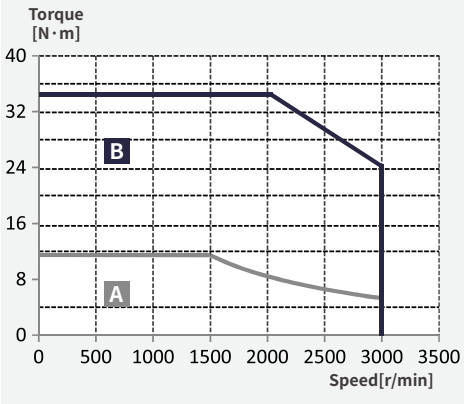
Profile
A-A

a: 178±0.5 [197±0.5]
b: 165.50 [184.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

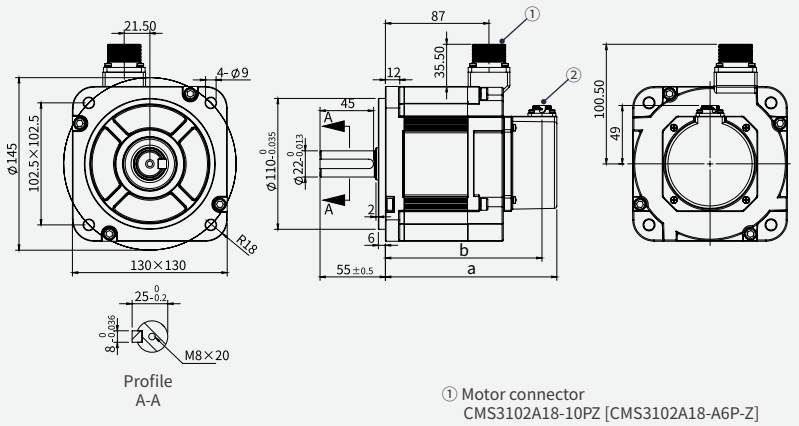
TDA130 Series | 1000W | AC 220V / 2000rpm

Technical Parameters

Type	TDA130-04820FA1-01B00	TDA130-04820FA1-11B00
Rated Power (W)	1000	1000
Rated Current (A rms)	5.7	5.7
Rated Torque (N·m)	4.80	4.80
Max Torque (N·m)	14.40	14.40
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	48	48
Torque Constant (N·m/A)	0.84	0.84
Line Resistance (Ω)	0.89	0.89
Electrical Time Constant (ms)	7.9	7.9
Rotor Inertia (kg·m^2)	1.49×10^{-3}	1.68×10^{-3}
Mass (kg)	5.7	7.1
Body Length (mm)	144	163
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

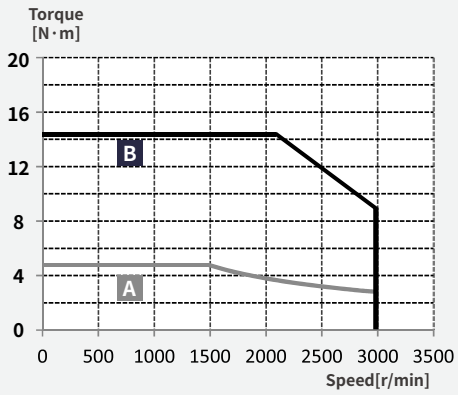


a: 144±0.5 [163±0.5]
b: 131.50 [150.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

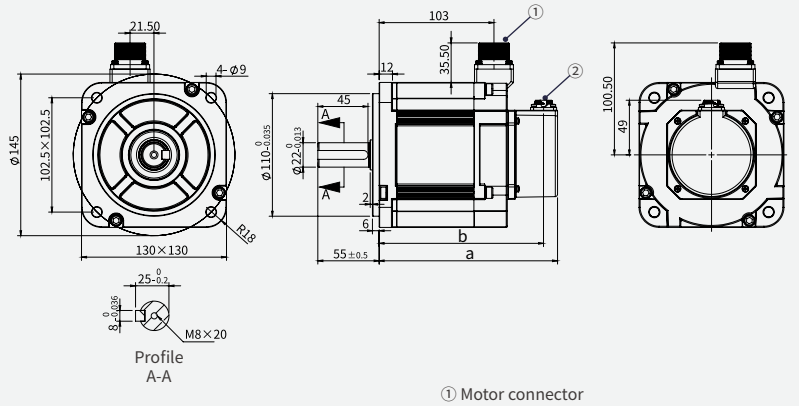
TDA130 Series | 1500W | AC 220V / 2000rpm

Technical Parameters

Type	TDA130-07220FA1-01B00	TDA130-07220FA1-11B00
Rated Power (W)	1500	1500
Rated Current (A rms)	9.3	9.3
Rated Torque (N·m)	7.16	7.16
Max Torque (N·m)	21.48	21.48
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	48	48
Torque Constant (N·m/A)	0.77	0.77
Line Resistance (Ω)	0.42	0.42
Electrical Time Constant (ms)	8.05	8.05
Rotor Inertia (kg·m^2)	2.03×10^{-3}	2.22×10^{-3}
Mass (kg)	7.1	8.5
Body Length (mm)	160	179
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

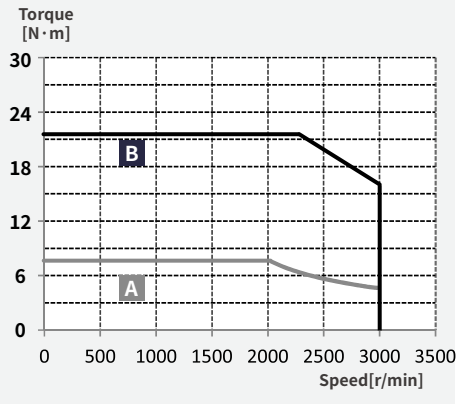
Dimensions

unit[mm]



a: 160±0.5 [179±0.5]
b: 147.50 [166.50]
[ ]Size with brake

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

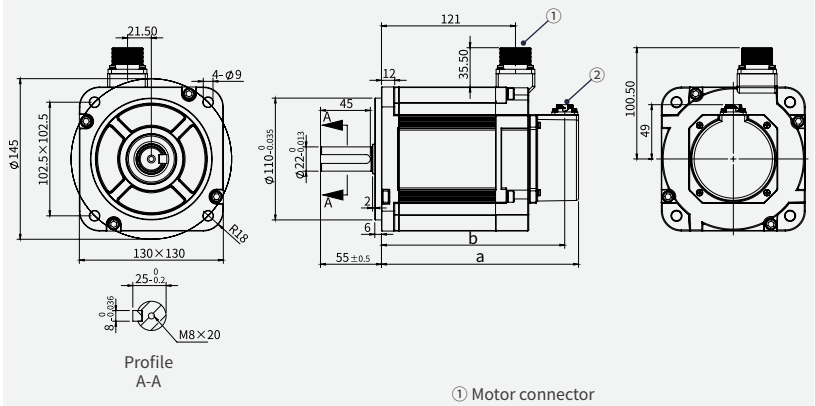
TDA130 Series | 2000W | AC 220V / 2000rpm

Technical Parameters

Type	TDA130-09620FA1-01B00	TDA130-09620FA1-11B00
Rated Power (W)	2000	2000
Rated Current (A rms)	14.2	14.2
Rated Torque (N·m)	9.60	9.60
Max Torque (N·m)	28.80	28.80
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	41.5	41.5
Torque Constant (N·m/A)	0.68	0.68
Line Resistance (Ω)	0.23	0.23
Electrical Time Constant (ms)	10.0	10.0
Rotor Inertia (kg·m^2)	2.65×10^{-3}	2.84×10^{-3}
Mass (kg)	8.6	10.0
Body Length (mm)	178	197
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]



