Intelligent leadership Driven by quality and efficiency

INVT Servo
Products Comprehensive Catalog

Servo motors | Servo drives| Accessories

Your trusted industry automation solution provider

invt @invtelectric

E-mail:overseas@invt.com.cn Website:www.invt.com

SHENZHEN INVT ELECTRIC CO.,LTD. INVT Guangming Technology Building, Songbai Road, Matian, Guangming District, Shenzhen, China

Industrial Automation:
- HMI
- PLC
- VFD
- Servo System
- Elevator Intelligent Control System
- Rail Transit Traction System

Electric Power:
- UPS
- DCIM
- Solar Inverter
- New Energy Vehicle Powertrain System
- New Energy Vehicle Charging System
- New Energy Vehicle Motor

66003-00413 20260225(V2.0)

CE c UL us LISTED

invt

About Us

INVT (Shenzhen INVT Electric Co., Ltd) has been concentrating on industry automation and energy power since its foundation in 2002 and is committed to "Providing the best product and service to allow customers more competitiveness". INVT goes public in 2010 and is the first A-share listed company (002334) in Shenzhen Stock Exchange in the industry. At present, INVT owns 15 subsidiaries and more than 4500 employees, over 40 branches, forming a sales network covering more than 100 overseas countries and regions.

INVT has been awarded as the Key High-tech Enterprise of National Torch Plan based on mastering of key technologies in power electronics, auto control and IT. With business covering industry automation, electric vehicle, network power and rail transit, INVT has established 10 R&D centers nationwide, boasts more than 1400 patents and owns the first lab in the industry awarded ACT qualification from TÜV SÜD, UL-WTDP and CNAS National Lab. The industrial parks in Shenzhen and Suzhou aim to provide customers with advanced integrated product development design management, comprehensive product R&D test and auto informational production. The worldwide INVT branches and warranty service centers are ready to offer customers all-around back-ups including professional solutions, technical trainings and service support.

In the next decade, INVT will continue to take " Sincere Virtuous, Professional Aspiring" as our business philosophy, enhance core business sectors including industrial automation, electric vehicle, network power and rail transit based on the three major technologies in industry automation and energy power fields, and strive to become a leading, responsible and harmonic international professional group armed with proper product structure, leading technologies, efficient management, robust profitability and superior competitiveness.

INVT Guangming Technology Building

INVT Shenzhen Production Industry Park

INVT Suzhou Industry Park

INVT Zhongshan New Energy Industry Base

Overview of servo product line

Controllers

IVC1L series

TS series

TS series

AX series

TM series

TP series

Command interfaces

Pulse, analog control

RS485 (Modbus)

CANOpen 402 protocol

EtherCAT

PROFINET

Servo drives

DA180A-E pulse type servo drive

DA200A-E pulse type servo drive

DA200-S pulse type medium-power servo drive

DA180A-C CANOpen servo drive

DA200A-C CANOpen servo drive

DA180A-N EtherCAT servo drive

DA200A-N EtherCAT servo drive

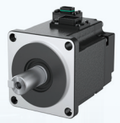
DA200-N EtherCAT medium-power servo drive

DA200A-F PROFINET servo drive

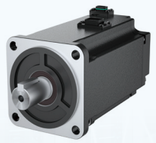
DA200-D/F PROFIdrive/ PROFINET medium-power servo drive

Servo motors

40 flange

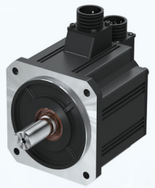


60 flange



80 flange

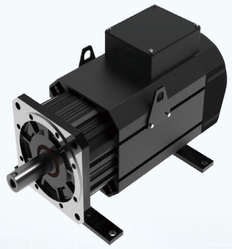
100 flange



130 flange

180 flange

200 flange



263 flange

Product portfolio of servo drives

Basic type
DA180Aseries

Simple and easy to use, cost-effective

1AC 220V: 0.4 - 1kW

Pulse，CANOpen，EtherCAT

Supports dynamic braking
(CANopen,EtherCAT,linear drive version)

CE

General-purpose type
DA200Aseries

Rich configuration, comprehensive functions

1/3 AC 220V: 0.4 - 3kW
3AC 380V: 0.4 - 7.5kW

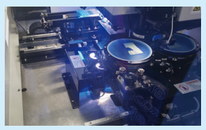
Pulse，CANOpen，EtherCAT，PROFINET

Supports dynamic braking

Supports fully closed-loop, electronic cam, and gantry synchronization (under preparation)

Supports STO

CE c UL us LISTED



General-purpose type
DA200series medium power

Power coverage, stable and reliable

3 AC 380V: 11–90kW
Includes built-in C3 filters

Pulse, PROFIdrive, EtherCAT, PROFINET

No built-in dynamic braking

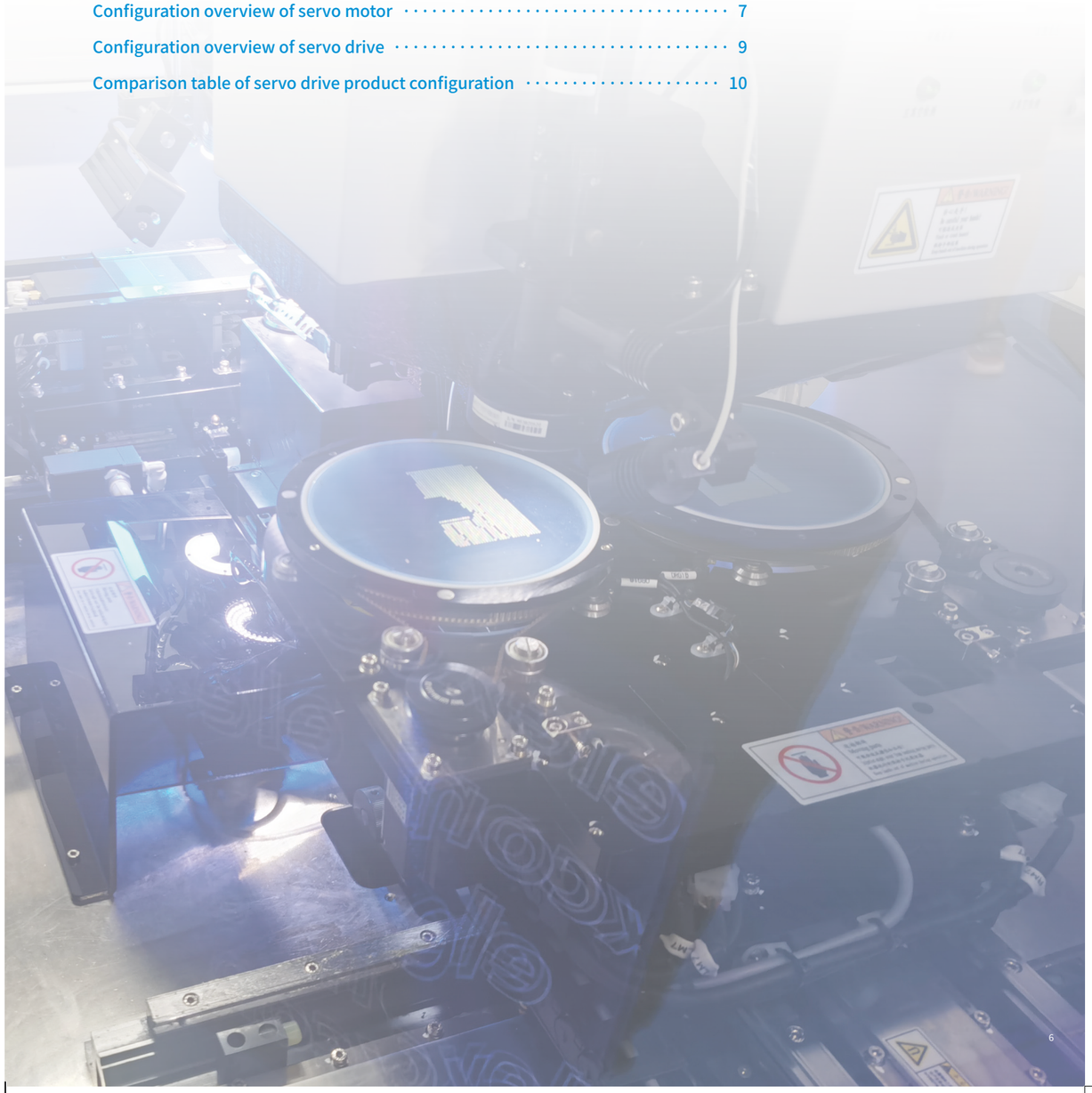
Supports fully closed-loop, electronic cam, and resolver

Supports STO

CE

CONTENTS

01
Configuration overview of servo products



IMS20B series low-power permanent magnet AC synchronous servo motor

(※Note: ● Mass production; ○ In development; □ Frame size mm)

Type \ Power			50W	100W	200W	400W	750W	850W	1kW		1.3kW	1.5kW		1.8kW	2.3kW	2.0kW		2.5kW	3kW		4kW	4.4kW	5kW	5.5kW	7.5kW
Low inertia (-A) In-line terminal	AC220V		● □ 40	● □ 40	○ □ 60	○ □ 60	○ □ 80		○ □ 80																	
Rated/Max. speed (rpm)			3000/7000		3000/7000				3000/7000																	
Medium inertia (-A) In-line terminal	AC220V		● □ 40	● □ 40	● □ 60	● □ 60	● □ 80		● □ 80																	
	AC380V				● □ 60	● □ 60	● □ 80		● □ 80																	
Rated/Max. speed (rpm)			3000/6000		3000/7000				3000/7000																	
Low inertia Aviation plug terminal	AC380V																		● □ 130		● □ 130			● □ 130		
Rated/Max. speed (rpm)																			3000/6000					3000/6000		
Medium inertia Aviation plug terminal	AC220V								● □ 100	● □ 130		● □ 100	● □ 130			● □ 100	● □ 130	● □ 100	● □ 130							
	AC380V								● □ 100	● □ 130		● □ 100	● □ 130			● □ 100	● □ 130	● □ 100	● □ 130	● □ 180		● □ 180		● □ 180	● □ 180	
Rated/Max. speed (rpm)									3000/6000	2000/4500		3000/6000	2000/4500			3000/6000	2000/4500	3000/6000	2000/3000	1500/4500		1500/4500		1500/4500	1500/4500	
High inertia Aviation plug terminal	AC220V							● □ 130			● □ 130			● □ 130	● □ 130											
	AC380V							● □ 130			● □ 130			● □ 130	● □ 130											
Rated/Max. speed (rpm)								1500/4500			1500/4500			1500/4500	3000/5000											

IMS20B series medium-power permanent magnet AC synchronous servo motor

(※Note: ● Mass production; ○ In development; □ Frame size mm)

Rated/Max. Speed \ Rated torque range ①		40Nm	60Nm	80Nm	100Nm	120Nm	140Nm	160Nm	180Nm	200Nm	180Nm	220Nm	260Nm	300Nm	340Nm	380Nm	420Nm	495Nm
1500/2500rpm		● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263
1700/2700rpm		● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263
2000/3000rpm		● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 200	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263	● □ 263

① The rated torque range refers to the rated torque of the corresponding motor specification within the "value ±10%" range

Configuration overview of servo drive

Product series	Power specifications	Power capacity
DA180A	AC200V	0.4 - 1 kW
DA180A linear drive version	AC200V	2.8 - 6A
DA200A	AC200V	0.4 - 3 kW
	AC400V	0.4 - 7.5 kW
DA200A Pro version	AC200V	0.4 - 3 kW
	AC400V	0.4 - 7.5 kW
DA200 medium power	AC400V	11 - 90 kW

○ In development ●: Supported —: Not supported

Product series	Command interface	STO Safe torque off	Fully-closed loop control	Built-in brake output	Supported servo motor types		
					Rotary	Linear	DD motor
DA180A	Pulse/analog value (E/S)	—	—	—	●	—	—
DA180A linear drive version					—	●	●
DA200A					●	—	—
DA200A Pro version		●	●	●	●	●	●
DA200 medium power				—	●	●	●
DA180A	EtherCAT (N)	—	—	—	●	—	—
DA180A linear drive version					—	●	●
DA200A					●	—	—
DA200A Pro version		●	●	●	●	●	●
DA200 medium power				—	●	●	●
DA180A	CANOpen (C)	—	—	—	●	—	—
DA200A		●	●	●	●	●	●
DA200A	PROFINET (F/D)	●	●	●	●	●	●
DA200 medium power		●	●	●	●	●	●

Product series	Encoder protocol types							Motor temperature control
	Tamagawa	BiSS-C	EnDat 2.x [1]	Incremental ABZ	SSI protocol	Resolver type	all sensor [2]	
DA180A	●	—	—	—	—	—	—	—
DA180A linear drive version	—	●	●	●	—	—	●	●
DA200A	●	●	●	—	—	—	—	—
DA200A Pro version	●	●	●	●	●	—	●	●
DA200 medium power	●	—	—	●	—	●	●	●

1 The DA180A linear drive version supports EnDat 2.1, and the DA200A supports EnDat 2.2

2 The DA180A/DA200A supports single-ended hall, and the DA200 supports differential hall

3 The DA200A UL certified model has the same product configuration as the aforementioned DA200A configuration

Comparison table of servo drive product configuration

Attribute grouping	Product series / Function description	DA180A series	DA200A series	DA200 series	DA180A series linear drive	DA200A series linear drive
Product overview	Name definition	Economical AC general-purpose servo	High-performance AC general-purpose servo	High-performance AC general-purpose servo	Economical AC direct-driven servo	High-performance AC direct-driven servo
	Release date	2023	2024	2015	2024	2024
	Power range (kW)	0.4~1kW	0.4~7.5kW	11~90kW	0.4~1kW	0.4~7.5kW
	Current range (A)	2.8-6A（220V）	2.8-13A（220V） 1.6-21A（380V）	1.3-16.5A（220V） 3.5-134A（380V）	2.8-6A（220V）	2.8-13A（220V） 1.6-21A（380V）
Technical control performance	Input voltage (V)	1PH 220V	1PH 220V/3PH 220V/3PH 380V	3PH 380V	1PH 220V	1PH 220V/3PH 220V/3PH 380V
	Input frequency (Hz)	47~63				
	Output voltage (V)	Output according to motor design (not exceeding input voltage)				
	Output frequency (Hz)	0~599				
	Control mode	Position control; speed control; torque control; position/speed mode switching; speed/torque mode switching; position/torque mode switching	Position control; speed control; torque control; fully-closed loop control; position/speed mode switching; speed/torque mode switching; position/torque mode switching	Position control; speed control; torque control; fully-closed loop control; position/speed mode switching; speed/torque mode switching; position/torque mode switching	Position control; speed control; torque control; position/speed mode switching; speed/torque mode switching; position/torque mode switching	Position control; speed control; torque control; fully-closed loop control; position/speed mode switching; speed/torque mode switching; position/torque mode switching
	Motor type	AC permanent magnet synchronous motor	AC permanent magnet synchronous motor	AC permanent magnet synchronous motor	Linear motor, DD motor	Linear motor, DD motor
	Communication support	EtherCAT/CANopen/RS485	EtherCAT/Profinet/ ProfiDrive/CANopen/ RS485	EtherCAT/Profinet/ ProfiDrive/CANopen/ RS485	EtherCAT/RS485	EtherCAT/Profinet/ ProfiDrive/CANopen/ RS485
	Speed loop bandwidth (Hz)	2.5K	2.5K	2K	2.5K	2.5K
	Overload capacity	3 times	2.5/3 times	2 times	3 times	2.5/3 times
	Braking unit	Available	Available	Available	Available	Available
	Braking capability	Built-in braking resistor (not available for 2.8A models, available for 6A models)/External resistor	Built-in braking resistor/ External resistor	External resistor	Built-in braking resistor (not available for 2.8A models, available for 6A models)/External resistor	Built-in braking resistor/ External resistor
Adapted motor	Encoder	Absolute (Tamagawa protocol)	A/B/Z incremental encoder, absolute (Tamagawa protocol), BiSS-C, EnDat 2.2 protocol, mechanical encoder	A/B/Z incremental encoder, absolute (Tamagawa protocol), resolver	A/B/Z incremental encoder, single-ended hall, BiSS-C, EnDat 2.1 protocol	A/B/Z incremental encoder, single-ended hall, BiSS-C, EnDat 2.2 protocol
	Brake control	Unavailable	Available (Built-in relay, control brake switch)	Unavailable	Unavailable	/
	Temperature sensor	Unavailable	DA200A-P Available (PT100/PT1000/KTY84)	Available (KTY84)	Available (PT100/KTY84)	Available (PT100/PT1000/KTY84)
Running control performance	Frequency setting method	Internal step-speed, pulse, bus				
	Fault protection	Memorize at power failure				
Communication performance	EtherCAT communication cycle	Minimum 125 microseconds				
	PROFINET communication cycle	Unavailable	Minimum 125 microseconds	Minimum 125 microseconds	Unavailable	Minimum 125 microseconds
	CANopen maximum baud rate	20K–1Mbit/s (DA180A linear drive does not support CANopen)				
	RS485 frequency	9600Bit/s, 19200bit/s, 38400bit/s, 57600bit/s				

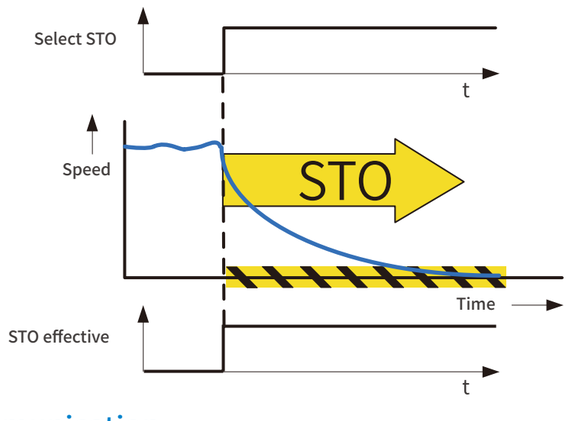
Attribute grouping	Product series / Function description	DA180A series	DA200A series	DA200 series	DA180A series linear drive	DA200A series linear drive
Commissioning	Inertia automatic identification	Available				
	Zero-offset control (model tracking)	Unavailable	Available	Unavailable	Unavailable	Available
	Vibration automatic suppression	Available				
	Torque disturbance compensation	Available				
	Positioning compensation	Unavailable	Unavailable	Unavailable	Available (supports Renishaw laser interferometer)	Available (supports Renishaw laser interferometer)
	Friction compensation	Available	Available	Available	Available	Available
	Magnetic pole identification	Unavailable	Unavailable	Unavailable	Available (supports micromotion and static)	Available (supports micromotion and static)
	Hall commutation	Unavailable	Unavailable	Unavailable	Available (supports single-ended hall commutation)	Available (supports single-ended hall commutation)
Special function	Fully-closed loop	Unavailable	Available	Available	/	/
	E-CAM	Unavailable	Available (in development)	Available	Unavailable	Available (in development)
	Gantry synchronization	Unavailable	Available (in development)	Available	Unavailable	Available (in development)
Safety function	Dynamic braking	Disable for E type, and enable for N type	Available	Unavailable	Available	Available
	STO	Unavailable	Available (EN/IEC61800-5-2 SIL3 level)	Available	Unavailable	Available (EN/IEC61800-5-2 SIL3 level)
Terminal	Analog input	2 channels/Unavailable (N bus)	2 channels/Unavailable (N, F, D bus)	S-type 3 channels/ Unavailable (N, F, D bus)	2 channels/Unavailable (N bus)	2 channels/Unavailable (N, F, D bus)
	Terminal analog input resolution	12bit	12bit	S type（one 16bit，two 12bit)	12bit	12bit
	Analog output	Unavailable	2 channels/Unavailable (N, F, D bus)	2 channels/Unavailable (N, F, D bus)	Unavailable	2 channels/Unavailable (N, F, D bus)
	Digital input	10 channels/7 channels (N bus)	10 channels/7 channels (N, F, D bus)	10 channels/7 channels (N, F, D bus)	10 channels/7 channels (N bus)	10 channels/7 channels (N, F, D bus)
	Digital output	4 channels	4 channels	6 channels/4 channels (N, F, D bus)	4 channels	4 channels
	Commissioning USB interface description	Type-C	Type-C	mirco USB	Type-C	Type-C
	Encoder interface	6PIN(1394)	6PIN(1394)	15PIN(DB15)	15PIN(DB15)	6PIN(1394)
	2nd encoder interface	Unavailable	15PIN(DB15)	20PIN(SCSI)	Unavailable	15PIN(DB15)
Accessories	External braking resistor	Optional				
	Reactor	Optional				
	EMC filter	Optional				
	Keypad instruction	LED 6-digit 7-segment digital tube, 4 keys				
Other	Mounting method	Wall mounting	Wall mounting	Supports wall mounting and flange mounting	Wall mounting	Wall mounting
	Temperature of running environment	0–+55° C (Derate to 80% when the temperature is 45–55° C.)	0–+55℃	0–+55° C (Derate to 80% when the temperature is 45–55° C.)	0–+55° C (Derate to 80% when the temperature is 45–55° C.)	0–+55℃
	IP rating	IP20				
	Pollution degree	2				
	Cooling method	Natural cooling for drives lower than 400W, fan cooling for the others.	Natural cooling for drives lower than 400W, fan cooling for the others.	Fan cooling	Natural cooling for drives lower than 400W, fan cooling for the others.	Natural cooling for drives lower than 400W, fan cooling for the others.
	Volume description	A	A,B,C,D	F,F2,G,H	A	A,B,C,D
	Product certification	CE/UKCA	CE/UKCA/UL	CE/UKCA/EAC	CE/UKCA	CE/UKCA/UL

02
Product features of servo drives

Servo product functions and features

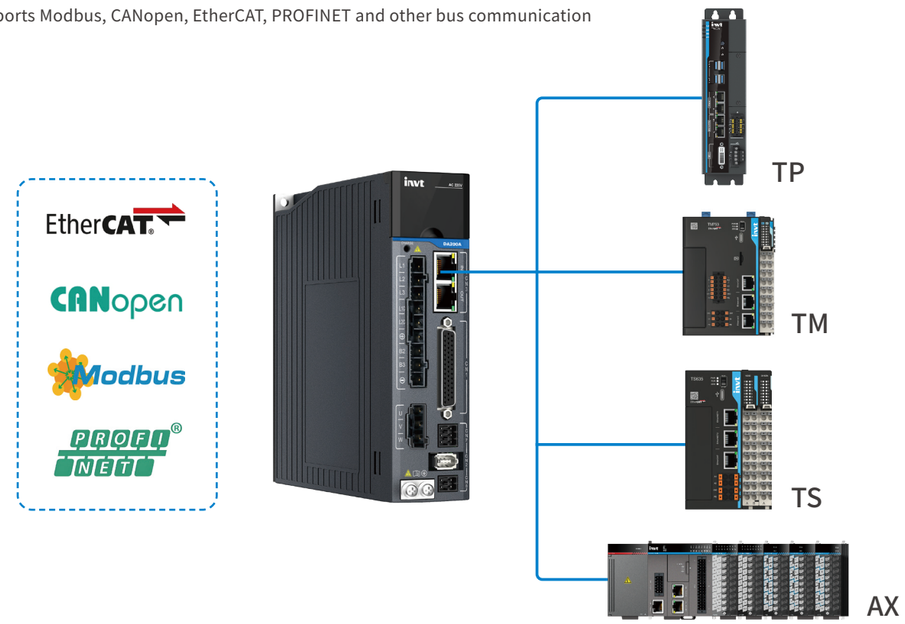
Safe and reliable

•Supports STO（Safe Torque Off）
•Meets the EN/IEC61800-5-2 SIL3 requirements Level requirement



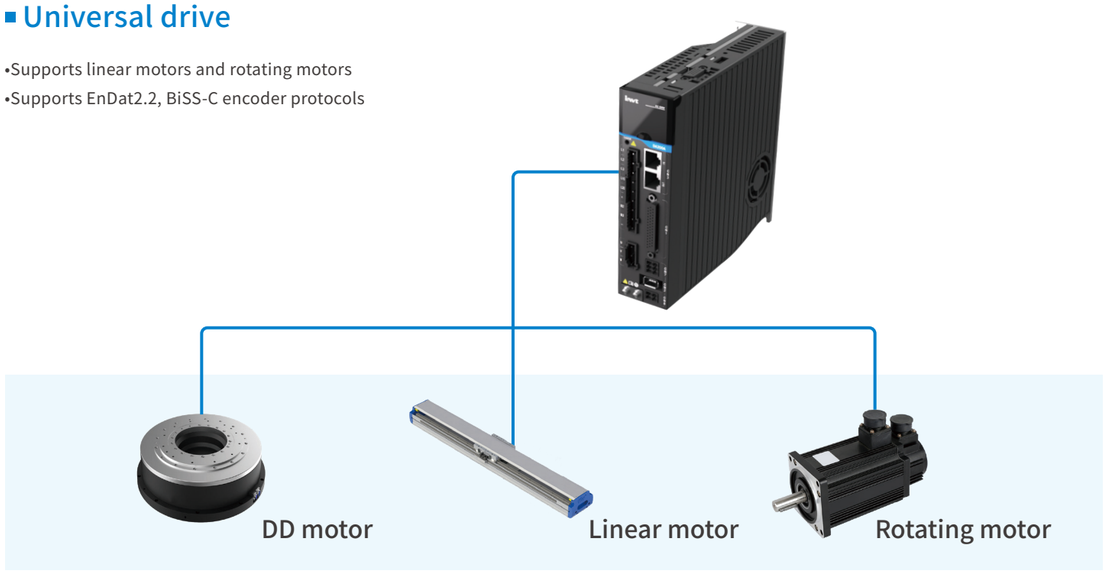
Enriched communication

•With mature fieldbus technology, application network is convenient and reliable
•Supports Modbus, CANopen, EtherCAT, PROFINET and other bus communication



Universal drive

•Supports linear motors and rotating motors
•Supports EnDat2.2, BiSS-C encoder protocols

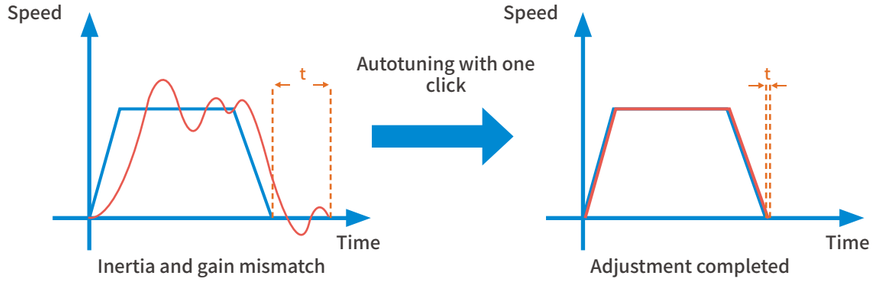


Built-in brake output

•No external relay need, saving external space
•Reduces wiring to cut the system cost

Autotuning with one click

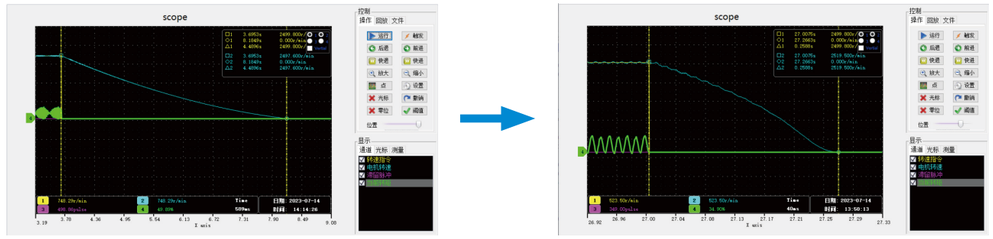
•Autotuning with one click requires just a few simple steps to automatically learn and update drive parameters, shortening the tuning time and making it easy to use
•upports functions such as load characteristic self-learning, adaptive vibration suppression across a full frequency range from 1 to 5000H, and automatic closed-loop parameter optimization
•Maximize the performance of the equipment



Dynamic braking

• Dynamic braking uses dynamic braking methods to quickly stop the motor during situations such as emergency stop, faults, or power off
•Quick stop to avoid mechanical damage and ensure personnel safety

Test condition: •Motor power 1.0kW •Rated speed 2500r/min •Inertia disc 10.5 times

