

 Focus on the industry, proficient in solutions



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## VECTOR SERVO

SHENZHEN VECTOR TECHNOLOGY CO.,LTD.

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### COMPANY PROFILE

Founded in 2004



Focusing on industrial automation products with independent intellectual property rights, we are positioned to serve high-end equipment manufacturers and provide overall solutions for customers in market segments. To become the world's leading provider of industrial automation products and solutions. Independently developed products include servo drive, motion controller, human-machine interface, servo motor, etc., with a number of invention patents, utility model patents and software registration rights, is a national high-tech enterprise. Has its own product research and development center and production base, in the country has a number of offices and agents. Our core competitiveness is to achieve seamless integration of product r&d and product application, and provide professional and efficient system solutions for equipment.

Vector will continue to adhere to the business philosophy of "creating value for customers wholeheartedly", make deep efforts in the field of industrial automation, and create the beauty of motion control is our unremitting pursuit, determined to build a national brand with leading technology, efficient management, leading domestic and internationally renowned.



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Eighteen years of industry application experience

Focus on motion control, provide a complete set of solutions

Independent intellectual property rights to achieve non-standard customization

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Intimate service, immediate response

Full product line: HMI + motion control + servo system (0.1-110KW)

Seamless cooperation between product development and product application



# VEC-VC SERIES SERVO SYSTEM

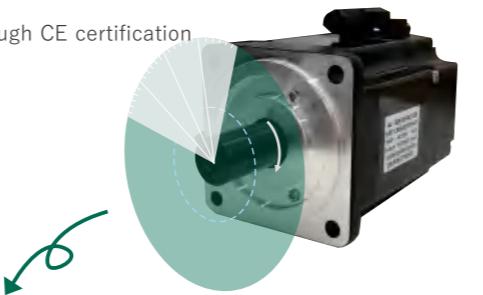
## PRODUCT INTRODUCTION

- Product series: economical, intelligent, dedicated, bus type, power level covers 100W-110KW, voltage level 220V, 380V, 440V
- Various encoder feedback signals: incremental/wire-saving photoelectric encoder, 17-bit/23-bit/24-bit absolute value photoelectric encoder, resolver, magnetic encoder, etc.
- Various communication protocols, Modbus/CANopen/EtherCAT/Profinet
- Speed loop bandwidth 3KHz, support high dynamic response
- With voltage feedforward control, torque feedforward control, speed feedforward control functions
- With command low-pass filter, median filter function
- Position command planning function, built-in T-shaped speed curve planning
- (3rd power) velocity curve planning
- Electronic gear ratio dynamic smooth switching function
- 35 kinds of standard return to zero function
- Supports shared DC bus
- Through CE certification

## PRODUCT FEATURES

### PRECISE POSITION

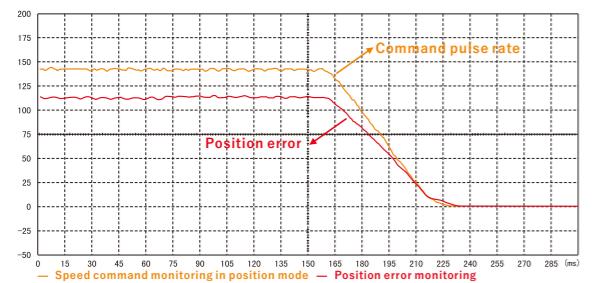
A 24-bit absolute encoder can be configured to improve the positioning accuracy and the stability of low-speed operation. Support multi-turn absolute value positioning mode, powered by battery, motor position will not be lost due to power failure.



24bit (absolute value) /17bit (absolute value)

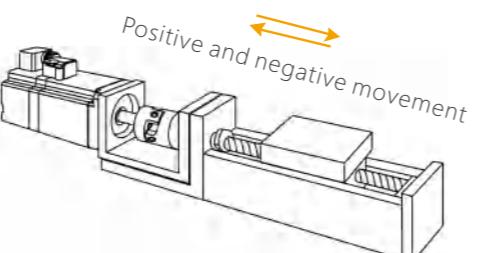
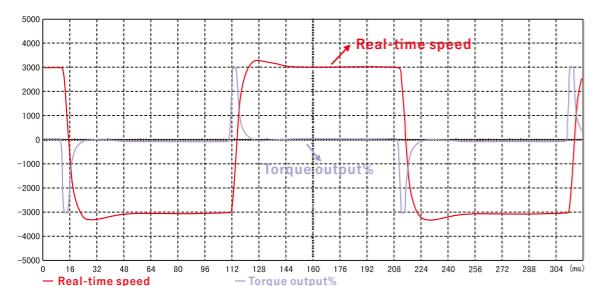
### HIGH-SPEED DYNAMIC RESPONSE

Speed loop bandwidth 3KHz  
Position command adjustment time is less than 5ms  
The speed rise time from -3000rpm to 3000rpm is 10ms



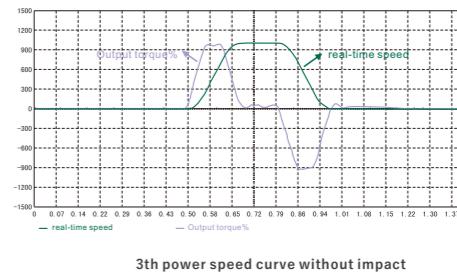
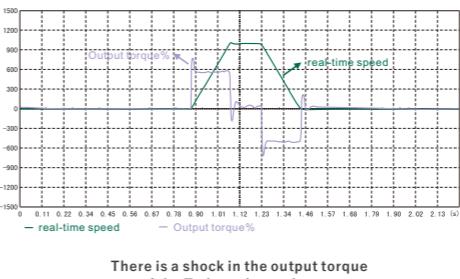
### LOAD INERTIA IDENTIFICATION

The servo has a load inertia identification function. By controlling the motor to perform several acceleration and deceleration rotations, the load inertia ratio can be automatically identified. According to the inertia ratio and the set rigidity level, the servo can automatically calculate the required gain.



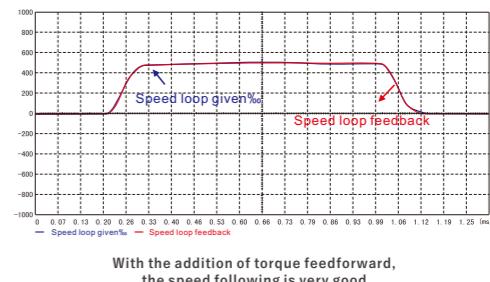
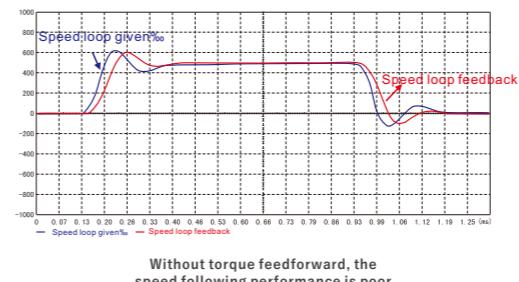
### 3-POWER VELOCITY CURVE PLANNING IN POSITION MODE

The traditional position planning algorithm adopts the trapezoidal speed curve planning algorithm, and the VC series servo internal position planning algorithm adopts the cubic speed curve algorithm. This standard algorithm can avoid the output of high-frequency torque, reduce the mechanical impact, and improve the processing efficiency.



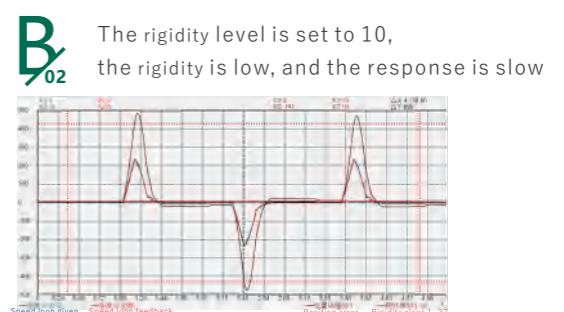
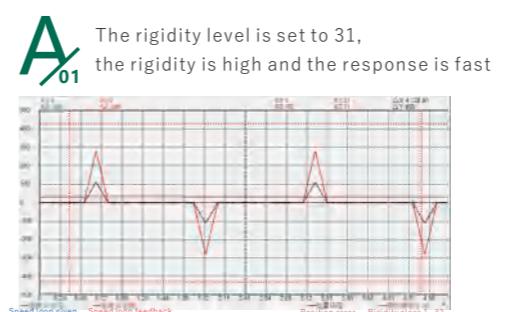
### TORQUE FEEDFORWARD CONTROL

Torque feedforward refers to the mathematical operation of the given speed command, combined with the load inertia, to obtain the torque that the motor needs to output, and directly set it to the torque loop, so that the actual speed of the motor can quickly keep up with the target speed. The torque feedforward coefficient is determined by the load inertia. The larger the load inertia, the larger the value. This value can be obtained by learning the habit.



### SIMPLE GAIN ADJUSTMENT FUNCTION

Servo parameter self-adjustment is realized by setting the rigidity level of the servo. When the rigidity level is set large, the servo rigidity is high and the response is fast. When the rigidity level is set, the servo rigidity is low and the response is slow.



### VIBRATION SUPPRESSION FUNCTION

There are low-pass filter and notch filter inside, which can effectively suppress the low-frequency vibration generated at the moment of shutdown and the end-swing vibration of the long swing arm mechanism.

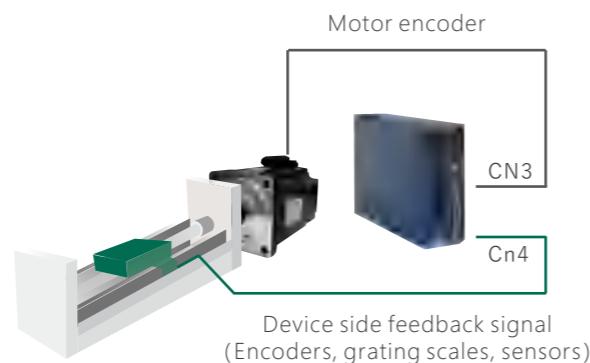
### DYNAMIC BRAKING FUNCTION

The built-in dynamic braking function can prevent equipment or personnel damage caused by excessively high-speed