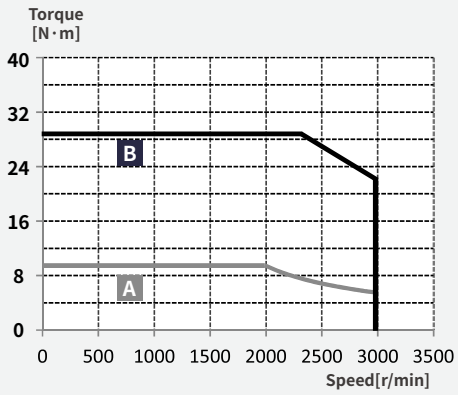
Profile
A-A

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

a: 178±0.5 [197±0.5]
b: 165.50 [184.50]
[ ]Size with brake

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

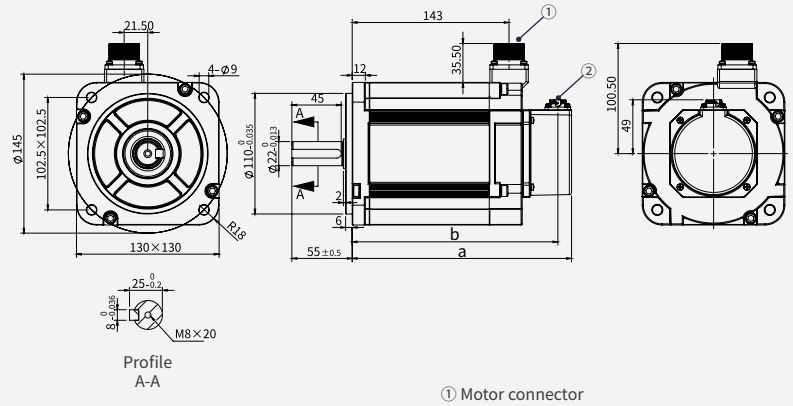
TDA130 Series | 3000W | AC 220V / 2000rpm

Technical Parameters

Type	TDA130-14320FA1-01B00	TDA130-14320FA1-11B00
Rated Power (W)	3000	3000
Rated Current (A rms)	13.3	13.3
Rated Torque (N·m)	14.33	14.33
Max Torque (N·m)	42.99	42.99
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	69	69
Torque Constant (N·m/A)	1.08	1.08
Line Resistance (Ω)	0.44	0.44
Electrical Time Constant (ms)	4.3	4.3
Rotor Inertia (kg·m^2)	3.39×10^{-3}	3.59×10^{-3}
Mass (kg)	10.5	12.8
Body Length (mm)	200	233
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]



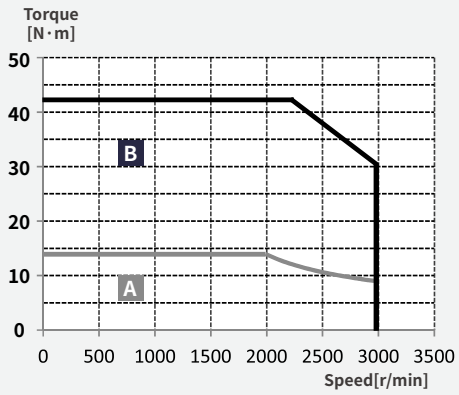
Profile
A-A

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

a: 200±0.5 [233±0.5]
b: 187.50 [220.50]
[ ]Size with brake

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

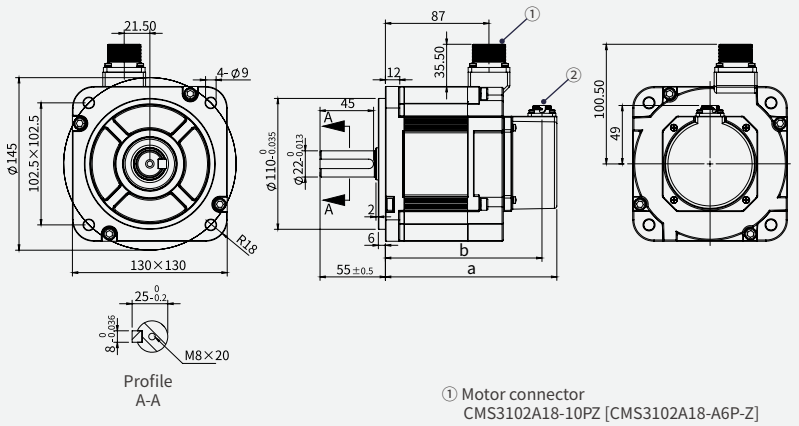
TDA130 Series | 1000W | AC 380V / 2000rpm

Technical Parameters

Type	TDA130-04820GA1-01B00	TDA130-04820GA1-11B00
Rated Power (W)	1000	1000
Rated Current (A rms)	3.2	3.2
Rated Torque (N·m)	4.80	4.80
Max Torque (N·m)	14.40	14.40
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	98	98
Torque Constant (N·m/A)	1.50	1.50
Line Resistance (Ω)	3.05	3.05
Electrical Time Constant (ms)	8.1	8.1
Rotor Inertia (kg·m^2)	1.49×10^{-3}	1.68×10^{-3}
Mass (kg)	5.7	7.1
Body Length (mm)	144	163
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]



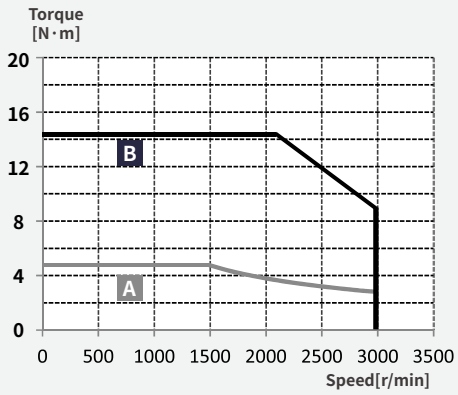
Profile
A-A

a: 144±0.5 [163±0.5]
b: 131.50 [150.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

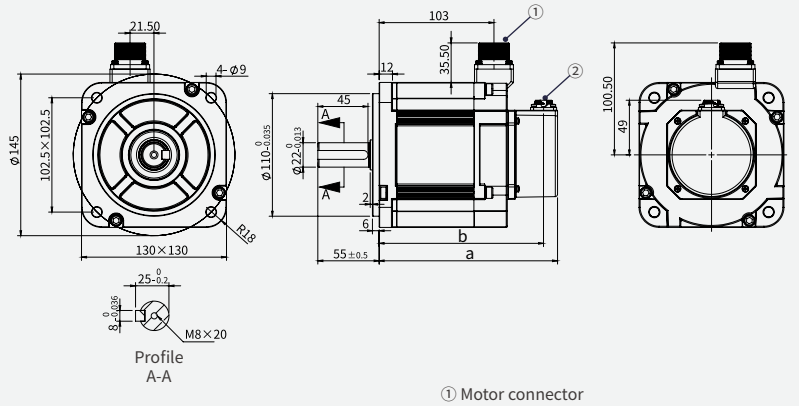
TDA130 Series | 1500W | AC 380V / 2000rpm