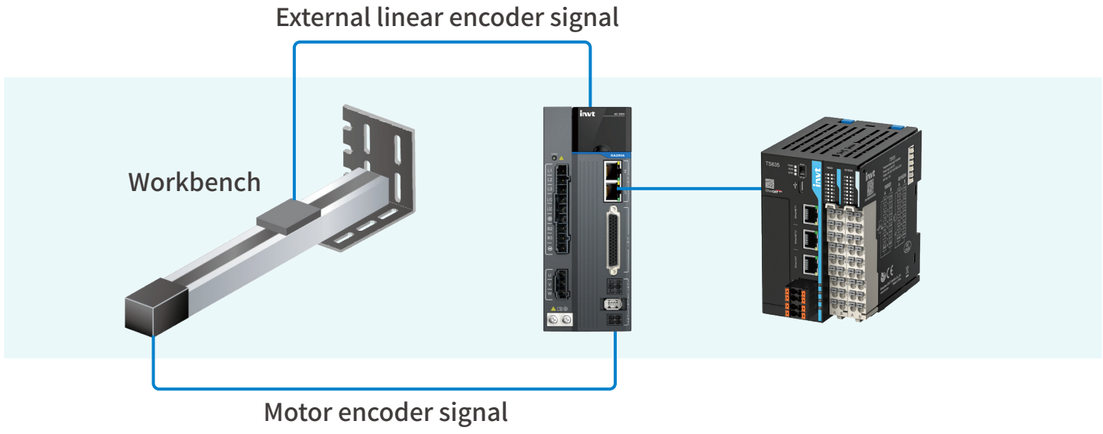


Free coast: 4.5s: **4.5s**

Dynamic braking: **0.25s**

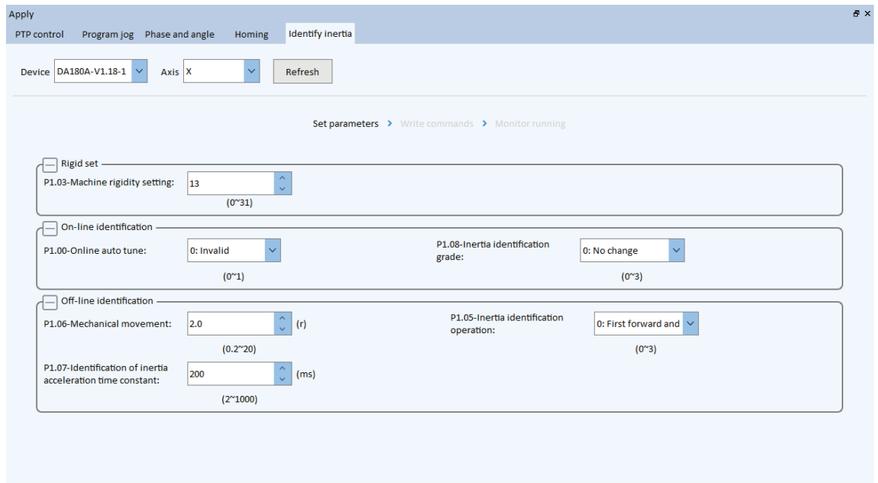
Fully-closed loop control

• Supports external connection to an encoder or grating ruler installed at the load end, implementing fully-closed loop control
•Reduces back clearance impact caused by mechanical drive, and improves machine-end positioning accuracy



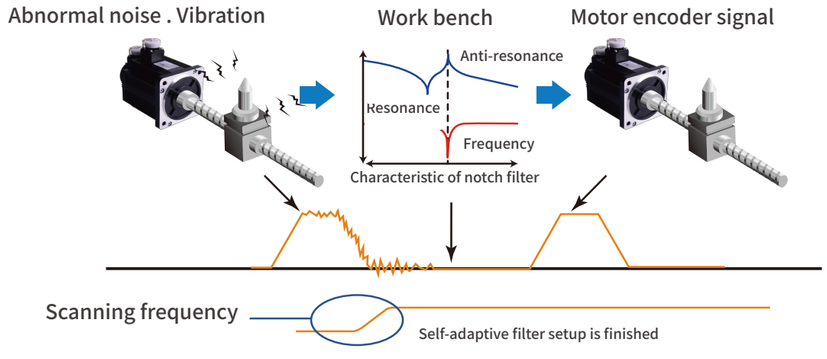
Load inertia identification

•Provides online and offline inertia identification. Identifies gain parameters automatically in the system, and reduces the system tuning time



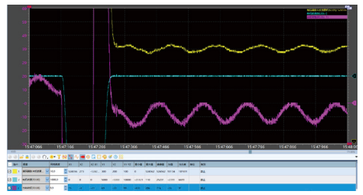
■ Automatic/manual notch filter

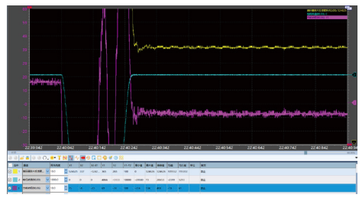
•Equipped with a simplified notch filter setup function. Abnormal noise and vibration caused by mechanical devices can be greatly reduced by using a notch filter

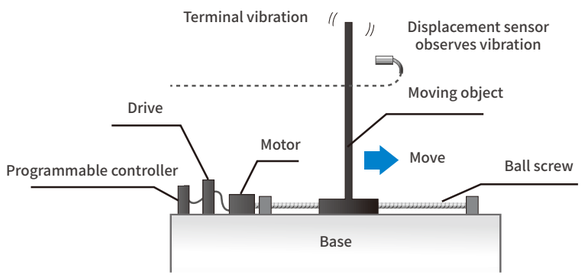


■ Low frequency vibration control

•Advanced low frequency vibration control algorithms can be used to effectively control low frequency mechanical resonance and control oscillation at long swing arm end







■ Disturbance control

•Equipped with the disturbance control function to compensate for the control performance impact caused by load disturbance and parameter changes, enhancing system robustness and greatly improving command following performance

■ Friction torque compensation

•Equipped with the friction torque compensation function to reduce the impact caused by static friction during motor commutation and improve command following performance at low speed running

■ Simple gain adjusting and switching

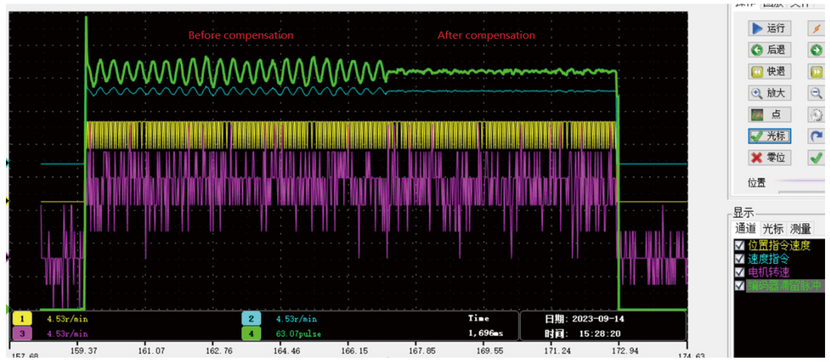
•The speed and position loop gains and filter time constant can be automatically adjusted by setting rigidity levels, effectively reducing commissioning complicity.Two groups of gains can be set, and the gains can be switched through I/O input, communication, or internal variables, fulfilling flexible process demands.

■ Speed observer

•Uses a speed observer to reduce the noise impact and improve command following performance
•Improves the usability of servo to reduce the difficulty of customer commissioning

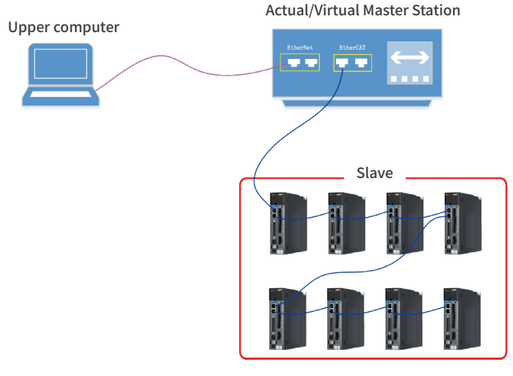
■ Cogging torque compensation

•One click learning, automatic compensation learning and result storage completed in 2-3 seconds
•Effectively solve the problem of periodic fluctuations in cogging torque with position, leading to poor machining accuracy in multi axis synchronous control; Improve the surface accuracy of processed materials



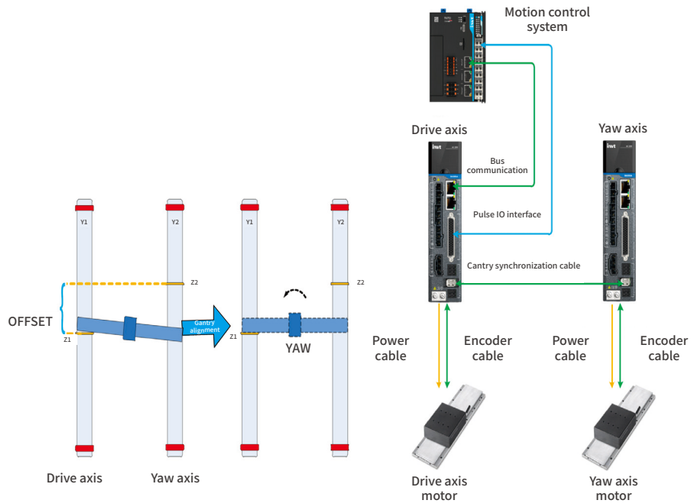
EoE

•Servo can achieve parameter copying, uploading, and downloading through debugging software and EtherCAT network; Servo firmware can be upgraded through online EoE method
•Network topology can be connected through actual/virtual master stations



Gantry synchronization function

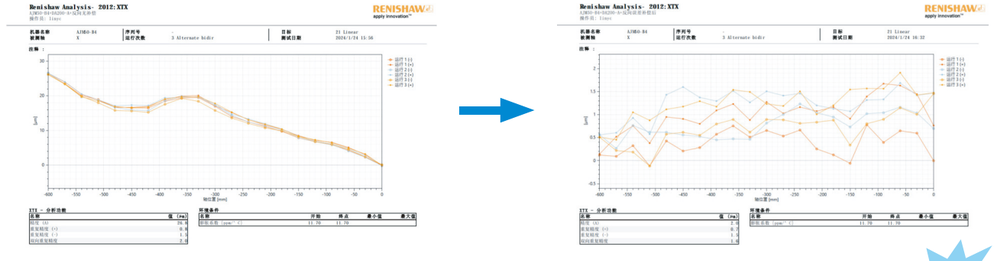
•Divides the gantry systeminto virtual decoupled axes based on multi-input multi-output (MIMO) cross decoupling control—namely, a drive axis and a yaw axis, enabling both fast dynamic response and high synchronization performance
•Independently performs dual-drive gantry synchronization control without the use of a host controller, ensuring precise alignment of the two axes
•Adopts a cross decoupling control strategy and mechanical model self-decoupling control to significantly enhance gantry synchronization accuracy and performance
•Supports functions such as mechanical installation offset calibration, gantry alignment, homing, and positioning compensation, ensuring safe, precise, and stable gantry running
•Supports both rigid and flexible gantry structures, compatible with both rotary and linear servo motors
•Provides a dedicated gantry commissioning interface for simple and user-friendly setup and tuning



Unique functions of linear drives

Positioning compensation

•Supports measurement with Renishaw laser interferometers to determine errors; imports measurement tables without manual input of error compensation data, achieving high-precision positioning compensation functions
• Solves precision loss caused by factors such as machining accuracy of mechanical parts and assembly processes



Positioning accuracy before compensation: 26.8 μm

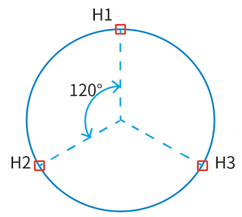
Positioning accuracy after compensation: 2μm

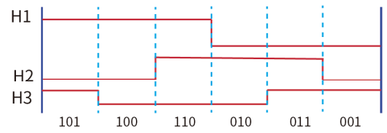
Magnetic pole identification

•Supports both micromotion and static magnetic pole identification methods
•Incremental encoders (with Hall signal assistance) and absolute encoders: within a small movement range, they can quickly and accurately identify the encoder's offset angle, thus obtaining the current accurate electrical angle of the motor. Upon re-powered on, there is no need for pole identification. It can automatically calculate the current electrical angle of the motor based on the HALL state and offset angle, and directly control the motor
•Automatic commutation: In cases where the motor phase sequence UVW is reversed, the phase sequence is recognized as reverse, and the drive can automatically commutate without manual phase sequence replacement

Hall commutation

•Supports single-ended hall
•After power-on, the initial position angle is automatically determined based on the positions of the 3PH hall devices, and compensation is performed during motion based on sector switching
• For linear motors, where the signal sequence of the 3PH power output UVW and hall H1/H2/H3 can be randomly configured, a one-click autotuning method is provided
• This resolves the hassle of using an oscilloscope to observe phases to determine direction and change the hall wiring





03 Naming rule

Naming rule

Servo motor naming

IMS20B - 06 M 40B 30C - 2 - M4 4 _ - XXXX
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Product series	④ Rated power（W）	⑦ Encoder type
IMS20B IMS20B series	Composition of base (number) * magnification (letter) A: *1 B: *10 C: *100 D: *1000 E: *10000 …… Example: 40B: 400W 15C: 1500W	M4: 17-bit multi-turn magnetic encoder R7: 12-bit resolver encoder P9: 23-bit multi-turn optical encoder
② Frame size	**⑤ Rated speed（rpm）**	**⑧ Optional part**
04: 40 06: 60 10: 100 13: 130 18:180 20: 200 26: 263	Composition of base (number) * magnification (letter) A: *1 B: *10 C: *100 …… Example: 80B: 800rpm 30C: 3000rpm	(0: With oil seal but no brake (omitted by default) 1: Without oil seal and brake 4: With oil seal and electromagnetic brake 5: without oil seal but with electromagnetic brake
③ Inertia level	**⑥ Voltage class**	**⑨ Cooling method**
L: Small inertia M: Medium inertia H: Large inertia	2： 220 4： 380	(omitted by default): Natural cooling F: Forced air cooling W: Water cooling Y: Oil cooling
		⑩ Manufacturer's internal code

Servo drive naming (DA200)

SV - DA200 - 015 - 4 - S 0 - XXXX
① ② ③ ④ ⑤ ⑥ ⑦

① Product category	④ Rated voltage	⑦ Lot number
SV: Servo system product	4:380V	XXXX: Manufacturer product lot number [2] 00T0: E-CAM
② Product series	**⑤ Drive type**	
DA200: Servo drive	S: Standard type N: EtherCAT bus type F: PROFINET bus type D: PROFIdrive bus type	
③ Rated power	**⑥ Encoder type**	
380V 011: 11KW 045: 45kW 015: 15kW 055: 55kW 022: 22kW 090: 90kW 037: 37KW	0: Optical encoder and magnetic encoder [1] 7: Rotary transformer	

[1] The optical encoder includes 2500-line incremental, 17-bit multi-turn absolute, and 23-bit multi-turn absolute encoders

[2] The lot number 00T0 indicates electronic cam, and ⑥ shall be 0 (that is, the encoder type should be either an optical encoder or a magnetic encoder)

Servo drive naming (DA180A/DA200A)

DA200A - E - 2R8 - S - 2 - XXXX - XXXX
① ② ③ ④ ⑤ ⑥ ⑦

① Product series	④ Rated voltage	⑦ Customized lot number
DA180A: DA180A series servo drive DA200A: DA200A series servo drive	S: 220V T: 380V	Customized lot number Digit 1: Hardware Digit 2/3: Function category Digit 4: Software serial No.
② Product category	**⑤ ncoder type**	
E: Pulse type C: CANopen bus type N: EtherCAT bus type F: PROFINET bus type	2: Serial communication encoder	
③ Rated current	**⑥ Product lot number**	
220V 380V 2R8: 2.8A 1R6: 1.6A 6R0: 6.0A 5R5: 5.5A 8R0: 8.0A 8R5: 8.5A 010: 10A 012: 12A 013: 13A 016: 16A 021: 21A	Digit 1: Product configuration Default: Standard version -P: High-spec version (DA200A) -Z: Direct drive (DA180A) Digit 2: Integration level 1: Single axis（omitted by default) Digit 3: Installation method B: Substrate installation (omitted by default) Digit 4: Ingress protection (IP) rating 0: IP00 1: IP20 (omitted by default)	

04
Introduction to servo products

IMS20B series servo motor

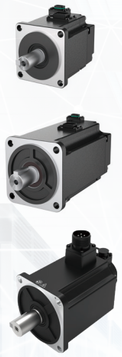
Small-power product features

Complete series

•The frame sizes cover 40/60/80/100/130/180 mm, with power range from 0.05kW to 7.5kW
•Offers a variety of inertia levels (low, medium, high) and multiple rated speed specifications
•Compatible with 17-bit multi-turn absolute magnetic encoders, 23-bit multi-turn absolute optical encoders, mechanical multi-turn absolute encoders*, and safety encoders*
•Compliant with CE/UL certification; motors in the 550W to 7.5kW power range meet China' s Grade 1 energy efficiency certification

Smaller size

•Adopts a brand-new integrated structural design, significantly shortening the motor length compared to the previous generation. The 80-frame motor length is reduced by up to about 25%



Lower temperature rise

•The motor structure and electromagnetic design have been optimized, resulting in a noticeable reduction in temperature rise compared to the previous generation. The 60-frame motor temperature rise is reduced by up to about 15° C.

Better performance

• The 40-frame motor has a maximum speed of 7000rpm
• 4The 40/60/80-frame motors have a maximum overload capacity of 350%
•Optimizes motor topology structure to accommodate excellent flux-weakening control algorithms, improving output performance in the high-speed range and increasing the operational area

*In development/certification

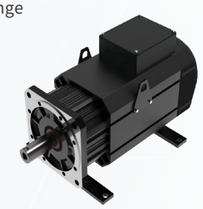
Medium-power product features

Safe and reliable

•The protection rating of the motor enclosure is IP54
•Equipped with KTY temperature protection function as standard configurationconfiguration
•Cross-coupled encoder with improved shock resistance
•Compliant with CE certification

Excellent performance

•Maximum overload capacity of 250% (at 1/2 rated speed)
•The motor topology structure has been optimized, improving output performance in the high-speed range
•Integrated structural design, low noise



High power density

•Uses IPM electromagnetic design to fully exploit reluctance torque, enhancing torque per unit volume of the motor.

Low temperature rise

•Uses high-performance magnetic materials to reduce motor losses and heat generation
•Optimized airflow structure enhances motor cooling performance

Model	Base model No. mm	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Voltage (V)	Rated current A 220V/380V	Inertia 10-4kg·m2 Standard/ with brake	Weight (kg) Standard/ with brake
IMS20B-04L05B30C-2-***	40	0.05	0.16	0.56	3000	7000	220	1.2	0.018/0.021	0.4/0.45
IMS20B-04L10B30C-2-***		0.1	0.32	1.12	3000	7000	220	1.2	0.033/0.036	0.5/0.55
IMS20B-04M05B30C-2-***		0.05	0.16	0.56	3000	7000	220	1.2	0.034/0.037	0.4/0.45
IMS20B-04M10B30C-2-***		0.1	0.32	1.12	3000	7000	220	1.2	0.064/0.067	0.5/0.55
IMS20B-06M20B30C-2(4)-***	60	0.2	0.64	2.24	3000	7000	220/380	1.4/1.1	0.28/0.31	0.8/1.1
IMS20B-06M40B30C-2(4)-***		0.4	1.27	4.45	3000	7000	220/380	2.7/1.6	0.5/0.53	1.2/1.4
IMS20B-08M75B30C-2(4)-***	80	0.75	2.39	8.36	3000	7000	220/380	4.8/2.8	1.7/1.74	2.14/2.7
IMS20B-08M10C30C-2(4)-***		1	3.18	11.14	3000	7000	220/380	5.5/3.5	2.2/2.24	2.62/3.18
IMS20B-10M10C30C-2(4)-***	100	1	3.2	9.6	3000	6000	220/380	5.9/3	1.71/1.87	3.4/4.2
IMS20B-10M15C30C-2(4)-***		1.5	4.8	14.3	3000	6000	220/380	7.8/4	2.36/2.53	4.2/5
IMS20B-10M20C30C-2(4)-***		2	6.4	19.1	3000	6000	220/380	11.1/5.5	3.03/3.2	5/5.8
IMS20B-10M25C30C-4-***		2.5	8	23.9	3000	6000	380	7.1	3.68/3.85	5.8/6.6
IMS20B-13M10C20C-2(4)-***	130	1	4.8	14.3	2000	4500	220/380	5.4/3	6.3/7.95	4.4/6.0
IMS20B-13M15C20C-2(4)-***		1.5	7.2	21.5	2000	4500	220/380	7.6/4.8	9.1/10.8	5.6/7.2
IMS20B-13M20C20C-2(4)-***		2	9.6	28.7	2000	4500	220/380	9/5.6	12.9/14.6	6.9/8.5
IMS20B-13M30C20C-2(4)-***		3	14.3	43	2000	3000	220/380	13/7.7	21.7/23.4	10.3/11.9
IMS20B-13H85B15C-2(4)-***		0.85	5.4	13.5	1500	4500	220/380	6.2/3.3	13.1/14.3	5.7/7.3
IMS20B-13H13C15C-2(4)-***		1.3	8.3	20.7	1500	4500	220/380	9.9/5.2	17.9/19.1	7.2/8.8
IMS20B-13H18C15C-2(4)-***		1.8	11.5	28.7	1500	4500	220/380	12.8/7.7	24.3/25.6	9/10.6
IMS20B-13H23C30C-2(4)-***		2.3	7.3	21.9	3000	500	220/381	11.9/6.8	17.9/19.1	7.2/8.8
IMS20B-13L30C30C-4-***		3	9.8	29.4	3000	6000	380	10.13	7.28/8.22	9.9/11.6
IMS20B-13L40C30C-4-***		4	12.6	37.8	3000	6000	380	12.96	10.1/11.04	13/14.7
IMS20B-13L50C30C-4-***		5	15.8	47.7	3000	6000	380	16.77	13.3/14.24	17/18.7
IMS20B-18M30C15C-4-***	180	3	19.1	47.8	1500	4500	380	9.7	48.6/49.3	19.2/21.2
IMS20B-18M44C15C-4-***		4.4	28	70	1500	4500	380	13.5	65.2/65.9	23.2/25.2
IMS20B-18M55C15C-4-***		5.5	35	88.8	1500	4500	380	16.8	84/84.7	27.7/29.7
IMS20B-18M75C15C-4-***		7.5	47.8	119.5	1500	4500	380	20.9	107.4/108.1	32/34

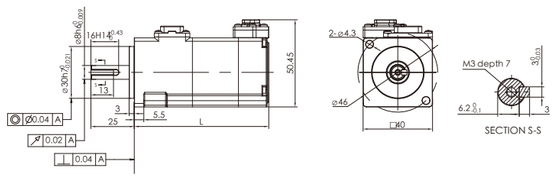
Model	Base model No. mm	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Voltage (V)	Rated current A 220V/380V	Inertia 10-4kg·m2 Standard/ with brake	Weight (kg) Standard/ with brake
IMS20B-20M63C15C-4-***	200	6.3	40	100	1500	2500	380	12.4	52/64	35.2/47.4
IMS20B-20M71C17C-4-***		7.1	40	100	1700	2700	380	13.1	52/64	35.2/47.4
IMS20B-20M80C20C-4-***		8	38	96	2000	3000	380	14.4	52/64	35.2/47.4
IMS20B-20M94C15C-4-***		9.4	60	150	1500	2500	380	17.1	73/85	40.6/52.8
IMS20B-20M11D17C-4-***		10.7	60	150	1700	2700	380	19.5	73/85	40.6/52.8
IMS20B-20M12D20C-4-***		12.2	58	145	2000	3000	380	21.6	73/85	40.6/52.8
IMS20B-20M13D15C-4-***		12.6	80	200	1500	2500	380	22.5	94/106	46/58.2
IMS20B-20M14D17C-4-***		14.2	80	200	1700	2700	380	26.1	94/106	46/58.2
IMS20B-20M17D20C-4-***		16.8	80	183	2000	3000	380	29.5	94/106	46/58.2
IMS20B-20M16D15C-4-***		15.7	100	250	1500	2500	380	27.9	115/127	51.5/63.7
IMS20B-20M18D17C-4-***		17.8	100	250	1700	2700	380	31	115/127	51.5/63.7
IMS20B-20M20D20C-4-***		20	95.3	239	2000	3000	380	34.5	115/127	51.5/63.7
IMS20B-20M19D15C-4-***		18.8	120	300	1500	2500	380	33.7	135/147	56.8/69
IMS20B-20M21D17C-4-***		21.4	120	300	1700	2700	380	38.6	135/147	56.8/69
IMS20B-20M24D20C-4-***		24.1	114.3	288	2000	3000	380	41.7	135/147	56.8/69
IMS20B-20M22D15C-4-***		22	140	350	1500	2500	380	38.6	156/168	62.3/74.5
IMS20B-20M25D17C-4-***		24.9	140	350	1700	2700	380	44.8	156/168	62.3/74.5
IMS20B-20M27D20C-4-***		27.4	130.7	328	2000	3000	380	48.6	156/168	62.3/74.5
IMS20B-20M25D15C-4-***		25.1	160	400	1500	2500	380	44.6	177	67.7
IMS20B-20M29D17C-4-***		28.5	160	400	1700	2700	380	51.4	177	67.7
IMS20B-20M32D20C-4-***		31.6	150.9	376	2000	3000	380	55.73	177	67.7
IMS20B-20M28D15C-4-***		28.3	180	450	1500	2500	380	49.2	196	73.1
IMS20B-20M32D17C-4-***		32	180	450	1700	2700	380	57.4	196	73.1
IMS20B-20M36D20C-4-***		35.6	169.9	425	2000	3000	380	62.2	196	73.1
IMS20B-20M31D15C-4-***		31	200	500	1500	2500	380	55	230	78
IMS20B-20M36D17C-4-***		36	200	500	1700	2700	380	61	230	78
IMS20B-20M40D20C-4-***		40	190	475	2000	3000	380	66	230	78

Model	Base model No. mm	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Voltage (V)	Rated current A 220V/380V	Inertia 10-4kg·m2 Standard/ with brake	Weight (kg) Standard/ with brake
IMS20B-26M28D15C-4-***	263	28.3	180	450	1500	2500	380	49.5	242/260	82/95
IMS20B-26M32D17C-4-***		32	180	450	1700	2700	380	58.1	242/260	82/95
IMS20B-26M37D20C-4-***		36.7	175.4	438	2000	3000	380	65.1	242/260	82/95
IMS20B-26M35D15C-4-***		34.6	220	553	1500	2500	380	60.4	297/315	93/106
IMS20B-26M39D17C-4-***		39.2	220	553	1700	2700	380	66.8	297/315	93/106
IMS20B-26M45D20C-4-***		44.9	214.3	536	2000	3000	380	81.2	297/315	93/106
IMS20B-26M41D15C-4-***		40.8	260	651	1500	2500	380	71.2	351	104
IMS20B-26M46D17C-4-***		46.3	260	651	1700	2700	380	81.3	351	104
IMS20B-26M50D20C-4-***		49.8	237.7	594	2000	3000	380	82.5	351	104
IMS20B-26M47D15C-4-***		47.1	300	750	1500	2500	380	79.3	406	115
IMS20B-26M53D17C-4-***		53.4	300	750	1700	2700	380	93.9	406	115
IMS20B-26M58D20C-4-***		57.7	275.4	688	2000	3000	380	99.7	406	115
IMS20B-26M53D15C-4-***		53.4	340	850	1500	2500	380	89.4	461	126
IMS20B-26M61D17C-4-***		60.5	340	850	1700	2700	380	101.9	461	126
IMS20B-26M65D20C-4-***		70.5	336.9	843	2000	3000	380	113	461	126
IMS20B-26M60D15C-4-***		59.7	380	950	1500	2500	380	100	515	137
IMS20B-26M68D17C-4-***		67.6	380	950	1700	2700	380	118.8	515	137
IMS20B-26M74D20C-4-***		74	376.5	941	2000	3000	380	127.7	515	137
IMS20B-26M66D15C-4-***		66	420	1050	1500	2500	380	120	574	148
IMS20B-26M75D17C-4-***		75	420	958	1700	2700	380	141	574	148
IMS20B-26M82D20C-4-***		82	392	980	2000	3000	380	138	574	148
IMS20B-26M78D15C-4-***		78	495	1050	1500	2500	380	151	629	159
IMS20B-26M86D17C-4-***		86	485	1075	1700	2700	380	152	629	159
IMS20B-26M90D20C-4-***		90	430	1075	2000	3000	380	148	629	159
Insulation class	Class F(155° C)									
IP rating	IP67 (for 40~180 frames), and IP54 (for 200, 263 frames)									
Application environment	Temperature: -20° C–+40° C (no freezing); humidity: below 90%RH (no condensation)									

Servo motor installation dimensions

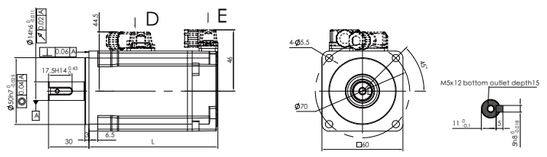
Installation dimensions for 40-frame motors (unit: mm)

Motor model	L(mm)	
	Without brake	Electromag-netic brake
IMS20B-04L05B30C-2-***	53.5	77.5
IMS20B-04L10B30C-2-***	66	90
IMS20B-04M05B30C-2-***	53.5	77.5
IMS20B-04M10B30C-2-***	66	90