## VC510 SPECIAL SERVO FOR TENSION CONTROL

### FULLY CLOSED-LOOP CONTROL

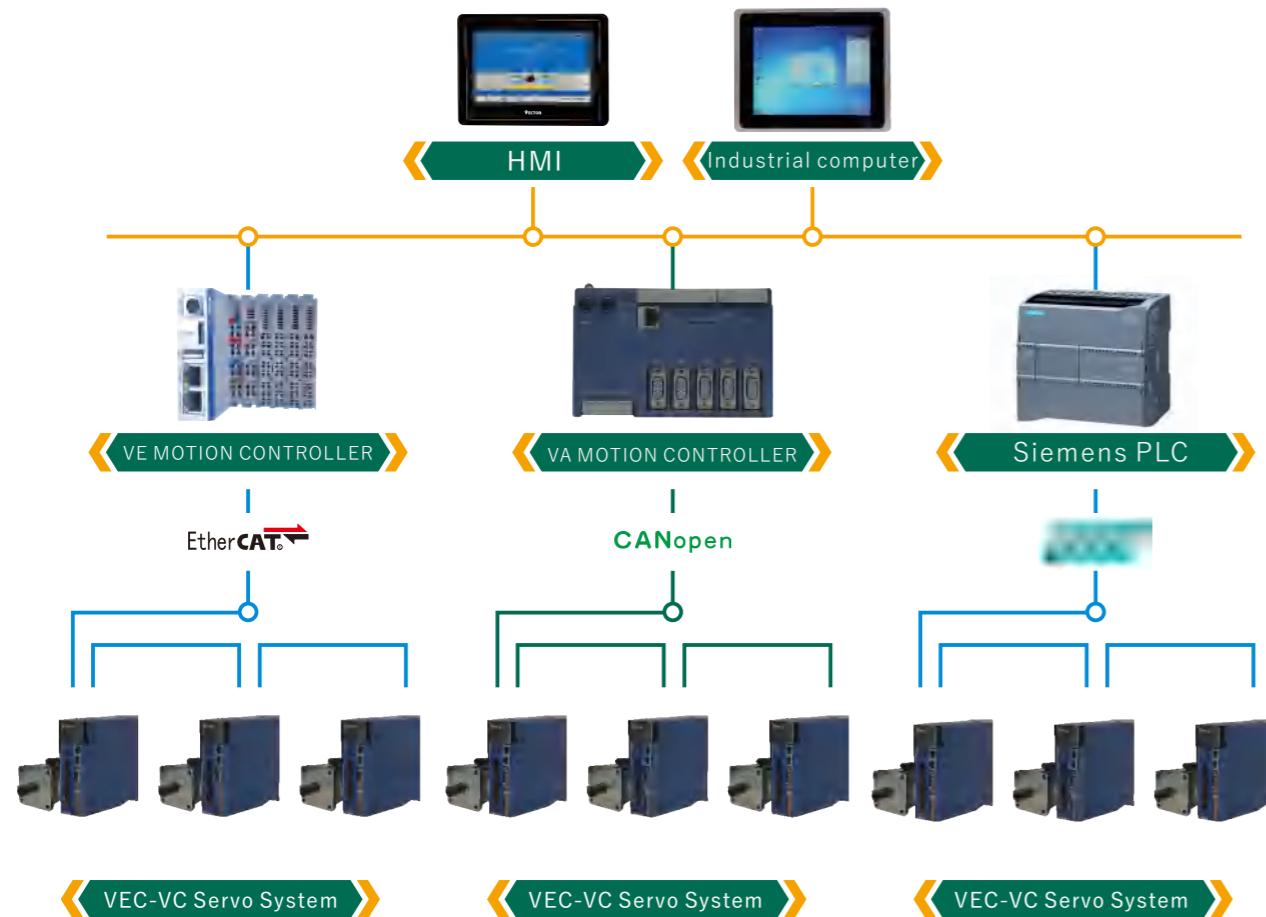
In the application of motor feeding, if there is relative sliding between the material and the motor, the displacement of the motor and the displacement of the actual material are inconsistent. Therefore, an external second encoder measures the displacement of the actual material, and the servo driver controls the motor speed according to the given position command and the position signal fed back by the second encoder, so that the given position command and the second encoder The position of the feedback is consistent, which effectively



### FLEXIBLE POSITION COMMAND OVERLAY FUNCTION

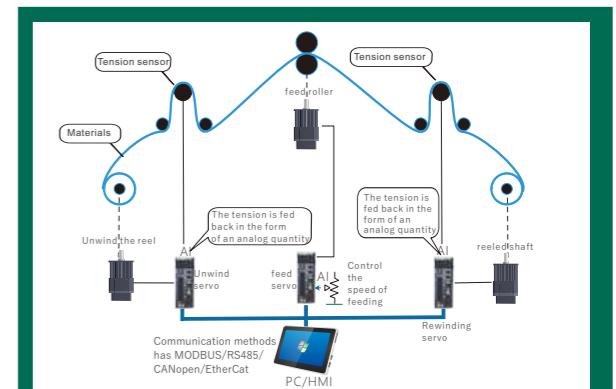
The position command can be set as the superposition of two pulses, that is, the sum of the pulse commands of the two pulses is tracked at the same time. It can also be set as the superposition of the pulse command and the internal planned position command, that is, the position command planned by the internal multi-segment position is superimposed on the

### ETHERCAT, PROFINET, CANOPEN HIGH-SPEED BUS, REALIZE MULTI-AXIS SYNCHRONOUS CONTROL



### PRODUCT INTRODUCTION

VC510 tension control servo has built-in multiple tension control modes: including closed-loop speed mode, closed-loop torque mode, open-loop speed mode, and open-loop torque mode. Vekoda provides a full-servo tension control solution, with the VC510 dedicated tension control servo as the core, using different tension control modes for different machines, and integrating the tension controller into the servo driver. The tension control system consists of man-machine interface, special servo for tension control, and tension sensor. It can realize open-loop tension control of rewinding and unwinding, closed-loop tension control of rewinding and unwinding, and process tension control. Achieve high precision, high stability, maintenance-free and energy-saving effects.

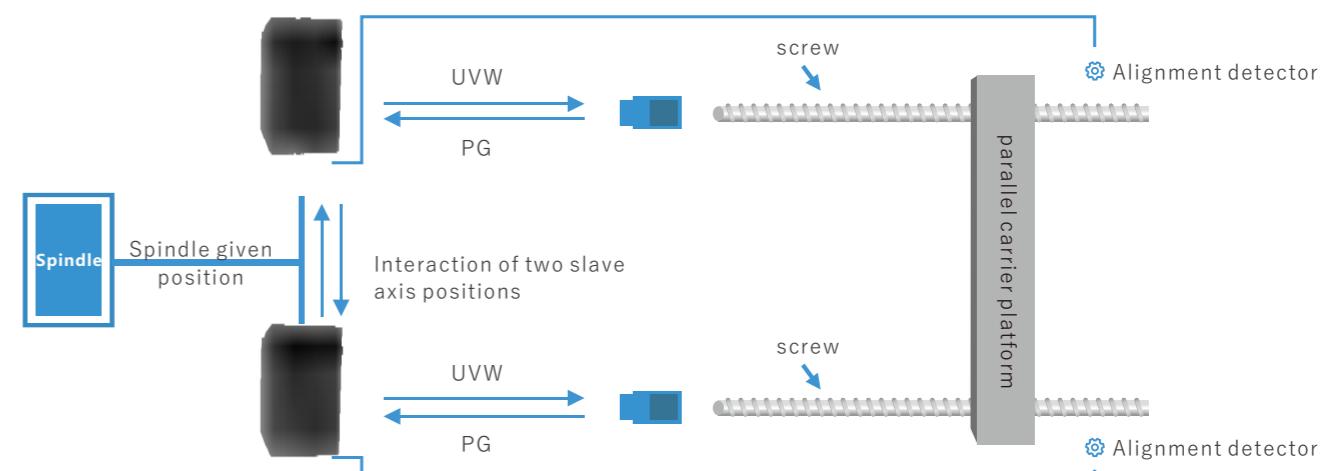


### PRODUCT FEATURES

- ① Smooth start, no jitter at low speed;
- ② Wide range of winding and unwinding diameters, basically unlimited;
- ③ During acceleration and deceleration or emergency stop, the tension is stable, and the tension accuracy is controlled within 1%~5% of the sensor range
- ④ The coil diameter is calculated by the special algorithm of the servo, the system is simple and efficient, and the precision is high.
- ⑤ Servo products are maintenance-free and have a service life of 6-10 years.

### VC517 GANTRY SYNCHRONIZATION SPECIAL TYPE

Gantry synchronization can realize the function of dual-axis synchronously following the main shaft. At the same time, the master axis sends position commands to two slave axes that need to be synchronously aligned, and the two slave axes mutually couple their motor encoder positions to adjust their respective speeds to achieve the position synchronization of the two slave axes. When the position error is too large, the system shuts down and a warning is issued to avoid damage to materials and equipment.



Gantry synchronization chart

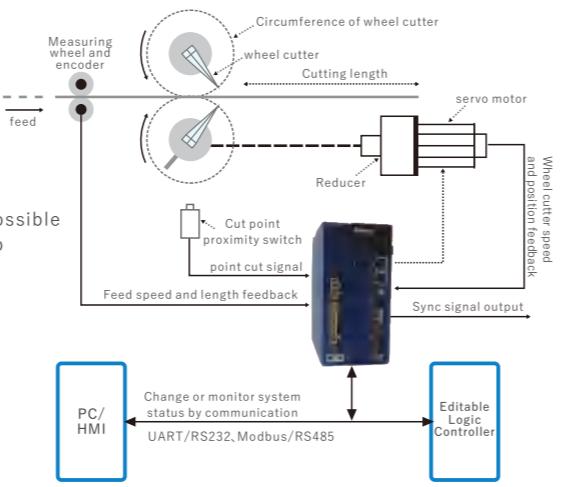
## VC511 SPECIAL SERVO FOR WHEEL CUTTING

### PRODUCT INTRODUCTION

The VC511 special servo for wheel cutting integrates the fifth power electronic cam algorithm, which can realize the master-slave follow-up function. The angle of the synchronization interval, the cutting length, the rotary cutting and other angles can be set, and the position and speed of the wheel cutting axis are automatically calculated, so as to achieve the effect of following the spindle position and precise processing. Applicable to various corrugated paper cross-cutting machines, horizontal and vertical packaging machines, register printing machines and other equipment; with chord/arc correction function, can be used for thicker material cutting equipment, such as steel plate wheel cutting system; can be used for cursor tracking, suitable for printing fixed-length, positioning and cutting.

### PRODUCT FEATURES

- Use Mark-Window setting to enhance Mark recognition ability
- Automatically correct the cutting length of the printing point (Print Mark)
- automatically re-find the mark after the mark is lost
- The first knife teaching function, that is, the first knife can be cut to the color mark
- With four groups of order management functions, order switching can choose not to switch, cyclic switching, DI switching
- With simulation function, both dynamic simulation and static simulation are possible
- Automatically find the tangent point, Long material cutting can choose the stop angle of the cutter
- Interrupt event function, the slave axis detaches from the following master axis, and runs according to the speed and acceleration and deceleration time set by the user



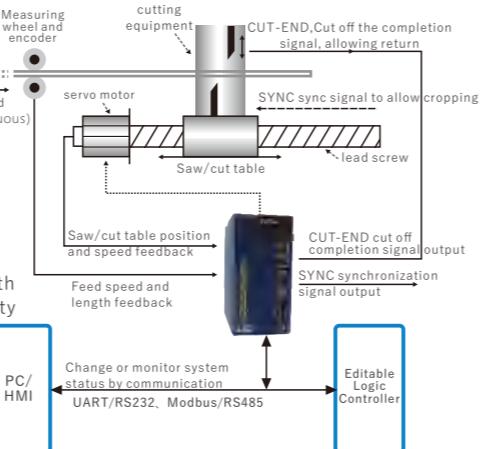
## Vc512 chase shear servo

### PRODUCT INTRODUCTION

VC512 chase shear servo contains automatic chase shear control function, along with the feed speed of the processed material, automatic control saw table forward speed, when reaching the set length, into the synchronization area can be cut signal, will be sawed after the cutting signal, saw table quickly return to the origin to prepare for the next cutting. Products are suitable for: all kinds of bar, pipe, extruded profile fixed length, filling/filling and other need to move with the workpiece special processing equipment.

### PRODUCT FEATURES

- Automatically search the machine origin (absolute coordinate method)
- With forward and reverse jogging, the machine origin can be arbitrarily specified (relative coordinate method)
- S-curve acceleration function that automatically tracks the feeding speed of the main line and calculates the lead amount
- In the process of S-curve acceleration, torque compensation measures can also be made, which can quickly synchronize and reduce cutting errors
- Four-segment S curve (forward acceleration/deceleration, reverse acceleration/deceleration) can be set separately
- Recognize the printing cursor point (Print Mark) and automatically correct the cutting length
- Provides Mark-Window settings for printing punctuation to enhance Mark recognition ability
- Order management function, four groups of orders can be switched arbitrarily



## VC513 SPECIAL SERVO FOR INDEPENDENT DIE CUTTING

### PRODUCT INTRODUCTION

VC513 INDEPENDENT DIE-CUTTING DEDICATED SERVO INTERNAL TRACKING PULSE COMMAND AND PHASE ADJUSTMENT COMMAND, THE TWO PARTS OF THE COMMAND USE TWO DIFFERENT ELECTRONIC GEAR RATIOS. THE TRACKING OF PULSE COMMAND DOES NOT PRODUCE PHASE CHANGE, AND ANY POSITION COMMAND OTHER THAN THIS CAN ADJUST THE PHASE, INCLUDING JOG FIXED SPEED, JOG FIXED POSITION AND SO ON.