Technical Parameters

Type	TDA130-07220GA1-01B00	TDA130-07220GA1-11B00
Rated Power (W)	1500	1500
Rated Current (A rms)	4.6	4.6
Rated Torque (N·m)	7.16	7.16
Max Torque (N·m)	21.48	21.48
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	96	96
Torque Constant (N·m/A)	1.56	1.56
Line Resistance (Ω)	1.85	1.85
Electrical Time Constant (ms)	7.3	7.3
Rotor Inertia (kg·m^2)	2.03×10^{-3}	2.22×10^{-3}
Mass (kg)	7.1	8.5
Body Length (mm)	160	179
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

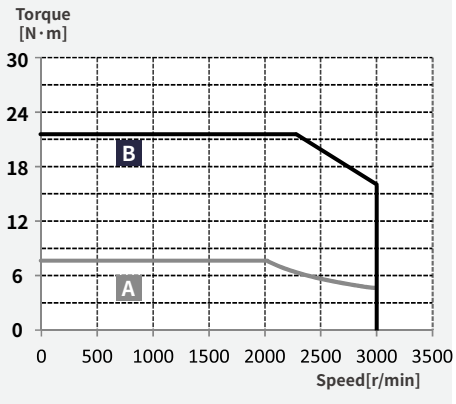


a: 160±0.5 [179±0.5]
b: 147.50 [166.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

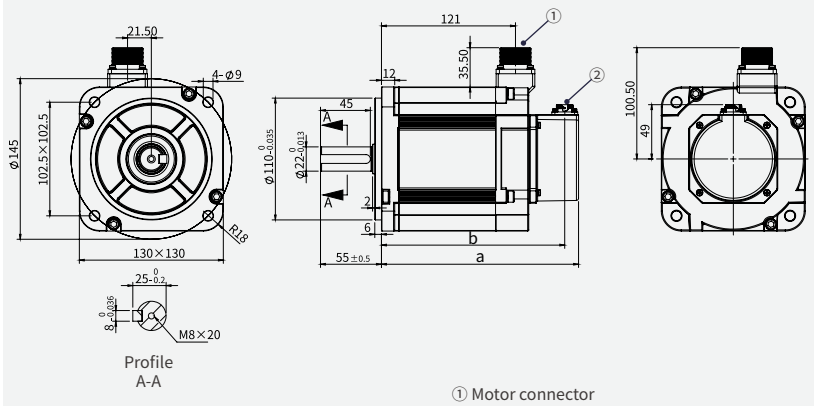
TDA130 Series | 2000W | AC 380V / 2000rpm

Technical Parameters

Type	TDA130-09620GA1-01B00	TDA130-09620GA1-11B00
Rated Power (W)	2000	2000
Rated Current (A rms)	6.9	6.9
Rated Torque (N·m)	9.6	9.6
Max Torque (N·m)	28.8	28.8
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	99.4	99.4
Torque Constant (N·m/A)	1.39	1.39
Line Resistance (Ω)	1.34	1.34
Electrical Time Constant (ms)	9.48	9.48
Rotor Inertia (kg·m^2)	2.65×10^{-3}	2.84×10^{-3}
Mass (kg)	8.6	10.0
Body Length (mm)	178	197
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]



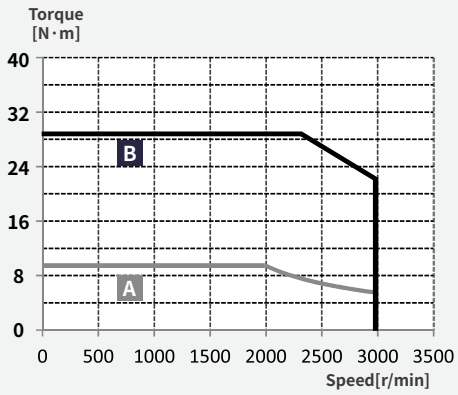
Profile
A-A

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

a: 178±0.5 [197±0.5]
b: 165.50 [184.50]
[ ]Size with brake

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

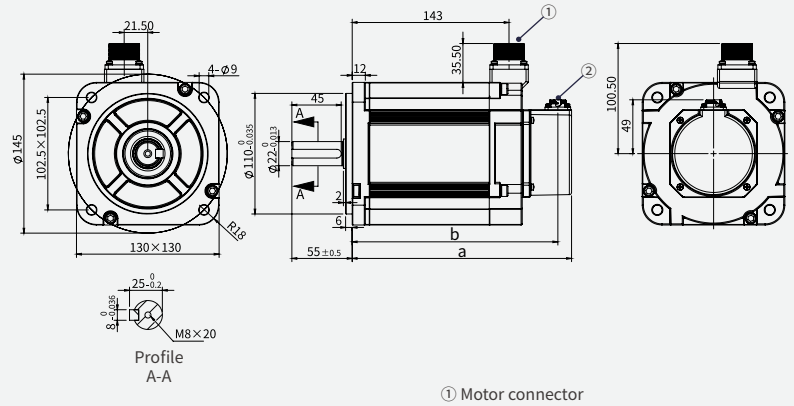
TDA130 Series | 3000W | AC 380V / 2000rpm

Technical Parameters

Type	TDA130-14320GA1-01B00	TDA130-14320GA1-11B00
Rated Power (W)	3000	3000
Rated Current (A rms)	7.8	7.8
Rated Torque (N·m)	14.33	14.33
Max Torque (N·m)	42.99	42.99
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	120	120
Torque Constant (N·m/A)	1.84	1.84
Line Resistance (Ω)	1.35	1.35
Electrical Time Constant (ms)	9.7	9.7
Rotor Inertia (kg·m^2)	3.39×10^{-3}	3.59×10^{-3}
Mass (kg)	10.5	12.8
Body Length (mm)	200	233
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

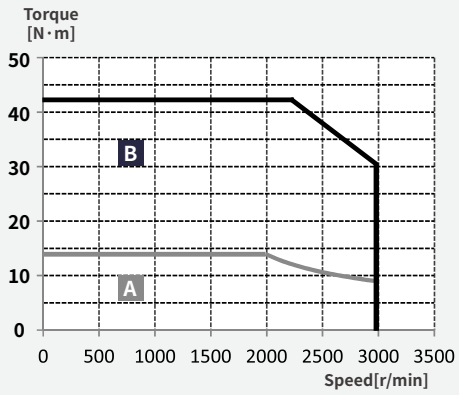


a: 200±0.5 [233±0.5]
b: 187.50 [220.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

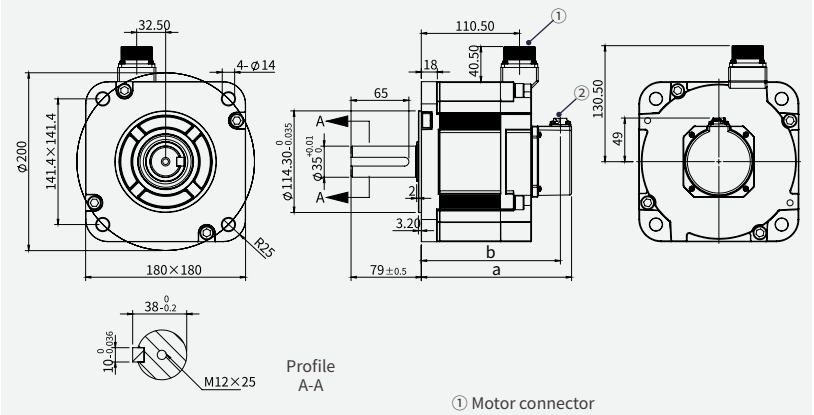
TDA180 Series | 3000W | AC 220V / 1500rpm