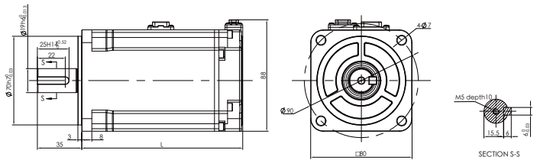
Installation dimensions for 60-frame motors (unit: mm)

Motor model	L(mm)	
	Without brake	Electromag-netic brake
IMS20B-06M20B30C-2(4)-***	73	95.5
IMS20B-06M40B30C-2(4)-***	92.5	114.5



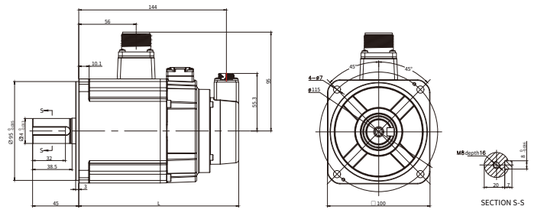
Installation dimensions for 80-frame motors (unit: mm)

Motor model	L(mm)	
	Without brake	Electromag-netic brake
IMS20B-08M75B30C-2-***	96.8	127
IMS20B-08M10C30C-2-***	110.8	141



Installation dimensions for 100-frame motors (unit: mm)

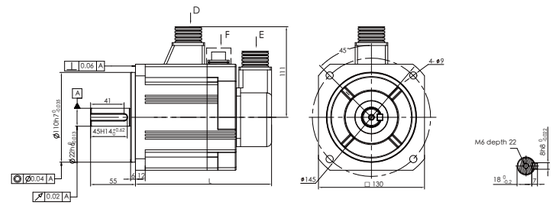
Motor model	L(mm)	
	Without brake	Electromag-netic brake
IMS20B-10M10C30C-2(4)-***	127.4	156
IMS20B-10M15C30C-2(4)-***	147.4	176
IMS20B-10M20C30C-2(4)-***	167.4	196
IMS20B-10M25C30C-2(4)-***	184.4	213

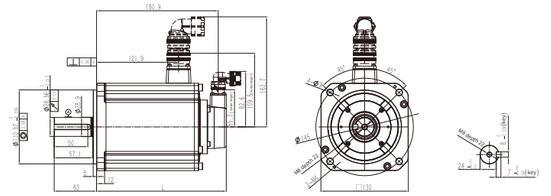


Installation dimensions for 130-frame motors (unit: mm)

Motor model	L(mm)	
	Without brake	Electromag-netic brake
IMS20B-13M10C20C-2(4)-***	130	159
IMS20B-13M15C20C-2(4)-***	143	172
IMS20B-13M20C20C-2(4)-***	160	189
IMS20B-13M30C20C-2(4)-***	210.5	240.2
IMS20B-13H85B15C-2(4)-***	138	167
IMS20B-13H13C15C-2(4)-***	155	184
IMS20B-13H18C15C-2(4)-***	185	215
IMS20B-13H23C30C-2(4)-***	155	184

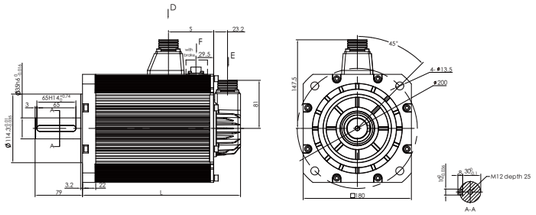
Motor model	L(mm)	
	Without brake	Electromag-netic brake
IMS20B-13L30C30C-4-***	192.9	223.9
IMS20B-13L40C30C-4-***	230.9	261.9
IMS20B-13L50C30C-4-***	273.9	304.9



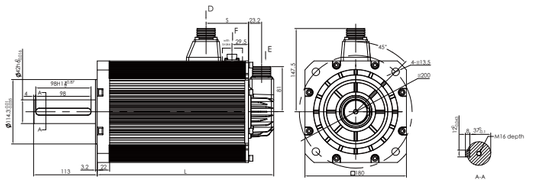


Installation dimensions for 180-frame motors (unit: mm) [1]

Motor model	L(mm)		S (mm)	
	Without brake	Electro-magnetic brake	Without brake	Electro-magnetic brake
IMS20B-18M30C15C-4-***	223	263	35	75.3
IMS20B-18M44C15C-4-***	248	288	35	75.3



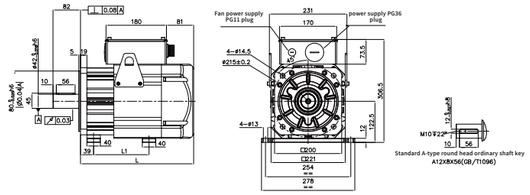
Motor model	L(mm)		S (mm)	
	Without brake	Electro-magnetic brake	Without brake	Electro-magnetic brake
IMS20B-18M55C15C-4-***	273	313	35	75.3
IMS20B-18M75C15C-4-***	308	348	35	75.3



[1] The 180 frame has a customized motor ending with -AS50 (power: 3\4.4\5.5\7.5 kW), with a shaft length of 65 mm and a key length of 51 mm. It can replace the old SV motor

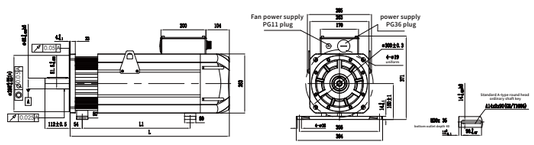
Installation dimensions for 200-frame motors (unit: mm)

Motor model	L(mm)		S (mm)	
	Without brake	Electromagnetic brake	Without brake	Electromagnetic brake
IMS20B-20M63C15C-4-***	337	411	165	225
IMS20B-20M71C17C-4-***	337	411	165	225
IMS20B-20M80C20C-4-***	337	411	165	225
IMS20B-20M94C15C-4-***	365	439	190	250
IMS20B-20M11D17C-4-***	365	439	190	250
IMS20B-20M12D20C-4-***	365	439	190	250
IMS20B-20M13D15C-4-***	393	467	220	280
IMS20B-20M14D17C-4-***	393	467	220	280
IMS20B-20M17D20C-4-***	393	467	220	280
IMS20B-20M16D15C-4-***	421	495	230	290
IMS20B-20M18D17C-4-***	421	495	230	290
IMS20B-20M20D20C-4-***	421	495	230	290
IMS20B-20M19D15C-4-***	449	523	270	330
IMS20B-20M21D17C-4-***	449	523	270	330
IMS20B-20M24D20C-4-***	449	523	270	330
IMS20B-20M22D15C-4-***	477	551	300	360
IMS20B-20M25D17C-4-***	477	551	300	360
IMS20B-20M27D20C-4-***	477	551	300	360
IMS20B-20M25D15C-4-***	505	-	340	-
IMS20B-20M29D17C-4-***	505	-	340	-
IMS20B-20M32D20C-4-***	505	-	340	-
IMS20B-20M28D15C-4-***	553	-	360	-
IMS20B-20M32D17C-4-***	553	-	360	-
IMS20B-20M36D20C-4-***	553	-	360	-
IMS20B-20M31D15C-4-***	567	-	390	-
IMS20B-20M36D17C-4-***	567	-	390	-
IMS20B-20M40D20C-4-***	567	-	390	-



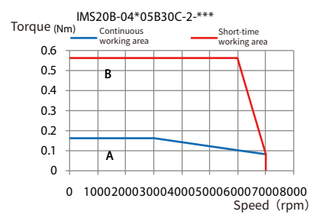
Installation dimensions for 263-frame motors (unit: mm)

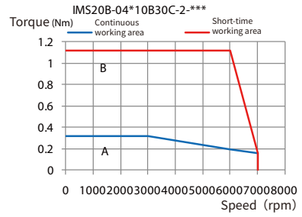
Motor model	L(mm)		S (mm)	
	Without brake	Electromagnetic brake	Without brake	Electromagnetic brake
IMS20B-26M28D15C-4-***	508	593	255	300
IMS20B-26M32D17C-4-***	508	593	255	300
IMS20B-26M37D20C-4-***	508	593	255	300
IMS20B-26M35D15C-4-***	548	633	300	370
IMS20B-26M39D17C-4-***	548	633	300	370
IMS20B-26M45D20C-4-***	548	633	300	370
IMS20B-26M41D15C-4-***	370	-	588	-
IMS20B-26M46D17C-4-***	370	-	588	-
IMS20B-26M50D20C-4-***	370	-	588	-
IMS20B-26M47D15C-4-***	628	-	400	-
IMS20B-26M53D17C-4-***	628	-	400	-
IMS20B-26M58D20C-4-***	628	-	400	-
IMS20B-26M53D15C-4-***	668	-	440	-
IMS20B-26M61D17C-4-***	668	-	440	-
IMS20B-26M65D20C-4-***	668	-	440	-
IMS20B-26M60D15C-4-***	708	-	480	-
IMS20B-26M68D17C-4-***	708	-	480	-
IMS20B-26M74D20C-4-***	708	-	480	-
IMS20B-26M66D15C-4-***	763	-	520	-
IMS20B-26M75D17C-4-***	763	-	520	-
IMS20B-26M82D20C-4-***	763	-	520	-
IMS20B-26M78D15C-4-***	803	-	560	-
IMS20B-26M86D17C-4-***	803	-	560	-
IMS20B-26M90D20C-4-***	803	-	560	-



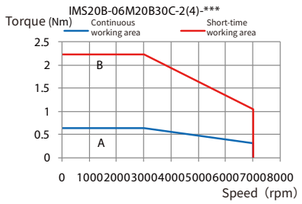
Curve diagrams of servo motor torque characteristics

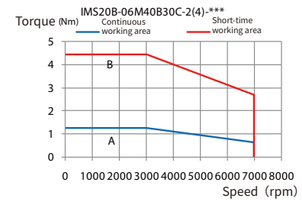
Base-40 motor



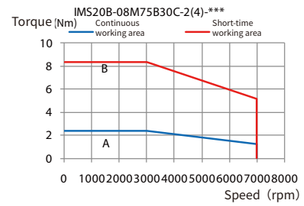


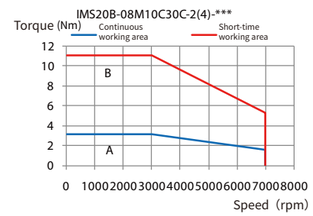
Base-60 motor



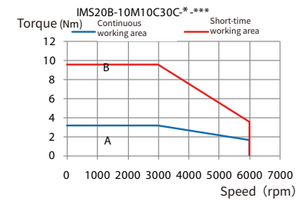


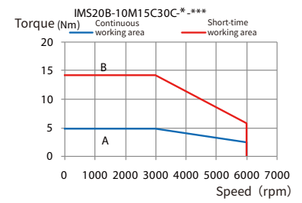
Base-80 motor

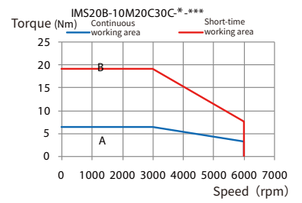


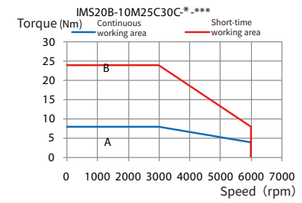


Base-100 motor

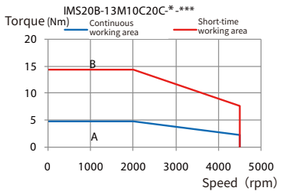


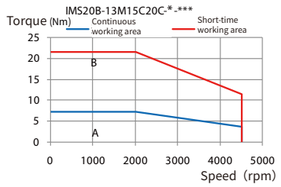


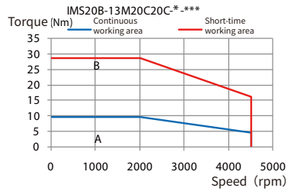


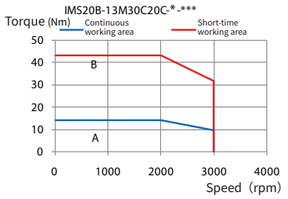


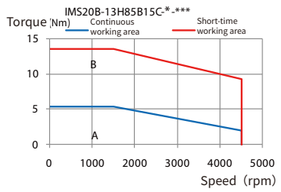
Base-130 motor

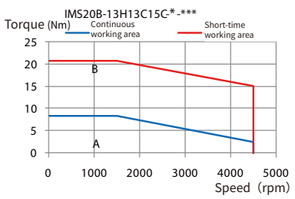


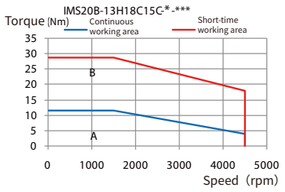


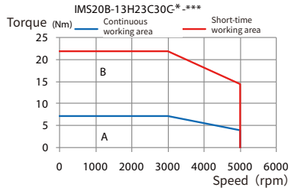


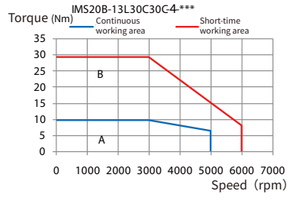


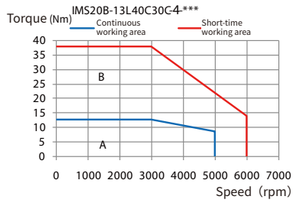


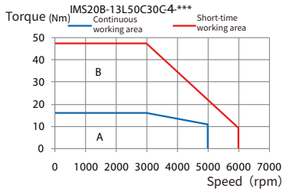




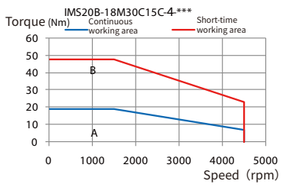


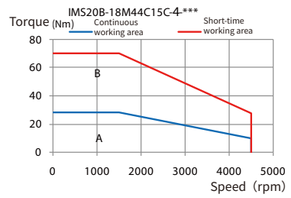


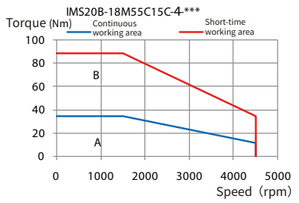


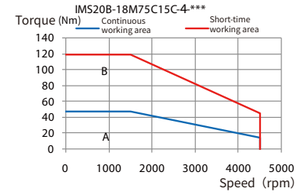


Base-180 motor

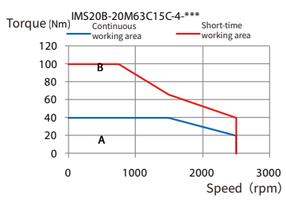


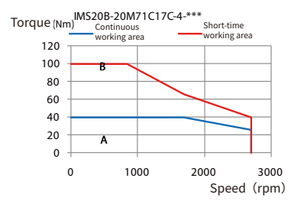


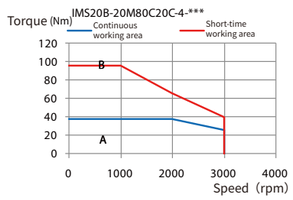


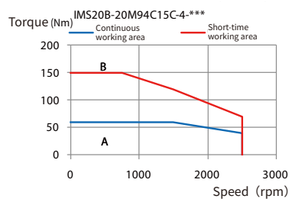


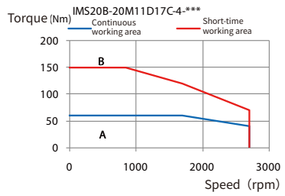
Base-200 motor

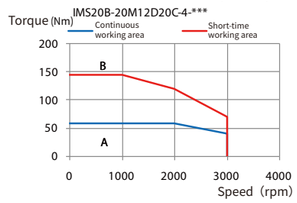


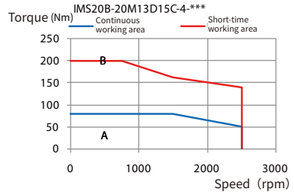


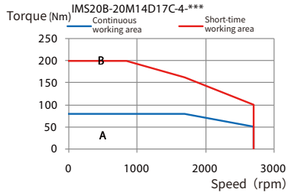


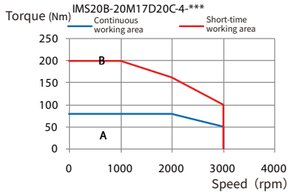


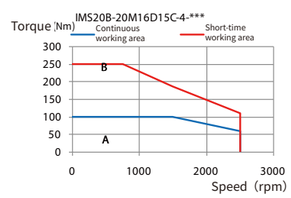


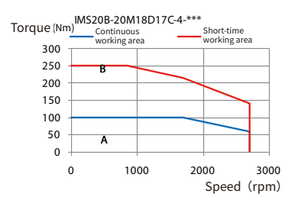


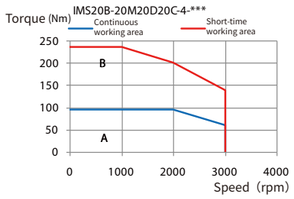


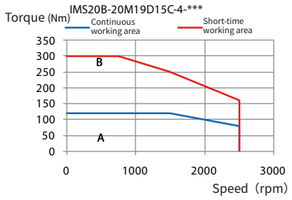


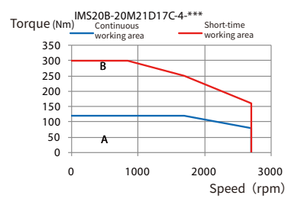


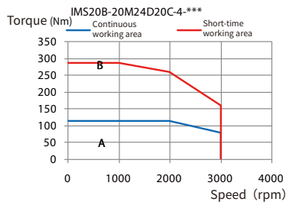


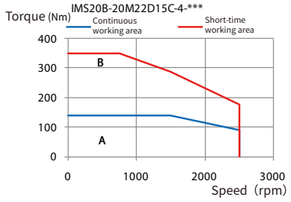


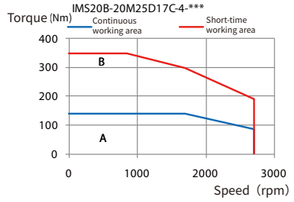


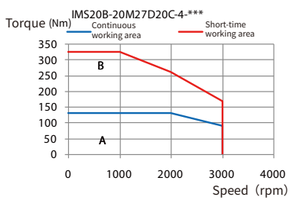


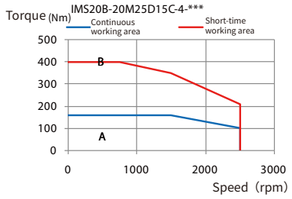


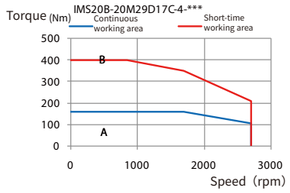


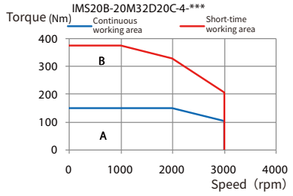


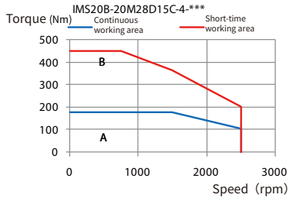


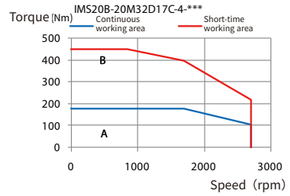


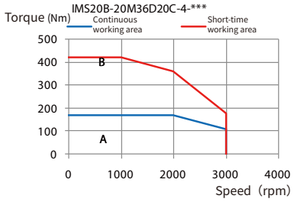


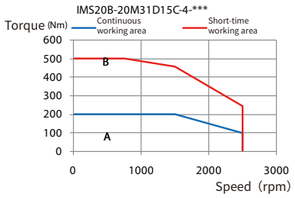


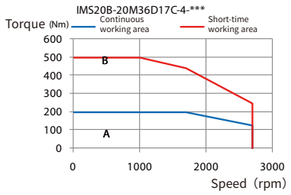


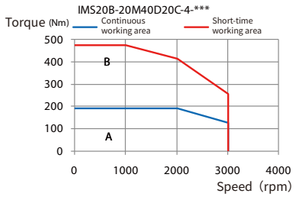




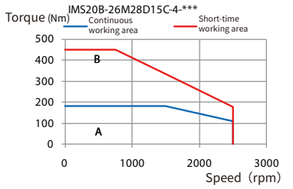


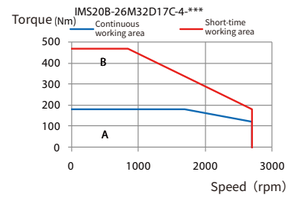


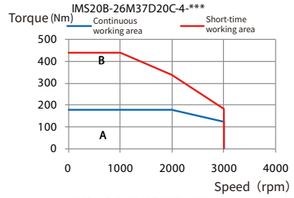


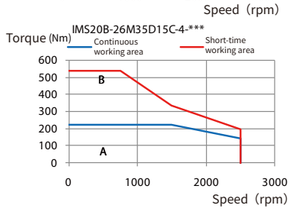


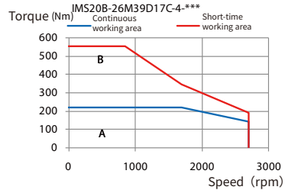
Base-263 motor

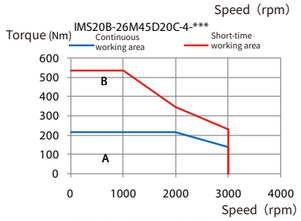


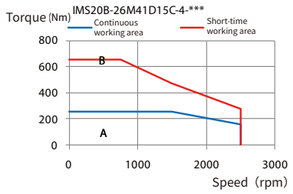


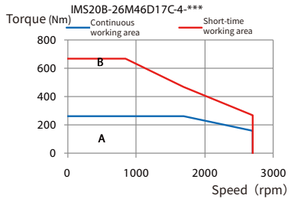


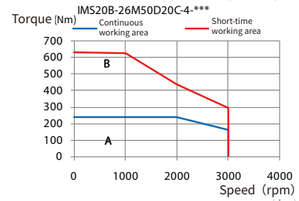


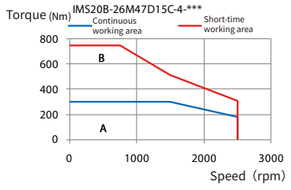


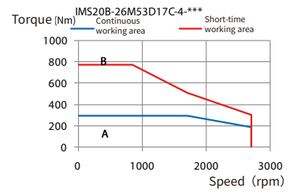


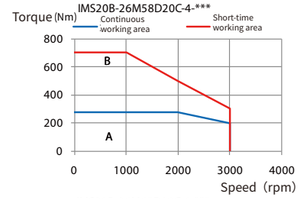


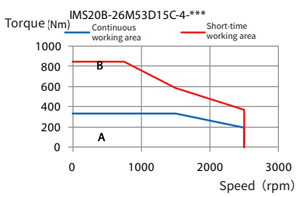


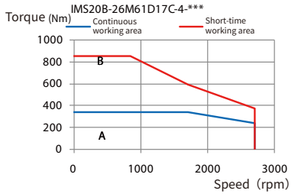


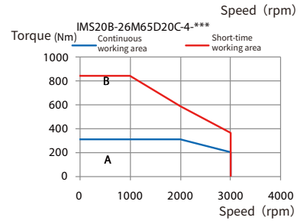


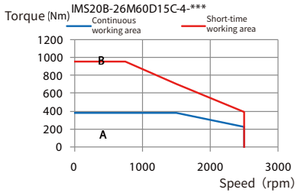


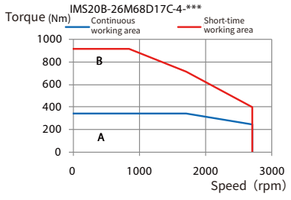


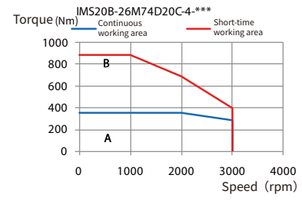


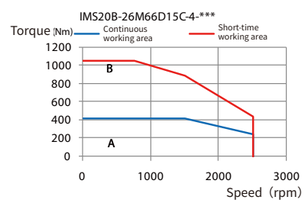


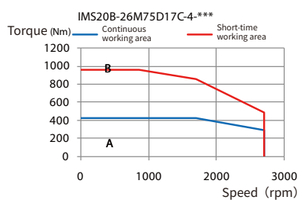


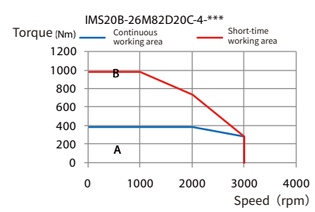


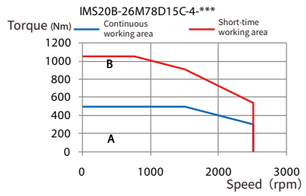


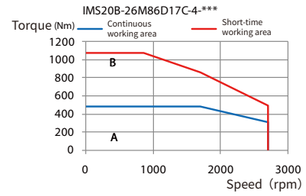


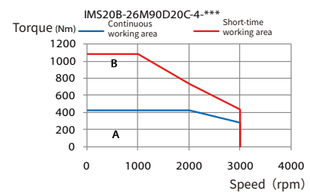












DA180A series servo drive

The DA180A series basic AC servo system is a new generation of simplified single-axis servo products from INVT, designed with practicality in mind and offering worry-free expansion. It provides efficient and competitive solutions to meet the demands for general-purpose equipment simplification, networking, and efficiency.

Voltage and power range

220V: 1PH AC220V（±15%）0.4~1kW

Product features

Compact structure

Power and control hardware combination single board design, high power density, 400W, 1000W width W=50mm

Function expansion

New dynamic braking function, supporting various types of encoders and linear motor application expansions

Performance improvement

Speed loop response bandwidth: 2.5kHz. For 1kW models, the rated output current is increased from 5A to 6A

Cost-effectiveness

The control board and drive board are integrated, significantly optimizing manufacturing efficiency and enhancing product cost-performance ratio

Dual-chip design without cutting corners

Adopts an ARM+FPGA dual-chip architecture, ensuring accurate division of labor for stable software operation and performance. Unlike single ARM solutions, it does not degrade performance or simplify configurations

IGBT without cutting materials

Maintains the IGBT power module, ensuring quality assurance in automated production lines. Higher stability and longer lifespan compared to MOSFET solutions

Electromagnetic protection upgrade

Rigorous EMC testing standards, fully tested and market-validated, ensuring product performance and reliability in various application environments

Drive type function differences

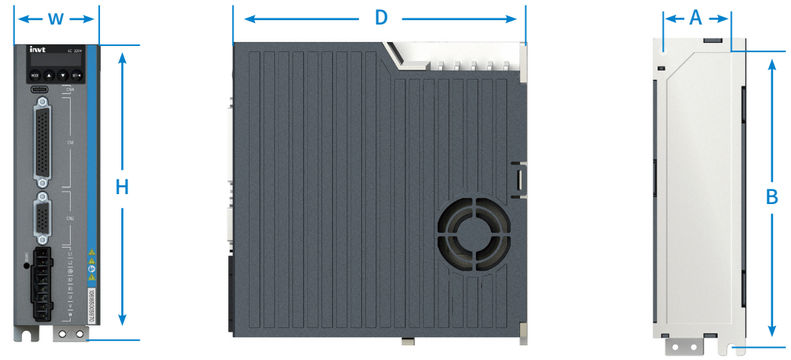
Power range: 0.4–1kW			Function					Communication protocol			Encoder protocol			
Drive type	Product category	Symbol	Pulse input	Two analog inputs	Two high-speed I/O inputs (DI1/DI2)	Dynamic braking	Motor temperature control KTY84/PT100	RS485	CANopen	EtherCAT	ABZ (TTL)	Asynchronous serial communication	EnDat2.1	BiSS-C
DA180A rotary model	Pulse type	E	✓	✓	×	×	×	✓	×	×	×	✓	×	×
	CANopen	C	✓	✓	×	✓	×	✓	✓	×	×	✓	×	×
	EtherCAT type	N	×	×	×	✓	×	×	×	✓	×	✓	×	×
DA180A-Z linear model	Pulse type	E	✓	✓	×	✓	✓	✓	×	×	✓	×	✓	✓
	EtherCAT type	N	×	×	✓	✓	✓	×	×	✓	✓	×	✓	✓

Driver specifications and configuration

Drive type	Drive model [1]	Rated power (kW)	Main power supply (V)	Control power supply (V)	Input current (A)	Rated output current (A)	Max. output current (A)	Built-in braking resistor	Min. resistance of external braking resistors	Recommended filter model
DA180A	DA180A-*-2R8-S-2	0.4	1PH 220V	/	3.6	2.8	8.4	/	60Ω	FLT-PS2010H-B
	DA180A-*-6R0-S-2	1			9	6	18	45Ω 60W	45Ω	FLT-PS2010H-B
DA180A-Z	DA180A-*-2R8-S-2-Z	0.4			3.6	2.8	8.4	/	60Ω	FLT-PS2010H-B
	DA180A-*-6R0-S-2-Z	1			9	6	18	45Ω 60W	45Ω	FLT-PS2010H-B

[1] In the drive model, * indicates the product category

Drive dimensions



Volume	Drive type	Outline dimensions (mm)			Installation dimensions (mm)		Mounting hole diameter (mm)	Net weight (kg)	Gross weight (kg)	Package outline dimensions (mm)
		H	W	D	A	B				
A	DA180A	172	50	157	37	161	M4(Φ5)	0.9	1.3	245×145×250
A	DA180A-Z	172	50	162	37	161	M4(Φ5)	0.9	1.3	245×145×250

DA200A series servo drive

DA200A series high-performance AC servo system is the new generation of INVT servo products. It adopts a stable product technology platform and uses dedicated linear algorithms, improving its safety functions, product performance, reliability, and ease of use. With excellent products and services, INVT offers you competitive products and solutions.