### PRODUCT FEATURES

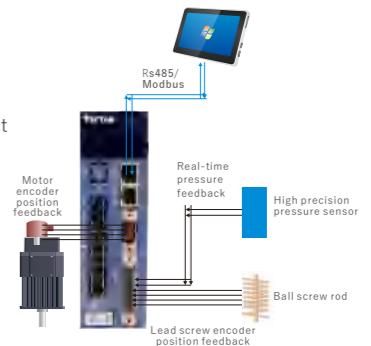
- With internal zero return function: built-in 37 standard zero return modes. Return to zero can be performed according to the origin switch and position limit switch
- Fixed speed forward/reverse jog function: forward/reverse jog at a fixed speed
- Fixed position forward/reverse jog function: forward/reverse jog a set position
- Go to the specified phase: move to the specified phase
- Back to the previous phase: Movement to the previous phase. The previous phase refers to the phase that followed the movement of the spindle last time
- Automatic alignment function: connect two origin switches, the phase of the two origin switches can be adjusted to the set value automatically



## VC514 PRESS SPECIAL TYPE SERVO

### PRODUCT INTRODUCTION

Vc514 is a pressure-specific servo driver that integrates position closed-loop and pressure closed-loop systems. The pressure-specific servo driver system is mainly composed of industrial computer, driver, servo motor, pressure sensor, screw and so on. The driver or PLC is the logic control part of the press fitting, which can realize a variety of product pressing functions. The driver processes the position feedback signal and the pressure feedback signal in real time, and adopts the high response loop algorithm of the driver to quickly respond to the position or pressure. The press-fitting process includes stages such as fast-forwarding, probing, press-fitting, stacking, and returning. Press-fit products are widely used, such as ultrasonic welding and bearing press-fit. Pressure detection, accessories installation, etc.



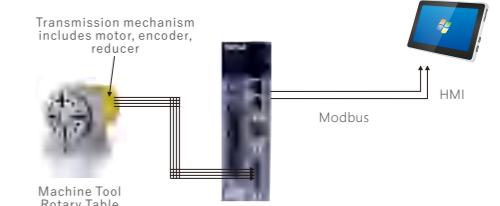
### PRODUCT FEATURES

- High-precision position or pressure extrusion, position accuracy: 0.01mm/10um, pressure accuracy: ±1% range
- Internally integrated pressure closed-loop self-tuning algorithm, fast press-fitting without overshoot, solving the trouble of traditional press-fitting position or pressure overshoot
- The industrial computer can realize a variety of press-fitting functions, and can realize the display of real-time position and pressure curve, and a variety of quality inspection judgments can meet the requirements of various products.
- The PLC module has been omitted, the wiring is simple, and the operation is convenient

## VC515 MACHINE TOOL TURNTABLE SPECIAL SERVO

### PRODUCT INTRODUCTION

VC515 is a special driver for the angle control of CNC machine tool turntable. The system consists of servo driver, touch screen, servo motor, absolute encoder, reducer, hand wheel, chuck and other mechanisms. The driver has rich DIDO and AIAO interfaces. The user can select the segment number of the target angle of the turntable by controlling the DI. There are 16 segment numbers in total, and each segment number corresponds to an angle. The DI can trigger the system to run. You can also set the target angle through the touch screen, start the motor, and run to the target angle. The system also has auxiliary functions such as origin memory, operation principle, gear compensation, limit control, etc., providing a safer, more reliable and more convenient user experience.



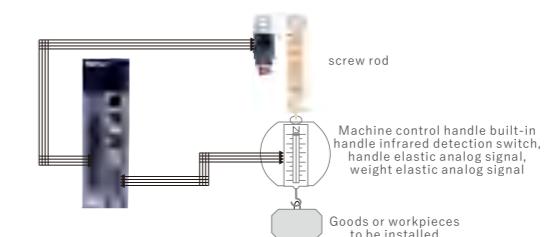
### PRODUCT FEATURES

- At the same time, it has two positioning methods: DI selection angle, positioning angle, touch screen setting angle, and start positioning.
- There are various ways to determine the origin, including manual adjustment, jogging, and inching, and after confirming the origin, it can also memorize the origin position, and there is no need to search for the origin again after power off
- The position of the system is accurate, the system is reliable, and there will be no jitter, overshoot and other phenomena.
- Built-in gear clearance compensation algorithm to solve the trouble that the gear clearance cannot guarantee the positioning accuracy

## VC516 INTELLIGENT CRANE SPECIAL TYPE SERVO

### PRODUCT INTRODUCTION

VC516 is an intelligent special driver for cargo handling and workpiece installation. Its working principle is to install an infrared detection switch on the control handle. When the operator holds the handle, the switch is in the "ON" state, and the system enters the handle mode. When the operator pulls the handle up or down, the elastic analog signal on the handle There will be changes. After the driver senses the change of the analog quantity, it will automatically control the speed of the motor to move up or down. When the workpiece is installed, the operator may not be able to manually operate the control handle. At this time, the operator can use the suspension mode of the system to directly operate the workpiece. After the system senses the change of the elastic analog signal of the heavy object, it will automatically move up or down, so as to achieve installation. The effect of the workpiece is more convenient. In addition, the drive has functions such as origin memory, limit protection, system sleep, and motor holding brake, which can protect the machine and personnel.



### PRODUCT FEATURES

- Simple operation, ready to use after installation
- The speed of motion change can be modified according to the operator's needs
- The system starts and stops quickly, and the operation is simple
- Built-in speed control stabilization algorithm to reduce the phenomenon of uncontrollable operation caused by load jitter
- Precise stop position and small overshoot to ensure no overshoot and collision when installing the workpiece

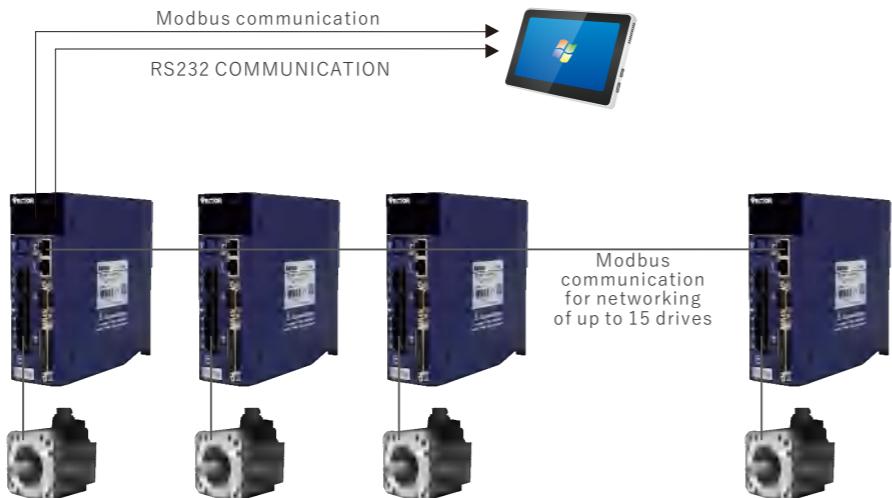
## VC600 SERIES BUILT-IN PROGRAMMABLE PLC SERVO SYSTEM

### PRODUCT INTRODUCTION ➤

VC600 series driver is a servo drive system integrating PLC (programmable logic) and driver. The user can write the logic control program required by the application in the host computer software, and then download it to the VC600 drive master station, which can be controlled by a single axis, or can control multiple slave stations through the modbus network, realizing the function of logic and control integration. The system is simple in programming, flexible in application, powerful in function (integrated with PLC function and driver function), and rich in interfaces, eliminating the need for traditional PLC and related wiring.

### PRODUCT INTRODUCTION ➤

- Integrated drive and control, easy to use and efficient
- Rich interfaces, DIO, AI/AO, pulse input, pulse output, timer, counter, etc.
- Support RS232 communication, standard Modbus protocol, custom communication protocol
- Can support faster scan cycle 500us or 1ms
- Multi-axis control via modbus communication network



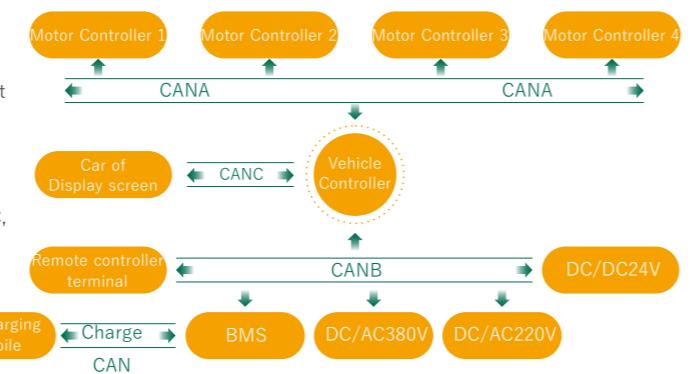
## VC920 ELECTRIC VEHICLE DRIVE SOLUTIONS ➤

### PRODUCT INTRODUCTION ➤

The motor driver specially developed to meet the automotive industry standards is reliable, safe and efficient. It can be widely used in engineering vehicles, agricultural machinery and other equipment to realize intelligent control of vehicle movement.

### PRODUCT FEATURES

- Adopt high-speed communication controller area network CAN2.0 communication, accept upper layer custom protocol
  - The motor drive uses a highly reliable resolver as a feedback element
  - The motor drive is controlled by MTPA to realize the efficient operation of the motor
  - Cooling method: air cooling, water cooling
  - Protection grade: IP20-IP65, can be customized as required
  - Ambient temperature for use: working temperature range -40°C~55°C, derating is required for higher temperature operation
  - Operating environment humidity: below 90%RH (non-condensing)
  - Altitude: below 2000m (please derate for use above 2000m)
- This series accepts customized development projects



## VC800 SERIES LINEAR MOTOR DRIVER

### PRODUCT INTRODUCTION ➤

VECTOR'S high-performance pulse-type linear motor servo driver incorporates the latest servo control technology to achieve high-precision control of linear motors.

### PRODUCT INTRODUCTION ➤

- Compatible with standard ABZ incremental encoder, optional HALLU HALLV HALLW.
- It can be configured to automatically phase-seek after power-on. The mover phase can also be accurately obtained under the condition of load disturbance and one-way locked rotor.
- Simple motor matching, with automatic identification of stator winding parameters, automatic identification of mover mass, estimation of magnetic pole pitch, automatic setting of current loop bandwidth, and fast matching of linear motors with VECObserver software.
- Support dynamic braking function, which can make the motor brake quickly under abnormal conditions to prevent speeding.
- The maximum support 4MHz position command input, the AB pulse can reach 16MHz after 4 times of frequency.
- Support position correction function. After calibration, the magnetic encoder can achieve a maximum positioning accuracy of ±1um.
- Quick response. The current loop control period is the fastest 80kHz, and the speed loop control period is the fastest 40kHz.



## Linear motor special driver parameter selection table

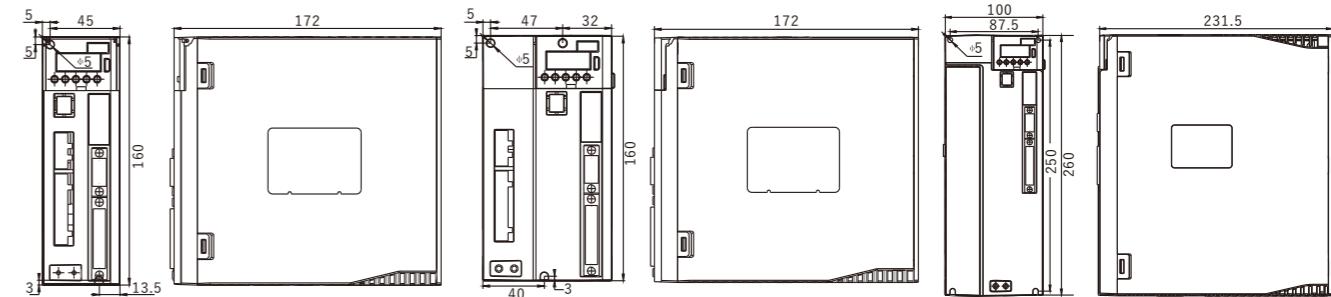
Drive model	Voltage (V)	Output rated current (A)	Maximum output current (A)
VEC-VC800-00323	220	3	9
VEC-VC800-00623		6	18
VEC-VC800-01223		12	36
VEC-VC800-00733		7	21
VEC-VC800-01233		12	36
VEC-VC800-01633		16	40
VEC-VC800-02033		20	50
VEC-VC800-02733		27	67.5
VEC-VC800-03233		32	70
380			