Technical Parameters

Type	TDA180-19115FA1-01B12	TDA180-19115FA1-11B12
Rated Power (W)	3000	3000
Rated Current (A rms)	20.1	20.1
Rated Torque (N·m)	19.1	19.1
Max Torque (N·m)	57.3	57.3
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	57	57
Torque Constant (N·m/A)	0.95	0.95
Line Resistance (Ω)	0.21	0.21
Electrical Time Constant (ms)	15.24	15.24
Rotor Inertia (kg·m^2)	4.98×10^{-3}	6.18×10^{-3}
Mass (kg)	13.4	15.0
Body Length (mm)	169	212
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

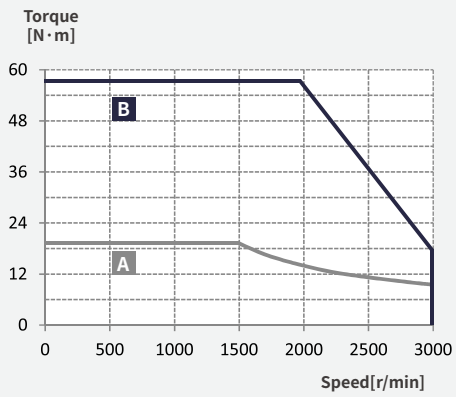


a: 169±0.5 [212±0.5]
b: 156.50 [199.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

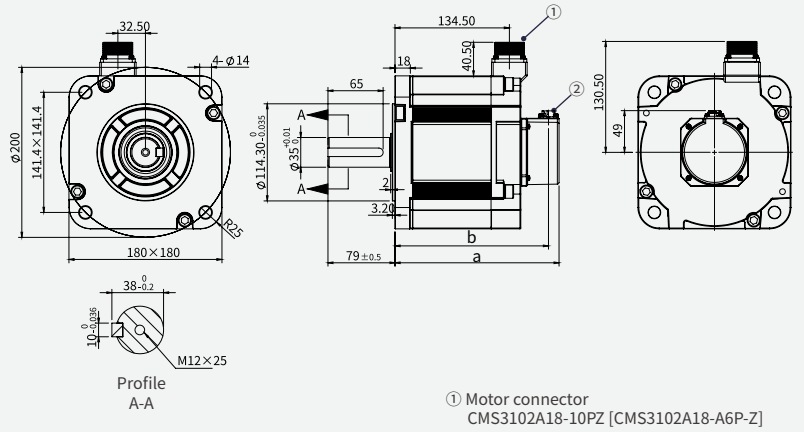
TDA180 Series | 4500W | AC 220V / 1500rpm

Technical Parameters

Type	TDA180-28715FA1-01B12	TDA180-28715FA1-11B12
Rated Power (W)	4500	4500
Rated Current (A rms)	28.0	28.0
Rated Torque (N·m)	28.65	28.65
Max Torque (N·m)	73.3	73.3
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	61.5	61.5
Torque Constant (N·m/A)	1.02	1.02
Line Resistance (Ω)	0.14	0.14
Electrical Time Constant (ms)	17.86	17.86
Rotor Inertia (kg·m^2)	7.18×10^{-3}	8.38×10^{-3}
Mass (kg)	17.4	19.0
Body Length (mm)	193	236
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

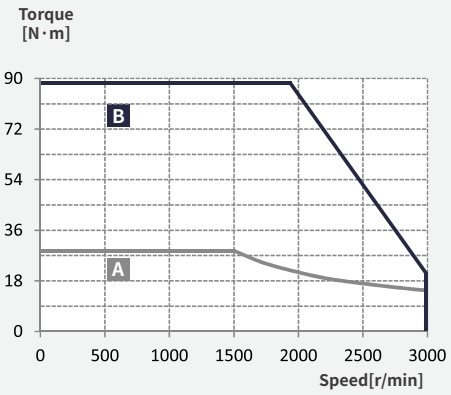


a: 193±0.5 [236±0.5]
b: 180.50 [223.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

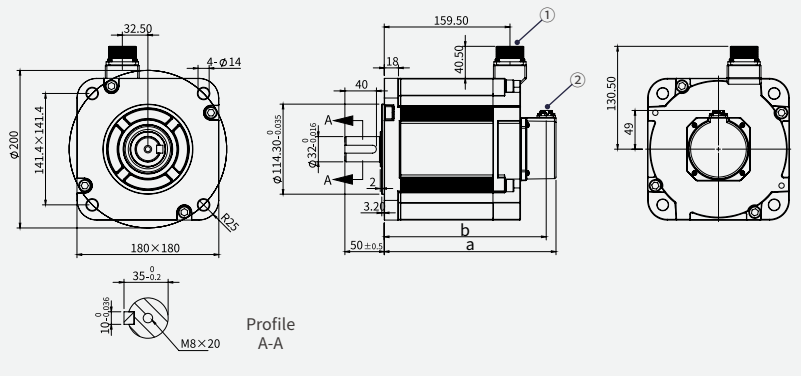
TDA180 Series | 5500W | AC 220V / 1500rpm

Technical Parameters

Type	TDA180-35015FA1-01B10	TDA180-35015FA1-11B10
Rated Power (W)	5500	5500
Rated Current (A rms)	37.2	37.2
Rated Torque (N·m)	35.0	35.0
Max Torque (N·m)	102	102
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	57	57
Torque Constant (N·m/A)	0.94	0.94
Line Resistance (Ω)	0.07	0.07
Electrical Time Constant (ms)	14.14	14.14
Rotor Inertia (kg·m^2)	9.64×10^{-3}	10.84×10^{-3}
Mass (kg)	21.8	23.4
Body Length (mm)	218	261
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

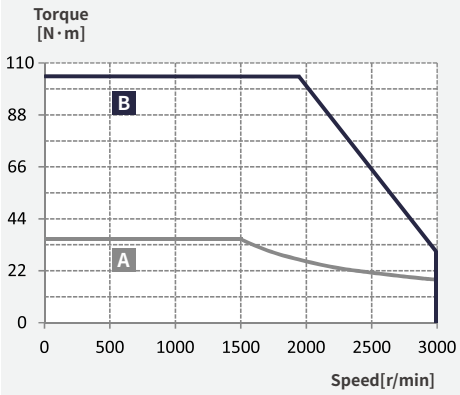


a: 218±0.5 [261±0.5]
b: 205.50 [218.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

TDA180 Series | 4000W

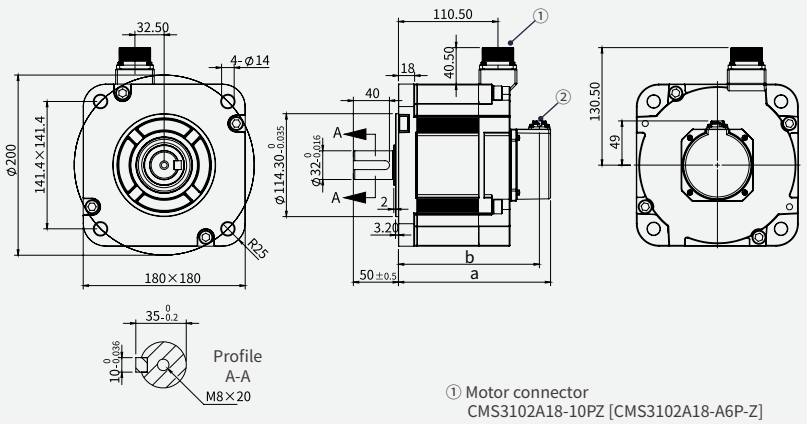
AC 220V / 2000rpm

Technical Parameters

Type	TDA180-19120FA1-01B00	TDA180-19120FA1-11B00
Rated Power (W)	4000	4000
Rated Current (A rms)	20.1	20.1
Rated Torque (N·m)	19.1	19.1
Max Torque (N·m)	57.3	57.3
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	57	57
Torque Constant (N·m/A)	0.95	0.95
Line Resistance (Ω)	0.21	0.21
Electrical Time Constant (ms)	15.24	15.24
Rotor Inertia (kg·m^2)	4.98×10^{-3}	6.18×10^{-3}
Mass (kg)	13.4	15.0
Body Length (mm)	169	212
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