Voltage and power range

220V: 1PH/3PH AC220V(-15%)~240V(+10%) 0.4~3kW
380V: 3PH AC380V(-15%)~440V(+10%) 47Hz~63Hz 0.4~7.5kW

Product features

Safe and reliable

Supports STO (Safe Torque Off) to ensure personal safety
Meets the EN/IEC61800-5-2 SIL3 requirements

Enriched communication

With mature fieldbus technology, application network is convenient and reliable

Universal drive

Supports linear motors (DDR/DDL) and rotating motors
Supports multiple encoder protocols including EnDat 2.2, BiSS-C, asynchronous serial communication, ABZ, etc
Supports single-ended hall and motor temperature control signals

Built-in brake output

No external relay need, saving external space
Reduces wiring to cut the system cost

Drive type function differences

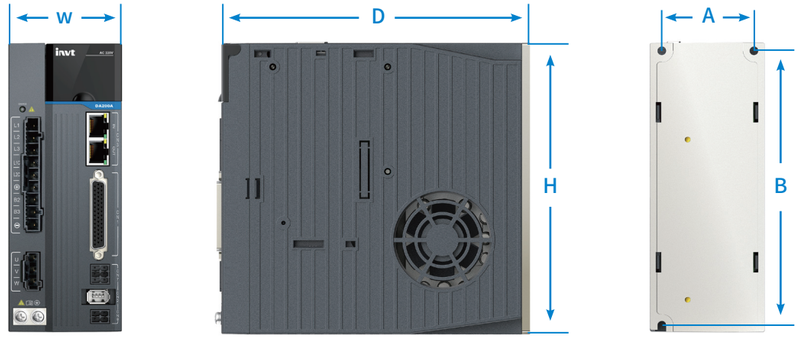
Power range: 400W~7.5kW			Function								Communication options				Encoder protocol			
Drive category	Symbol	Configuration type	Pulse input	Two analog inputs/ outputs	Two high-speed I/O inputs (DI1/DI2)	2nd encoder	STO	Brake output	Dynamic braking	Motor temperature control	RS485	CAN open	Ether CAT	PRO FINET	Asynchronous serial communication	ABZ (TTL)	EnDat 2.2	BiSS-C
Pulse type	E	Standard	✓	✓	×	×	×	×	✓	×	✓	×	×	×	✓	×	✓	✓
		High-spec version	✓	✓	×	✓	✓	✓	✓	✓	✓	×	×	×	✓	✓	✓	✓
Bus type	N	Standard	×	×	✓	×	×	×	✓	×	×	×	✓	×	✓	×	✓	✓
		High-spec version	×	×	✓	✓	✓	✓	✓	✓	×	×	✓	×	✓	✓	✓	✓
	C	High-spec version	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	×	×	✓	✓	✓	✓
	F	High-spec version	×	×	✓	✓	✓	✓	✓	✓	×	×	×	✓	✓	✓	✓	✓

Driver specifications and configuration

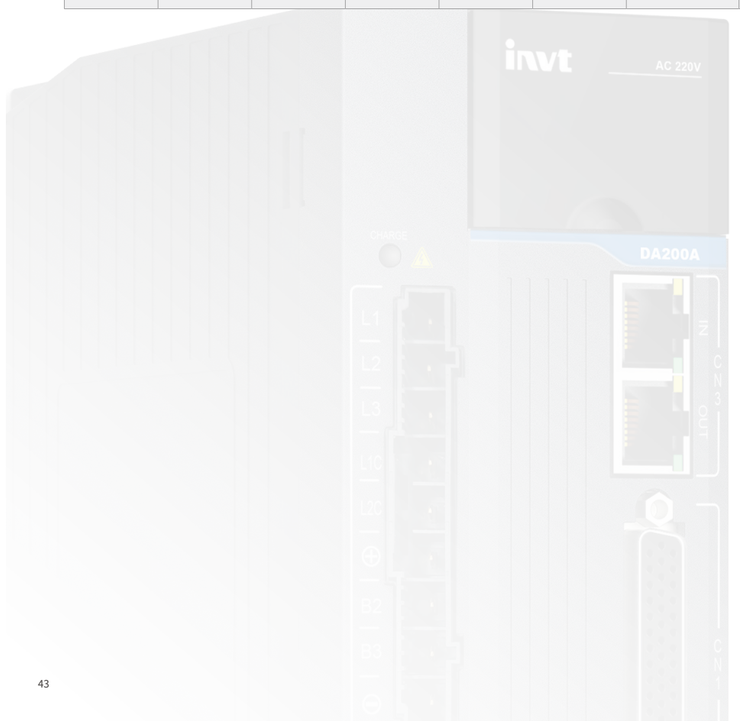
Drive model ①	Voltage class	Control power supply	Rated input current (A)	Rated output power (kW)	Rated output current (A)	Max. output current (A)	Resistor specifications	Min. resistance of external regenerative resistors (Ω)	Max. absorbable braking energy of the capacitor (J)	EMI filter model ②	Breaker current (A)	Contactor current (A)	Adapted reactor	Inductance (mH)	Chassis volume
DA200A-*-2R8-S-2	1PH 220V	1PH 220V	3.6	0.4	2.8	8.4	/	60	20.88	FLT-PS2010H-B	6	9	/	/	A
DA200A-*-6R0-S-2			9	1	6	18	45Ω 60W	45	31.32	FLT-PS2010H-B	16	12	/	/	A
DA200A-*-8R0-S-2			13.6	1.5	8	24	30Ω 60W	30	51.89	FLT-P04016L-B	32	18	/	/	B
DA200A-*-010-S-2			18.2	2	10	25	30Ω 60W	30	51.89	FLT-P04016L-B	32	25	/	/	B
DA200A-*-013-S-2			27.3	3	13	32.5	30Ω 60W	20	63.28	FLT-P04032L-B	50	32	/	/	C
DA200A-*-8R0-S-2	3PH 220V	1PH 220V	5.6	1.5	8	24	30Ω 60W	30	51.89	FLT-P04016L-B	16	9	MD-ACL-10-5-4T	5	B
DA200A-*-010-S-2			7.5	2	10	25	30Ω 60W	30	51.89	FLT-P04016L-B	20	9	MD-ACL-10-5-4T	5	B
DA200A-*-013-S-2			11.2	3	13	32.5	30Ω 60W	20	63.28	FLT-P04032L-B	25	18	MD-ACL-15-3-4T	3	C
DA200A-*-1R6-T-2	3PH 380V	1PH 380V	0.9	0.4	1.6	4.8	/	60	29.01	FLT-P04006L-B	2	9	MD-ACL-10-5-4T	5	A
DA200A-*-3R5-T-2			2.1	1	3.5	10.5	60Ω 60W	60	72.08	FLT-P04006L-B	6	9	MD-ACL-10-5-4T	5	B
DA200A-*-5R5-T-2			3.1	1.5	5.5	13.75	60Ω 60W	60	72.08	FLT-P04006L-B	6	9	MD-ACL-10-5-4T	5	B
DA200A-*-8R5-T-2			6.5	3	8.5	25.5	60Ω 60W	60	87.91	FLT-P04006L-B	16	9	MD-ACL-10-5-4T	5	C
DA200A-*-012-T-2			9.6	4.4	12	30	30Ω 120W	30	119.55	FLT-P04016L-B	20	12	MD-ACL-10-5-4T	5	D
DA200A-*-016-T-2			11.9	5.5	16	40	30Ω 120W	30	144.17	FLT-P04016L-B	25	18	MD-ACL-15-3-4T	3	D
DA200A-*-021-T-2			16.3	7.5	21	52.5	30Ω 120W	30	175.82	FLT-P04032L-B	32	18	MD-ACL-40-1.45-4T	1.45	D

① In the drive model, * indicates the product category
② The EMI filter models in the table refer to the EMI filter product models from our company, which are used at the power input end

Drive dimensions



Volume	Outline dimensions (mm)			Installation dimensions (mm)		Mounting hole diameter (mm)	Net weight (kg)	Gross weight (kg)	Package outline dimensions (mm)
	H	W	D	A	B				
A	170	45	170	33	162	M4(Φ5)	1.05	1.3	245×115×250
B	170	67	180	54	162	M4(Φ5)	1.45	1.7	245×145×250
C	170	84	180	71	162	M4(Φ5)	1.75	2.1	245×170×250
D	245	92	190	79	237	M4(Φ5)	3.13	3.4	320×180×270



Technical specifications

Specification			Description
Power supply ①	220V system input voltage		1PH/3PH AC220V(-15%)~240V(+10%) 47Hz~63Hz
	400V system input voltage		3PH AC380V(-15%)–440V(+10%) 47Hz–63Hz
Port	Control signal	Input	General-purpose type with 10 inputs, bus-type servo with 7 inputs (functions can be configured by relevant parameters), input range 12–24V, input bandwidth greater than 1k, switching delay less than 5μs
		Output	Both general-purpose and EtherCAT bus types have 4 differential outputs (functions can be configured by relevant parameters), output range 12–24V, output bandwidth greater than 1k
	Analog	Input	Two 12-bit inputs, input range: -10V–+10V
		Output	2 outputs (analog monitoring output), output range: -10V–+10V, 12-bit resolution
	Pulse signal	Input	2 channels, differential input, Puls+Sign. Indicators: Optical coupling: differential input 4Mbps, open collector input 200kbps. (high-speed optocoupler with high signal-to-noise ratio)
		Output	6 outputs (3 differential outputs, 3 open collector outputs)
	1st encoder	Input	Two-wire and four-wire absolute encoder interfaces (Tamagawa, Nikon, BISS and EnDat2.2) Specifications: The maximum baud rate of absolute encoder is 5 Mbps
	2nd encoder	Input	Incremental encoder (2nd encoder or fully-closed loop linear encoder). Specifications: Maximum orthogonal input frequency 12 Mbps; supports ABZ disconnection detection function
	Communication	USB	1:1 communication upper PC software (standard, Type-C)
		RS485	1:n communication (standard)
		CANopen	1:n communication (optional)
		PROFINET	1:n communication (optional)
		EtherCAT	1:n communication (optional)
	Safety terminal	STO	Safe torque off (conform to the latest European safety standards SIL3) (optional)
Control mode			1. Position control; 2. Speed control; 3. Torque control 4. Position/Speed mode switching; 5. Speed/Torque mode switching 6. Position/Torque mode switching; 7. Fully-closed loop control; 8. CANopen mode; 9. EtherCAT mode
Function	Position control	Control input	1. Clear residual pulses 2. Disable command pulse input 3. Electronic gear ratio switching 4. Vibration control switching
		Control output	Positioning completion output, etc
		Pulse input	Max. pulse input frequency: Optical coupling: Dfferential input 4Mpps, open collector input 200kpps
			Pulse input mode: 1. Pulse + direction; 2. CW+CCW; 3: Quadrature encoder
			Electronic gear: 1/10000–1000 times

① Note1:For UL certified servo drive models
220V system input voltage:1PH/3PH AC200V(-15%)–240V(+10%) 47Hz–63Hz 400V system input voltage:3PH AC380V(-15%)–480V(+10%) 47Hz–63Hz

Specification			Description	
Function	Position control	Pulse input	Filter	1. Command smoothing filter; 2. FIR filter
		Analog input	Torque limit command input	Can independently perform clockwise/counterclockwise torque limit
		Vibration control	Capable of suppressing front-end vibration and entire machine vibration in the range of 5–200Hz	
		Pulse output	1. Arbitrary frequency division setting below encoder resolution can be performed 2. B phase reverse function	
	Speed control	Control input	1. Internal command speed 1; 2. Internal command speed 2; 3. Internal command speed 3; 4. Zero speed clamp, etc	
		Control output	Speed reached, etc	
		Analog input	Speed command input	The speed command input can be set according to the analog voltage DC ± 10V
			Torque limit input	Can independently perform clockwise/counterclockwise torque limit
		Internal speed command	8-step speeds can be switched according to the external control input	
		Speed command ACC/DEC adjustment	ACC/DEC time setting and S curve setting	
		Zero-speed clamp	In the speed mode, it can set the operation mode as the speed mode or position mode	
		Speed command filter	A delay filter of analog input speed command	
		Speed command zero drift control	Zero drift control against outside interference with 0.3mV precision	
	Torque control	Control input	Zero-speed clamp input, etc	
		Control output	Speed reached, etc	
		Analog input	Torque command input	Analog torque command input, gain and polarity can be set based on analog voltage with 4.88mV precision
			Speed limit input	Analog speed limits can be set
		Speed limit	Sets the speed limit by parameters	
		Torque command filter	A delay filter of analog input torque command	
		Torque command zero drift control	Zero drift control against outside interference with 4.88mV precision	
	Internal position planning	Number of planned points	128 bits internal position planning, the positioning can be controlled through communication	
		Path setting	1. Position 2. Speed 3. ACC time 4. DEC time 5. Stop timer 6. Various state output 7. Running mode	
		Homing	1. LS signal 2. Z phase signal 3. LS signal+Z phase signal 4. Torque limit signal	

Specification		Description
Protection	Hardware protection	Protection against overvoltage, undervoltage, overcurrent, overspeed, overload, braking resistor overload, drive overheating, and encoder fault
	Software protection	Protection against storage fault, initialization fault, I/O distribution abnormalities and large position deviation
	Protection and fault recording	1. Up to 10 faults can be recorded. 2. Capable of recording key parameter values at the time of current fault occurrence
Environment	Working temperature	0–55° C (Derate to 80% when the temperature is 45–55° C.)
	Storage temperature	-20° C–70° C (without freezing)
	Working/storage humidity	RH ⩽ 90% (no condensation)
	IP class	IP20 (except for power terminal and power cable terminal IP00)
	Altitude	Lower than 1000m
	Vibration	<0.5G(4.9m/S2), 10–60Hz (Working at the resonance point is not allowed)

DA200 medium-power servo drive

The DA200 mid-power series is a feature-rich and reliable servo product line, with built-in C3 filtering and reliable electromagnetic compatibility design that ensures stable use in most equipment and environments, supporting a variety of field bus protocols and a wide range of encoder feedback protocols. With powerful adaptive software and high-precision control, it is ideal for servo applications in machine tools, printing and packaging, bending centers, laser equipment, and other medium- and high-power scenarios.

Voltage and power range

3P AC 380V (-15%) ~ 440V (10%): 11 ~ 90kW

Product features

High reliability

Includes built-in C3 filters
Supports STO (Safe torque off)
The structure includes a built-in dustproof baffle

Multifunctional

Supports pulse, PROFIdrive, EtherCAT, and PROFINET
Supports fully-closed loop control
Supports internal position control
Supports electronic cam
Supports incremental, communication, and resolver encoders
Low-frequency vibration control, disturbance control, friction torque compensation, automatic/manual notch filter design

High performance

Speed response frequency up to 2.0 kHz
Supports 23-bit and 17-bit absolute encoders

Drive type function differences

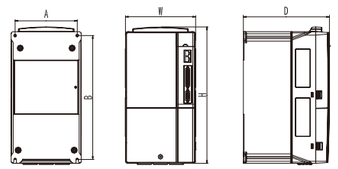
Drive type	Symbol	Pulse input	One 16-bit analog input (AD1)	2nd encoder	STO	Motor temperature control KTY84	RS485	CANopen	PROFINET	PROFIdrive	EtherCAT	Optical encoder and magnetic encoder	Resolver
Standard type	S0	✓	✓	✓	✓	✓	✓	✓	×	×	×	✓	×
	S7	✓	✓	✓	✓	✓	✓	✓	×	×	×	×	✓
Bus type	N0	×	×	✓	✓	✓	×	×	×	×	✓	✓	×
	N7	×	×	✓	✓	✓	×	×	×	×	✓	×	✓
	F0	×	✓	✓	✓	✓	✓	×	✓	×	×	✓	×
	F7	×	✓	✓	✓	✓	✓	×	✓	×	×	×	✓
	D0	×	✓	✓	✓	✓	✓	×	×	✓	×	✓	×
	D7	×	✓	✓	✓	✓	✓	×	×	✓	×	×	✓

Driver specifications and configuration

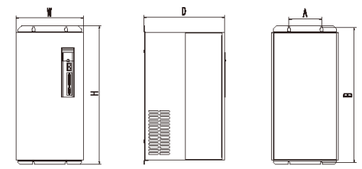
Model	Input		Output			Control power supply (V)	Chassis volume	Built-in braking resistor	Min. resistance of external braking resistors	EMI filter (1)
	Voltage (V)	Rated current (A)	Power (kW)	Rated current (A)	Max. output current (A)					
SV-DA200-011-4	3PH 380V	22.7	11	33	66	1PH 380V	F	/	20Ω	FLT-P04045L-B
SV-DA200-015-4	3PH 380V	31	15	50	100	1PH 380V	F2	/	15Ω	FLT-P04065L-B
SV-DA200-022-4	3PH 380V	45.4	22	66	132	1PH 380V	G	/	10Ω	FLT-P04100L-B
SV-DA200-037-4	3PH 380V	76.3	37	90	180	1PH 380V	G	/	10Ω	FLT-P04150L-B
SV-DA200-045-4	3PH 380V	92.8	45	112	224	1PH 380V	H	/	5Ω	FLT-P04200L-B
SV-DA200-055-4	3PH 380V	113.4	55	134	268	1PH 380V	H	/	5Ω	FLT-P04150L-B
SV-DA200-090-4	3PH 380V	186	90	180	360	1PH 380V	H	/	4.4Ω	FLT-P04250L-B

(1) The EMI filter models in the table refer to the EMI filter product models from our company, which are used at the power input end

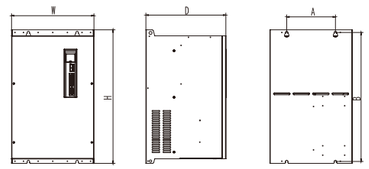
Drive dimensions



Dimensions diagram for volume F/F2



Dimensions diagram for volume G



Dimensions diagram for volume H

Volume	Model	Outline dimensions (mm)			Installation dimensions (mm)		Mounting hole diameter (mm)	Net weight (kg)	Gross weight (kg)	Package outline dimensions (mm)
		H	W	D	A	B				
F	SV-DA200-011-4	342	230	208	210	311	Ø6(M5)	8.5	9	460×340×330
F2	SV-DA200-015-4	407	255	238	237	384	Ø7(M6)	9	11.5	545×375×360
G	SV-DA200-022-4	557	270	325	130	540	Ø7(M6)	32	32	680×395×450
	SV-DA200-037-4									
H	SV-DA200-045-4	554	338	328	200	535	Ø10(M8)	52	52	675×470×575
	SV-DA200-055-4									
	SV-DA200-090-4									

Technical specifications

Specification					Description
Power supply	400V system input voltage				3PH AC380V(-15%)~440V(+10%) 47Hz~63Hz
Control mode					1. Position control; 2. Speed control; 3. Torque control; 4. Position/Speed mode switching; 5. Speed/Torque mode switching; 6. Position/Torque mode switching; 7. Fully-closed loop control; 8. CANopen mode; 9. EtherCAT mode
Function	Position control	Control input			1. Retention pulse clearing; 2. Command pulse input disabled; 3. Electronic gear ratio switching; 4. Vibration control switching
		Control output			Positioning completion output, etc
		Pulse input	Max. pulse input frequency		Optical coupling: differential input 4Mpps, open collector input 200kpps
			Pulse input mode		1. Pulse + direction; 2. CW+CCW; 3. Quadrature encoder
			Electronic gear		1/10000–1000 times
			Filter		1. Command smoothing filter; 2. FIR filter
		Analog input	Torque limit command input		Can independently perform clockwise/counterclockwise torque limit
		Vibration control			Capable of suppressing front-end vibration and entire machine vibration in the range of 5–200Hz
		Pulse output			1. Arbitrary frequency division setting below encoder resolution can be performed 2. B phase reverse function
	Speed control	Control input			1. Internal command speed 1; 2. Internal command speed 2; 3. Internal command speed 3; 4. Zero speed clamp, etc.
		Control output			Speed reached, etc
		Analog input	Speed command input		The speed command input can be set according to the analog voltage DC ± 10V
			Torque limit input		Can independently perform clockwise/counterclockwise torque limit
		Internal speed command			8-step speeds can be switched according to the external control input
		Speed command ACC/DEC adjustment			ACC/DEC time setting and S curve setting
		Zero-speed clamp			In the speed mode, it can set the operation mode as the speed mode or position mode
		Speed command filter			A delay filter of analog input speed command
		Speed command zero drift control			Zero drift control against outside interference with 0.3mV precision
	Torque control	Control input			Zero-speed clamp input, etc
		Control output			Speed reached, etc
		Analog input	Torque command input		Analog torque command input, gain and polarity can be set based on analog voltage with 4.88mV precision
			Speed limit input		Analog speed limits can be set
		Speed limit			Sets the speed limit by parameters
		Torque command filter			A delay filter of analog input torque command
		Torque command zero drift control			Zero drift control against outside interference with 4.88mV precision

Specification			Description
Function	Internal position planning	Number of planned points	128 bits internal position planning, the positioning can be controlled through communication
		Path setting	1. Position; 2. Speed; 3. ACC time; 4. DEC time; 5. Stop timer; 6. Various status output; 7. Running mode
		Homing	1. LS signal; 2. Z phase signal; 3. LS signal+Z phase signal 4. Torque limit signal
Protection	Hardware protection		Protection against overvoltage, undervoltage, overcurrent, overspeed, overload, braking resistor overload, drive overheating, and encoder fault
	Software protection		Protection against storage fault, initialization fault, I/O distribution abnormalities and large position deviation
	Protection and fault recording		1. Up to 10 faults can be recorded 2. Capable of recording key parameter values at the time of current fault occurrence
Environment	Working temperature		0–45°C
	Storage temperature		-20°C–80°C (without freezing)
	Working/storage humidity		RH≤ 90% (no condensation)
	IP class		IP20
	Altitude		Lower than 1000m
	Vibration		<0.5G(4.9m/S2), 10–60Hz (Working at the resonance point is not allowed)

Servo motor power cable models

Power cable

DA ML-20A-03-X F 0-00 A1
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Power cable accessories

DA ML - X F
① ② ⑤ ⑥

①

Symbol	Supporting series
DA	Manufacturer No.

②

Symbol	Cable type
ML	Power cable

③

Symbol	Cable diameter
20A	20AWG
18A	18AWG
16A	16AWG
14A	14AWG
12A	12AWG
10A	10AWG

④

Symbol	Cable length
03	3m
05	5m
07	7m
...	Other

⑤

Symbol	Plug on motor end
A	4PIN plastic plug
B	4PIN regular aviation plug YD28
G	CMS3108A18-10SI 4PIN
H	CMS08A18-B6SBI003/4 4+2PIN black 1.0/2.5mm2
K	CMS08A18-A6SBI003000 4+2PIN 100/130-frame
L	CMS3108A22-A6SBI4+2PIN
N	Regular aviation plug YD32
X	6PIN In-line terminal SC-MC65-AP20-00

⑥

Symbol	Plug on drive end
F	Tube-type terminal
W	Fork-type terminal

⑦

Symbol	Cable material
0	Regular cable
A	Shielded regular cable
B	Shielded Flexible towline cable
F	Flexible towline cable

⑧

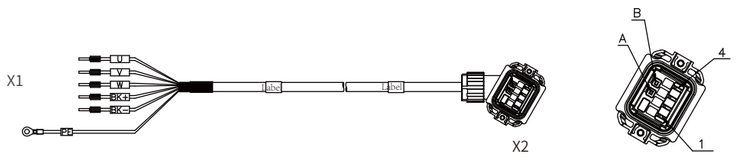
Symbol	Lot number
00	Without brake
01	With brake

⑨

Symbol	Motor terminal wiring method
A0	Convention
A1	Line out towards the rear front of the motor
A2	Line out towards the rear end of the motor
A4	Special

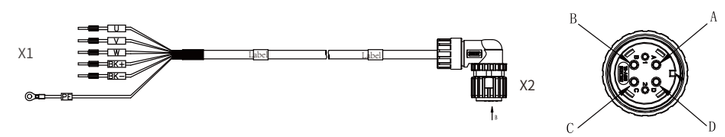
Servo motor power cable wiring

Power cable for base-40/60/80 motor (in-line + brake)



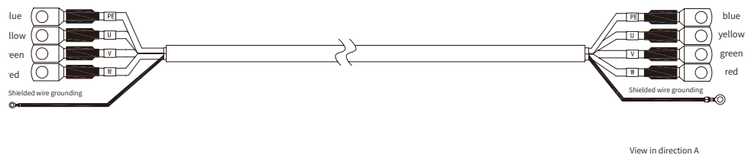
Wiring mapping		
Signal	X1	X2
W	Tube-type terminal	X2.3
V	Tube-type terminal	X2.1
U	Tube-type terminal	X2.2
PE	Fork-type terminal	X2.4
BK+	Tube-type terminal	X2.A
BK-	Tube-type terminal	X2.B

Power cable for base-100/130/180 motor (5015terminal + brake)



Wiring mapping		
Signal	X1	X2
U	Rod-type terminal	X2.C
V	Rod-type terminal	X2.B
W	Rod-type terminal	X2.A
PE	U-type terminal	X2.D
BK+	Rod-type terminal	X2.1
BK-	Rod-type terminal	X2.2

Power cable for base-200/263 motor



Servo motor encoder cable models

Encoder cable

DA EL - 04 - 03 - S I 0 - 04 A1
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Encoder cable accessories

DA EL-X F
① ② ⑤ ⑥

①

Symbol	Supporting series
DA	Manufacturer No.