## TECHNICAL SPECIFICATION FOR VEC-VC DRIVER

project	describe
Voltage	control mode Single-phase/three-phase full-bridge rectification SVPWM drive Input voltage range 220V/380V±10%
Encoder	encoder feedback Incremental optical encoding, line-saving optical encoding, resolver encoder, 23-bit multi-turn absolute value optical encoding, 17-bit single-turn magnetic encoder, 17-bit multi-turn magnetic encoder, 24-bit multi-turn absolute value optical encoder
Pulse input	Pulse type Differential input, open collector
	Frequency Range High-speed differential signal: 0~4MHz, the pulse width is greater than 124ns Differential input: 0~500kHz, the pulse width is greater than 1us Open collector circuit: 0~300kHz, pulse width greater than 2.5us
	pulse mode ► pulse + direction ► AB pulse ► CW+CCW
DI/DO Interface Type	NPN/PNP
Communication method	Modbus/CANopen/EtherCAT/Profinet
fault response	Dynamic braking, decelerated parking, free parking
position mode	Instruction input mode pulse command Internal location planning ► Plan according to target position, speed, acceleration and deceleration time ► Trapezoidal speed curve ► Fourth power velocity curve ► Absolute/relative command mode
	Instruction smoothing mode low pass filter/median filter
	Electronic gear ratio N/M;(M=1~2147483647,N=1~2147483647)
	Torque limitation Internal torque limitation Analog torque limiting
	Feedforward compensation Speed feedforward/torque feedforward
	Torque compensation Fixed torque compensation/analog torque compensation/automatic torque compensation
speed control	Instruction input mode Pulse frequency/analog input/internal speed planning
	speed control range 1~Maximum RPM
	bandwidth 3kHz
	Torque limitation Internal torque limit/analog torque limit
Torque control	Instruction input mode Internal torque given/analog control torque
	Torque compensation Fixed torque compensation/analog torque compensation/automatic torque compensation
	speed limit Internal Speed Limit/Analog Speed Limit
bus control	EntherCAT CIA402 standard definition of periodic synchronous position mode, periodic synchronous speed mode, periodic synchronous torque mode, contour positionSet mode, contour speed mode, contour torque mode, zero return mode
	CANopen Interpolation position mode, contour position mode, contour speed mode, contour torque mode, and zero return mode defined by CIA402 standard
	Profinet Support IRT, RT communication Meet the application classes of AC1, AC3, AC4 defined by PROFIdrive Support message 1, message 3, Siemens message 102, Siemens message 111, Siemens message 105, Siemens auxiliary message 750
	digital input Up to 10 digital inputs, the function of each digital input can be assigned arbitrarily.
digital output	Up to 6 digital outputs, the function of each digital output can be assigned arbitrarily.
failsafe	Software overcurrent, hardware overcurrent, overvoltage, undervoltage, encoder fault, drive overheating, overspeed, excessive position error, motor overload, software limit, hardware limitposition, motor stall, motor overheating.
Installation Environment Requirements	atmospheric pressure 86~106kPa
	ambient temperature 0~55°C
	Ambient humidity 0~90%RH
	Protection class IP20
	vibration 0~4.9m/s^2

## DRIVER MOUNTING DIMENSIONS

E INSTALLATION  
DIMENSION DIAGRAM (Unit:mm)

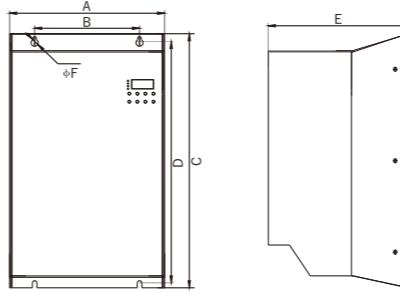


E1 adaptation current  
(A) 3-6

E2 adaptation current  
(A) 7-12

E3 adaptation current  
(A) 16-32

ABOVE 38A INSTALLATION  
DIMENSION DIAGRAM (Unit:mm)



38A installation dimension drawing comparison table

Current(A)	38~45	60	75~90	75~90
A	220	226	262	305
B	149	150	160	160
C	363	439	499	605
D	349	428	488	594
E	200	250	251	236
F	5.5	6.5	6.5	6.5

## PRODUCT CONFIGURATION LIST

product	catena	Remark	CN2 encoder terminal	CN3 control terminal	Which encoder signals are received	Host computer control instructions	Dynamic Brake	Power range
VEC-VC100	VEC-VC100	Economical drive	9P DB	25P DB	C1A/C2A	pulse	none	3-12A
VEC-VC200	VEC-VC210	intelligent drive	15P DB	44P DB	A/B/S/M/N/C1A/C2A	pulse	Below 12A have	3-170A
	VEC-VC220	Rotary transformer feedback	9P DB	25P DB	X	pulse	Below 12A have	3-32A
VEC-VC300	VEC-VC310	CANopen bus type	15P DB	44P DB	A/B/S/M/N/C1A/C2A	CANopen	Below 12A have	3-170A
	VEC-VC320	EtherCAT bus type	15P DB	44P DB	A/B/S/M/N/C1A/C2A	Ether-CAT	Below 12A have	3-170A
	VEC-VC321	bus type resolver feedback	9P DB	25P DB	X	Ether-CAT	Below 12A have	3-170A
	VEC-VC330	Profinet bus type	9P DB	25P DB	A/B/S/N	PROFINET	Below 12A have	3-170A
VEC-VC500	VEC-VC510	closed loop tension	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC511	wheel cut	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC512	chase cut	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC513	Independent die cutting	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC514	Presses	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC515	Machine Tool Rotary Table	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC516	Smart Hoisting	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC517	Gantry synchronization	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC518	container handling	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
	VEC-VC520	Open loop tension	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
VEC-VC600	VEC-VC600	Built-in PLC	15P DB	44P DB	A/B/S/M/N	pulse	Below 12A have	3-170A
VEC-VC800	VEC-VC800	Linear Motor Drive	15P DB	44P DB	Incremental ABZ	pulse	Below 12A have	3-32A
VEC-VC900	VEC-VC920	Electric vehicle drive	15P DB	44P DB	M	pulse	Below 12A have	210-470A

• M:2500 Line Incremental Optical Editing

• N: 2500 lines of line-saving optical editing

• A:17-bit multi-turn absolute value optical encoder

• B:23-bit multi-turn absolute value optical encoder

• S:24-bit multi-turn absolute value optical encoder

• X:rotary transformer

• C1A:17-bit single-turn absolute value magnetic encoder

• C2A:17-bit multi-turn absolute value magnetic encoder

## SERVO MOTOR ADAPTER DRIVER COMPARISON TABLE >>

# INTRODUCTION OF SOFTWARE INTERFACE

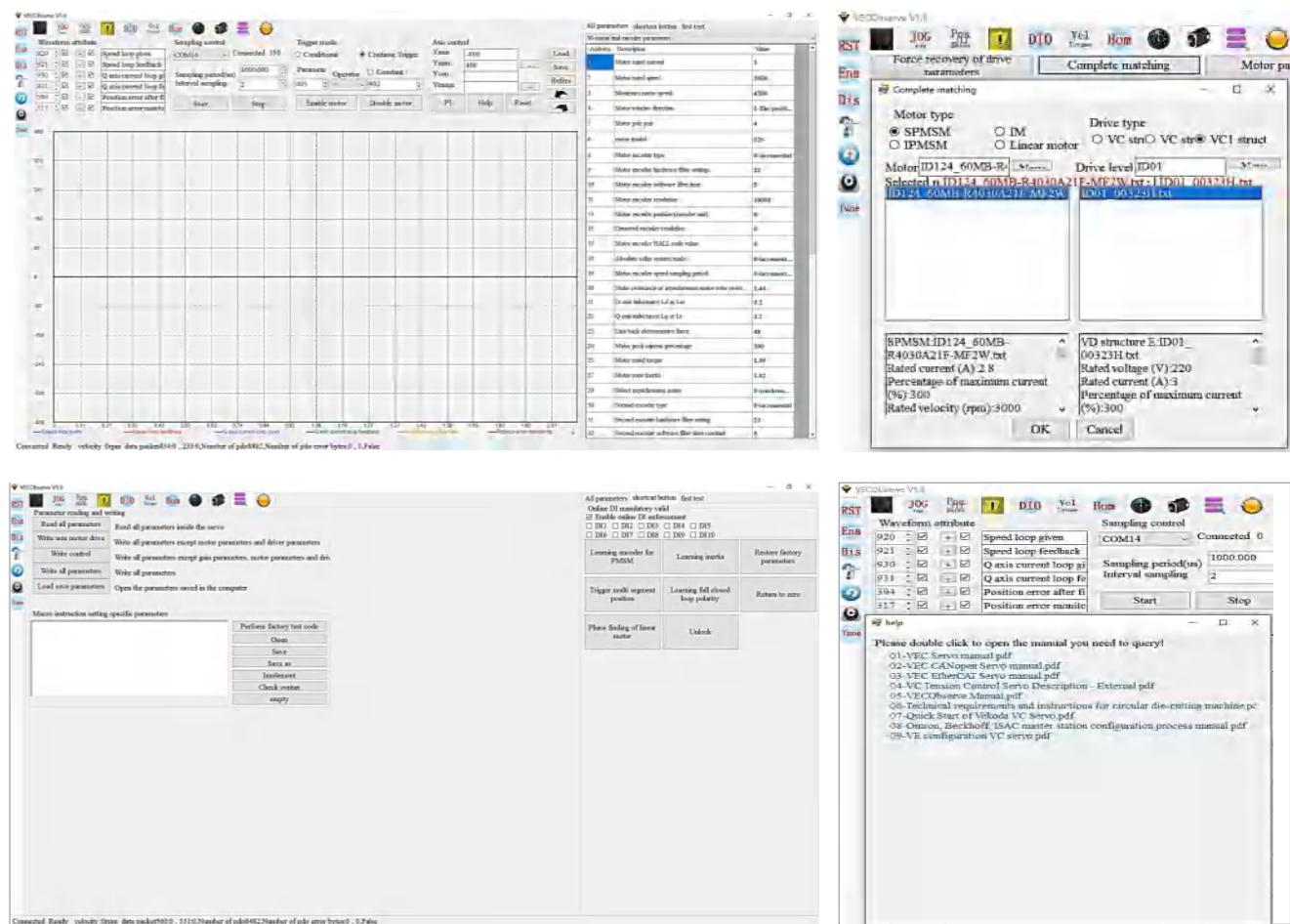
VC000-00323	VC000-00623	VC000-01223	VC000-01523	VC000-00733				
3A Three-phase 220V	6A Three-phase 220V	12A Three-phase 220V	15A Three-phase 220V	7A Three-phase 380V				
40MB-R1030A23	60ME1-R2030A23	80ME1-R7530A23	110MB-1R230A21	130ME-00120A23	130ME-00225A21	130ME-00320A23	130ME-00120A33	130MB-1R525A33
	60ME1-R4030A23	80ME1-00130A23	110MB-1R230A21	130ME-1R520A23	130MB-2R625A21	130ME1-1R815A23	130ME-1R520A33	130MB-1R515A33
	60MB-R4030A23		110MB-1R8330A21	130ME-00220A23	130MB-2R315A21		130ME-00220A33	130MB-00225A33
	80MBR7530A23		130MB-00125A21					130MB-2R625A33
	80MBR7520A23		130MB-1R525A21					130MB-2R315A33
			130MB-1R515A21					
			130ME1-R8515A23					
VC000-01233	VC000-01633	VC000-02033	VC000-02733					
12A Three-phase 380V	16A Three-phase 380V	20A Three-phase 380V	27A Three-phase 380V					
180ME-2R915A33	180MB-00315A33	180MB-5R515A33	180ME-4R415A33	180MB-7R515A33	180ME-5R515A33			
	180MB-4R520A33				180ME-7R515A33			
	180MB-4R315A33							
						Above 11KW		

## VECOBSERVE'S MAIN FEATURES

- Monitor the running curve of any parameter in real time
  - Save and load run curve data
  - Analyze run curve data
  - Update all parameters of the drive
  - Read all parameters of the drive
  - Execute macro command function
  - Inertia self-learning and gain self-adjustment functions
  - Offline parameter editing function

## VECOBSERVE'S MAIN INTERFACE

The main interface includes: waveform property interface, sampling control interface, trigger mode, axis control