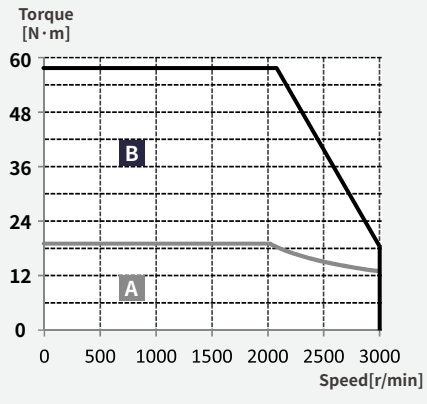


a: 169±0.5 [212±0.5]
b: 156.50 [199.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

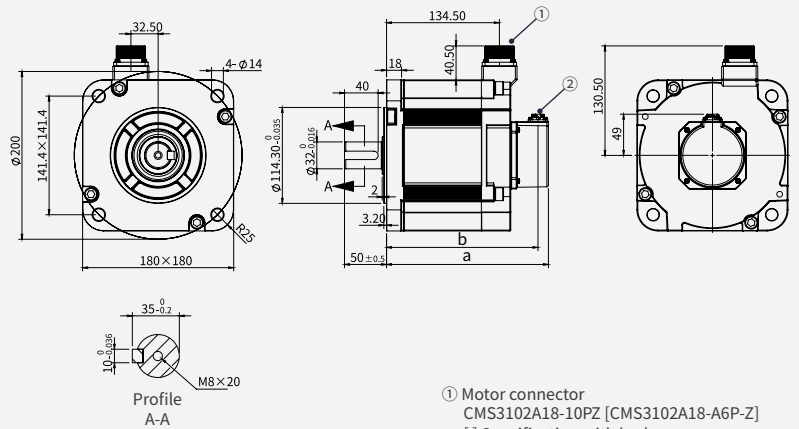
TDA180 Series | 5400W | AC 220V / 2000rpm

Technical Parameters

Type	TDA180-26020FA1-01B00	TDA180-26020FA1-11B00
Rated Power (W)	5400	5400
Rated Current (A rms)	25.4	25.4
Rated Torque (N·m)	26.0	26.0
Max Torque (N·m)	71.4	71.4
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	61.5	61.5
Torque Constant (N·m/A)	1.02	1.02
Line Resistance (Ω)	0.09	0.09
Electrical Time Constant (ms)	2.5	2.5
Rotor Inertia (kg·m^2)	7.18×10^{-3}	8.38×10^{-3}
Mass (kg)	17.4	19.0
Body Length (mm)	193	236
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

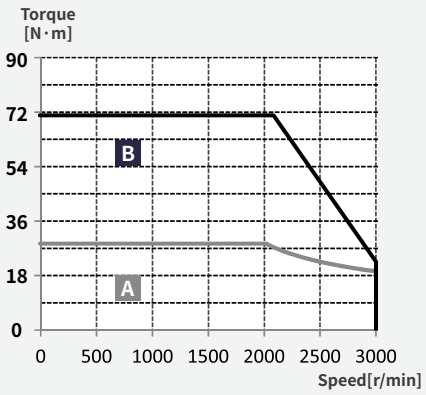


a: 193±0.5 [236±0.5]
b: 180.50 [223.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

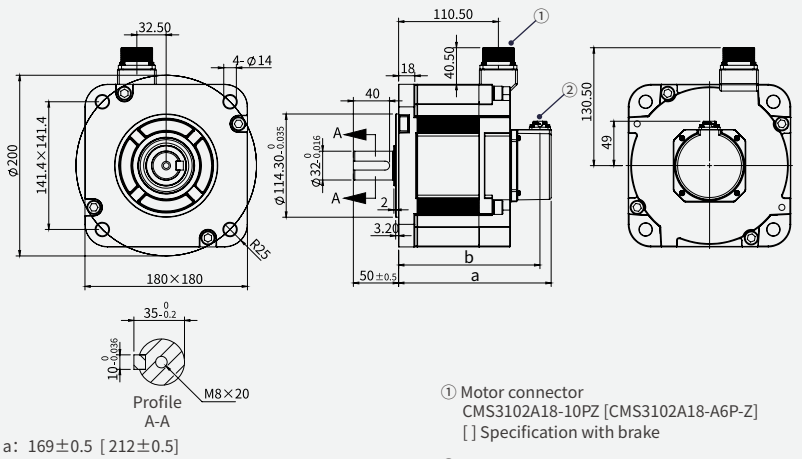
TDA180 Series | 3000W | AC 380V / 1500rpm

Technical Parameters

Type	TDA180-19115GA1-01B00	TDA180-19115GA1-11B00
Rated Power (W)	3000	3000
Rated Current (A rms)	11.6	11.6
Rated Torque (N·m)	19.1	19.1
Max Torque (N·m)	57	57
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3500	3500
Back EMF (V/1000rpm)	103	103
Torque Constant (N·m/A)	1.65	1.65
Line Resistance (Ω)	0.67	0.67
Electrical Time Constant (ms)	10.2	10.2
Rotor Inertia (kg·m^2)	4.98×10^{-3}	6.18×10^{-3}
Mass (kg)	13.4	15.0
Body Length (mm)	169	212
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

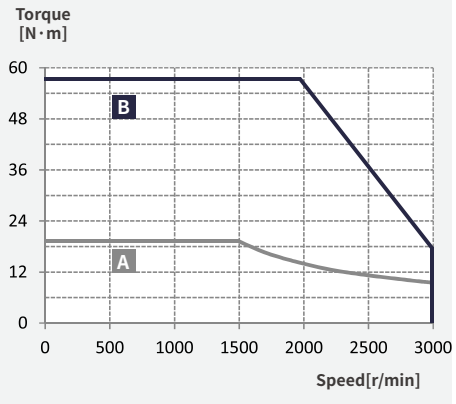


a: 169±0.5 [212±0.5]
b: 156.50 [199.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

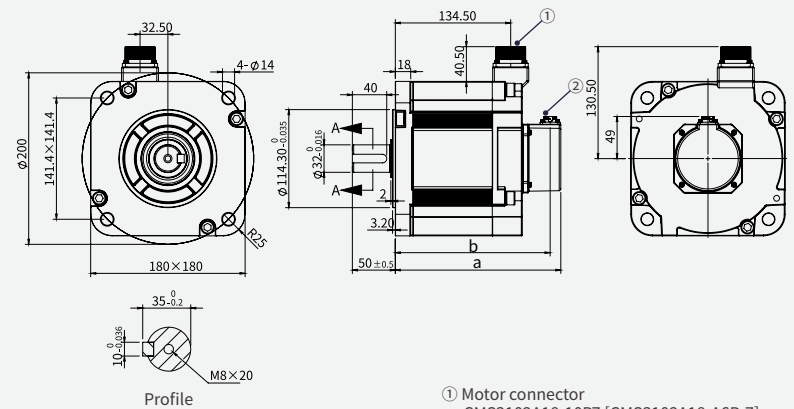
TDA180 Series | 4500W | AC 380V / 1500rpm