②

Symbol	Cable type
EL	Encoder cable

③

Symbol	Number of cable cores
04	4-core
06	6-core
08	8-core
09	9-core
15	15-core

④

Symbol	Cable length
03	3m
05	5m
07	7m
…	Other

⑤

Symbol	Plug on motor end
B	15PIN regular aviation plug YD28
D	9PIN plastic plug
H	CMS08A20-29SBI002000 17PIN black
J	CMV1 10PIN SC-CMV1-SP10CBT black
S	7PIN In-line terminal SC-MC7S-A620-1C
X	7PIN In-line terminal SC-MC7S-A620-10

⑥

Symbol	Plug on drive end
I	1394 6PIN plug

⑦

Symbol	Cable material
0	Regular cable
D	Regular cable with battery holder
F	Flexible towline cable
H	Flexible towline cable with battery holder

⑧

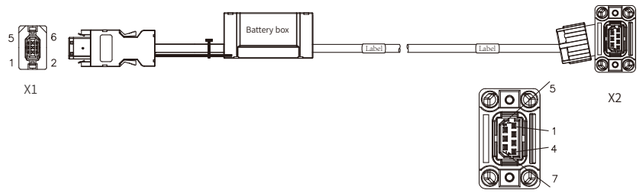
Symbol	Encoder type
01	Incremental type
04	Absolute
07	Resolver encoder

⑨

Symbol	Motor terminal wiring method
A0	Convention
A1	Line out towards the rear front of the motor
A2	Line out towards the rear end of the motor
A4	Special

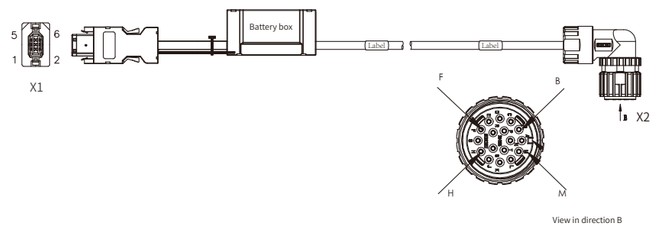
Servo motor encoder cable wiring

Encoder cable for base-40/60/80 motor (absolute + in-line + battery holder)



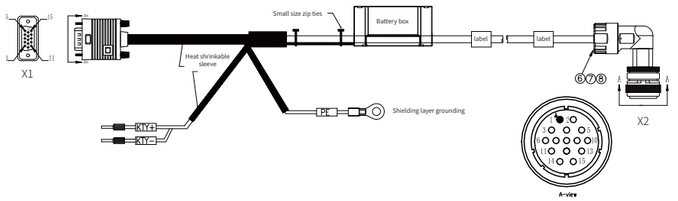
Wiring mapping			
Signal	X1	X2	Core cable structure
SD+	X1.5	X2.1	Twisted pair
SD-	X1.6	X2.2	
5V	X1.1	X2.5	Twisted pair
GND	X1.2	X2.6	
BAT+	/	X2.3	Twisted pair
BAT-	/	X2.4	
Shield	Iron shell	X2.7	Woven

Encoder cable for base-100/130/180 motor (absolute + 5015terminal + battery holder)



Wiring mapping			
Signal	X1	X2	Core cable structure
SD+	X1.5	X2.A	Twisted pair
SD-	X1.6	X2.B	
5V	X1.1	X2.G	Twisted pair
GND	X1.2	X2.H	
BAT+	/	X2.E	Twisted pair
BAT-	/	X2.F	
Shield	Iron shell	X2.J	Woven

Encoder cable for base-200/263 motor (absolute + YD28 terminal + battery holder)



Wiring mapping			
Signal	X1	X2	Core cable structure
SD+	X1.1	X2.2	Twisted pair
SD-	X1.7	X2.3	
+5V	X1.5	X2.4	Twisted pair
GND	X1.12	X2.5	
BAT+	/	X2.6	Twisted pair
BAT-	/	X2.7	
KTY+	KTY+	X2.8	Twisted pair
KTY-	KTY-	X2.9	
Shield	Iron shell	X2.1	Woven

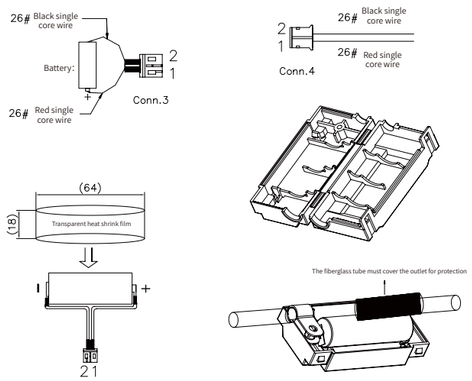
Power cable terminal material kit

Drive series	Drive model	Motor frame (IMS20B-AUL series)	Power cable material kit model
DA180A	DA180A-*-2R8-S-2	40/60/80-frame	DAML-XF
	DA180A-*-6R0-S-2		
	DA180A-*-6R0-S-2	100-frame	DAML-KF
	DA180A-*-6R0-S-2	130-frame	DAML-KW
DA200A	DA200A-*-1R6-T-2	40/60/80-frame	DAML-XF
	DA200A-*-2R8-S-2		
	DA200A-*-6R0-S-2		
	DA200A-*-1R6-T-2	100-frame	DAML-KF
	DA200A-*-2R8-S-2		
	DA200A-*-6R0-S-2		
	DA200A-*-6R0-S-2		
	DA200A-*-8R0-S-2		
	DA200A-*-3R5-T-2		
	DA200A-*-5R5-T-2		
	DA200A-*-8R5-T-2	130-frame	DAML-KW
	DA200A-*-010-S-2		
	DA200A-*-013-S-2		
	DA200A-*-6R0-S-2		
	DA200A-*-8R0-S-2		
	DA200A-*-3R5-T-2		
	DA200A-*-5R5-T-2		
	DA200A-*-8R5-T-2	180-frame	DAML-LW
	DA200A-*-010-S-2		
	DA200A-*-013-S-2		
DA200	SV-DA200-011-4-**	200/263-frame	DAML-SS-10R
	SV-DA200-015-4-**		DAML-SS-16R
	SV-DA200-022-4-**		
	SV-DA200-037-4-**		DAML-SS-25R
	SV-DA200-045-4-**		
	SV-DA200-055-4-**		

Encoder cable terminal material kit

Drive series	Drive model	Motor frame (IMS20B-AUL series)	Encoder cable material pack model
DA180A	DA180A-*-2R8-S-2	40/60/80-frame	DBEL-XI
	DA180A-*-6R0-S-2		
	DA180A-*-6R0-S-2	100/130-frame	DBEL-HI
DA200A	DA200A-*-1R6-T-2	40/60/80-frame	DBEL-XI
	DA200A-*-2R8-S-2		
	DA200A-*-6R0-S-2		
	DA200A-*-6R0-S-2	100/130/180-frame	DBEL-HI
	DA200A-*-8R0-S-2		
	DA200A-*-010-S-2		
	DA200A-*-3R5-T-2		
	DA200A-*-5R5-T-2		
	DA200A-*-013-S-2		
	DA200A-*-8R5-T-2		
	DA200A-*-012-T-2		
	DA200A-*-016-T-2		
	DA200A-*-6R0-S-2		
DA200	SV-DA200-011-4-**	200/263-frame	DBEL-AB
	SV-DA200-015-4-**		
	SV-DA200-022-4-**		
	SV-DA200-037-4-**		
	SV-DA200-045-4-**		
	SV-DA200-055-4-**		

Battery box



Battery box information

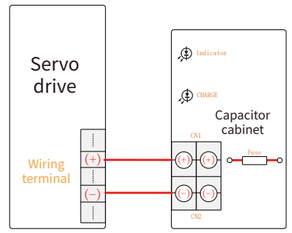
Part No.	Material description	Remarks
19008-00266	Contains matching battery 35003-00004 cylindrical lithium battery; 3.6V; 2.7Ah; height: 51mm; diameter: 16mm; cable lead-out length: 30mm; battery cell weight: 19g	Battery box, includes housing, battery, etc

Battery information

Model	Part No.	Nominal capacity (Ah)	Nominal voltage (V)	Working temperature range
F0557D-LF	35003-00004	2.7	3.6	-60~+85° C

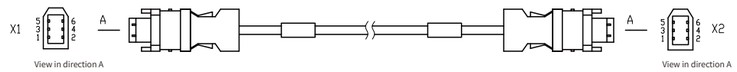
Energy storage capacitor cabinet

During braking or deceleration, the servo motor releases energy back into the drive, causing a rise in the DC bus voltage—this phenomenon is known as regenerative power.
To handle regenerative power, the drive primarily relies on internal DC bus capacitors for energy absorption. However, when the bus voltage exceeds the capacitor's tolerance threshold, external braking circuit is automatically activated to dissipate excess energy through the braking resistor. However, this energy is wasted as heat, which in turn raises the temperature of the braking resistors.
To make better use of regenerative energy, it is recommended to adopt an external capacitor cabinet solution. By absorbing and releasing energy effectively, the capacitor cabinet ensures stable servo running, mitigates braking resistor caused overheating risks, and achieves high energy efficiency and eco-friendly running—bringing greater economic value to the customer.



Drive power(kW)	Input current(A)	Recommended wire gauge(mm²)	Recommended capacitance (mF)	Capacitor cabinet model
7.5	15.5	2.5	5.4	DA-EXT-ES5R4-4
11	22.7	4	5.4	DA-EXT-ES5R4-4
15	31	6	10.8	DA-EXT-ES011-4
22	45.4	10	10.8	DA-EXT-ES011-4

Gantry synchronization communication cable



Category	Part No.	Material description	Remarks
Gantry synchronization communication cable	67001-04872	Gantry synchronization communication cable；0.15m，1394-6PIN plug	
Gantry synchronization communication cable	67001-04868	Gantry synchronization communication cable；0.5m，1394-6PIN plug	

Wiring mapping ①				
Signal	X1	X2	Signal	Core cable structure
/	1	1	/	Twisted pair
GND	2	2	GND	
CLK+	3	5	SD+	Twisted pair
CLK-	4	6	SD-	
SD+	5	3	CLK+	Twisted pair
SD-	6	4	CLK-	
Shield	Housing	Housing	Shield	Braided

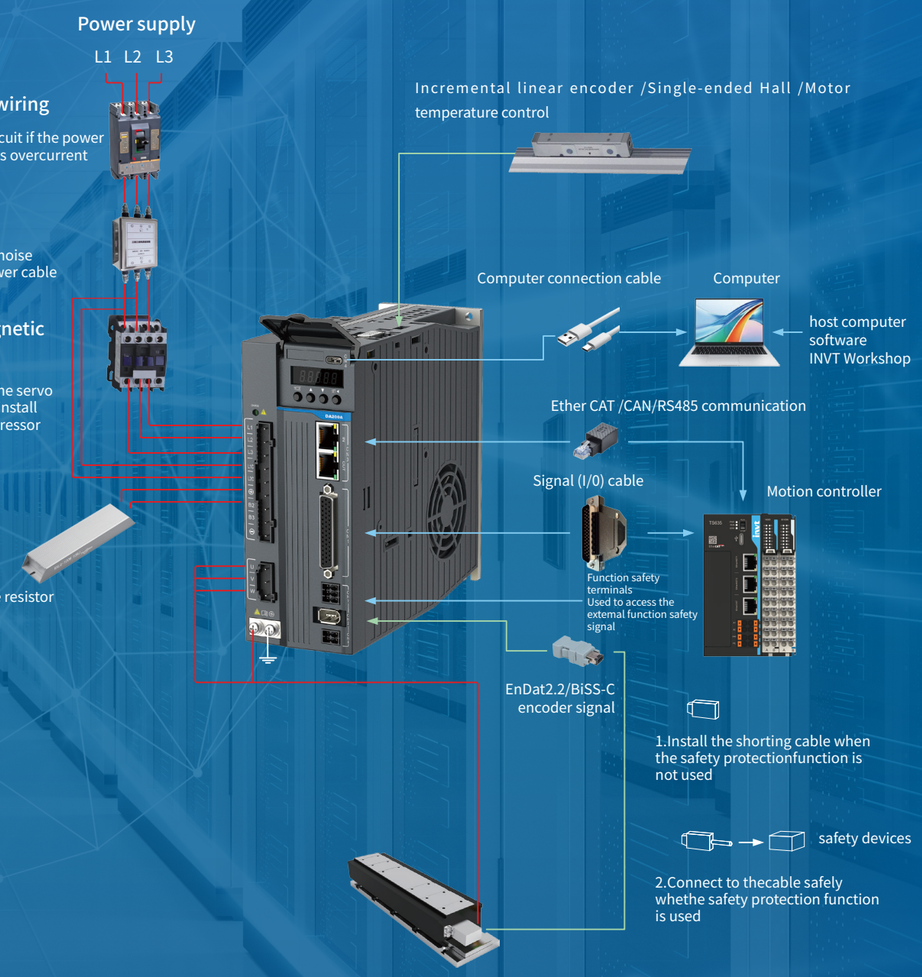
① 1#Pin should not be wired

Encoder signal adapter box

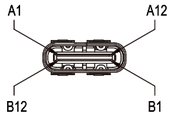
The signal adapter box developed for servo drives to adapt to more encoder protocols can receive encoder protocols such as rotary transformers, EnDat2.1+AB increments, and SIN/COS encoders, and convert different protocols into a unified BiSS-C protocol.

Category	Part No.	Material description	Remarks
11023-00248	DA-EXT-EC01TB	Encoder signal adapter box; Resolver-to-BiSS-C Converter	

Servo system wiring diagram
(take DA200A linear drive servo as an example)

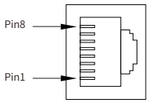


DA180A series user interface



CN4：USB port

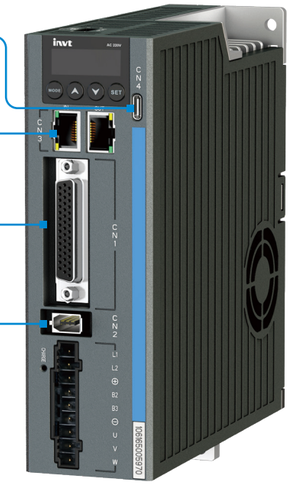
CN4 port function			
Pin	Name	Function	Remarks
A7、B7	USB-	Data-	Standard type-c interface
A6、B6	USB+	Data+	
A1、A12、B1、B12	GND	Signal ground	
A4、B4、A5、B5、A9、B9	-	-	

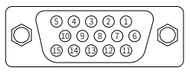


CN3：Communication port

CN3 port function (pulse, CANopen type)			
Pin	Name	Function	Remarks
1	CAN_H	CAN data +	485 and CAN use the same interface and each signal has three pins for multiple networking
2	CAN_L	CAN data -	
3	CAN_GND	CAN signal ground	
4	RS485+	RS485 data +	
5	RS485-	RS485 data-	
8	GND	RS485 GND	
6、7	-	Unused	

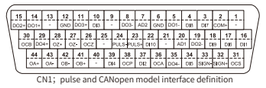
CN3 port function (EtherCAT bus type)			
Pin	Name	Function	Remarks
1	Tx+	Receive data +	Two standard network ports, with the left port for input and the right port for output
2	Tx-	Receive data -	
3	Rx+	Transmit data +	
6	Rx-	Transmit data -	
4、5、7、8	-	Unused	





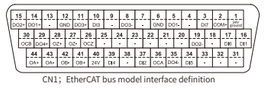
CN2：Encoder port (Direct drive version)

Applicable to pulse type linear drives



CN1：pulse and CANopen model interface definition

Applicable to EtherCAT bus linear drives

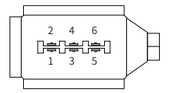


CN1：EtherCAT bus model interface definition

Note: For the EtherCAT bus type terminal definition, refer to the pulse type

CN1: IO port

CN1 port function (pulse type					
Pin	Symbol	Function	Pin	Symbol	Function
1	-	-	23	PULS+	Differential command pulse +
2	COM+	Common terminal of digital input	24	PULS-	Differential command pulse -
3	DI7	Digital input 7	25	-	-
4	DI8	Digital input 8	26	OCZ	Z-phase open collector output
5	DO1-	Digital output 1-	27	OZ-	Z-phase differential output -
6	GND	Signal ground	28	OZ+	Z-phase differential output +
7	AD2	Analog input 2	29	DO4+	Digital output 4+
8	DO3-	Digital output 3-	30	OCB	B-phase open collector output
9	-	-	31	OCS	Open collector command direction
10	DI3	Digital input 3	32	SIGN+	Differential command direction +
11	DO3+	Digital output 3+	33	SIGN-	Differential command direction -
12	GND	Signal ground	34	DI5	Digital input 5
13	-	-	35	DO4-	Digital output 4-
14	DO1+	Digital output 1+	36	OCA	A-phase open collector output
15	DO2+	Digital output 2+	37	DI2	Digital input 2
16	DI1	Digital input 1	38	OCP	Open collector command pulse
17	DI6	Digital input 6	39	DI4	Digital input 4
18	DI9	Digital input 9	40	-	-
19	DO2-	Digital output 2-	41	OB+	B-phase differential output +
20	AD1	Analog input 1	42	OB-	B-phase differential output -
21	-	-	43	OA-	A-phase differential output -
22	DI10	Digital input 10	44	OA+	A-phase differential output +



CN2：Encoder port (Rotary version)

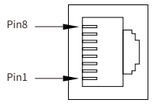
CN2 port function			
Pin	Name	Function	Remarks
1	-	-	Supports incremental motor encoders
2	-	-	
3	ENC_A+/SD+	Incremental/serial encoder A+/SD+	
4	ENC_A-/SD-	Incremental/serial encoder A-/SD-	
5	5V	Power supply +5V	
6	-	-	
7	V	Single-ended HALL V signal	
8	W	Single-ended HALL W signal	
9	ENC_B-/CLK-	Incremental encoder B-/BiSS/EnDat clock-	
10	ENC_B+/CLK+	Incremental encoder B+/BiSS/EnDat clock+	
11	U	Single-ended HALL U signal	
12	GND	Power ground, connected to internal GND	
13	ENC_Z-	Incremental encoder Z-	
14	ENC_Z+	Incremental encoder Z+	
15	PTC	Supports PT100\KTY84 motor temperature sampling	

CN2 port function			
Pin	Name	Function	Remarks
1	5V	5V power supply	Different encoders use different cables
2	GND	Power ground	
3	CLK+	BISS Endat clock output+	
4	CLK-	BISS Endat clock output-	
5	SD+	Serial encoder data+	
6	SD-	Serial encoder data-	

DA200A series user interface

CN4: USB port

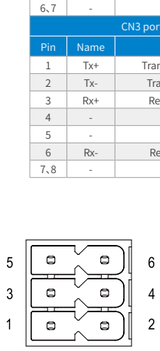
CN4 port function			
Pin	Name	Function	Remarks
A7、B7	USB-	Data-	Standard type-c interface
A6、B6	USB+	Data+	
A1、A12、B1、B12	GND	Signal ground	
A4、B4、A5、B5、A9、B9	-	-	



CN3: Communication port

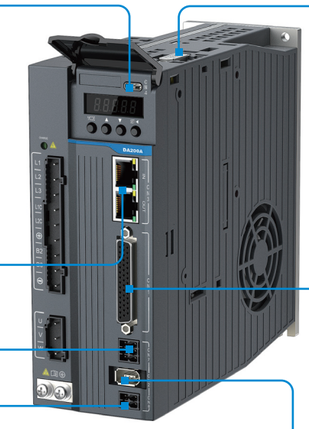
CN3 port function (IN)			
Pin	Name	Function	Remarks
1	CAN_H	CAN data +	RS485 and CAN use the same interface and each signal has three pins for multiple networking
2	CAN_L	CAN data -	
3	CAN_GND	CAN signal ground	
4	RS485+	RS485 data +	
5	RS485-	RS485 data-	
8	GND	RS485 GND	
6、7	-	-	

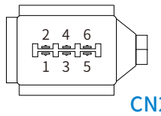
CN3 port function (OUT)			
Pin	Name	Function	Remarks
1	Tx+	Transmit data + +	The bus drive port is defined as a standard network port
2	Tx-	Transmit data -	
3	Rx+	Receive data +	
4	-	-	
5	-	-	
6	Rx-	Receive data -	
7、8	-	-	



CN7: STO port

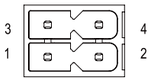
CN7 port function			
Pin	Name	Function	Remarks
1	24V	Power 24V	DC24V is internally powered. When the STO function is not used, please short connect pins 1, 3, and 4; do not use it in other cases
2	24V_GND	Power 24V ground	
3	HWBB1+	Safety input 1+	
4	HWBB2+	Safety input 2+	
5	EDM+	Safety monitoring output +	
6	EDM-	Safety monitoring output-	





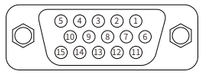
CN2: Encoder port

CN2 port function			
Pin	Name	Function	Remarks
1	5V	5V power supply	Different encoders use different cables
2	GND	Power ground	
3	CLK+	BISS Endat clock	
4	CLK-	BISS Endat clock output -	
5	SD+	Serial encoder data+	
6	SD-	Serial encoder data-	



CN8: Motor brake port

CN8 port function			
Pin	Name	Function	Remarks
1	24V_BK	Brake external 24V power supply	-
2	COM	Brake external 24V ground	
3	BK+	Brake BK+	
4	BK-	Brake BK-	

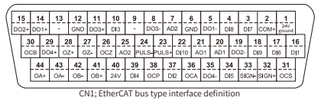


CN5:2nd encoder port

CN5 port function			
Pin	Name	Function	Remarks
1	-	-	Connects to linear encoder or 2nd encoder and supports incremental linear motor encoder
2	PT-	Motor temperature sensor input PT-	
3	ENC_A+/SD+	Incremental encoder A+/SD+	
4	ENC_A-/SD-	Incremental encoder A-/SD-	
5	5V	Power supply +5V	
6	-	-	
7	v	Single-ended Hall V phase signal	
8	W	Single-ended Hall W phase signal	
9	ENC_B-/CLK-	Incremental encoder B-/CLK-	
10	ENC_B+/CLK+	Incremental encoder B+/CLK+	
11	U	Single-ended Hall U phase signal	
12	GND	Power ground, connected to internal GND	
13	ENC_Z-	Incremental encoder Z-	
14	ENC_Z+	Incremental encoder Z+	
15	PT+	Motor temperature sensor input PT+ ①	

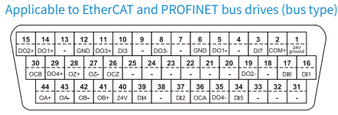
① Support PT100/PT1000/KTY84

Applicable to standard type (pulse-type CANopen)



CN1; EtherCAT bus type interface definition

Applicable to EtherCAT and PROFINET bus drives (bus type)

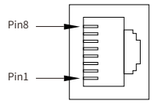


Note: For the EtherCAT and PRIFINET bus terminal definitions, refer to the pulse type

CN1: IO port

CN1 port function (pulse type)					
Pin	Symbol	Function	Pin	Symbol	Function
1	24V ground	24V power ground	23	PULS+	Differential command pulse +
2	COM+	Common terminal of digital input	24	PULS-	Differential command pulse -
3	DI7	Digital input 7	25	AO2	Analog output 2
4	DI8	Digital input 8	26	OCZ	Z-phase open collector output
5	DO1-	Digital output 1-	27	OZ-	Z-phase differential output -
6	GND	Signal ground	28	OZ+	Z-phase differential output +
7	AD2	Analog input 2	29	DO4+	Digital output 4+
8	DO3-	Digital output 3-	30	OCB	B-phase open collector output
9	-	-	31	OCS	Open collector command direction
10	DI3	Digital input 3	32	SIGN+	Differential command direction +
11	DO3+	Digital output 3+	33	SIGN-	Differential command direction -
12	GND	Signal ground	34	DI5	Digital input 5
13	-	-	35	DO4-	Digital output 4-
14	DO1+	Digital output 1+	36	OCA	A-phase open collector output
15	DO2+	Digital output 2+	37	DI2	Digital input 2
16	DI1	Digital input 1	38	OCP	Open collector command pulse
17	DI6	Digital input 6	39	DI4	Digital input 4
18	DI9	Digital input 9	40	24V	24V power supply
19	DO2-	Digital output 2-	41	OB+	B-phase differential output +
20	AD1	Analog input 1	42	OB-	B-phase differential output -
21	AO1	Analog output 1	43	OA-	A-phase differential output -
22	DI10	Digital input 10	44	OA+	A-phase differential output +

DA200 series medium power

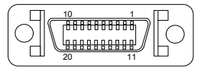


CN3：Communication port

CN3 port function			
Pin	Name	Function	Remarks
1	GND_CAN	CAN chip power ground	When configured as 485/CAN, the pin definitions are provided in the table on the left. 485 and CAN use the same interface. Each interface has two pins for multiple networking
2	GND_485	485 chip power ground	
3	-	-	
4	RS485+	RS485 data +	
5	RS485-	RS485 data -	
6	-	-	
7	CAN_L	CAN data -	
8	CAN_H	CAN data +	

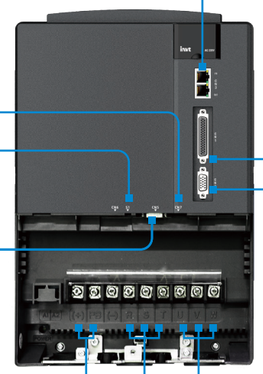
CN7 interface: Motor temperature cable

S1 switch: STO selection



CN5:2nd encoder and STO port

CN5 port function			
Pin	Name	Function	Remarks
1	EXA+	Linear encoder (2nd encoder) A+	Connect to linear encoder or 2nd encoder
2	EXA-	Linear encoder (2nd encoder) A-	
3	EXB+	Linear encoder (2nd encoder) B+	
4	EXB-	Linear encoder (2nd encoder) B-	
5	EXZ+	Linear encoder (2nd encoder) Z+	
6	EXZ-	Linear encoder (2nd encoder) Z-	
7、9	EX5V	Power supply+5V	
8、10	EX0V	Power ground, be connected with internal GND	
11	HWBB1+	Safety input 1+	
12	HWBB1-	Safety input 1-	
13	EDM+	Safety monitoring output +	
14	EDM-	Safety monitoring output -	
15	HWBB2+	Safety input 2+	
16	HWBB2-	Safety input 2-	
17	OC_EXZ	Z-phase open collector input	
18	OC_EXB	B-phase open collector input	
19	OC_EXA	A-phase open collector input	
20	-	-	

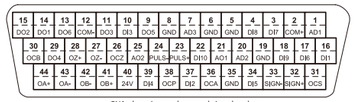


Connect to the external regenerative braking resistor

Main circuit power

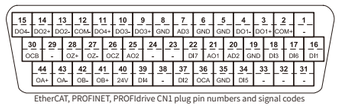
Motor

Applicable to standard type (pulse-type CANopen)



CN1 plug pin numbers and signal codes

Applicable to EtherCAT, PROFINET and PROFIdrive



EtherCAT, PROFINET, PROFIdrive CN1 plug pin numbers and signal codes

CN1:IO port

CN1 port function (pulse type)					
Pin	Symbol	Function	Pin	Symbol	Function
1	AD1	Analog input 1	23	PULS+	Differential command pulse +
2	COM+	Common terminal of digital input	24	PULS-	Differential command pulse -
3	DI7	Digital input 7	25	AO2	Analog output 2
4	DI8	Digital input 8	26	OCZ	Z-phase open collector output
5	GND	Analog signal ground	27	OZ-	Z-phase differential output -
6	GND	Analog signal ground	28	OZ+	Z-phase differential output +
7	AD3	Analog input 3	29	DO4+	Digital output 4+
8	GND	Analog signal ground	30	OCB	B-phase open collector output
9	DO5	Digital output 5	31	OCS	Open collector command direction
10	DI3	Digital input 3	32	SIGN+	Differential command direction +
11	DO3	Digital output 3	33	SIGN-	Differential command direction -
12	COM-	Common terminal of digital output	34	DI5	Digital input 5
13	DO6	Digital output 6	35	DO4-	Analog signal ground
14	DO1	Digital output 1	36	OCA	Z-phase open collector output
15	DO2	Digital output 2	37	DI2	Digital input 2
16	DI1	Digital input 1	38	OCP	Open collector command pulse
17	DI6	Digital input 6	39	DI4	Digital input 4
18	DI9	Digital input 9	40	24V	Internal 24V power supply
19	GND	Analog signal ground	41	OB+	B-phase differential output +
20	AD2	Analog input 2	42	OB-	B-phase differential output -
21	AO1	Analog output 1	43	OA-	A-phase differential output -
22	DI10	Digital input 10	44	OA+	A-phase differential output +

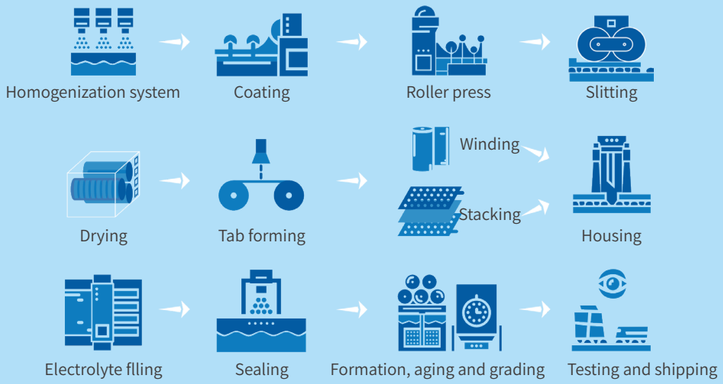
CN2:Encoder port

CN2 port function			
Pin	Name	Function	Remarks
1	V+/ SD+	Parallel encoder V+ / Serial encoder data+	Different encoders use different cables
2	W+	Parallel encoder W+ signal	
3	A+	Parallel encoder A+ signal	
4	A-	Parallel encoder A- signal	
5	5V	Encoder power supply	
6	U+	Parallel encoder U+ signal	
7	V- /SD-	Parallel encoder V- / Serial encoder data-	
8	W-	Parallel encoder W- signal	
9	B-	Parallel encoder B- signal	
10	B+	Parallel encoder B+ signal	
11	U-	Parallel encoder U- signal	
12	GND	Power ground	
13	Z-	Parallel encoder Z- signal	
14	Z+	Parallel encoder Z+ signal	
15	-	-	

05 System solutions

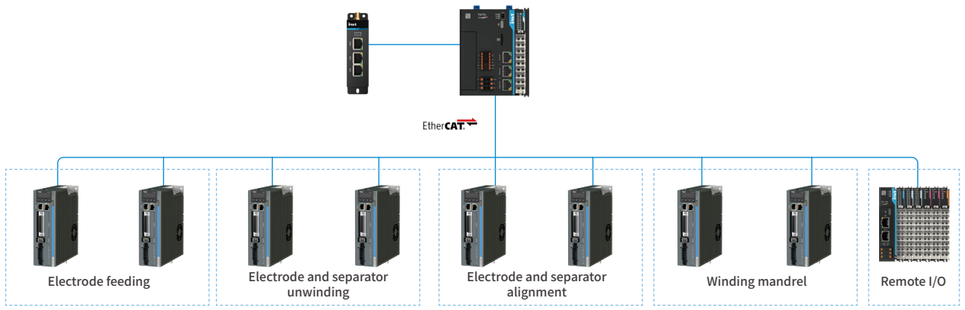
Solutions - Lithium Battery Equipment

Lithium battery equipment refers to the process equipment used for the production of lithium batteries, including coating, slitting, laminating, winding, liquid injection, welding, testing, and other processes. The stable and efficient operation of lithium battery equipment is crucial for the production of lithium battery cells, modules, and packs.