## MODEL SPECIFICATION

### TYPE DESCRIPTION OF SPINDLE SERVO MOTOR

**1 8 5 M C - 1 R 6 C 3 3 E B - M F 2 \***

1. Flange disc mounting hole size 2. Product series

3. Rated power

Mark	Rated Power
1R6	1.6KW
003	3KW
015	15KW
037	37KW

4. Rated speed

Mark	Rated Revolution
A	750rpm
B	1000rpm
C	1500rpm

5. Voltage level

Mark	Voltage level
23	Three-phase 220V
33	Three-phase 380V
43	Three-phase 440V

### TYPE DESCRIPTION OF PERMANENT MAGNET SERVO MOTOR

**2 0 0 F M B - L | 0 0 7 1 5 E 3 3 F 1 - M F 2 \***

1. Square flange side length (mm)

Mark	cooling method
F	air cooling
default value	natural cold

3. Product series

Mark	ME	MB	ME1	MD	MH

4. Moment of inertia

Mark	moment of inertia
L	low inertia
M	medium inertia
H	high Inertia

5. Rated power

Mark	rated power
R40	0.4KW
1R5	1.5KW
003	3KW
7R5	7.5KW
020	20KW

6. Installation method

Mark	Installation Method
A	IMB5
D	IMB3
E	IMB35

7. Alarm brake and oil seal

Mark	holding brake
F	Without brake, with oil seal
B	Built-in holding brake has oil seal
A	No holding brake no oil seal
C	With holding brake and without oil seal

9. Specifications

Mark	Specifications
F1	1024C/T
F2	2500C/T
F5	5000C/T
F6	6000C/T

10. Factory logo

Mark	Y	E

6. Rated speed

Mark	rated revolution
10	1000rpm
15	1500rpm
20	2000rpm
25	2500rpm
30	3000rpm

7. Installation method

Mark	Installation method
A	IMB5
D	IMB3
E	IMB35

8. Voltage level

Mark	Voltage level
23	Three-phase 220V
33	Three-phase 380V
43	Three-phase 440V

9. Alarm brake and oil seal

Mark	holding brake
F	Without brake, with oil seal
B	Built-in holding brake has oil seal
A	No holding brake no oil seal
C	With holding brake and without oil seal

12. Specifications

Mark	Specifications
F1	1024C/T
F2	2500C/T
F5	5000C/T
F6	6000C/T

13. Factory logo

Mark	M	LA	Z	D	U
	C	N			

### DRIVER MODEL DESCRIPTION

**V E C - V C 1 0 0 - 0 0 3 2 3 - E**

1

2

3

4

5

1. VEC Brand

2. Product series

Mark	Current A
Vc100	Economic models
Vc200	Intelligent
Vc300	Bus Topology
Vc500	Special
Vc600	Built-in PLC
Vc800	Linear Motor Drive
Vc900	Non-standard custom

Mark	Current A
012	12A
016	16A
020	20A
027	27A
032	32A
038	38A
045	45A
060	60A
075	75A
090	90A
110	110A
150	150A

3. Rated current

Mark	Current A
003	3A
006	6A
007	7A

4. Voltage level

Mark	Voltage level
<

## MB series permanent magnet servo motor parameters and dimensions

MOTOR MODEL(A21F-*M)	80MB-R4030	80MB-R7530	80MB-R7520	110MB-1R230	110MB-1R830	130MB-00125	130MB-1R525	130MB-1R515	130MB-00225	130MB-2R625	130MB-2R315
RATED POWER(KW)	0.4	0.75	0.75	1.2	1.8	1	1.5	1.5	2	2.6	2.3
RATED VOLTAGE(V)	220	220	220	220	220	220	220	220	220	220	220
RATED CURRENT(A)	2	3	3	5	6	4	6	6	7.5	10	9.5
RATED SPEED(rpm)	3000	3000	2000	3000	3000	2500	2500	1500	2500	2500	1500
RATED TORQUE(N·m)	1.27	2.39	3.5	4	6	4	6	10	7.7	10	15
INSTANTANEOUS TORQUE(N·m)	3.9	7.1	10.5	12	18	12	18	25	22	25	30
ROTOR INERTIA (with a holding brake) [(kg.m <sup>2</sup> ) <sup>10^-4</sup> ]	1.05 (1.13)	1.82 (1.9)	2.63 (2.71)	5.4 (5.85)	7.6 (8.05)	8.5 (8.95)	12.6 (13.05)	19.4 (20.88)	15.3 (15.75)	19.4 (20.88)	27.7 (29.18)
TORQUE COEFFICIENT (N·m/A)	0.64	0.8	1.17	0.8	1	1	1.67	1.03	1	1.58	
ELECTRICAL TIME CONSTANT(ms)	1.66	2.2	2.4	3	3.2	2.32	3.26	2.91	2.91	3.36	4.05
WEIGHT(Kg)	1.78	2.9	3.9	6	7.9	6.2	7.4	10.2	8.3	9.8	12.6
PROTECTION /COOLING MODE	IP65/natural cooling										

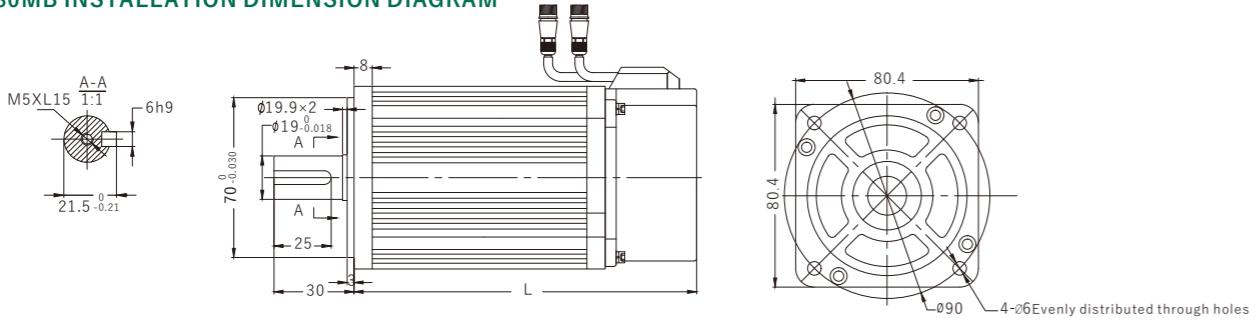
## MB series permanent magnet servo motor parameters and dimensions

MOTOR MODEL(A21F-*M)	130MB-1R525	130MB-1R515	130MB-00225	130MB-2R625	130MB-2R315	180MB-00315	180MB-1R520	180MB-4R520	180MB-4R315	180MB-5R515	180MB-7R515
RATED POWER(KW)	1.5	1.5	2	2.6	2.3	3	4.5	4.3	5.5	7.5	
RATED VOLTAGE(V)	380	380	380	380	380	380	380	380	380	380	380
RATED CURRENT(A)	3.7	3.5	4.5	5.9	5.9	7.5	9.5	10	12	20	
RATED SPEED(rpm)	2500	1500	2500	2500	1500	1500	2000	1500	1500	1500	1500
RATED TORQUE(N·m)	6	10	7.7	10	15	19	21.5	27	35	48	
INSTANTANEOUS TORQUE(N·m)	18	25	22	25	30	47	53	67	70	96	
ROTOR INERTIA (with a holding brake) [(kg.m <sup>2</sup> ) <sup>10^-4</sup> ]	12.6 (13.05)	19.4 (20.88)	15.3 (15.75)	19.4 (20.88)	27.7 (29.18)	70 (71.48)	79.6 (81.08)	96.4 (97.88)	122.5 (123.98)	167.2 (168.68)	
TORQUE COEFFICIENT (N·m/A)	1.54	1.96	1.64	1.69	2.53	2.5	2.26	2.7	2.9	2.4	
ELECTRICAL TIME CONSTANT(ms)	2.48	3.51	2.84	3.12	12.57	5.93	5.6	6	6.45	7.8	
WEIGHT(Kg)	7.4	10.2	8.3	9.8	13.7	20.5	22.2	25.5	30.5	40	
PROTECTION/COOLING MODE	IP65/natural cooling										

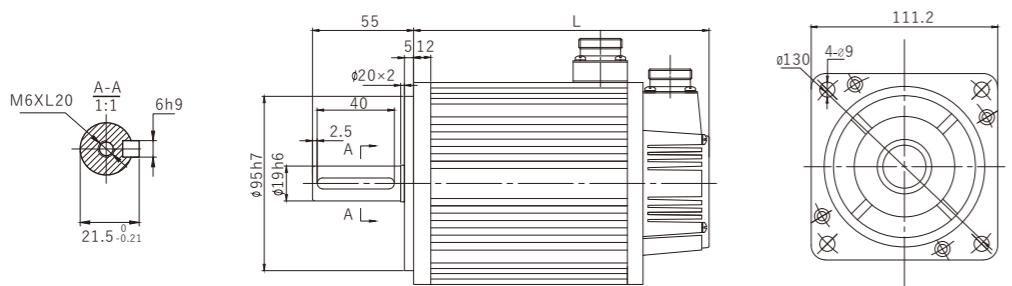
ADAPT DRIVE MODEL	VC□□□-00323	VC□□□-00323	VC□□□-00323	VC□□□-00623	VC□□□-00623	VC□□□-00623	VC□□□-00623	VC□□□-01223	VC□□□-01223	VC□□□-01223
RATED CURRENT(A)	3	3	3	6	6	6	6	12	12	12
Dimensions (see page 12 for details)	E1	E2	E2	E2						

MOTOR SIZE	80MB			110MB			130MB					
	R4030	R7530	R7520	1R230	1R830	00125	1R525	1R515	00225	2R625	2R315	
L (mm)	124	151	179	189	219	166	179	213	192	209	241	
L(holding brake mm)	164	191	219	263	293	223	236	294	249	290	322	