Technical Parameters

Type	TDA180-28715GA1-01B10	TDA180-28715GA1-11B10
Rated Power (W)	4500	4500
Rated Current (A rms)	16.6	16.6
Rated Torque (N·m)	28.65	28.65
Max Torque (N·m)	85.95	85.95
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3500	3500
Back EMF (V/1000rpm)	105	105
Torque Constant (N·m/A)	1.73	1.73
Line Resistance (Ω)	0.35	0.35
Electrical Time Constant (ms)	18.86	18.86
Rotor Inertia (kg·m^2)	7.18×10^{-3}	8.38×10^{-3}
Mass (kg)	17.4	19.0
Body Length (mm)	193	236
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

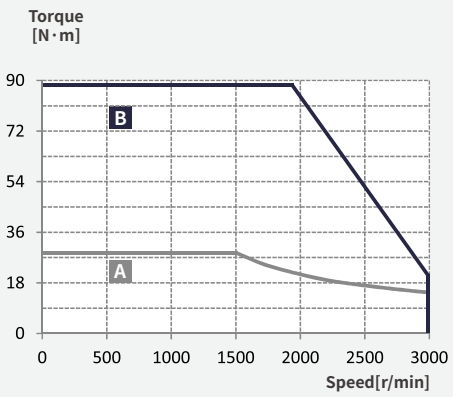


a: 193±0.5 [236±0.5]
b: 180.50 [223.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

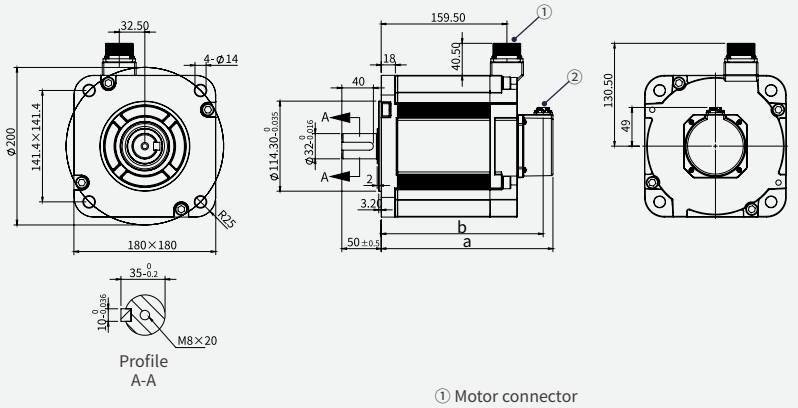
TDA180 Series | 5500W | AC 380V / 1500rpm

Technical Parameters

Type	TDA180-35015GA1-01B10	TDA180-35015GA1-11B10
Rated Power (W)	5500	5500
Rated Current (A rms)	21.4	21.4
Rated Torque (N·m)	35	35
Max Torque (N·m)	105	105
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3500	3500
Back EMF (V/1000rpm)	102	102
Torque Constant (N·m/A)	1.64	1.64
Line Resistance (Ω)	0.25	0.25
Electrical Time Constant (ms)	17.20	17.20
Rotor Inertia (kg·m^2)	9.64×10^{-3}	10.84×10^{-3}
Mass (kg)	21.8	23.4
Body Length (mm)	218	261
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

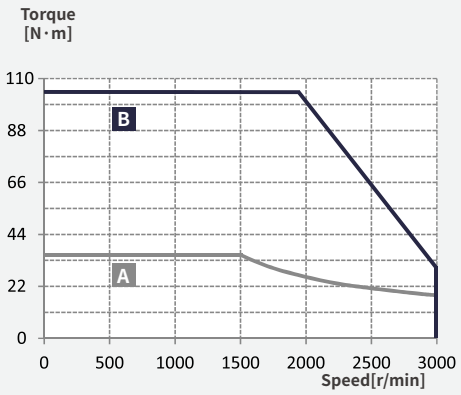


a: 218±0.5 [261±0.5]
b: 205.50 [218.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

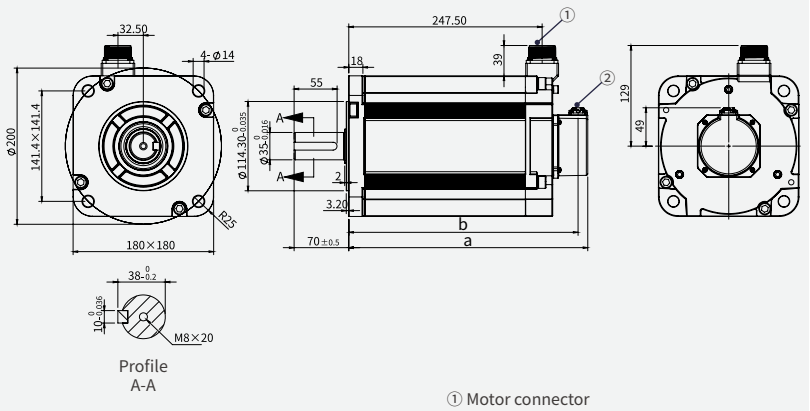
TDA180 Series | 7500W | AC 380V / 1500rpm

Technical Parameters

Type	TDA180-47815GA1-01B00	TDA180-47815GA1-11B00
Rated Power (W)	7500	7500
Rated Current (A rms)	26.7	26.7
Rated Torque (N·m)	47.76	47.76
Max Torque (N·m)	143.28	143.28
Rated Speed (rpm)	1500	1500
Max Speed (rpm)	3500	3500
Back EMF (V/1000rpm)	111	111
Torque Constant (N·m/A)	1.79	1.79
Line Resistance (Ω)	0.18	0.18
Electrical Time Constant (ms)	20.00	20.00
Rotor Inertia (kg·m^2)	13.76×10^{-3}	14.96×10^{-3}
Mass (kg)	29.1	30.5
Body Length (mm)	263	306
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

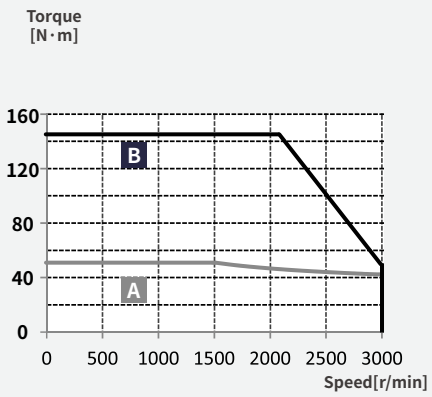


a: 193±0.5 [236±0.5]
b: 180.50 [223.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

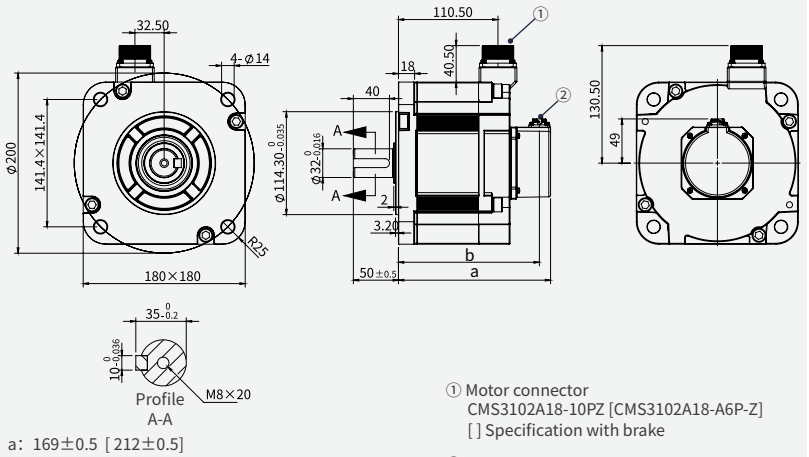
TDA180 Series | 4000W | AC 380V / 2000rpm