Winding machine solution

The lithium battery winding machine is used to wind lithium battery cells. It is a machine that assembles the positive electrode, negative electrode, and separator into a cell package through continuous rotation. The winding machine has a positive and negative electrode feeding unit, and the portion that winds the positive and negative electrodes along with the separator is called the winding needle.

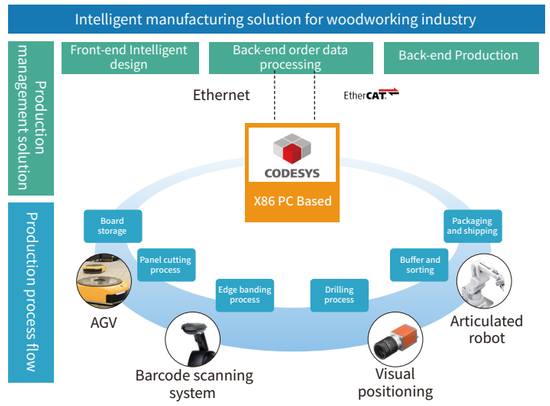


Solution features

- Small tension fuctuation: Actual tension fluctuation of electrode sheets and separators is less than 5%
- Fast winding speed: Measured linear speed exceeds 2m/s, with speed fluctuation less than 5
- Quick correction response: The drive internally processes corrections, allowing for direct response without going through a controller
- High cutting accuracy: The cutting error of the 8-meter long electrode sheet is less than 2mm
- Optional IoT module: Enables remote control

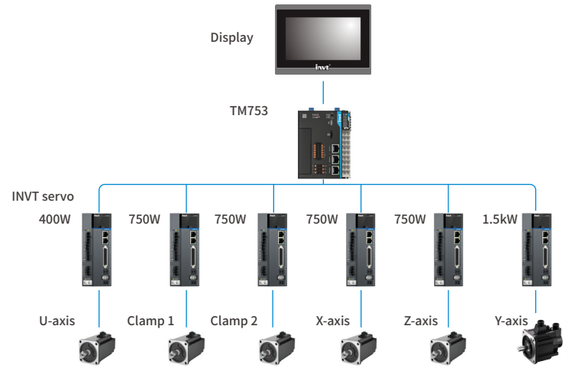
Solutions - Woodworking Machinery

How to achieve large-scale, automated, and flexible production in the custom furniture industry is both a challenge and an opportunity for industrial control companies.INVT deeply analyzes industry needs and focuses on the custom furniture market, perfectly integrating solutions and products to address user difficulties. INVT has launched a complete set of solutions for cutting, edge banding, and drilling, catering to customers' large-scale non-standard custom production models. This solution helps manufacturers improve production efficiency, precision, and automation levels, significantly increasing production capacity and reducing operational costs.



Hole processing machine tool solution

CNC drilling equipment is mainly used for drilling, counterboring, reaming, tapping, and other processing. It is a digital-controlled hole processing machine tool mainly focused on drilling.



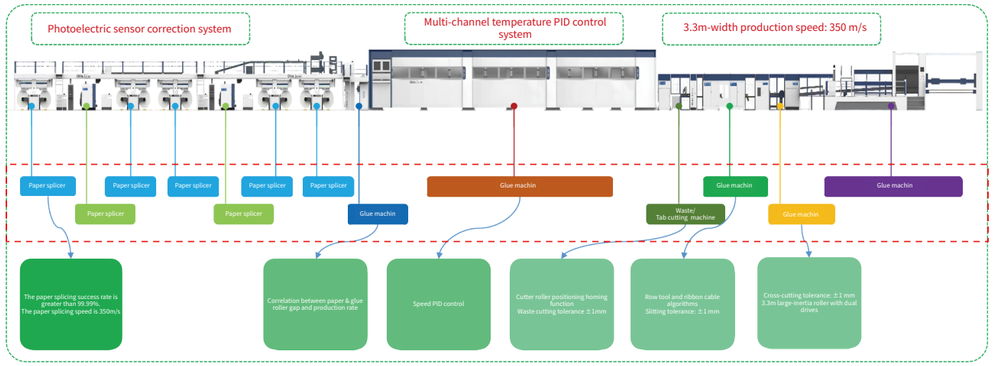
Solution features

- Superior real-time performance: Uses the EtherCAT high-speed bus for high-speed and real-time data transmission
- Flexible topology structure
- Simple wiring, easy to operate and maintain
- Faster response speed: Industry-leading response speed with a response frequency of up to 2.5 kHz, significantly improving processing speed and reducing tuning time, maximizing the performance of high-end machinery
- Excellent axis synchronization: The synchronization time deviation between axes is less than 1 microsecond
- Higher encoder precision, ensuring smoother operation at low speeds

Solutions - Printing & Packaging Industry

INVT has been collaborating with leading companies in the printing and packaging industry since 2010 to develop complete control systems, creating industry-leading control solutions. After over a decade of market validation, INVT have received unanimous praise from users.

Corrugated paper production line (paperboard section) system solution



5-color rotary printing machine solution

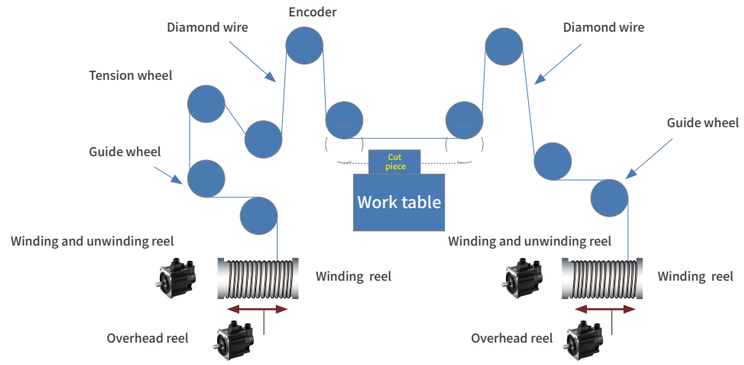
The 5-color rotary printing machine is an efficient printing device mainly used for multi-color printing tasks, especially in scenarios that require precise color management and high-quality printing output. It achieves precise ink spraying and transfer to form the desired image on paper through the collaborative operation of the color management system, ink feeding system, ink metering system, ink roller system, printing system, and sensor system.
System configuration：6*VS + 1*TP + FlexIO + 38*DA200A(0.4-5.5KW)

Solution features

- Uses the latest generation of low-inertia motors, with a maximum speed of up to 7000 r/min
- Uses an all-new TP series PLC, with a bus cycle of 1 ms/32 axes, achieving registration accuracy of ±0.02 mm and variable-speed phase accuracy of ±0.05 mm
- Advanced motion control algorithms provide a short ACC process at startup, leading to higher efficiency and open-loop tension for winding and unwinding
- Color mark signals are sent to the servo for probe signal processing, enabling secondary registration with a registration accuracy of ±0.04 mm

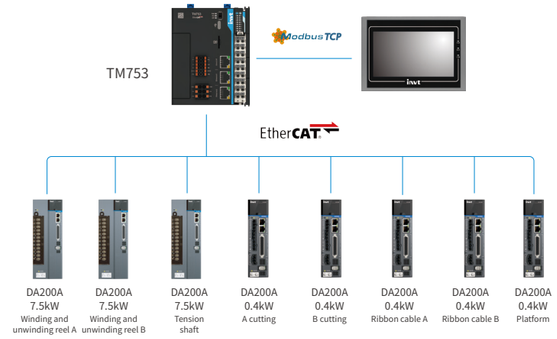
Solutions - Photovoltaic Industry

Photovoltaic: It refers to the solar power system, a new type of power generation system that uses the photovoltaic effect of semiconductor materials in solar cells to directly convert solar radiation into electrical energy. It is an emerging renewable energy source.INVT has been deeply involved in the automation field for over 20 years, providing comprehensive automation solutions for the photovoltaic equipment industry. We offer stable and reliable products and technical services to help OEM manufacturers enhance their competitiveness in the industry.



Solution for single-wire cutting machines

The single-wire cutting machine uses a diamond wire in a reciprocating motion to create a grinding motion between the diamond wire and the workpiece being cut, achieving the cutting purpose. The single-wire cutting machines are widely used for cutting various metals and non-metal composite materials, especially for high-hardness and high-value materials, where it demonstrates a crushing advantage over traditional slurry cutting methods. It can significantly increase processing speed and markedly reduce material consumption, making the production process more environmentally friendly.

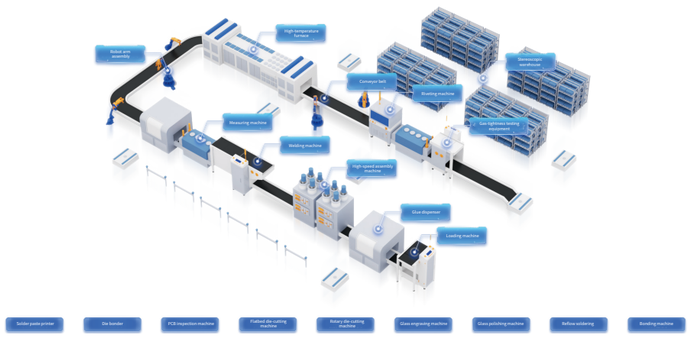


Solution features

- Automatic calculation of roll diameter: The program uses an encoder to automatically calculate the diameters of the take-up and pay-off rollers. Accurate roll diameter ensures stable wire speed and reduces the requirements for workers
- Automatic wire alignment correction: Through optical alignment correction, the system automatically compensates for any misalignment of the pay-off spool, ensuring smooth operation without manual intervention
- Stable tension: The tension arm has minimal fluctuations, preventing diamond wire breakage and ensuring a smooth cutting surface
- After-sales maintenance: Fewer connections make troubleshooting easier. The program structure is simple, and the motion control function blocks eliminate a significant amount of calculation work required by small PLCs, facilitating customer modifications and maintenance
- Supports multiple cutting methods: Multiple speed cutting, swing cutting, and synchronous cutting can be freely switched among various cutting methods, allowing for smooth transitions and achieving a smooth processing surface for better product results

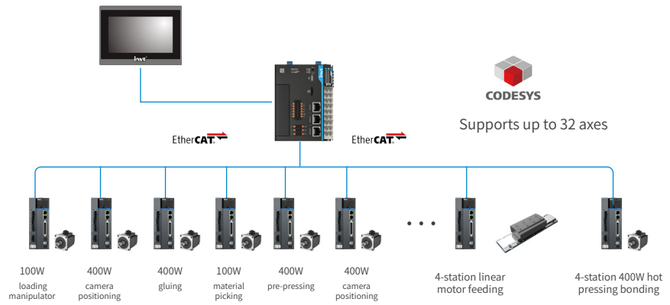
Solutions - Electronics Manufacturing Equipment

INVT has been deeply involved in the automation field for over 20 years, providing comprehensive automation solutions for the 3C electronics manufacturing industry. We offer stable and reliable products and technical services for electronic manufacturing equipment, helping OEM manufacturers enhance their competitiveness in the industry.



Solutions - Mobile Device Lamination & Bonding Equipment

The mobile assembly – bonding machine is mainly used for the lamination and bonding of mobile phone screens, touch screens, batteries, and other components. It achieves precise alignment and strong bonding between components through high-precision mechanical structures and control systems, ensuring the quality and performance of mobile products.



Solution features

• lFast point motion speed: The servo motor has a rated speed of 3000 r/min, with an instantaneous maximum speed of up to 5000 r/min

•lFlexible and reliable: The EtherCAT bus solution ensures the reliability of key workstations while providing high-speed and precise positioning

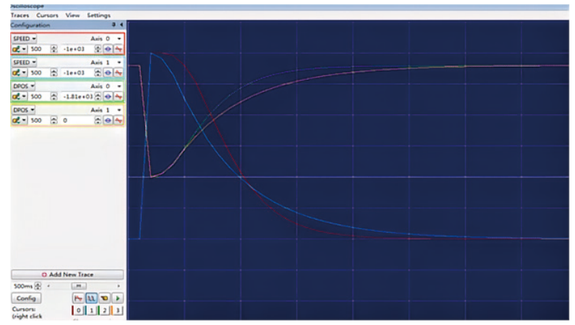
•lEfficiency assurance: The EtherCAT bus supports a transmission speed of 100M/S and offers strong compatibility, with a production efficiency of 960PPS/H. The coordinated control among the LCD panel loading and unloading arm, CCD camera alignment, and thermal pressure bonding significantly improves efficiency, reaching up to 15 seconds per piece (calculated for a single workstation)

Solutions - Textile Industry

The textile industry can be further subdivided into cotton spinning, chemical fiber, hemp textile, wool textile, silk, textile knitting, and dyeing and finishing industries.INVT provides comprehensive solutions for the textile industry, including HMI, PLC, general-purpose VFDs, servo systems, special-purpose VFDs, and servo motors. We continuously improve the automation level of textile machinery, enhance customers' technical capabilities, stabilize product quality, and increase production efficiency.

Solution for air jet spinning machines

The air jet spinning machine is a new type of spinning machine that uses airflow to condense and twist fibers within a high-speed rotating spinning cup to produce yarn.



Solution features

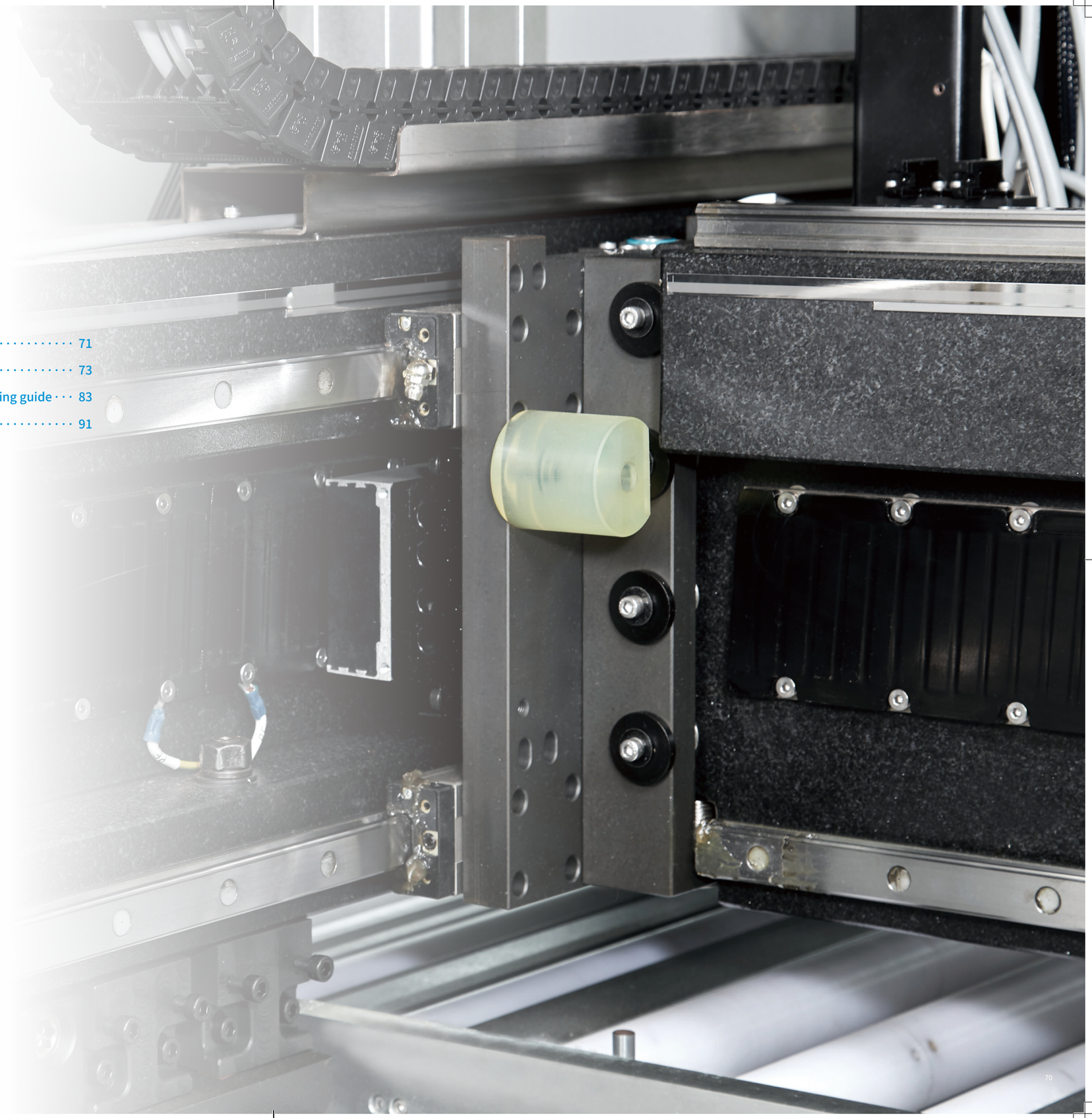
• The walking servo motion features an unique algorithm that reduces acceleration time, increasing the fabric spreading speed from the original 90+ m/min to over 110 m/min, achieving an improvement of more than 20%

•With the integration of IoT products, the system allows for online monitoring of operation time, efficiency, and other key parameters via mobile devices, enabling intelligent management and remote program updates for easier equipment maintenance

•Automatic tension adjustment function, which automatically adjusts the tension during operation through feedback to maintain the appropriate tightness of the fabric

•The solution configuration is flexible and adaptable. The DA180A series servo drives can be used to enhance the overall cost-performance ratio of the solution, or the DA200A series servo drives can be used for their dynamic braking function to improve equipment performance

06 Ordering guide



IMS20B series motor and DA180A series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg.m²	Weight (kg)	Machine length (mm)	Shaft extension/ Shaft diameter (mm)	Bond width (mm)	Model	Brake	Encoder	Terminal type	Compatible drive specifications [1]	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
1	40	220	0.05	0.16	0.56	3000	7000	1.2	4.8	0.018	0.4	53.5	25/8	3	IMS20B-04L05B30C-2-M41-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA180A-*-2R8-S-2	A	Line out towards the rear end of the motor (Installation of the 40 base is prone to interference, and it is recommended to choose a rear facing outlet) Without brake Common: DAML-20A-xx-XF0-00A2 Flexible: DAML-20A-xx-XFF-00A2 With brake Common: DAML-20A-xx-XF0-01A2 Flexible: DAML-20A-xx-XFF-01A2 xx represents the length, e.g. 03: 3 m	Line out towards the rear end of the motor (Installation of the 40 base is prone to interference, and it is recommended to choose a rear facing outlet) Without battery Common: DAEL-04-xx-SI0-04A2 Flexible: DAEL-04-xx-SIF-04A2 With battery Common: DAEL-06-xx-SID-04A2 Flexible: DAEL-06-xx-SIH-04A2 xx represents the length, e.g. 03: 3 m
2										0.021	0.45	77.5			IMS20B-04L05B30C-2-M45-AUL	Electromagnetic brake						
3										0.018	0.4	53.5			IMS20B-04L05B30C-2-P91-AUL	\	23-bit multi-turn optical encoder					
4										0.021	0.45	77.5			IMS20B-04L05B30C-2-P95-AUL	Electromagnetic brake						
5			0.1	0.32	1.12	3000	7000	1.2	4.8	0.033	0.5	66	25/8	3	IMS20B-04L10B30C-2-M41-AUL	\	17-bit multi-turn magnetic encoder					
6										0.036	0.55	90			IMS20B-04L10B30C-2-M45-AUL	Electromagnetic brake						
7										0.033	0.5	66			IMS20B-04L10B30C-2-P91-AUL	\	23-bit multi-turn optical encoder					
8										0.036	0.55	90			IMS20B-04L10B30C-2-P95-AUL	Electromagnetic brake						
9			0.05	0.16	0.56	3000	7000	1.2	5.3	0.034	0.4	53.5	25/8	3	IMS20B-04M05B30C-2-M41-AUL	\	17-bit multi-turn magnetic encoder					
10										0.037	0.45	77.5			IMS20B-04M05B30C-2-M45-AUL	Electromagnetic brake						
11										0.034	0.4	53.5			IMS20B-04M05B30C-2-P91-AUL	\	23-bit multi-turn optical encoder					
12										0.037	0.45	77.5			IMS20B-04M05B30C-2-P95-AUL	Electromagnetic brake						
13			0.1	0.32	1.12	3000	7000	1.2	4.8	0.064	0.5	66	25/8	3	IMS20B-04M10B30C-2-M41-AUL	\	17-bit multi-turn magnetic encoder					
14										0.067	0.55	90			IMS20B-04M10B30C-2-M45-AUL	Electromagnetic brake						
15										0.064	0.5	66			IMS20B-04M10B30C-2-P91-AUL	\	23-bit multi-turn optical encoder					
16										0.067	0.55	90			IMS20B-04M10B30C-2-P95-AUL	Electromagnetic brake						
17	60	220	0.2	0.64	2.24	3000	7000	1.4	4.6	0.28	0.8	73	30/14	5	IMS20B-06M20B30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA180A-*-2R8-S-2	A	Line out towards the front end of the motor (You can also use the 40 base above to lead out the wire towards the back) Without brake Common: DAML-20A-xx-XF0-00A1 Flexible: DAML-20A-xx-XFF-00A1 With brake Common: DAML-20A-xx-XF0-01A1 Flexible: DAML-20A-xx-XFF-01A1 xx represents the length, e.g. 03: 3 m	Line out towards the front end of the motor (You can also use the 40 base above to lead out the wire towards the back) Without battery Common: DAEL-04-xx-SI0-04A1 Flexible: DAEL-04-xx-SIF-04A1 With battery Common: DAEL-06-xx-SID-04A1 Flexible: DAEL-06-xx-SIH-04A1 xx represents the length, e.g. 03: 3 m
18										0.31	1.1	95.5			IMS20B-06M20B30C-2-M44-AUL	Electromagnetic brake						
19										0.28	0.8	73			IMS20B-06M20B30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
20										0.31	1.1	95.5			IMS20B-06M20B30C-2-P94-AUL	Electromagnetic brake						
21			0.4	1.27	4.45	3000	7000	2.7	8.9	0.5	1.2	92.5	30/14	5	IMS20B-06M40B30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder					
22										0.53	1.4	114.5			IMS20B-06M40B30C-2-M44-AUL	Electromagnetic brake						
23										0.5	1.2	92.5			IMS20B-06M40B30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
24										0.53	1.4	114.5			IMS20B-06M40B30C-2-P94-AUL	Electromagnetic brake						
25	80	220	0.75	2.39	8.36	3000	7000	4.8	16	1.7	2.14	96.8	35/19	6	IMS20B-08M75B30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA180A-*-6R0-S-2	A		
26										1.74	2.7	127			IMS20B-08M75B30C-2-M44-AUL	Electromagnetic brake						
27										1.7	2.14	96.8			IMS20B-08M75B30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
28										1.74	2.7	127			IMS20B-08M75B30C-2-P94-AUL	Electromagnetic brake						
29			1	3.18	11.14	3000	7000	5.5	19	2.2	2.62	110.8	35/19	6	IMS20B-08M10C30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder					
30										2.24	3.18	141			IMS20B-08M10C30C-2-M44-AUL	Electromagnetic brake						
31										2.2	2.62	110.8			IMS20B-08M10C30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
32										2.24	3.18	141			IMS20B-08M10C30C-2-P94-AUL	Electromagnetic brake						
33	100	220	1	3.2	9.6	3000	6000	5.9	19.7	1.71	3.4	140.2	45/24	8	IMS20B-10M10C30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA180A-*-6R0-S-2	A	Without brake Common: DAML-16A-xx-KF0-00A4 Flexible: DAML-16A-xx-KFF-00A4 With brake Common: DAML-16A-xx-KF0-01A4 Flexible: DAML-16A-xx-KFF-01A4 xx represents the length, e.g. 03: 3 m	Without brake Common: DAML-16A-xx-KF0-00A4 Flexible: DAML-16A-xx-KFF-00A4 With brake Common: DAML-16A-xx-KF0-01A4 Flexible: DAML-16A-xx-KFF-01A4 xx represents the length, e.g. 03: 3 m
34										1.87	4.2	166.2			IMS20B-10M10C30C-2-M44-AUL	Electromagnetic brake						
35										1.71	3.4	140.2			IMS20B-10M10C30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
36										1.87	4.2	166.2			IMS20B-10M10C30C-2-P94-AUL	Electromagnetic brake						
37	130	220	0.85	5.4	13.5	1500	4500	6.2	14.9	13.1	5.7	138	55/22	8	IMS20B-13H85B15C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA180A-*-6R0-S-2-*	A		
38										14.3	7.3	167			IMS20B-13H85B15C-2-M44-AUL	Electromagnetic brake						
39										13.1	5.7	138			IMS20B-13H85B15C-2-P9-AUL	\	23-bit multi-turn optical encoder					
40										14.3	7.3	167			IMS20B-13H85B15C-2-P94-AUL	Electromagnetic brake						
41			1	4.8	14.3	2000	4500	5.4	16.9	6.3	4.4	130	55/22	8	IMS20B-13M10C20C-2-M4-AUL	\	17-bit multi-turn magnetic encoder					
42										7.95	6	159			IMS20B-13M10C20C-2-M44-AUL	Electromagnetic brake						
43										6.3	4.4	130			IMS20B-13M10C20C-2-P9-AUL	\	23-bit multi-turn optical encoder					
44										7.95	6	159			IMS20B-13M10C20C-2-P94-AUL	Electromagnetic brake						

[1] In the servo drive model, the first * E = pulse type, N = EtherCAT type, C = CANOpen type.