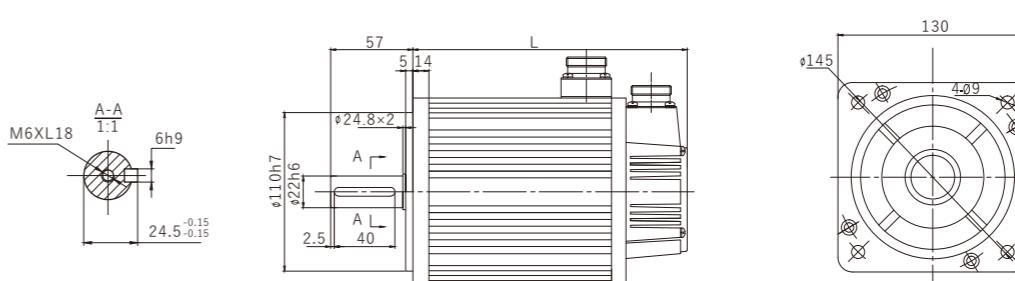
80MB INSTALLATION DIMENSION DIAGRAM



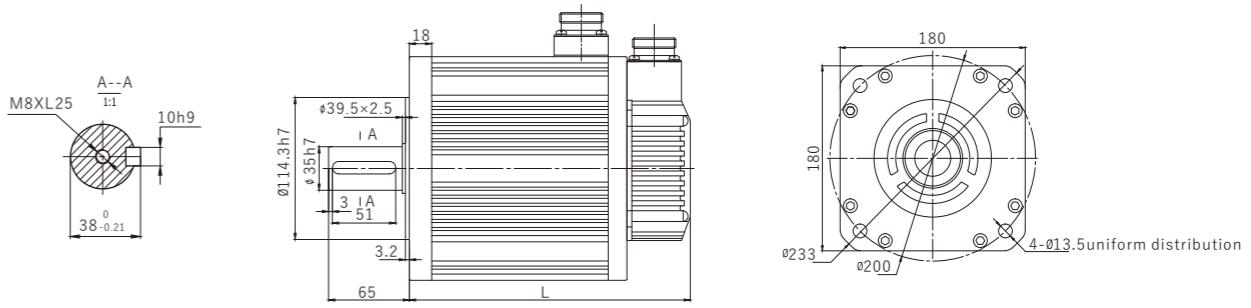
110MB INSTALLATION DIMENSION DIAGRAM



130MB INSTALLATION DIMENSION DIAGRAM



180MB INSTALLATION DIMENSION DIAGRAM



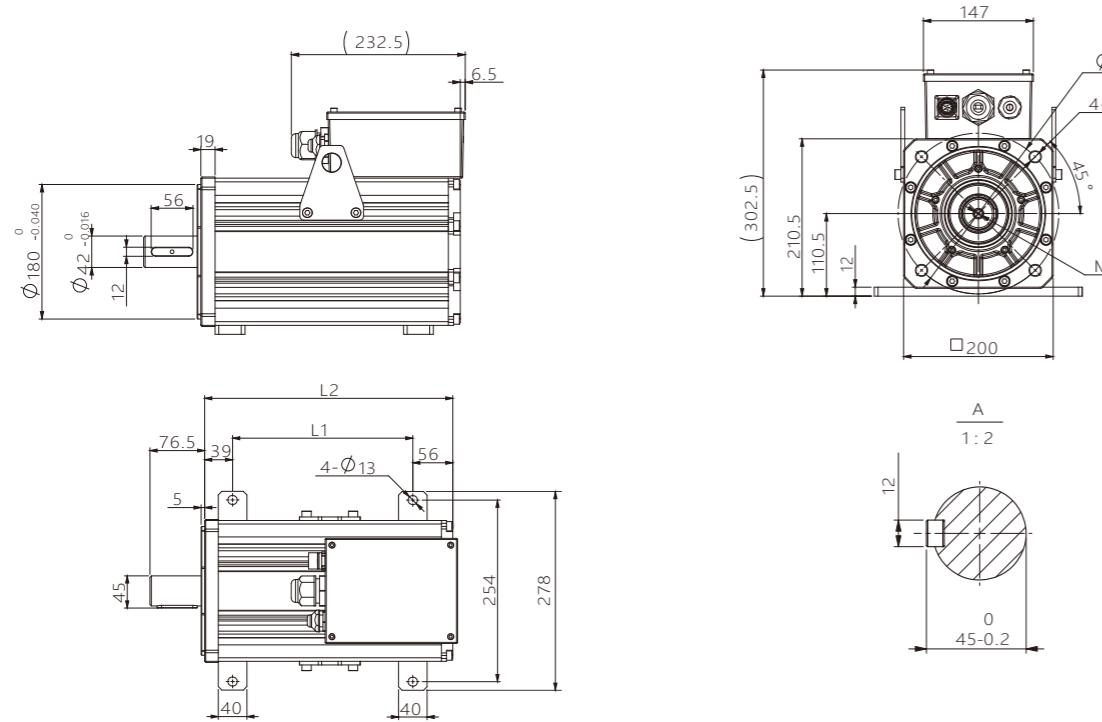
**MB series permanent magnet servo motor  
parameters and dimensions**

MOTOR MODEL(A33F-*IA)	200MB-5R715	200MB-8R220	200MB-00715	200MB-01120	200MB-01115	200MB-01420	200MB-01215	200MB-01620	200MB-01515	200MB-02020	200MB-17R615	200MB-02420	200MB-02015	200MB-02620
RATED POWER(KW)	5.7	8.2	7	10.5	11	13.6	11.8	16.3	15.4	20.5	17.6	23.5	19.8	26.4
RATED VOLTAGE(V)	380	380	380	380	380	380	380	380	380	380	380	380	380	380
RATED CURRENT(A)	13	16	16	24.7	24.8	29.8	29.7	35.1	33	42.3	33.5	49.5	42.4	59.4
RATED SPEED(rpm)	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000
RATED TORQUE(N·m)	36	39	45	50	70	65	75	78	98	98	112	112	126	126
INSTANTANEOUS TORQUE(N·m)	72	78	90	100	140	130	150	156	196	196	224	224	252	252
ROTOR INERTIA[(with a holding brake)][(Kg.m <sup>2</sup> )X <sup>10-4</sup> ]	82	82	107	107	129	129	153	153	177	177	201	201	225	225
TORQUE COEFFICIENT(N.m/A)	2.77	2.44	2.81	2.02	2.82	2.18	2.53	2.22	2.97	2.32	3.34	2.26	2.97	2.12
ELECTRICAL TIME CONSTANT(ms)	13.72	12.76	15.91	15.31	16.44	16.09	17.72	16.49	18.25	17.49	19.38	18.44	20.39	19.63
WEIGHT(Kg)	48	48	37.2	55	62	62	68	68	75	75	82	82	90	90
PROTECTION/COOLING MODE	IP54/natural cooling													

ADAPT DRIVE MODEL	VC□□□													
	01633*	-01633	-01633	-02733	-02733	-03233	-03233	-03833	-03833	-04533	-03833	-06033	-04533	-06033
RATED CURRENT(A)	16	16	16	27	27	32	32	38	38	45	38	60	45	60
Dimensions (see page 12 for details)	E3	E3	E3	E3	E3	E3	EA							

MOTOR SIZE	200MB													
	5R715	8R220	00715	01120	01115	01420	01215	01620	01515	02020	17R615	02420	02015	02620
L1 (mm)	210	252	252	252	294	294	336	336	378	378	420	420	462	462
L2 (mm)	305	347	347	347	389	389	431	431	473	473	515	515	557	557

**200 MB INSTALLATION DIMENSION DIAGRAM**

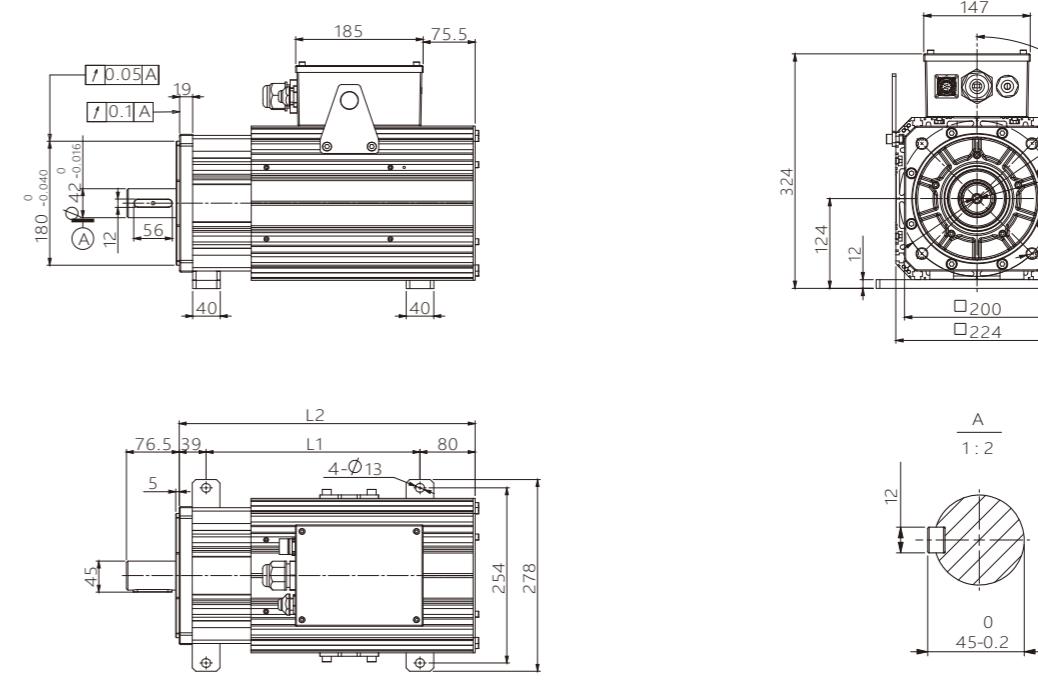


**MB series permanent magnet servo motor  
parameters and dimensions**

MOTOR MODEL(A33F-*IA)	200FMB-8R615	200FMB-01220	200FMB-01115	200FMB-01920	200FMB-01615	200FMB-02020	200FMB-02015	200FMB-02920	200FMB-02315	200FMB-03120	200FMB-02615	200FMB-02915	200FMB-03820	
RATED POWER(KW)	8.6	12.1	11.6	18.6	16.2	20.1	20.1	29.1	23.2	31	26.4	29.2	37.7	
RATED VOLTAGE(V)	380	380	380	380	380	380	380	380	380	380	380	380	380	
RATED CURRENT(A)	22.4	24.3	25	39.5	36	44.8	45.5	56	50	64.1	56.1	64.1	89.7	
RATED SPEED(rpm)	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000	2000	
MAXIMUM SPEED(rpm)	1670	2200	1883	2500	2009	2400	2000	2500	1914	2460	1880	1914	2679	
RATED TORQUE(N·m)	55	58	74	89	103	96	128	139	148	148	168	186	180	
INSTANTANEOUS TORQUE(N·m)	110	116	148	178	206	192	256	278	296	296	336	372	360	
ROTOR INERTIA[(with a holding brake)][(Kg.m <sup>2</sup> )X <sup>10-4</sup> ]	82	82	107	107	130	130	153	153	177	177	201	225	225	
TORQUE COEFFICIENT(N.m/A)	2.46	2.39	2.96	2.25	2.86	2.14	2.81	2.48	2.96	2.31	2.99	2.90	2.01	
ELECTRICAL TIME CONSTANT(ms)	13.72	12.76	15.91	15.31	16.44	16.09	17.72	16.49	18.25	18.25	17.48	19.38	20.39	19.63
WEIGHT(Kg)	60	60	68	68	76	76	84	84	93	93	101	113	113	
PROTECTION/COOLING MODE	IP54/air cooling													

MOTOR SIZE	200FMB													
	8R615	01220	01115	01920	01615	02020	02015	02920	02315	03120	02615	02915	03820	
L1 (mm)	268	268	310	310	352	352	394	394	436	436	478	520	520	
L2 (mm)	387	387	429	429	471	471	513	513	555	555	597	639	639	

**200 FMB INSTALLATION DIMENSION DIAGRAM**



## MB series permanent magnet servo motor parameters and dimensions

MOTOR MODEL(A33F-*IA)	264MB-01615	264MB-02220	264MB-02015	264MB-02720	264MB-02715	264MB-03620	264MB-03315	264MB-04420	264MB-03815	264MB-05120	264MB-04415	264MB-05820	264MB-04915	264MB-06620
RATED POWER(KW)	16.4	22	20.1	26.8	27.3	36.4	32.8	43.7	38.2	51	43.7	58.3	49.2	65.5
RATED VOLTAGE(V)	380	380	380	380	380	380	380	380	380	380	380	380	380	380
RATED CURRENT(A)	36.5	43.6	43.6	54.5	54.5	72.6	72.7	87.1	87	108.9	87.1	109	109	145
RATED SPEED(rpm)	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000
MAXIMUM SPEED(rpm)	2080	2490	1870	2340	1870	2490	2080	2490	2140	2670	1870	2340	2080	2770
RATED TORQUE(N·m)	104	104	128	128	174	174	209	209	243	243	278	278	313	313
INSTANTANEOUS TORQUE(N·m)	208	208	278	278	348	348	418	418	486	486	556	556	626	626
ROTOR INERTIA[(with a holding brake)][(Kg.m <sup>2</sup> )X <sup>10^-4</sup> ]	440	440	575	575	710	710	850	850	980	980	1120	1120	1250	1250
TORQUE COEFFICIENT(N.m/A)	2.85	2.39	2.94	2.35	3.19	2.40	2.87	2.40	2.79	2.23	3.19	2.55	2.87	2.16
ELECTRICAL TIME CONSTANT(ms)	2.72	2.54	3.46	3.54	3.83	3.77	3.98	4.12	4.52	4.50	4.60	4.41	4.96	4.64
WEIGHT(Kg)	96	96	110	110	128	128	144	144	151	151	176	176	190	190
PROTECTION/COOLING MODE	IP54/air cooling													