Technical Parameters

Type	TDA180-19120GA1-01B00	TDA180-19120GA1-11B00
Rated Power (W)	4000	4000
Rated Current (A rms)	11.6	11.6
Rated Torque (N·m)	19.1	19.1
Max Torque (N·m)	57	57
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3500	3500
Back EMF (V/1000rpm)	103	103
Torque Constant (N·m/A)	1.65	1.65
Line Resistance (Ω)	0.67	0.67
Electrical Time Constant (ms)	15.22	15.22
Rotor Inertia (kg·m^2)	4.98×10^{-3}	6.18×10^{-3}
Mass (kg)	13.4	15.0
Body Length (mm)	169	212
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

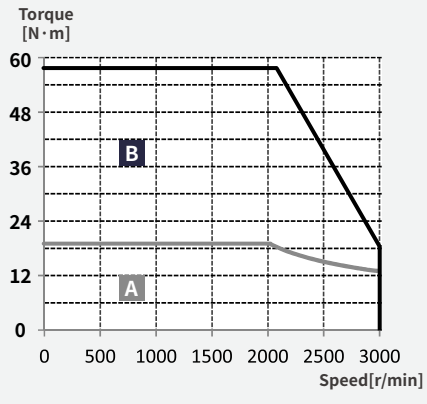


a: 169±0.5 [212±0.5]
b: 156.50 [199.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

TDA180 Series | 5400W

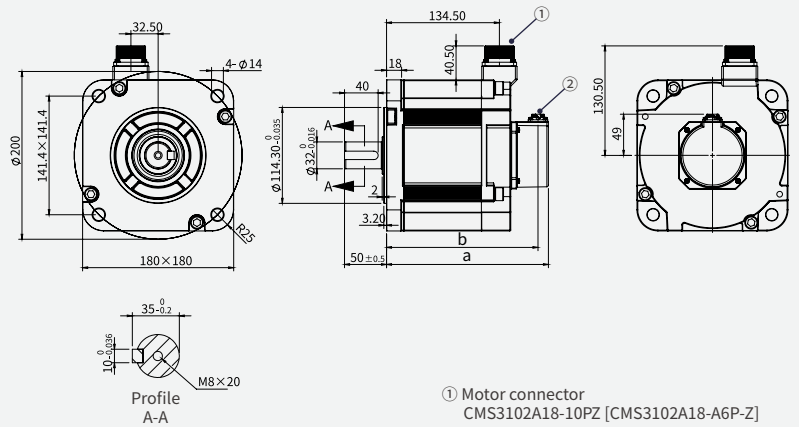
AC 380V / 2000rpm

Technical Parameters

Type	TDA180-26020GA1-01B00	TDA180-26020GA1-11B00
Rated Power (W)	5400	5400
Rated Current (A rms)	15.1	15.1
Rated Torque (N·m)	26.0	26.0
Max Torque (N·m)	71.4	71.4
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	113	113
Torque Constant (N·m/A)	1.72	1.72
Line Resistance (Ω)	0.38	0.38
Electrical Time Constant (ms)	7.8	7.8
Rotor Inertia (kg·m^2)	7.18×10^{-3}	8.38×10^{-3}
Mass (kg)	17.4	19.0
Body Length (mm)	193	236
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]

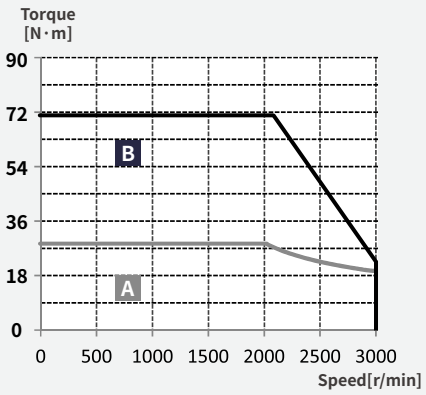


a: 193±0.5 [236±0.5]
b: 180.50 [223.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

TD series servo motor Selection

TDA180 Series | 7500W

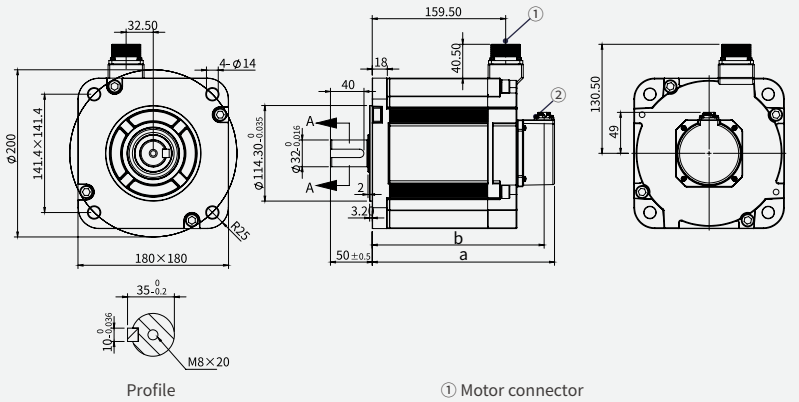
AC 380V / 2000rpm

Technical Parameters

Type	TDA180-35820GA1-01B00	TDA180-35820GA1-11B00
Rated Power (W)	7500	7500
Rated Current (A rms)	20.8	20.8
Rated Torque (N·m)	35.8	35.8
Max Torque (N·m)	89.5	89.5
Rated Speed (rpm)	2000	2000
Max Speed (rpm)	3000	3000
Back EMF (V/1000rpm)	102	102
Torque Constant (N·m/A)	1.72	1.72
Line Resistance (Ω)	0.25	0.25
Electrical Time Constant (ms)	4.3	4.3
Rotor Inertia (kg·m^2)	9.64×10^{-3}	10.84×10^{-3}
Mass (kg)	21.8	23.4
Body Length (mm)	218	261
Number of Poles	10	
Insulation Class	F（155°C）	
Ingress Protection	IP65	
Operating Temp.	0 ~ +40°C	
Operating Humidity	＜ 90%RH (free from condensation)	

Dimensions

unit[mm]



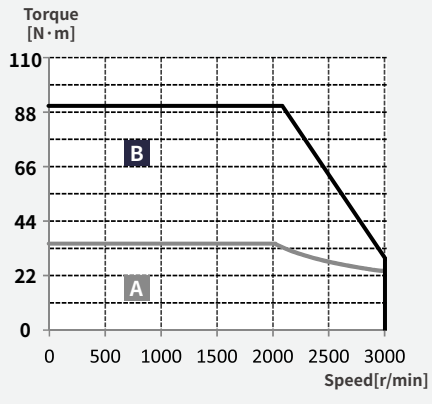
Profile
A-A

a: 218±0.5 [261±0.5]
b: 205.50 [248.50]
[ ]Size with brake

① Motor connector
CMS3102A18-10PZ [CMS3102A18-A6P-Z]
[ ] Specification with brake