IMS20B series medium-power motor and DA200A series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)"	Bond width mm	Motor model	Brake	Encoder	Terminal type	Compatible drive model [1]	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
1	40	220	0.05	0.16	0.56	3000	7000	1.2	4.8	0.018	0.4	53.5	25/8	3	IMS20B-04L05B30C-2-M41-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA200A-*-2R8-S-2-*	A	Line out towards the rear end of the motor (Installation of the 40 base is prone to interference, and it is recommended to choose a rear facing outlet) Without brake Common：DAML-20A-xx-XF0-00A2 Flexible：DAML-20A-xx-XFF-00A2 With brake Common：DAML-20A-xx-XF0-01A2 Flexible：DAML-20A-xx-XFF-01A2 xx represents the length, e.g. 03: 3 m	Line out towards the rear end of the motor (Installation of the 40 base is prone to interference, and it is recommended to choose a rear facing outlet) Without battery Common：DAEL-04-xx-SI0-04A2 Flexible：DAEL-04-xx-SIF-04A2 With battery Common：DAEL-06-xx-SID-04A2 Flexible：DAEL-06-xx-SIH-04A2 xx represents the length, e.g. 03: 3 m
2										0.021	0.45	77.5			IMS20B-04L05B30C-2-M45-AUL	Electromagnetic brake						
3										0.018	0.4	53.5			IMS20B-04L05B30C-2-P91-AUL	\	23-bit multi-turn optical encoder					
4										0.021	0.45	77.5			IMS20B-04L05B30C-2-P95-AUL	Electromagnetic brake						
5			0.1	0.32	1.12	3000	7000	1.2	4.8	0.033	0.5	66	25/8	3	IMS20B-04L10B30C-2-M41-AUL	\	17-bit multi-turn magnetic encoder					
6										0.036	0.55	90			IMS20B-04L10B30C-2-M45-AUL	Electromagnetic brake						
7										0.033	0.5	66			IMS20B-04L10B30C-2-P91-AUL	\	23-bit multi-turn optical encoder					
8										0.036	0.55	90			IMS20B-04L10B30C-2-P95-AUL	Electromagnetic brake						
9			0.05	0.16	0.56	3000	7000	1.2	5.3	0.034	0.4	53.5	25/8	3	IMS20B-04M05B30C-2-M41-AUL	\	17-bit multi-turn magnetic encoder					
10										0.037	0.45	77.5			IMS20B-04M05B30C-2-M45-AUL	Electromagnetic brake						
11										0.034	0.4	53.5			IMS20B-04M05B30C-2-P91-AUL	\	23-bit multi-turn optical encoder					
12										0.037	0.45	77.5			IMS20B-04M05B30C-2-P95-AUL	Electromagnetic brake						
13			0.1	0.32	1.12	3000	7000	1.2	4.8	0.064	0.5	66	25/8	3	IMS20B-04M10B30C-2-M41-AUL	\	17-bit multi-turn magnetic encoder					
14										0.067	0.55	90			IMS20B-04M10B30C-2-M45-AUL	Electromagnetic brake						
15										0.064	0.5	66			IMS20B-04M10B30C-2-P91-AUL	\	23-bit multi-turn optical encoder					
16										0.067	0.55	90			IMS20B-04M10B30C-2-P95-AUL	Electromagnetic brake						
17	60	220	0.2	0.64	2.24	3000	7000	1.4	4.6	0.28	0.8	73	30/14	5	IMS20B-06M20B30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA200A-*-2R8-S-2-*	A	Line out towards the front end of the motor (You can also use the 40 base above to lead out the wire towards the back) Without brake Common：DAML-20A-xx-XF0-00A1 Flexible：DAML-20A-xx-XFF-00A1 With brake Common：DAML-20A-xx-XF0-01A1 Flexible：DAML-20A-xx-XFF-01A1 xx represents the length, e.g. 03: 3 m	Line out towards the front end of the motor (You can also use the 40 base above to lead out the wire towards the back) Without battery Common：DAEL-04-xx-SI0-04A1 Flexible：DAEL-04-xx-SIF-04A1 With battery Common：DAEL-06-xx-SID-04A1 Flexible：DAEL-06-xx-SIH-04A1 xx represents the length, e.g. 03: 3 m
18										0.31	1.1	95.5			IMS20B-06M20B30C-2-M44-AUL	Electromagnetic brake						
19										0.28	0.8	73			IMS20B-06M20B30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
20										0.31	1.1	95.5			IMS20B-06M20B30C-2-P94-AUL	Electromagnetic brake						
21			0.4	1.27	4.45	3000	7000	2.7	8.9	0.5	1.2	92.5	30/14	5	IMS20B-06M40B30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder					
22										0.53	1.4	114.5			IMS20B-06M40B30C-2-M44-AUL	Electromagnetic brake						
23										0.5	1.2	92.5			IMS20B-06M40B30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
24										0.53	1.4	114.5			IMS20B-06M40B30C-2-P94-AUL	Electromagnetic brake						
25		380	0.2	0.64	2.24	3000	7000	1.1	3.6	0.28	0.8	73	30/14	5	IMS20B-06M20B30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA200A-*-1R6-T-2-*			
26										0.31	1.1	95.5			IMS20B-06M20B30C-4-M44-AUL	Electromagnetic brake						
27										0.28	0.8	73			IMS20B-06M20B30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
28										0.31	1.1	95.5			IMS20B-06M20B30C-4-P94-AUL	Electromagnetic brake						
29			0.4	1.27	4.45	3000	7000	1.6	5.3	0.5	1.2	92.5	30/14	5	IMS20B-06M40B30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder					
30										0.53	1.4	114.5			IMS20B-06M40B30C-4-M44-AUL	Electromagnetic brake						
31										0.5	1.2	92.5			IMS20B-06M40B30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
32										0.53	1.4	114.5			IMS20B-06M40B30C-4-P94-AUL	Electromagnetic brake						
33	80	220	0.75	2.39	8.36	3000	7000	4.8	16	1.7	2.14	96.8	35/19	6	IMS20B-08M75B30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA200A-*-6R0-S-2-*	A		
34										1.74	2.7	127			IMS20B-08M75B30C-2-M44-AUL	Electromagnetic brake						
35										1.7	2.14	96.8			IMS20B-08M75B30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
36										1.74	2.7	127			IMS20B-08M75B30C-2-P94-AUL	Electromagnetic brake						

[1] In the servo drive model, the first * E = pulse type, N = EtherCAT type, C = CANOpen type, F = PROFINET type; the second * P = High-spec Pro (STO, 2nd encoder, brake power output).

IMS20B series medium-power motor and DA200A series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)"	Bond width mm	Motor model	Brake	Encoder	Terminal type	Compatible drive model [1]	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
37	80	220	1	3.18	11.14	3000	7000	5.5	19	2.2	2.62	110.8	35/19	6	IMS20B-08M10C30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA200A-*-6R0-S-2-*	A	Line out towards the front end of the motor (You can also use the 40 base above to lead out the wire towards the back) Without brake Common：DAML-20A-xx-XF0-00A1 Flexible：DAML-20A-xx-XFF-00A1 With brake Common：DAML-20A-xx-XF0-01A1 Flexible：DAML-20A-xx-XFF-01A1 xx represents the length, e.g. 03: 3 m	Line out towards the front end of the motor (You can also use the 40 base above to lead out the wire towards the back) Without battery Common：DAEL-04-xx-SI0-04A1 Flexible：DAEL-04-xx-SIF-04A1 With battery Common：DAEL-06-xx-SID-04A1 Flexible：DAEL-06-xx-SIH-04A1 xx represents the length, e.g. 03: 3 m
38										2.24	3.18	141			IMS20B-08M10C30C-2-M44-AUL	Electromagnetic brake						
39										2.2	2.62	110.8			IMS20B-08M10C30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
40										2.24	3.18	141			IMS20B-08M10C30C-2-P94-AUL	Electromagnetic brake						
41		380	0.75	2.39	8.36	3000	7000	2.8	9.3	1.7	2.14	96.8	35/19	6	IMS20B-08M75B30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder	In-line	DA200A-*-3R5-T-2-*	B		
42										1.74	2.7	127			IMS20B-08M75B30C-4-M44-AUL	Electromagnetic brake						
43										1.7	2.14	96.8			IMS20B-08M75B30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
44										1.74	2.7	127			IMS20B-08M75B30C-4-P94-AUL	Electromagnetic brake						
45			1	3.18	11.14	3000	7000	3.5	11.7	2.2	2.62	110.8	35/19	6	IMS20B-08M10C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder					
46										2.24	3.18	141			IMS20B-08M10C30C-4-M44-AUL	Electromagnetic brake						
47										2.2	2.62	110.8			IMS20B-08M10C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
48										2.24	3.18	141			IMS20B-08M10C30C-4-P94-AUL	Electromagnetic brake						
49	100	220	1	3.2	9.6	3000	6000	5.9	19.7	1.71	3.4	140.2	45/24	8	IMS20B-10M10C30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA200A-*-8R0-S-2-*	B	Without brake Common：DAML-16A-xx-KF0-00A4 Flexible：DAML-16A-xx-KFF-00A4 With brake Common：DAML-16A-xx-KF0-01A4 Flexible：DAML-16A-xx-KFF-01A4 xx represents the length, e.g. 03: 3 m	Without battery Common：DAEL-04-xx-HI0-04A4 Flexible：DAEL-04-xx-HIF-04A4 With battery Common：DAEL-06-xx-HID-04A4 Flexible：DAEL-06-xx-HIH-04A4 xx represents the length, e.g. 03: 3 m
50										1.87	4.2	166.2			IMS20B-10M10C30C-2-M44-AUL	Electromagnetic brake						
51										1.71	3.4	140.2			IMS20B-10M10C30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
52										1.87	4.2	166.2			IMS20B-10M10C30C-2-P94-AUL	Electromagnetic brake						
53			1.5	4.8	14.3	3000	6000	7.8	29.3	2.36	4.2	156.2	45/24	8	IMS20B-10M15C30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-010-S-2-*			
54										2.53	5	182.2			IMS20B-10M15C30C-2-M44-AUL	Electromagnetic brake						
55										2.36	4.2	156.2			IMS20B-10M15C30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
56										2.53	5	182.2			IMS20B-10M15C30C-2-P94-AUL	Electromagnetic brake						
57			2	6.4	19.1	3000	6000	11.1	36.8	3.03	5	172.2	45/24	8	IMS20B-10M20C30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-013-S-2-*	C		
58										3.2	5.8	198.2			IMS20B-10M20C30C-2-M44-AUL	Electromagnetic brake						
59										3.03	5	172.2			IMS20B-10M20C30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
60										3.2	5.8	198.2			IMS20B-10M20C30C-2-P94-AUL	Electromagnetic brake						
61		380	1	3.2	9.6	3000	6000	3	10	1.71	3.4	140.2	45/24	8	IMS20B-10M10C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA200A-*-3R5-T-2-*	B		
62										1.87	4.2	166.2			IMS20B-10M10C30C-4-M44-AUL	Electromagnetic brake						
63										1.71	3.4	140.2			IMS20B-10M10C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
64										1.87	4.2	166.2			IMS20B-10M10C30C-4-P94-AUL	Electromagnetic brake						
65			1.5	4.8	14.3	3000	6000	4	14	2.36	4.2	156.2	45/24	8	IMS20B-10M15C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-5R5-T-2-*			
66										2.53	5	182.2			IMS20B-10M15C30C-4-M44-AUL	Electromagnetic brake						
67										2.36	4.2	156.2			IMS20B-10M15C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
68										2.53	5	182.2			IMS20B-10M15C30C-4-P94-AUL	Electromagnetic brake						
69			2	6.4	19.1	3000	6000	5.5	17.1	3.03	5	172.2	45/24	8	IMS20B-10M20C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-8R5-T-2-*	C		
70										3.2	5.8	198.2			IMS20B-10M20C30C-4-M44-AUL	Electromagnetic brake						
71										3.03	5	172.2			IMS20B-10M20C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
72										3.2	5.8	198.2			IMS20B-10M20C30C-4-P94-AUL	Electromagnetic brake						

[1] In the servo drive model, the first * E = pulse type, N = EtherCAT type, C = CANOpen type, F = PROFINET type; the second * P = High-spec Pro (STO, 2nd encoder, brake power output).

IMS20B series medium-power motor and DA200A series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)"	Bond width mm	Motor model	Brake	Encoder	Terminal type	Compatible drive model ①	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
73	100	380	2.5	8	23.9	3000	6000	7.1	22.5	3.68	5.8	188.2	45/24	8	IMS20B-10M25C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA200A-*-8R5-T-2-*	c	Without brake Common：DAML-16A-xx-KF0-00A4 Flexible：DAML-16A-xx-KFF-00A4 With brake Common：DAML-16A-xx-KF0-01A4 Flexible：DAML-16A-xx-KFF-01A4 xx represents the length, e.g. 03: 3 m	Without battery Common：DAEL-04-xx-HI0-04A4 Flexible：DAEL-04-xx-HIF-04A4 With battery Common：DAEL-06-xx-HID-04A4 Flexible：DAEL-06-xx-HIH-04A4 xx represents the length, e.g. 03: 3 m
74										3.85	6.6	214.2			IMS20B-10M25C30C-4-M44-AUL	Electromagnetic brake						
75										3.68	5.8	188.2			IMS20B-10M25C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
76										3.85	6.6	214.2			IMS20B-10M25C30C-4-P94-AUL	Electromagnetic brake						
77	130	220	0.85	5.4	13.5	1500	4500	6.2	14.9	13.1	5.7	138	55/22	8	IMS20B-13H85B15C-2-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA200A-*-6R0-S-2-*	A	Without brake Common：DAML-16A-xx-KF0-00A4 Flexible：DAML-16A-xx-KFF-00A4 With brake Common：DAML-16A-xx-KF0-01A4 Flexible：DAML-16A-xx-KFF-01A4 xx represents the length, e.g. 03: 3 m	Without battery Common：DAEL-04-xx-HI0-04A4 Flexible：DAEL-04-xx-HIF-04A4 With battery Common：DAEL-06-xx-HID-04A4 Flexible：DAEL-06-xx-HIH-04A4 xx represents the length, e.g. 03: 3 m
78										14.3	7.3	167			IMS20B-13H85B15C-2-M44-AUL	Electromagnetic brake						
79										13.1	5.7	138			IMS20B-13H85B15C-2-P9-AUL	\	23-bit multi-turn optical encoder					
80										14.3	7.3	167			IMS20B-13H85B15C-2-P94-AUL	Electromagnetic brake						
81			1.3	8.3	20.7	1500	4500	9.9	24.8	17.9	7.2	155	55/22	8	IMS20B-13H13C15C-2-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-010-S-2-*	B		
82										19.1	8.8	184			IMS20B-13H13C15C-2-M44-AUL	Electromagnetic brake						
83										17.9	7.2	155			IMS20B-13H13C15C-2-P9-AUL	\	23-bit multi-turn optical encoder					
84										19.1	8.8	184			IMS20B-13H13C15C-2-P94-AUL	Electromagnetic brake						
85			1.8	11.5	28.7	1500	4500	12.8	31.1	24.3	9	185	55/22	8	IMS20B-13H18C15C-2-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-013-S-2-*	C		
86										25.6	10.6	215			IMS20B-13H18C15C-2-M44-AUL	Electromagnetic brake						
87										24.3	9	185			IMS20B-13H18C15C-2-P9-AUL	\	23-bit multi-turn optical encoder					
88										25.6	10.6	215			IMS20B-13H18C15C-2-P94-AUL	Electromagnetic brake						
89			2.3	7.3	21.9	3000	5000	11.9	32.6	17.9	7.2	155	55/22	8	IMS20B-13H23C30C-2-M4-AUL	\	17-bit multi-turn magnetic encoder					
90										19.1	8.8	184			IMS20B-13H23C30C-2-M44-AUL	Electromagnetic brake						
91										17.9	7.2	155			IMS20B-13H23C30C-2-P9-AUL	\	23-bit multi-turn optical encoder					
92										19.1	8.8	184			IMS20B-13H23C30C-2-P94-AUL	Electromagnetic brake						
93			1	4.8	14.3	2000	4500	5.4	16.9	6.3	4.4	130	55/22	8	IMS20B-13M10C20C-2-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-6R0-S-2-*	A		
94										7.95	6	159			IMS20B-13M10C20C-2-M44-AUL	Electromagnetic brake						
95										6.3	4.4	130			IMS20B-13M10C20C-2-P9-AUL	\	23-bit multi-turn optical encoder					
96										7.95	6	159			IMS20B-13M10C20C-2-P94-AUL	Electromagnetic brake						
97			1.5	7.2	21.5	2000	4500	7.6	22.2	9.1	5.6	143	55/22	8	IMS20B-13M15C20C-2-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-8R0-S-2-*	B		
98										10.8	7.2	172			IMS20B-13M15C20C-2-M44-AUL	Electromagnetic brake						
99										9.1	5.6	143			IMS20B-13M15C20C-2-P9-AUL	\	23-bit multi-turn optical encoder					
100										10.8	7.2	172			IMS20B-13M15C20C-2-P94-AUL	Electromagnetic brake						
101			2	9.6	28.7	2000	4500	9	27.8	12.9	6.9	160	55/22	8	IMS20B-13M20C20C-2-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-010-S-2-*			
102										14.6	8.5	189			IMS20B-13M20C20C-2-M44-AUL	Electromagnetic brake						
103										12.9	6.9	160			IMS20B-13M20C20C-2-P9-AUL	\	23-bit multi-turn optical encoder					
104										14.6	8.5	189			IMS20B-13M20C20C-2-P94-AUL	Electromagnetic brake						
105			3	14.3	43	2000	3000	13	37.5	21.7	10.3	210.5	55/22	8	IMS20B-13M30C20C-2-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-013-S-2-*	C		
106										23.4	11.9	240.2			IMS20B-13M30C20C-2-M44-AUL	Electromagnetic brake						
107										21.7	10.3	210.5			IMS20B-13M30C20C-2-P9-AUL	\	23-bit multi-turn optical encoder					
108										23.4	11.9	240.2			IMS20B-13M30C20C-2-P94-AUL	Electromagnetic brake						

① In the servo drive model, the first * E = pulse type, N = EtherCAT type, C = CANOpen type, F = PROFINET type; the second * P = High-spec Pro (STO, 2nd encoder, brake power output).

IMS20B series medium-power motor and DA200A series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)"	Bond width mm	Motor model	Brake	Encoder	Terminal type	Compatible drive model [1]	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
109	130	380	0.85	5.4	13.5	1500	4500	3.3	8.3	13.1	5.7	138	55/22	8	IMS20B-13H85B15C-4-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA200A-*-3R5-T-2-*	B	Without brake Common：DAML-16A-xx-KF0-00A4 Flexible：DAML-16A-xx-KFF-00A4 With brake Common：DAML-16A-xx-KF0-01A4 Flexible：DAML-16A-xx-KFF-01A4 xx represents the length, e.g. 03: 3 m	Without battery Common：DAEL-04-xx-HI0-04A4 Flexible：DAEL-04-xx-HIF-04A4 With battery Common：DAEL-06-xx-HID-04A4 Flexible：DAEL-06-xx-HIH-04A4 xx represents the length, e.g. 03: 3 m
110										14.3	7.3	167			IMS20B-13H85B15C-4-M44-AUL	Electromagnetic brake						
111										13.1	5.7	138			IMS20B-13H85B15C-4-P9-AUL	\	23-bit multi-turn optical encoder					
112										14.3	7.3	167			IMS20B-13H85B15C-4-P94-AUL	Electromagnetic brake						
113			1.3	8.3	20.7	1500	4500	5.2	12.6	17.9	7.2	155	55/22	8	IMS20B-13H13C15C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-5R5-T-2-*			
114										19.1	8.8	184			IMS20B-13H13C15C-4-M44-AUL	Electromagnetic brake						
115										17.9	7.2	155			IMS20B-13H13C15C-4-P9-AUL	\	23-bit multi-turn optical encoder					
116										19.1	8.8	184			IMS20B-13H13C15C-4-P94-AUL	Electromagnetic brake						
117			1.8	11.5	28.7	1500	4500	7.7	17.8	24.3	9	185	55/22	8	IMS20B-13H18C15C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-8R5-T-2-*	C		
118										25.6	10.6	215			IMS20B-13H18C15C-4-M44-AUL	Electromagnetic brake						
119										24.3	9	185			IMS20B-13H18C15C-4-P9-AUL	\	23-bit multi-turn optical encoder					
120										25.6	10.6	215			IMS20B-13H18C15C-4-P94-AUL	Electromagnetic brake						
121			2.3	7.3	21.9	3000	5000	6.8	19.2	17.9	7.2	155	55/22	8	IMS20B-13H23C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder					
122										19.1	8.8	184			IMS20B-13H23C30C-4-M44-AUL	Electromagnetic brake						
123										17.9	7.2	155			IMS20B-13H23C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
124										19.1	8.8	184			IMS20B-13H23C30C-4-P94-AUL	Electromagnetic brake						
125			1	4.8	14.3	2000	4500	3	8.6	6.3	4.4	130	55/22	8	IMS20B-13M10C20C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-3R5-T-2-*	B		
126										7.95	6	159			IMS20B-13M10C20C-4-M44-AUL	Electromagnetic brake						
127										6.3	4.4	130			IMS20B-13M10C20C-4-P9-AUL	\	23-bit multi-turn optical encoder					
128										7.95	6	159			IMS20B-13M10C20C-4-P94-AUL	Electromagnetic brake						
129			1.5	7.2	21.5	2000	4500	4.8	13.4	9.1	5.6	143	55/22	8	IMS20B-13M15C20C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-5R5-T-2-*			
130										10.8	7.2	172			IMS20B-13M15C20C-4-M44-AUL	Electromagnetic brake						
131										9.1	5.6	143			IMS20B-13M15C20C-4-P9-AUL	\	23-bit multi-turn optical encoder					
132										10.8	7.2	172			IMS20B-13M15C20C-4-P94-AUL	Electromagnetic brake						
133			2	9.6	28.7	2000	4500	5.6	15.9	12.9	6.9	160	55/22	8	IMS20B-13M20C20C-4-M4-AUL	\	17-bit multi-turn magnetic encoder					
134										14.6	8.5	189			IMS20B-13M20C20C-4-M44-AUL	Electromagnetic brake						
135										12.9	6.9	160			IMS20B-13M20C20C-4-P9-AUL	\	23-bit multi-turn optical encoder					
136										14.6	8.5	189			IMS20B-13M20C20C-4-P94-AUL	Electromagnetic brake						
137			3	14.3	43	2000	3000	7.7	21.1	21.7	10.3	210.5	55/22	8	IMS20B-13M30C20C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-8R5-T-2-*	C		
138										23.4	11.9	240.2			IMS20B-13M30C20C-4-M44-AUL	Electromagnetic brake						
139										21.7	10.3	210.5			IMS20B-13M30C20C-4-P9-AUL	\	23-bit multi-turn optical encoder					
140										23.4	11.9	240.2			IMS20B-13M30C20C-4-P94-AUL	Electromagnetic brake						
141			3	9.8	29.4	3000	6000	9	29.5	6.89	8.3	192	63/28	8	IMS20B-13L30C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA200A-*-012-T-2-*	C	Without brake Common：DAML-14A-xx-KW0-00A4 Flexible：DAML-14A-xx-KWF-00A4 With brake Common：DAML-14A-xx-KW0-01A4 Flexible：DAML-14A-xx-KWF-01A4 xx represents the length, e.g. 03: 3 m	Without battery Common：DAEL-04-xx-HI0-04A4 Flexible：DAEL-04-xx-HIF-04A4 With battery Common：DAEL-06-xx-HID-04A4 Flexible：DAEL-06-xx-HIH-04A4 xx represents the length, e.g. 03: 3 m
142										8.13	9.9	222			IMS20B-13L30C30C-4-M44-AUL	Electromagnetic brake						
143										6.89	8.3	192			IMS20B-13L30C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
144										8.13	9.9	222			IMS20B-13L30C30C-4-P94-AUL	Electromagnetic brake						

[1] In the servo drive model, the first * E = pulse type, N = EtherCAT type, C = CANOpen type, F = PROFINET type; the second * P = High-spec Pro (STO, 2nd encoder, brake power output).

IMS20B series medium-power motor and DA200A series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)"	Bond width mm	Motor model	Brake	Encoder	Terminal type	Compatible drive model ①	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
145	130	380	4	12.6	37.8	3000	6000	13.5	41	9.89	11	230	63/28	8	IMS20B-13L40C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA200A-*-016-T-2-*	D	Without brake Common：DAML-14A-xx-KW0-00A4 Flexible：DAML-14A-xx-KWF-00A4 With brake Common：DAML-14A-xx-KW0-01A4 Flexible：DAML-14A-xx-KWF-01A4 xx represents the length, e.g. 03: 3 m	Without battery Common：DAEL-04-xx-HI0-04A4 Flexible：DAEL-04-xx-HIF-04A4 With battery Common：DAEL-06-xx-HID-04A4 Flexible：DAEL-06-xx-HIH-04A4 xx represents the length, e.g. 03: 3 m
146										11.13	11.6	260			IMS20B-13L40C30C-4-M44-AUL	Electromagnetic brake						
147										9.89	11	230			IMS20B-13L40C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
148										11.13	11.6	260			IMS20B-13L40C30C-4-P94-AUL	Electromagnetic brake						
149			5	15.8	47.4	3000	6000	17	52	12.9	13.6	268	63/28	8	IMS20B-13L50C30C-4-M4-AUL	\	17-bit multi-turn magnetic encoder					
150										14.14	14.2	298			IMS20B-13L50C30C-4-M44-AUL	Electromagnetic brake						
151										12.9	13.6	268			IMS20B-13L50C30C-4-P9-AUL	\	23-bit multi-turn optical encoder					
152										14.14	14.2	298			IMS20B-13L50C30C-4-P94-AUL	Electromagnetic brake						
153	180 ③	380	3	19.1	47.8	1500	4500	9.7	22	48.6	19.2	223	79/35	10	IMS20B-18M30C15C-4-M4-AUL	\	17-bit multi-turn magnetic encoder	5015 aviation plug	DA200A-*-012-T-2-*	D	Without brake Common：DAML-14A-xx-LW0-00A4 Flexible：DAML-14A-xx-LWF-00A4 With brake Common：DAML-14A-xx-LW0-01A4 Flexible：DAML-14A-xx-LWF-01A4 xx represents the length, e.g. 03: 3 m	Without battery Common：DAEL-04-xx-HI0-04A4 Flexible：DAEL-04-xx-HIF-04A4 With battery Common：DAEL-06-xx-HID-04A4 Flexible：DAEL-06-xx-HIH-04A4 xx represents the length, e.g. 03: 3 m
154										49.3	21.2	263			IMS20B-18M30C15C-4-M44-AUL	Electromagnetic brake						
155										48.6	19.2	223			IMS20B-18M30C15C-4-P9-AUL	\	23-bit multi-turn optical encoder					
156										49.3	21.2	263			IMS20B-18M30C15C-4-P94-AUL	Electromagnetic brake						
157			4.4	28	70	1500	4500	13.5	29.8	65.2	23.2	248	79/35	10	IMS20B-18M44C15C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-016-T-2-*			
158										65.9	25.2	288			IMS20B-18M44C15C-4-M44-AUL	Electromagnetic brake						
159										65.2	23.2	248			IMS20B-18M44C15C-4-P9-AUL	\	23-bit multi-turn optical encoder					
160										65.9	25.2	288			IMS20B-18M44C15C-4-P94-AUL	Electromagnetic brake						
161			5.5	35	88.8	1500	4500	16.8	37.7	84	27.7	273	113/42	12	IMS20B-18M55C15C-4-M4-AUL	\	17-bit multi-turn magnetic encoder					
162										84.7	29.7	313			IMS20B-18M55C15C-4-M44-AUL	Electromagnetic brake						
163										84	27.7	273			IMS20B-18M55C15C-4-P9-AUL	\	23-bit multi-turn optical encoder					
164										84.7	29.7	313			IMS20B-18M55C15C-4-P94-AUL	Electromagnetic brake						
165			7.5	47.8	119.5	1500	4500	20.9	46.4	106.1	32.7	308	113/42	12	IMS20B-18M75C15C-4-M4-AUL	\	17-bit multi-turn magnetic encoder		DA200A-*-021-T-2-*		Without brake Common：DAML-12A-xx-LW0-00A4 Flexible：DAML-12A-xx-LWF-00A4 With brake Common：DAML-12A-xx-LW0-01A4 Flexible：DAML-12A-xx-LWF-01A4 xx represents the length, e.g. 03: 3 m	
166										111.1	34.7	348			IMS20B-18M75C15C-4-M44-AUL	Electromagnetic brake						
167										106.1	32.7	308			IMS20B-18M75C15C-4-P9-AUL	\	23-bit multi-turn optical encoder					
168										111.1	34.7	348			IMS20B-18M75C15C-4-P94-AUL	Electromagnetic brake						

① In the servo drive model, the first * E = pulse type, N = EtherCAT type, C = CANOpen type, F = PROFINET type; the second * P = High-spec Pro (STO, 2nd encoder, brake power output).
If there is a significant overload requirement for the motor in the application scenario, it is recommended to choose a larger specification for the driver or contact the manufacturer to discuss a solution

For UL certified servo drive models, please contact the sales manager for further details.

② The 180 frame has a customized motor ending with -AS50 (power: 3\4.4\5.5\7.5 kW), with a shaft length of 65 mm and a key length of 51 mm. It can replace the old SV motor (the supporting cable is different from that of the UL motor).

