



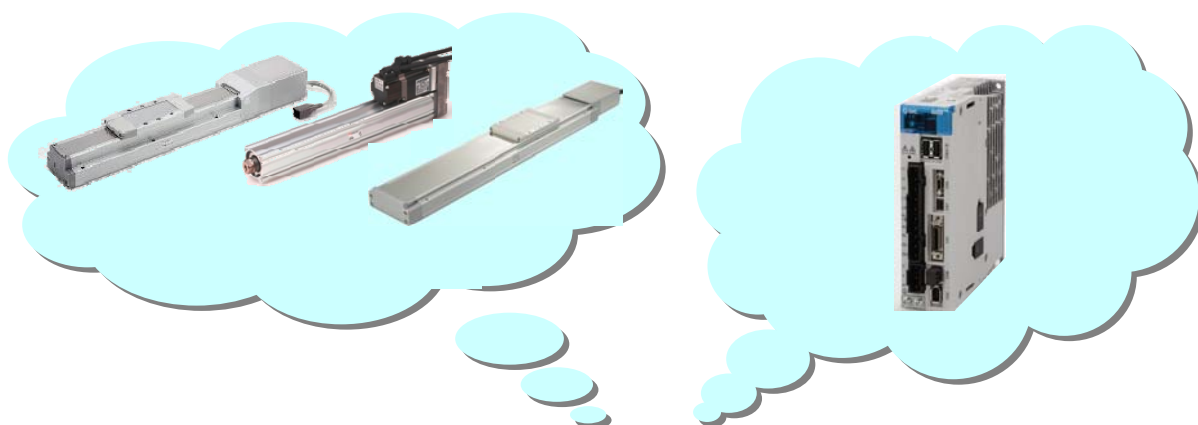
# Operation Manual

Product name:

## ***AC Servo Motor Driver (MECHATROLINK type) External Regenerative Resistance Calculation***

MODEL/ Series/ Product Number

**LE□ Series/LECY Series**



## SMC Corporation



# Contents

Introduction.....	3
1. Installation of [AC Servo Drive Capacity Selection Program/SigmaJunmaSize+] .....	4
2. Regenerative Resistance Calculation Method .....	7
2.1 Startup of [AC Servo Drive Capacity Selection Program/SigmaJunmaSize+] .....	7
2.2 「Main menu」-「Wizard Sizing」.....	8
2.3 『Units』setting.....	8
2.4 Selection of [Mechanism].....	9
2.5 [Ball screw (Horizontal)] setting .....	10
2.5.1 Input value of LEFS (Ball screw) .....	10
2.5.2 Input value of LEJS (Ball screw).....	11
2.5.3 Input value of LEY (Ball screw).....	12
2.5.4 Input value of LEYG (Ball screw).....	13
2.5.5 Setting of Drive Condition "Ball screw (Horizontal)" .....	14
2.6 [Ball screw (Vertical)] setting .....	15
2.6.1 Input value of LEFS (Ball screw) .....	16
2.6.2 Input value of LEJS (Ball screw).....	17
2.6.3 Input value of LEY (Ball screw).....	18
2.6.4 Input value of LEYG (Ball screw).....	19
2.6.5 Setting of drive condition "Ball screw (Vertical)" .....	20
2.7 [Timing belt (Horizontal)] setting.....	21
2.7.1 Input value of LEFB (Timing belt) .....	22
2.7.2 Input value of LEJB (Timing belt) .....	22
2.7.3 Setting of drive condition [Timing belt (Horizontal)]". .....	23
2.8 [Operating condition] setting.....	24
2.9 [Motor selection] setting.....	25
2.10 [External Regenerative Resistance "Capacity"/"Resistance"] Check .....	26

## Introduction

### Calculating the regenerative resistance

It is necessary use the SigmaJunmaSize+ application to be able to calculate and size the regenerative resistor. The software is downloadable from the SMC website.- Download the [AC servo drivecapacity program/SigmaJunmaSize+]. Using this operation manual for SigmaJunmaSize+ calculate the regenerative resistance. The regenerative resistor has to be prepared and supplied by the user.

It will be necessary for the user to refer to the operation manual of applicable actuator along with the operation manual for the LECYM and the LECYU.