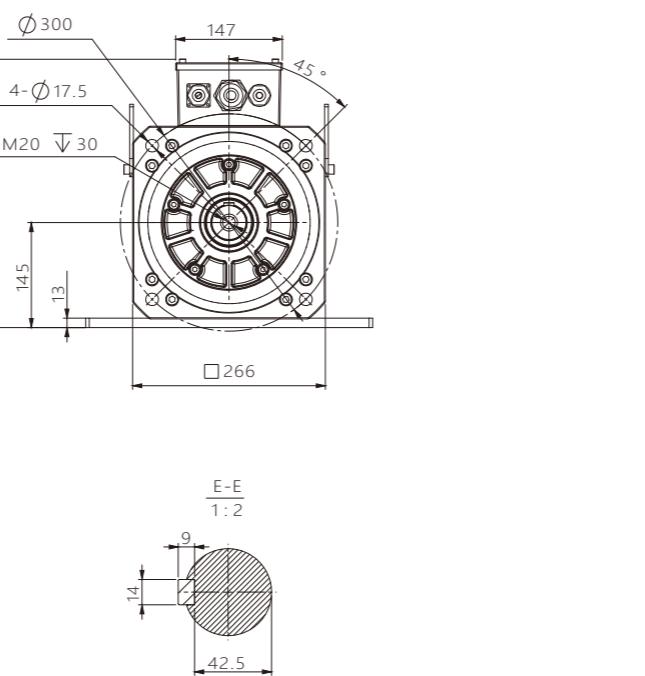
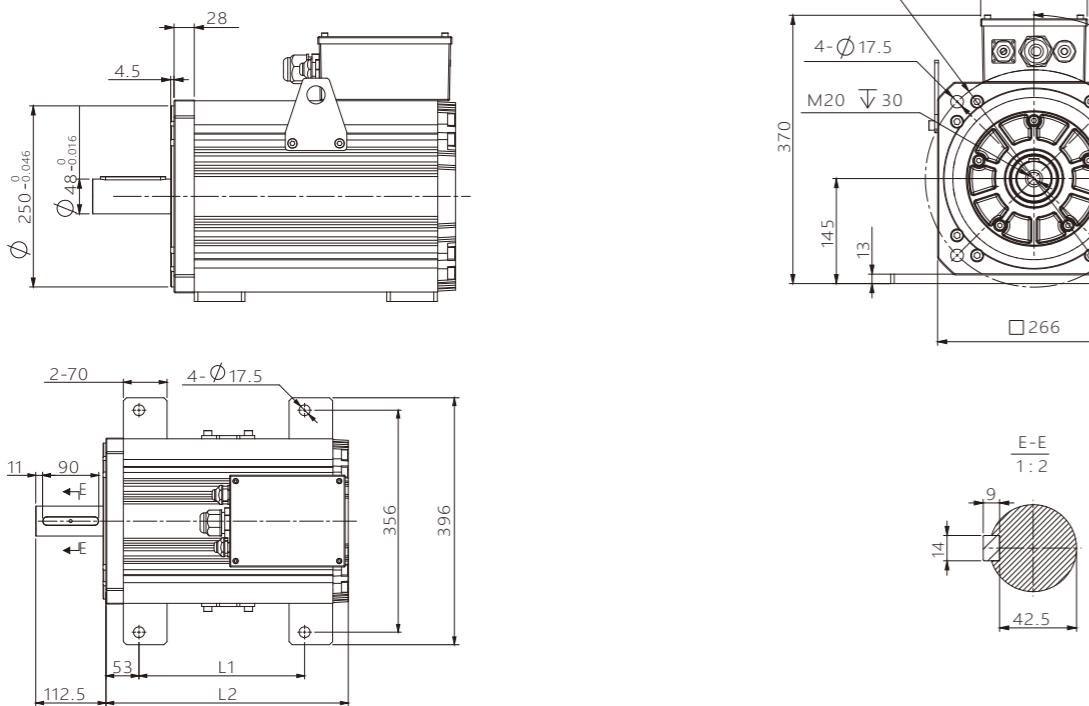
## MOTOR PARAMETERS AND DIMENSIONS

MOTOR MODEL(A33F-*IA)	264FMB-02515	264FMB-03420	264FMB-03315	264FMB-04520	264FMB-04215	264FMB-05620	264FMB-05015	264FMB-06720	264FMB-05915	264FMB-06715
RATED POWER(KW)	25.1	33.5	33	44.8	42	56.3	50.4	67.2	58.7	67.2
RATED VOLTAGE(V)	380	380	380	380	380	380	380	380	380	380
RATED CURRENT(A)	55.8	67	67	83.8	83.8	112	111.7	133.9	133.9	133.8
RATED SPEED(rpm)	1500	2000	1500	2000	1500	2000	1500	2000	1500	2000
MAXIMUM SPEED(rpm)	2080	2490	2080	2340	1870	2080	2400	2080	2490	2140
RATED TORQUE(N·m)	160	160	210	214	267	269	312	312	374	428
INSTANTANEOUS TORQUE(N·m)	320	320	420	428	534	538	624	624	760	856
ROTOR INERTIA[(with a holding brake)][(Kg.m <sup>2</sup> )X <sup>10^-4</sup> ]	440	440	575	575	710	710	850	850	980	1120
TORQUE COEFFICIENT(N·m/A)	5.73	4.78	6.27	5.11	6.37	4.80	5.59	4.66	5.68	6.40
ELECTRICAL TIME CONSTANT(ms)	2.72	5.86	3.46	3.54	3.83	3.77	3.98	4.12	4.52	4.60
WEIGHT(Kg)	106	106	123	123	141	141	159	159	176	193
PROTECTION/COOLING MODE	IP54/air cooling									

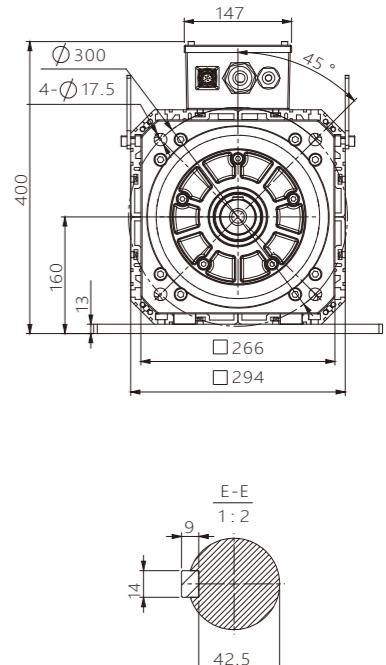
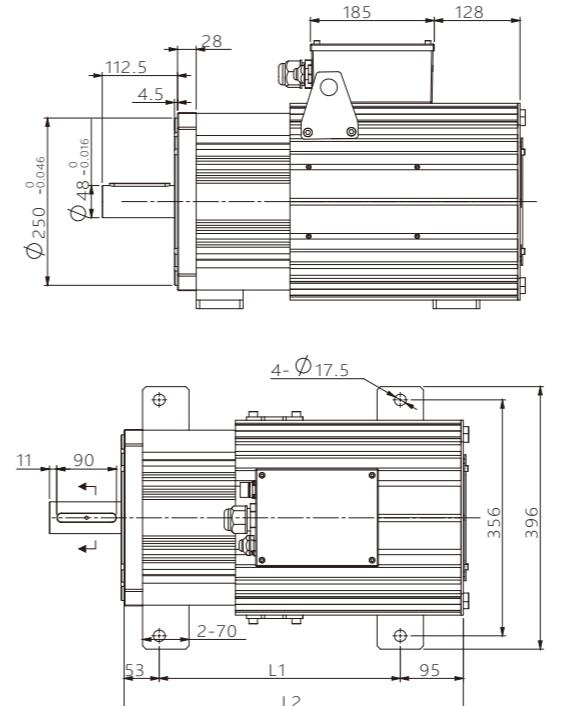
ADAPT DRIVE MODEL	VC□□□													
-03833	-04533	-04533	-06033	-06033	-07533	-07533	-09033	-09033	-11033	-11033	-11033	-11033	-15033	-15033
RATED CURRENT(A)	38	45	45	60	60	75	75	90	90	110	110	110	150	150
Dimensions (see page 12 for details)	EA	E	E	E	E	E								

MOTOR SIZE	264MB													
	01615	02220	02015	02720	02715	03620	03315	04420	03815	05120	04415	05820	04915	06620
L1 (mm)	216.5	216.5	265.5	265.5	314.5	314.5	363.5	363.5	412.5	412.5	461.5	461.5	510.5	510.5
L2 (mm)	339.5	339.5	388.5	388.5	437.5	437.5	485.5	486.5	535.5	535.5	584.5	584.5	633.5	633.5

264MB INSTALLATION DIMENSION DIAGRAM



264FMB INSTALLATION DIMENSION DIAGRAM



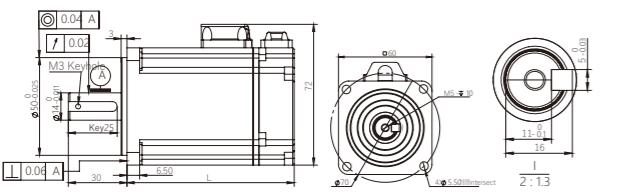
**ME series permanent magnet servo motor parameters and dimensions**

MOTOR MODEL(A21F-*K)	60ME1-R2030	60ME1-R4030	80ME1-R7530	80ME1-00130	130ME1-R8515	130ME1-1R315	130ME1-1R815	130ME-00120(mid)	130ME-1R520(mid)	130ME-00220(mid)	130ME-00320(mid)
RATED POWER(KW)	0.2	0.4	0.75	1	0.85	1.3	1.8	1	1.5	2	3
RATED VOLTAGE(V)	220	220	220	220	220	220	220	220	220	220	220
RATED CURRENT(A)	1.6	2.6	4.6	5.7	6.9	10.7	16.7	6	8.2	10	13.8
INSTANTANEOUS CURRENT(A)	4.8	10.9	17.4	17.1	17	29.8	42	18	24.6	31.5	41.4
RATED SPEED(rpm)	3000	3000	3000	3000	1500	1500	1500	2000	2000	2000	2000
MAXIMUM SPEED(rpm)	6500	6500	6000	5000	3000	3000	3000	3000	3000	3000	3000
RATED TORQUE(N·m)	0.64	1.27	2.39	3.18	5.39	8.34	11.5	4.77	7.16	9.5	14.3
INSTANTANEOUS TORQUE (N·m)	2.54	5.08	8.35	9.52	14.2	23.3	28.7	14.3	21.5	28.6	42.9
ROTOR INERTIA [(kg·m²)X¹⁰⁻⁴]	0.28 (0.31)	0.56 (0.59)	1.58 (1.63)	1.63 (1.69)	13.9 (16)	19.8 (22)	26 (28.1)	4.6 (6.6)	6.7 (8.7)	8.7 (10.7)	15.1 (17.1)
TORQUE COEFFICIENT (N·m/A)	0.4	0.488	0.519	0.57	0.78	0.778	0.69	0.795	0.873	0.955	1.03
ELECTRICAL TIME CONSTANT (ms)	2	2.3	5.2	6.45	10.5	10.9	11.3	8.34	8.71	10.95	11.44
Weight (with holding brake) (Kg)	0.78(1.2)	1.2(1.6)	2.1(2.9)	2.8 (3.5)	4.8(5.8)	5.5(6.5)	7.5(8.5)	6.3(8.9)	7.8(9.7)	9.2(11.3)	13.8(15.9)
PROTECTION/COOLING MODE	IP65/natural cooling										

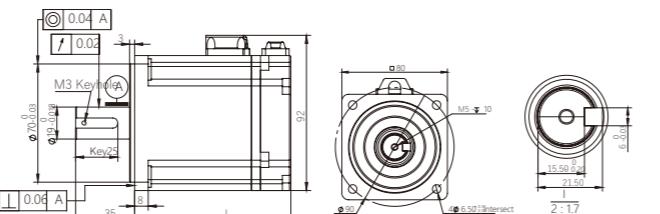
ADAPT DRIVE MODEL	VC□□□ -00323	VC□□□ -00323	VC□□□ -00623	VC□□□ -00623	VC□□□ -01223	VC□□□ -01223	VC□□□ -01523	VC□□□ -00623	VC□□□ -01223	VC□□□ -01223	VC□□□ -01523
RATED CURRENT(A)	3	3	6	6	12	12	15	6	12	12	15
Dimensions (see page 12 for details)	E1	E1	E1	E1	E2						

MOTOR SIZE	60ME1		80ME1		130ME1			130ME			
	R2030	R4030	R7530	00130	R8515	1R315	1R815	00120(中)	1R520(中)	00220(中)	00320(中)
L (mm)	67.5	85.5	92.5	126	119	127	133	163.5	181	198.5	251.5
L(holding brake mm)	98	116	127	155	149	155	163	197.5	215	232.5	285.5