IMS20B series medium-power motor and DA200 series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)	Bond width mm	Motor model	Brake	Encoder	Encoder terminal type	Compatible drive model [1]	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
1	200	380	6.3	40	100	1500	2500	12.4	34	52	35.2	343	82/42	12	IMS20B-20M63C15C-4-R7F-A	\	Resolver encoder	YD28	SV-DA200-5R5-4-**	D	Non-flexible cable with shield layer DAML-10R-xx-SSA-00 xx represents the length, e.g. 03: 3 m	P9: 23-bit multi-turn absolute optical encoder Non-flexible twisted pair cable with shield Without battery DAEL-06-xx-BA0(T)-04A0 Flexible twisted pair cable with shield Without battery DAEL-06-xx-BAF(T)-04A0 Non-flexible twisted pair cable with shield With battery DAEL-08-xx-BAD(T)-04A0 Flexible twisted pair cable with shield With battery DAEL-08-xx-BAH(T)-04A0 xx represents the length, e.g. 03: 3 m R7: Resolver encoder Non-flexible twisted pair cable with shield DAEL-08-xx-BA0(T)-07A0 Flexible twisted pair cable with shield DAEL-08-xx-BAF(T)-07A0 xx represents the length, e.g. 03: 3 m
2			6.3	40	100	1500	2500	12.4	34	52	35.2	343			IMS20B-20M63C15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
3			6.3	40	100	1500	2500	12.4	34	64	47.4	417			IMS20B-20M63C15C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
4			7.1	40	100	1700	2700	13.1	35	52	35.2	343			IMS20B-20M71C17C-4-R7F-A		Resolver encoder					
5			7.1	40	100	1700	2700	13.1	35	52	35.2	343			IMS20B-20M71C17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
6			7.1	40	100	1700	2700	13.1	35	64	47.4	417			IMS20B-20M71C17C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
7			8	38	96	2000	3000	14.4	38	52	35.2	343			IMS20B-20M80C20C-4-R7F-A		Resolver encoder					
8			8	38	96	2000	3000	14.4	38	52	35.2	343			IMS20B-20M80C20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
9			8	38	96	2000	3000	14.4	38	64	47.4	417			IMS20B-20M80C20C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
10			9.4	60	150	1500	2500	17.1	45	73	40.6	371			IMS20B-20M94C15C-4-R7F-A		Resolver encoder		SV-DA200-7R5-4-**	F		
11			9.4	60	150	1500	2500	17.1	45	73	40.6	371			IMS20B-20M94C15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
12			9.4	60	150	1500	2500	17.1	45	85	52.8	445			IMS20B-20M94C15C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
13			10.7	60	150	1700	2700	19.5	52	73	40.6	371			IMS20B-20M11D17C-4-R7F-A		Resolver encoder					
14			10.7	60	150	1700	2700	19.5	52	73	40.6	371			IMS20B-20M11D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
15			10.7	60	150	1700	2700	19.5	52	85	52.8	445			IMS20B-20M11D17C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
16			12.2	58	145	2000	3000	21.6	57	73	40.6	371			IMS20B-20M12D20C-4-R7F-A		Resolver encoder					
17			12.2	58	145	2000	3000	21.6	57	73	40.6	371			IMS20B-20M12D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
18			12.2	58	145	2000	3000	21.6	57	85	52.8	445			IMS20B-20M12D20C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
19			12.6	80	200	1500	2500	22.5	59	94	46	399			IMS20B-20M13D15C-4-R7F-A		Resolver encoder					
20			12.6	80	200	1500	2500	22.5	59	94	46	399			IMS20B-20M13D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
21			12.6	80	200	1500	2500	22.5	59	106	58.2	473			IMS20B-20M13D15C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
22			14.2	80	200	1700	2700	26.1	69	94	46	399			IMS20B-20M14D17C-4-R7F-A		Resolver encoder					
23			14.2	80	200	1700	2700	26.1	69	94	46	399			IMS20B-20M14D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
24			14.2	80	200	1700	2700	26.1	69	106	58.2	473			IMS20B-20M14D17C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
25			16.8	80	183	2000	3000	29.5	71	94	46	399			IMS20B-20M17D20C-4-R7F-A		Resolver encoder		SV-DA200-011-4-**	F		
26			16.8	80	183	2000	3000	29.5	71	94	46	399			IMS20B-20M17D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
27			16.8	80	183	2000	3000	29.5	71	106	58.2	473			IMS20B-20M17D20C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
28			15.7	100	250	1500	2500	27.9	75	115	51.5	427			IMS20B-20M16D15C-4-R7F-A		Resolver encoder					
29			15.7	100	250	1500	2500	27.9	75	115	51.5	427			IMS20B-20M16D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
30			15.7	100	250	1500	2500	27.9	75	127	63.7	501			IMS20B-20M16D15C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
31			17.8	100	250	1700	2700	31	86	115	51.5	427			IMS20B-20M18D17C-4-R7F-A		Resolver encoder					
32			17.8	100	250	1700	2700	31	86	115	51.5	427			IMS20B-20M18D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
33			17.8	100	250	1700	2700	31	86	127	63.7	501			IMS20B-20M18D17C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
34			20	95.3	239	2000	3000	34.5	90	115	51.5	427			IMS20B-20M20D20C-4-R7F-A		Resolver encoder					
35			20	95.3	239	2000	3000	34.5	90	115	51.5	427			IMS20B-20M20D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
36			20	95.3	239	2000	3000	34.5	90	127	63.7	501			IMS20B-20M20D20C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					

[1] In the servo drive model, the first * S = Standard Type, N = EtherCAT bus type, F = PROFINET bus type, D = PROFIdrive bus type; the second * 0 = Optical encoder and magnetic encoder, 7 = Resolver rate output
If there is a significant overload requirement for the motor in the application scenario, it is recommended to choose a larger specification for the driver or contact the manufacturer to discuss a solution

IMS20B series medium-power motor and DA200 series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)	Bond width mm	Motor model	Brake	Encoder	Encoder terminal type	Compatible drive model [1]	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
37	200	380	18.8	120	300	1500	2500	33.7	89	135	56.8	455	82/42	12	IMS20B-20M19D15C-4-R7F-A		Resolver encoder	YD28	SV-DA200-011-4-**	F	Non-flexible cable with shield layer DAML-10R-xx-SSA-00 xx represents the length, e.g. 03: 3 m	P9：23-bit multi-turn absolute optical encoder Non-flexible twisted pair cable with shield Without battery DAEL-06-xx-BA0(T)-04A0 Flexible twisted pair cable with shield Without battery DAEL-06-xx-BAF(T)-04A0 Non-flexible twisted pair cable with shield With battery DAEL-08-xx-BAD(T)-04A0 Flexible twisted pair cable with shield With battery DAEL-08-xx-BAH(T)-04A0 xx represents the length, e.g. 03: 3 m R7：Resolver encoder Non-flexible twisted pair cable with shield DAEL-08-xx-BA0(T)-07A0 Flexible twisted pair cable with shield DAEL-08-xx-BAF(T)-07A0 xx represents the length, e.g. 03: 3 m
38			18.8	120	300	1500	2500	33.7	89	135	56.8	455			IMS20B-20M19D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
39			18.8	120	300	1500	2500	33.7	89	147	69	529			IMS20B-20M19D15C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
40			21.4	120	300	1700	2700	38.6	103	135	56.8	455			IMS20B-20M21D17C-4-R7F-A		Resolver encoder		SV-DA200-015-4-**	F2		
41			21.4	120	300	1700	2700	38.6	103	135	56.8	455			IMS20B-20M21D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
42			21.4	120	300	1700	2700	38.6	103	147	69	529			IMS20B-20M21D17C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
43			24.1	114.3	288	2000	3000	41.7	110	135	56.8	455			IMS20B-20M24D20C-4-R7F-A		Resolver encoder					
44			24.1	114.3	288	2000	3000	41.7	110	135	56.8	455			IMS20B-20M24D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
45			24.1	114.3	288	2000	3000	41.7	110	147	69	529			IMS20B-20M24D20C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
46			22	140	350	1500	2500	38.6	104	156	62.3	483			IMS20B-20M22D15C-4-R7F-A		Resolver encoder					
47			22	140	350	1500	2500	38.6	104	156	62.3	483			IMS20B-20M22D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
48			22	140	350	1500	2500	38.6	104	168	74.5	557			IMS20B-20M22D15C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
49			24.9	140	350	1700	2700	44.8	116	156	62.3	483			IMS20B-20M25D17C-4-R7F-A		Resolver encoder					
50			24.9	140	350	1700	2700	44.8	116	156	62.3	483			IMS20B-20M25D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
51			24.9	140	350	1700	2700	44.8	116	168	74.5	557			IMS20B-20M25D17C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
52			27.4	130.7	328	2000	3000	48.6	125	156	62.3	483			IMS20B-20M27D20C-4-R7F-A		Resolver encoder					
53			27.4	130.7	328	2000	3000	48.6	125	156	62.3	483			IMS20B-20M27D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
54			27.4	130.7	328	2000	3000	48.6	125	168	74.5	557			IMS20B-20M27D20C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
55			25.1	160	400	1500	2500	44.6	118	177	67.7	511			IMS20B-20M25D15C-4-R7F-A	\	Resolver encoder					
56			25.1	160	400	1500	2500	44.6	118	177	67.7	511			IMS20B-20M25D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
57			28.5	160	400	1700	2700	51.4	136	177	67.7	511			IMS20B-20M29D17C-4-R7F-A	\	Resolver encoder					
58			28.5	160	400	1700	2700	51.4	136	177	67.7	511			IMS20B-20M29D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
59			31.6	150.9	376	2000	3000	55.73	139	177	67.7	511			IMS20B-20M32D20C-4-R7F-A	\	Resolver encoder		SV-DA200-022-4-**	G		
60			31.6	150.9	376	2000	3000	55.73	139	177	67.7	511			IMS20B-20M32D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
61			28.3	180	450	1500	2500	49.2	130	196	73.1	539			IMS20B-20M28D15C-4-R7F-A	\	Resolver encoder					
62			28.3	180	450	1500	2500	49.2	130	196	73.1	539			IMS20B-20M28D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
63			32	180	450	1700	2700	57.4	152	196	73.1	539			IMS20B-20M32D17C-4-R7F-A	\	Resolver encoder					
64			32	180	450	1700	2700	57.4	152	196	73.1	539			IMS20B-20M32D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
65			35.6	169.9	425	2000	3000	62.2	154	196	73.1	539			IMS20B-20M36D20C-4-R7F-A	\	Resolver encoder					
66			35.6	169.9	425	2000	3000	62.2	154	196	73.1	539			IMS20B-20M36D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
67			31	200	500	1500	2500	55	140	230	78	567			IMS20B-20M31D15C-4-R7F-A	\	Resolver encoder					
68			31	200	500	1500	2500	55	140	230	78	567			IMS20B-20M31D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
69			36	200	500	1700	2700	61	158	230	78	567			IMS20B-20M36D17C-4-R7F-A	\	Resolver encoder					
70			36	200	500	1700	2700	61	158	230	78	567			IMS20B-20M36D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
71			40	190	475	2000	3000	66	168	230	78	567			IMS20B-20M40D20C-4-R7F-A	\	Resolver encoder					
72			40	190	475	2000	3000	66	168	230	78	567			IMS20B-20M40D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					

1 In the servo drive model, the first * S = Standard Type, N = EtherCAT bus type, F = PROFINET bus type, D = PROFIdrive bus type; the second * 0 = Optical encoder and magnetic encoder, 7 = Resolver rate output
If there is a significant overload requirement for the motor in the application scenario, it is recommended to choose a larger specification for the driver or contact the manufacturer to discuss a solution

IMS20B series medium-power motor and DA200 series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)	Bond width mm	Motor model	Brake	Encoder	Encoder terminal type	Compatible drive model [1]	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
73	263	380	28.3	180	450	1500	2500	49.5	141	242	82	523	112/48	14	IMS20B-26M28D15C-4-R7F-A	\	Resolver encoder	YD28	SV-DA200-015-4-**	F2	Non-flexible cable with shield layer DAML-16R-xx-SSA-00 xx represents the length, e.g. 03: 3 m	P9: 23-bit multi-turn absolute optical encoder Non-flexible twisted pair cable with shield Without battery DAEL-06-xx-BA0(T)-04A0 Flexible twisted pair cable with shield Without battery DAEL-06-xx-BAF(T)-04A0 Non-flexible twisted pair cable with shield With battery DAEL-08-xx-BAD(T)-04A0 Flexible twisted pair cable with shield With battery DAEL-08-xx-BAH(T)-04A0 xx represents the length, e.g. 03: 3 m R7: Resolver encoder Non-flexible twisted pair cable with shield DAEL-08-xx-BA0(T)-07A0 Flexible twisted pair cable with shield DAEL-08-xx-BAF(T)-07A0 xx represents the length, e.g. 03: 3 m
74			28.3	180	450	1500	2500	49.5	141	242	82	523			IMS20B-26M28D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
75			28.3	180	450	1500	2500	49.5	141	242	95	608			IMS20B-26M28D15C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
76			32	180	450	1700	2700	58.1	171	242	82	523			IMS20B-26M32D17C-4-R7F-A	\	Resolver encoder		SV-DA200-022-4-**	G		
77			32	180	450	1700	2700	58.1	171	242	82	523			IMS20B-26M32D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
78			32	180	450	1700	2700	58.1	171	242	95	608			IMS20B-26M32D17C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
79			36.7	175.4	438	2000	3000	65.1	185	242	82	523			IMS20B-26M37D20C-4-R7F-A	\	Resolver encoder					
80			36.7	175.4	438	2000	3000	65.1	185	242	82	523			IMS20B-26M37D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
81			36.7	175.4	438	2000	3000	65.1	185	242	95	608			IMS20B-26M37D20C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
82			34.6	220	553	1500	2500	60.4	172	297	93	563			IMS20B-26M35D15C-4-R7F-A	\	Resolver encoder					
83			34.6	220	553	1500	2500	60.4	172	297	93	563			IMS20B-26M35D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
84			34.6	220	553	1500	2500	60.4	172	297	106	648			IMS20B-26M35D15C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
85			39.2	220	553	1700	2700	66.8	190	297	93	563			IMS20B-26M39D17C-4-R7F-A	\	Resolver encoder		SV-DA200-037-4-**	G		
86			39.2	220	553	1700	2700	66.8	190	297	93	563			IMS20B-26M39D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
87			39.2	220	553	1700	2700	66.8	190	297	106	648			IMS20B-26M39D17C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
88			44.9	214.3	536	2000	3000	81.2	222	297	93	563			IMS20B-26M45D20C-4-R7F-A	\	Resolver encoder					
89			44.9	214.3	536	2000	3000	81.2	222	297	93	563			IMS20B-26M45D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
90			44.9	214.3	536	2000	3000	81.2	222	297	106	648			IMS20B-26M45D20C-4-P94F-A	Electromagnetic brake	23-bit multi-turn absolute optical encoder					
91			40.8	260	651	1500	2500	71.2	202	351	104	603			IMS20B-26M41D15C-4-R7F-A	\	Resolver encoder					
92			40.8	260	651	1500	2500	71.2	202	351	104	603			IMS20B-26M41D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
93			46.3	260	651	1700	2700	81.3	226	351	104	603			IMS20B-26M46D17C-4-R7F-A	\	Resolver encoder					
94			46.3	260	651	1700	2700	81.3	226	351	104	603			IMS20B-26M46D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
95			49.8	237.7	594	2000	3000	82.5	220	351	104	603			IMS20B-26M50D20C-4-R7F-A	\	Resolver encoder					
96			49.8	237.7	594	2000	3000	82.5	220	351	104	603			IMS20B-26M50D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
97			47.1	300	750	1500	2500	79.3	225	406	115	643			IMS20B-26M47D15C-4-R7F-A	\	Resolver encoder					
98			47.1	300	750	1500	2500	79.3	225	406	115	643			IMS20B-26M47D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
99			53.4	300	750	1700	2700	93.9	257	406	115	643			IMS20B-26M53D17C-4-R7F-A	\	Resolver encoder					
100			53.4	300	750	1700	2700	93.9	257	406	115	643			IMS20B-26M53D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
101			57.7	275.4	688	2000	3000	99.7	268	406	115	643			IMS20B-26M58D20C-4-R7F-A	\	Resolver encoder		SV-DA200-045-4-**	H		
102			57.7	275.4	688	2000	3000	99.7	268	406	115	643			IMS20B-26M58D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
103			53.4	340	850	1500	2500	89.4	254	461	126	683			IMS20B-26M53D15C-4-R7F-A	\	Resolver encoder					
104			53.4	340	850	1500	2500	89.4	254	461	126	683			IMS20B-26M53D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
105			60.5	340	850	1700	2700	101.9	290	461	126	683			IMS20B-26M61D17C-4-R7F-A	\	Resolver encoder					
106			60.5	340	850	1700	2700	101.9	290	461	126	683			IMS20B-26M61D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
107			65	310	844	2000	3000	113	298	461	126	683			IMS20B-26M65D20C-4-R7F-A	\	Resolver encoder					
108			65	310	844	2000	3000	113	298	461	126	683			IMS20B-26M65D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					

[1] In the servo drive model, the first * S = Standard Type, N = EtherCAT bus type, F = PROFINET bus type, D = PROFIdrive bus type; the second * 0 = Optical encoder and magnetic encoder, 7 = Resolver rate output
If there is a significant overload requirement for the motor in the application scenario, it is recommended to choose a larger specification for the driver or contact the manufacturer to discuss a solution

IMS20B series medium-power motor and DA200 series servo drive combination ordering guide

No.	Base model No. mm	Voltage (V)	Power (kW)	Rated torque (Nm)	Max. torque (Nm)	Rated speed (rpm)	Max. speed (rpm)	Rated current (A)	Max. current (A)	Inertia 10-4kg·m²	Weight (kg)	Machine length mm	Shaft extension/Shaft diameter (mm)	Bond width mm	Motor model	Brake	Encoder	Encoder terminal type	Compatible drive model [1]	Drive encapsulation	Power cable model Length: 3, 5, 10, 15, 20, 25	Encoder cable model Length: 3, 5, 10, 15, 20, 25
109	263	380	59.7	380	950	1500	2500	100	284	515	137	723	112/48	14	IMS20B-26M60D15C-4-R7F-A	\	Resolver encoder	YD28	SV-DA200-045-4-**	H	Non-flexible cable with shield layer DAML-25R-xx-SSA-00 xx represents the length, e.g. 03: 3 m	P9：23-bit multi-turn absolute optical encoder Non-flexible twisted pair cable with shield Without battery DAEL-06-xx-BA0(T)-04A0 Flexible twisted pair cable with shield Without battery DAEL-06-xx-BAF(T)-04A0 Non-flexible twisted pair cable with shield With battery DAEL-08-xx-BAD(T)-04A0 Flexible twisted pair cable with shield With battery DAEL-08-xx-BAH(T)-04A0 xx represents the length, e.g. 03: 3 m R7：Resolver encoder Non-flexible twisted pair cable with shield DAEL-08-xx-BA0(T)-07A0 Flexible twisted pair cable with shield DAEL-08-xx-BAF(T)-07A0 xx represents the length, e.g. 03: 3 m
110			59.7	380	950	1500	2500	100	284	515	137	723			IMS20B-26M60D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
111			67.6	380	950	1700	2700	118.8	330	515	137	723			IMS20B-26M68D17C-4-R7F-A	\	Resolver encoder		SV-DA200-055-4-**	H		
112			67.6	380	950	1700	2700	118.8	330	515	137	723			IMS20B-26M68D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
113			74	351	899	2000	3000	127.7	341	515	137	723			IMS20B-26M74D20C-4-R7F-A	\	Resolver encoder					
114			74	351	899	2000	3000	127.7	341	515	137	723			IMS20B-26M74D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
115			66	420	1050	1500	2500	120	321	574	148	763			IMS20B-26M66D15C-4-R7F-A	\	Resolver encoder					
116			66	420	1050	1500	2500	120	321	574	148	763			IMS20B-26M66D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
117			75	420	958	1700	2700	141	333	574	148	763			IMS20B-26M75D17C-4-R7F-A	\	Resolver encoder		SV-DA200-090-4-**	H	For customer supply. We recommend 35 square millimeter copper wire	
118			75	420	958	1700	2700	141	333	574	148	763			IMS20B-26M75D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
119			82	392	980	2000	3000	138	347	574	148	763			IMS20B-26M82D20C-4-R7F-A	\	Resolver encoder					
120			82	392	980	2000	3000	138	347	574	148	763			IMS20B-26M82D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
121			78	495	1050	1500	2500	151	334	629	159	803			IMS20B-26M78D15C-4-R7F-A	\	Resolver encoder					
122			78	495	1050	1500	2500	151	334	629	159	803			IMS20B-26M78D15C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
123			86	485	1075	1700	2700	152	348	629	159	803			IMS20B-26M86D17C-4-R7F-A	\	Resolver encoder					
124			86	485	1075	1700	2700	152	348	629	159	803			IMS20B-26M86D17C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					
125			90	430	1075	2000	3000	148	348	629	159	803			IMS20B-26M90D20C-4-R7F-A	\	Resolver encoder					
126			90	430	1075	2000	3000	148	348	629	159	803			IMS20B-26M90D20C-4-P9F-A	\	23-bit multi-turn absolute optical encoder					

[1] In the servo drive model, the first * S = Standard Type, N = EtherCAT bus type, F = PROFINET bus type, D = PROFIdrive bus type; the second * 0 = Optical encoder and magnetic encoder, 7 = Resolver rate output
If there is a significant overload requirement for the motor in the application scenario, it is recommended to choose a larger specification for the driver or contact the manufacturer to discuss a solution

Linear drive and accessory ordering guide

Linear drive							EMI filter
No.	Product series	Drive model	Control type	Power supply	Voltage	Current	Model
1	DA200A	DA200A-E-2R8-S-2-P	Pulse type	1PH	220V	2.8A	FLT-PS2010H-B
2	DA200A	DA200A-E-6R0-S-2-P	Pulse type	1PH	220V	6A	FLT-PS2010H-B
3	DA200A	DA200A-E-8R0-S-2-P	Pulse type	3PH	220V	8A	FLT-P04016L-B
4	DA200A	DA200A-E-010-S-2-P	Pulse type	3PH	220V	10A	FLT-P04016L-B
5	DA200A	DA200A-E-013-S-2-P	Pulse type	3PH	220V	13A	FLT-P04032L-B
6	DA200A	DA200A-E-1R6-T-2-P	Pulse type	3PH	400V	1.6A	FLT-P04006L-B
7	DA200A	DA200A-E-3R5-T-2-P	Pulse type	3PH	400V	3.5A	FLT-P04006L-B
8	DA200A	DA200A-E-5R5-T-2-P	Pulse type	3PH	400V	5.5A	FLT-P04006L-B
9	DA200A	DA200A-E-8R5-T-2-P	Pulse type	3PH	400V	8.5A	FLT-P04006L-B
10	DA200A	DA200A-E-012-T-2-P	Pulse type	3PH	400V	12A	FLT-P04016L-B
11	DA200A	DA200A-E-016-T-2-P	Pulse type	3PH	400V	16A	FLT-P04016L-B
12	DA200A	DA200A-E-021-T-2-P	Pulse type	3PH	400V	21A	FLT-P04032L-B
13	DA200A	DA200A-N-2R8-S-2-P	EtherCAT type	1PH	220V	2.8A	FLT-PS2010H-B
14	DA200A	DA200A-N-6R0-S-2-P	EtherCAT type	1PH	220V	6A	FLT-PS2010H-B
15	DA200A	DA200A-N-8R0-S-2-P	EtherCAT type	3PH	220V	8A	FLT-P04016L-B
16	DA200A	DA200A-N-010-S-2-P	EtherCAT type	3PH	220V	10A	FLT-P04016L-B
17	DA200A	DA200A-N-013-S-2-P	EtherCAT type	3PH	220V	13A	FLT-P04032L-B
18	DA200A	DA200A-N-1R6-T-2-P	EtherCAT type	3PH	400V	1.6A	FLT-P04006L-B
19	DA200A	DA200A-N-3R5-T-2-P	EtherCAT type	3PH	400V	3.5A	FLT-P04006L-B
20	DA200A	DA200A-N-5R5-T-2-P	EtherCAT type	3PH	400V	5.5A	FLT-P04006L-B
21	DA200A	DA200A-N-8R5-T-2-P	EtherCAT type	3PH	400V	8.5A	FLT-P04006L-B
22	DA200A	DA200A-N-012-T-2-P	EtherCAT type	3PH	400V	12A	FLT-P04016L-B
23	DA200A	DA200A-N-016-T-2-P	EtherCAT type	3PH	400V	16A	FLT-P04016L-B
24	DA200A	DA200A-N-021-T-2-P	EtherCAT type	3PH	400V	21A	FLT-P04032L-B
25	DA200A	DA200A-F-2R8-S-2-P	PROFINET type	1PH	220V	2.8A	FLT-PS2010H-B
26	DA200A	DA200A-F-6R0-S-2-P	PROFINET type	1PH	220V	6A	FLT-PS2010H-B
27	DA200A	DA200A-F-8R0-S-2-P	PROFINET type	3PH	220V	8A	FLT-P04016L-B
28	DA200A	DA200A-F-010-S-2-P	PROFINET type	3PH	220V	10A	FLT-P04016L-B
29	DA200A	DA200A-F-013-S-2-P	PROFINET type	3PH	220V	13A	FLT-P04032L-B
30	DA200A	DA200A-F-1R6-T-2-P	PROFINET type	3PH	400V	1.6A	FLT-P04006L-B
31	DA200A	DA200A-F-3R5-T-2-P	PROFINET type	3PH	400V	3.5A	FLT-P04006L-B
32	DA200A	DA200A-F-5R5-T-2-P	PROFINET type	3PH	400V	5.5A	FLT-P04006L-B
33	DA200A	DA200A-F-8R5-T-2-P	PROFINET type	3PH	400V	8.5A	FLT-P04006L-B
34	DA200A	DA200A-F-012-T-2-P	PROFINET type	3PH	400V	12A	FLT-P04016L-B
35	DA200A	DA200A-F-016-T-2-P	PROFINET type	3PH	400V	16A	FLT-P04016L-B
36	DA200A	DA200A-F-021-T-2-P	PROFINET type	3PH	400V	21A	FLT-P04032L-B
37	DA200A	DA200A-C-2R8-S-2-P	CANopen type	1PH	220V	2.8A	FLT-PS2010H-B
38	DA200A	DA200A-C-6R0-S-2-P	CANopen type	1PH	220V	6A	FLT-PS2010H-B
39	DA200A	DA200A-C-8R0-S-2-P	CANopen type	3PH	220V	8A	FLT-P04016L-B
40	DA200A	DA200A-C-010-S-2-P	CANopen type	3PH	220V	10A	FLT-P04016L-B
41	DA200A	DA200A-C-013-S-2-P	CANopen type	3PH	220V	13A	FLT-P04032L-B
42	DA200A	DA200A-C-1R6-T-2-P	CANopen type	3PH	400V	1.6A	FLT-P04006L-B
43	DA200A	DA200A-C-3R5-T-2-P	CANopen type	3PH	400V	3.5A	FLT-P04006L-B
44	DA200A	DA200A-C-5R5-T-2-P	CANopen type	3PH	400V	5.5A	FLT-P04006L-B
45	DA200A	DA200A-C-8R5-T-2-P	CANopen type	3PH	400V	8.5A	FLT-P04006L-B
46	DA200A	DA200A-C-012-T-2-P	CANopen type	3PH	400V	12A	FLT-P04016L-B
47	DA200A	DA200A-C-016-T-2-P	CANopen type	3PH	400V	16A	FLT-P04016L-B
48	DA200A	DA200A-C-021-T-2-P	CANopen type	3PH	400V	21A	FLT-P04032L-B
49	DA180A	DA180A-E-2R8-S-2-Z	Pulse type	1PH	220V	2.8A	FLT-PS2010H-B
50	DA180A	DA180A-E-6R0-S-2-Z	Pulse type	1PH	220V	6A	FLT-PS2010H-B
51	DA180A	DA180A-N-2R8-S-2-Z	EtherCAT type	1PH	220V	2.8A	FLT-PS2010H-B
52	DA180A	DA180A-N-6R0-S-2-Z	EtherCAT type	1PH	220V	6A	FLT-PS2010H-B

1 For UL certified models, please contact the sales manager for further details.

Accessories			
Material type	Material number	Model	Remarks
Encoder plug	36002-00353	/	DB15 metal head
Encoder plug	36002-00116	/	DB15 shell
IO plug	36002-00053	/	DB44 metal head
IO plug	36002-00117	/	DB44 shell
1st encoder plug	36006-00115	/	6PIN 1394Encoder plug，6131-06FS0MAGA2
2st encoder plug	36002-00291	/	DA200 matching; SCSI2*10PIN; 2st encoder plug
Power, motor plug	36002-01713	/	DA180A servo matching
Power, motor plug	36004-01668	/	DA180A-Z servo matching
Power plug	36004-01592	/	DA200A servo A–C volume matching
Motor plug	36004-01593	/	DA200A servo A–C volume matching
STO plug	36004-01590	/	DA200A servo matching
Brake plug	36004-01589	/	DA200A servo matching
Power plug	36004-00320	/	DA200 servo matching, 5PIN power plug, plug-in type, crimping type
Motor plug	36004-00311	/	DA200 servo matching, terminal block, terminal; Plug in plug; 1*7P
Short connector for motor plug	36006-00097	/	DA200 servo matching, connector accessories; Bridge components; Spacing 7.5mm
Gantry synchronization communication cable	67001-04872	/	Gantry synchronization communication cable；0.15m，1394-6PIN plug
Gantry synchronization communication cable	67001-04868	/	Gantry synchronization communication cable；0.5m，1394-6PIN plug
Encoder signal adapter cable	67001-04799	DAEL-06-01-AI0-04A0	Encoder signal adapter cable；1m，DB15-1394 6PIN plug
Encoder signal adapter cable	67001-04867	DAEL-06-007-AI0-04A0	Encoder signal adapter cable；0.7m，DB15-1394 6PIN plug
Encoder signal adapter cable	67001-04816	DAEL-06-005-AI0-04A0	Encoder signal adapter cable；0.5m，DB15-1394 6PIN plug
Encoder signal adapter cable	67001-04870	DAEL-06-01-AA0-04A0	Encoder signal adapter cable；1m，DB15-DB15 plug
Encoder signal adapter cable	67001-04866	DAEL-06-007-AA0-04A0	Encoder signal adapter cable；0.7m，DB15-DB15 plug
Encoder signal adapter cable	67001-04871	DAEL-06-005-AA0-04A0	Encoder signal adapter cable；0.5m，DB15-DB15 plug
Encoder signal adapter box	11023-00248	DA-EXT-EC01TB	Customized expansion card; Servo accessories
Encoder signal adapter box	11023-00258	DA-EXT-EC01TB	Customized expansion card; Servo accessories; 10 pieces large packaging
Cable bracket	61001-06454	/	Sheet metal parts: Cable bracket: DSV A~D for volume use
Cable bracket	61001-06505	/	Sheet metal parts: Cable bracket: DSV E~F for volume use
energy storage capacitor cabinet	90048-00534	DA-EXT-ES5R4-4	380V/5.4mF;
Battery box	19008-00266	/	Battery box, including casing, 3.6V/3.7Ah battery, etc
Battery	35003-00004	F0557D-LF	Battery，3.6V/3.7Ah