② Encoder connector
SC-CMV1-R10PG

Torque Characteristics



A Continuous operation zone

B Intermittent operation zone

Optional Parts

Cable type

Motor power cable

TBM	0	01	01	00	C0
1,2,3	4	5,6	7,8	9,10	11，12

1,2,3

Symbols	Cable Type
TBM	Motor power cable

4

Symbols	brake
0	without brake
1	with brake

5,6

Symbols	Cable length
03	3m
05	5m
10	10m

7,8※1

Symbols	Cable cross section
00	0.75mm^2
01	1.5mm^2
02	2.0mm^2
03	2.5mm^2
04	4.0mm^2
05	5.0mm^2
06	6.0mm^2

※1 Motor specifications / selection of cable cross-section comparison table

Motor specifications	Cable cross section
0.1-0.75kW	0.75mm^2
0.85-1.3kW	1.5mm^2
1.8-2.3kW	2.5mm^2
3-4.5kW	4mm^2
7.5kW	7mm^2

9,10

Symbols	Connector
01	Motor side: 4-pole AMP connector (TDA040/060/080) Drive side: None
41	Motor side: 4-pole AMP connector (TDA040/060/080) Drive side：Terminal connector of motor power output（RC）
02	Motor side: 6-pole AMP connector(with brake，TDA040/060/080) Drive side: None
42	Motor side: 6-pole AMP connector(with brake，TDA040/060/080) Drive side：Terminal connector of motor power output（RC,1 axis）
52	Motor side: 6-pole AMP connector(with brake，TDA040/060/080) Drive side：Terminal connector of motor power output（RC，2 axes）
62	Motor side: 6-pole AMP connector(with brake，TDA040/060/080) Drive side：Terminal connector of motor power output（RC，3 axes）
03	Motor side: 4-pole military specification connector（TDA130） Drive side: None
43	Motor side: 4-pole military specification connector（TDA130） Drive side：Terminal connector of motor power output（RC）
04	Motor side: 6-pole military specification connector（with brake,TDA130） Drive side: None
44	Motor side: 6-pole military specification connector（with brake，TDA130） Drive side：Terminal connector of motor power output（RC,1 axis）
54	Motor side: 6-pole military specification connector（with brake,TDA130） Drive side：Terminal connector of motor power output（RC，2 axes）
64	Motor side: 6-pole military specification connector（with brake，TDA130） Drive side：Terminal connector of motor power output（RC，3 axes）
05	Motor side:4 pole large military specification connector（TDA180） Drive side: None
45	Motor side:4 pole large military specification connector（TDA180） Drive side：Terminal connector of motor power output（RC）
06	Motor side:6 pole large military specification connector（with brake，TDA180） Drive side: None
46	Motor side:6 pole large military specification connector（with brake,TDA180） Drive side：Terminal connector of motor power output（RC,1 axis）
56	Motor side:6 pole large military specification connector（with brake,TDA180） Drive side：Terminal connector of motor power output（RC，2 axes）
66	Motor side:6 pole large military specification connector（with brake,TDA180） Drive side：Terminal connector of motor power output（RC，3 axes）

11,12

Symbols	Cable Material
C0	General Line
C1	C1 drag chain cable
C2	C2 ultra-soft line

Optional Parts

Cable type

Encoder cable

TBE	0	03	0A	00	C0
1,2,3	4	5,6	7,8	9,10	11,12

1,2,3

Symbols	Cable Type
TBE	Motor encoder cable

4

Symbols	Battery box
0	without battery box
1	with battery box

5,6

Symbols	Cable length
03	3m
05	5m
10	10m
20	20m

7,8※1

Symbols	Encoder
0A	Hiperface
0B	BiSS C
0C	TAMAGAWA
0D	Nikon

9,10

Symbols	Connector
07	Motor side:9 pole AMP connector（TDA040/060/080） Drive side:None
17	Motor side:9 pole AMP connector（TDA040/060/080） Drive side:Terminal connector of the first encoder（S7）
27	Motor side:9 pole AMP connector（TDA040/060/080） Drive side:Terminal connector of the second encoder（S7）
37	Motor side:9 pole AMP connector（TDA040/060/080） Drive side:Terminal connector of Encoder（A8）
47	Motor side:9 pole AMP connector（TDA040/060/080） Drive side:Terminal connector of Encoder（RC）
57	Motor side:9 pole AMP connector（TDA040/060/080） Drive side:Terminal connector of Encoder(RC,3 axes)
67	Motor side:9 pole AMP connector（TDA040/060/080） Drive side:Terminal connector of Encoder(RC,1 axes)
08	Motor side:10 pole small aviation connector（TDA130/180） Drive side:None
18	Motor side:10 pole small aviation connector（TDA130/180） Drive side:Terminal connector of the first encoder（S7）
28	Motor side:10 pole small aviation connector（TDA130/180） Drive side:Terminal connector of the second encoder（S7）
38	Motor side:10 pole small aviation connector（TDA130/180） Drive side:Terminal connector of Encoder（A8）
48	Motor side:10 pole small aviation connector（TDA130/180） Drive side:Terminal connector of Encoder（RC）
58	Motor side:10 pole small aviation connector（TDA130/180） Drive side:Terminal connector of Encoder(RC,3 axes)
68	Motor side:10 pole small aviation connector（TDA130/180） Drive side:Terminal connector of Encoder(RC,1 axes)
87	Motor side:9 pole AMP connector（TDA040/060/080） Drive side:Terminal connector of Encoder(RA)
88	Motor side:10 pole small aviation connector（TDA130/180） Drive side:Terminal connector of Encoder(RA)

11,12

Symbols	Cable Material
C0	General Line
C1	C1 drag chain cable
C2	C2 ultra-soft line

Optional Parts

Wiring Definition | Terminal connector of motor power output

TDA040 / 060 / 080

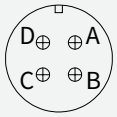
4-pole
AMP connector

Socket ID	1	2	3	4
Winding definition	U	V	W	PE
Cable Color	Red	White	Black	Yellow-green

4-pole
AMP connector
(with brake)

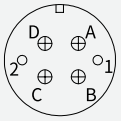
Socket ID	1	2	3	4	5	6
Winding definition	U	V	W	PE	BK	BK
Cable Color	Red	White	Black	Yellow-green	White	White

TDA130 / 180



4 pole military
specification
Connector

Socket ID	A	B	C	D
Winding definition	U	V	W	PE
Cable Color	Red	White	Black	Yellow-green



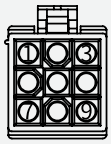
6 pole military
specification
Connector
(with brake)

Socket ID	A	B	C	D	1	2
Winding definition	U	V	W	PE	DC24V+	DC24V-
Cable Color	Red	White	Black	Yellow-green	White	White

Optional Parts

Wiring Definition | Terminal connector of encoder

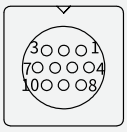
TDA040 / 060 / 080



9-pole
AMP connector

Socket ID	1	2	3	4	5	6	7	8	9
Winding definition	SD+	SD-	E+	-	-	5V	0V	E-	PE
Cable Color	Blue	Yellow	Brown			Red	Black	White	Gold

TDA130 / 180



10pin small
airline
Connector

Socket ID	1	2	3	4	5	6	7	8	9	10
Winding definition	-	5V	0V	SD+	SD-	E+	E-	-	-	PE
Cable Color		Red	Black	Blue	Yellow	Brown	White			Gold

TSINO DYNATRON

CHINA ETHERCAT DRIVER LEADER

清能德创 TSINO DYNATRON

The documented contents of this catalog are updated to January 2021 with the information number:TD-TDC20-D01.
If the information or specifications contained in this document are changed,
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