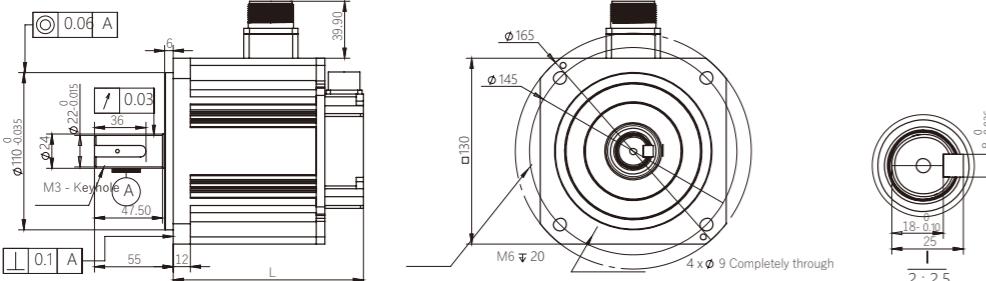
**60 ME1 INSTALLATION DIMENSION DIAGRAM**



**80 ME1 INSTALLATION DIMENSION DIAGRAM**



**130 ME1 INSTALLATION DIMENSION DIAGRAM**

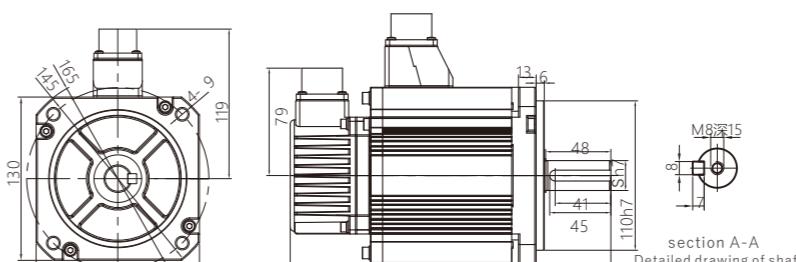


**ME series permanent magnet servo motor parameters and dimensions**

MOTOR MODEL(A21F-*K)	130ME-00120	130ME-1R520	130ME-00220	130ME-00320	180ME-2R915	180ME-4R415	180ME-5R515	180ME-7R515
RATED POWER(KW)	1.0	1.5	2.0	3.0	2.9	4.4	5.5	7.5
RATED VOLTAGE(V)	380	380	380	380	380	380	380	380
RATED CURRENT(A)	3.2	4.8	6.0	9.3	11.2	16.7	19.5	24
INSTANTANEOUS CURRENT(A)	9.6	14.4	18.0	27.9	34	50.5	59.0	62
RATED SPEED(rpm)	2000	2000	2000	2000	1500	1500	1500	1500
MAXIMUM SPEED(rpm)	3000	3000	3000	3000	3000	3000	3000	3000
RATED TORQUE(N·m)	4.77	7.16	9.55	14.3	18.4	24.8	35	48
INSTANTANEOUS TORQUE (N·m)	14.31	21.48	28.65	42.9	55.2	74.4	105	105
ROTOR INERTIA [(kg·m²)X¹⁰⁻⁴]	4.6	6.7	8.7	15.1	36	55	67.5	70
6.6	8.7	10.7	17.1	47	66	78.5	81	
TORQUE COEFFICIENT (N·m/A)	1.55	1.5	1.6	1.55	1.65	1.7	1.8	1.9
ELECTRICAL TIME CONSTANT (ms)	10	11	11	12.3	22	15.75	18.7	19
WEIGHT(Kg)	6.3(8.2)	7.8(9.7)	8.6(10.5)	13.6(15.5)	12.8	12.8	19.8	30
PROTECTION/COOLING MODE	IP65/natural cooling							

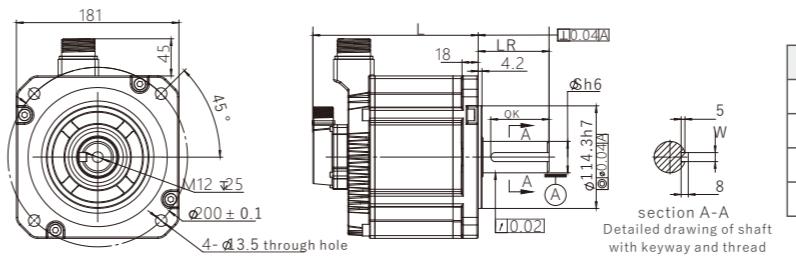
ADAPT DRIVE MODEL	VC□□□ -00733	VC□□□ -00733	VC□□□ -00733	VC□□□ -01233	VC□□□ -01233	VC□□□ -02033	VC□□□ -02033	VC□□□ -02733
	RATED CURRENT(A)	7	7	7	12	12	20	27
Dimensions (see page 12 for details)	E2	E2	E2	E2	E2	E3	E3	E3

**130 ME INSTALLATION DIMENSION DIAGRAM**



MOTOR SIZE	130ME				180ME			
	00120	1R520	00220	00320	2R915	4R415	5R515	7R515
L (mm)	163.5	181	198.5	251.5	198.5	230.5	251.5	258.5
L(holding brake mm)	197.5	215	232.5	285.5	256	288	309	318

**180 ME INSTALLATION DIMENSION DIAGRAM**



Motor specification	LR(mm)	S(mm)	QK(mm)	W(mm)
2R915	79	35	65	

## MC series spindle servo motor parameters and dimensions

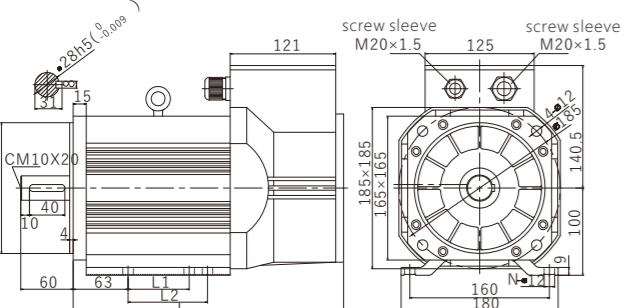
MOTOR MODEL(A33E-*Y)	185MC-1R5C	185MC-2R2C	185MC-3R7C	215MC-5R5C	215MC-7R5C	265MC-011C	265MC-015C	265MC-018C	265MC-022C	265MC-030C	350MC-037C	350MC-045C	350MC-055C	350MC-075C
RATED POWER(KW)	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75
RATED VOLTAGE(V)	380	380	380	380	380	380	380	380	380	380	380	380	380	380
RATED CURRENT(A)	3.8	5.1	8.2	11.4	15.3	22.2	29.1	35.7	42	56.5	68.5	84.1	103.6	139.8
RATED SPEED(rpm)	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
MAXIMUM SPEED(rpm)	6000	6000	6000	6000	6000	4500	4500	6000	6000	3600	3600	3600	3600	3600
RATED TORQUE(N·m)	9.6	14	23.6	35	48	70	96	118	140	191	236	287	350	478
30-MINUTE RATED TORQUE(N·m)	14	23.6	35	48	70	95.5	118	140	166	236	287	350	478	573
ROTOR INERTIA[(Kg.m <sup>2</sup> ) <sup>10-4</sup> ]	58	77	101	169	236	605	791	954	1117	1676	3724	4469	5362	6405
FRAME NUMBER	165S	165M	165N	200M	200L	265S	265M	265L	265F	360M	360L	360H	360E	
WEIGHT(kg)	20	23	25	40	50	60	110	120	130	180	320	360	400	480

ADAPT DRIVE MODEL	VC□□□													
	-00733	-00733	-01233	-01233	-01633	-02733	-02333	-03833	-04533	-06033	-07533	-09033	-11033	-15033
RATED CURRENT(A)	7	7	12	12	16	27	32	38	45	60	75	90	110	150
Dimensions (see page 12 for details)	E2	E2	E2	E2	E3	E3	EA							

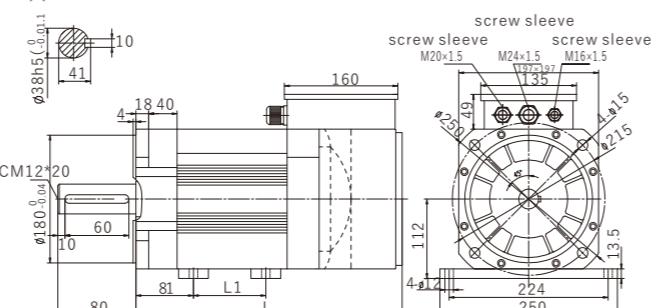
## MC series spindle servo motor parameters and dimensions

MOTOR MODEL(A33E-*Y)	265MC-7R5A	265MC-011A	265MC-015A	350MC-018A	350MC-022A	350MC-030A	350MC-037A	350MC-04B	215MC-5R5B	215MC-7R5B	265MC-011B	265MC-015B	265MC-018B	265MC-022B	350MC-030B	350MC-037B	350MC-050B
RATED POWER(KW)	7.5	11	15	18	22	30	37	4	5.5	7.5	11	15	18.5	22	30	37	50
RATED VOLTAGE(V)	380	380	380	380	380	380	380	380	380	380	380	380	380	380	380	380	380
RATED CURRENT(A)	15.3	22.1	29.9	35.9	43.7	61	72.5	8.6	11.8	16.5	22.1	29.6	36.3	42.8	57.9	70.3	98.1
RATED SPEED(rpm)	750	750	750	750	750	750	750	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
MAXIMUM SPEED(rpm)	2250	2250	2250	1800	1800	1800	1800	4000	4000	3000	3000	3000	3000	2500	2500	2500	2500
RATED TORQUE(N·m)	96	140	191	236	280	382	471	38	52.5	71.6	105	143	177	210	287	353	478
30-MINUTE RATED TORQUE(N·m)	115	166	236	280	331	471	573	52.5	71.6	105	124	177	210	248	353	430	716
ROTOR INERTIA[(Kg.m <sup>2</sup> ) <sup>10-4</sup> ]	791	1117	1676	3724	4469	5362	6405	169	236	303	791	1117	1350	1676	4469	5362	6405
FRAME NUMBER	265M	265H	265F	360M	360L	360H	360E	200M	200L	200H	265M	265H	265E	265F	360L	360H	360E
WEIGHT(kg)	110	130	180	320	360	400	480	40	50	60	110	130	150	180	360	400	480

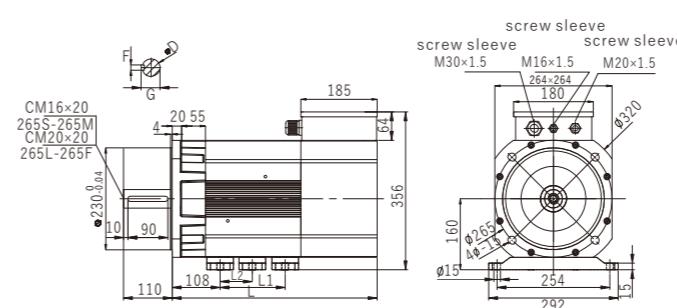
185 MC INSTALLATION DIMENSION DIAGRAM



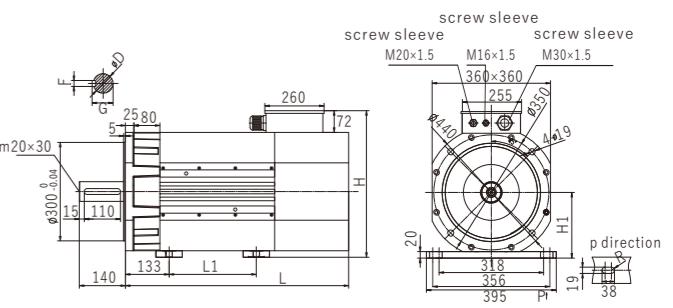
215 MC INSTALLATION DIMENSION DIAGRAM



265 MC INSTALLATION DIMENSION DIAGRAM



350 MC INSTALLATION DIMENSION DIAGRAM



Box No.	L	L1	L2	N
165S	310	70	/	4
165M	335	95	112	6
165N	365	140	159	6
165L	385	140	159	6
165H	445	200	219	6

Box No.	L	L1
200S	375	109
200M	405	139
200L	455	189
200H	505	239

Box No.	L	L1	L2	D	F	G
265S	482	133	/	42h5(0/-0.011)	12	45
265M	510	173	/	42h5(0/-0.011)	12	45
265L	545	208	/	42h5(0/-0.013)	16	59
265H	580	243	/	55h5(0/-0.013)	16	59
265E	630	293	/	55h5(0/-0.013)	16	59
265F	700	363	174	55h5(0/-0.013)	16	59

Box No.	L	L1	H	H1	D	F	G
360S	713	265	452	200			