The following minimum hardware and software will be necessary

PC	PC/AT Compatible personal computer
CPU	Pentium 200MHz or more
Main Memory	64MB (128MB recommended)
Free Hard Disk Space	20MB or more
Monitor	Super VGA (800*600 or greater using a small font)
Number of Colors	256 colors or more
OS	Windows <sup>®</sup> 7 *1 Windows <sup>®</sup> Vista SP1*2 Windows <sup>®</sup> XP SP3
Browser	InternetExplorer5.01 SP1 or later

\*1 : Please choose belows at "User Account Control" when using Windows<sup>®</sup> 7

/ [Always notify me when]

/ [Default-Notify me only when programs try to make changes to my computer]

/ [Notify me only when programs try to make changes to my computer  
(do not dim my desktop) ]

\*2 : Please enable "User Account Control" when using Windows<sup>®</sup> Vista.

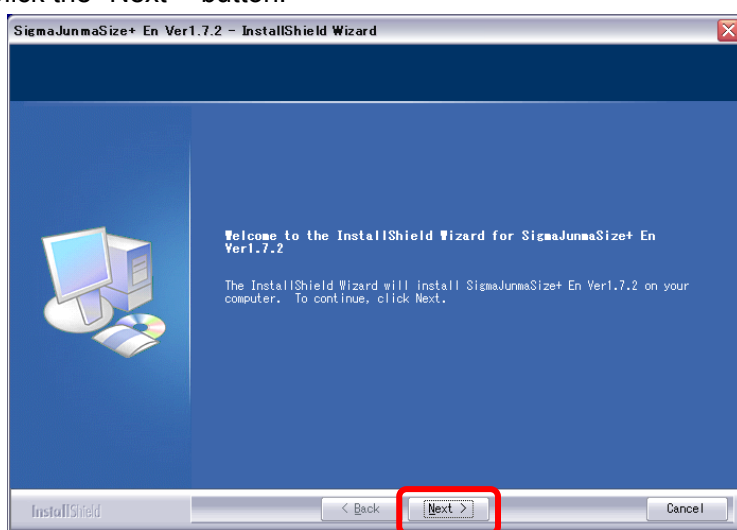
# 1. Installation of [AC Servo Drive Capacity Selection Program/SigmaJunmaSize+]

Install the [AC Servo Drive Capacity Selection Program/SigmaJunmaSize+] to the PC after it has been downloaded.

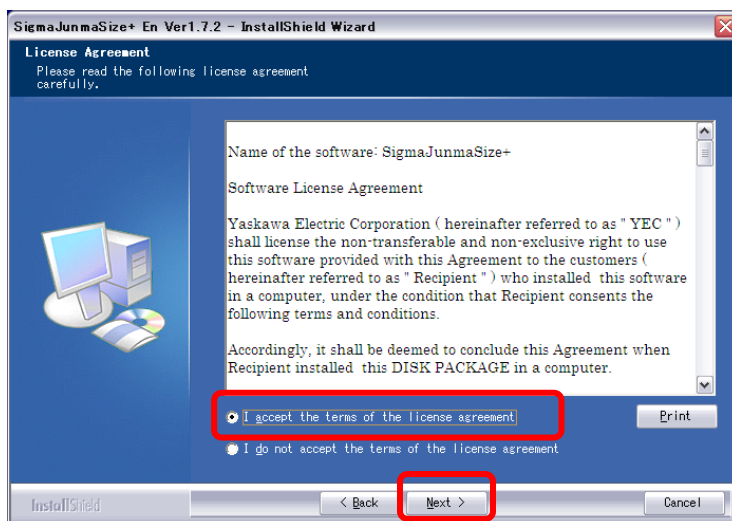
- Download it to the PC hard disk and save it.
- Run the installation file and follow the instructions given in the installation dialog box.  
(The upgrade of SigmaJunmaSize+ will be automatically carried out after installation above.)
- When Windows<sup>®</sup> 7 / Windows<sup>®</sup> Vista is used, execute it as an administrator.

Start the [SigmaJunmaSizeSA□□□Ja.exe]. (Upgrade No. is displayed in the boxes, □□□.)

- (1) [InstallShield Wizard] display is started.  
Click the "Next>" button.

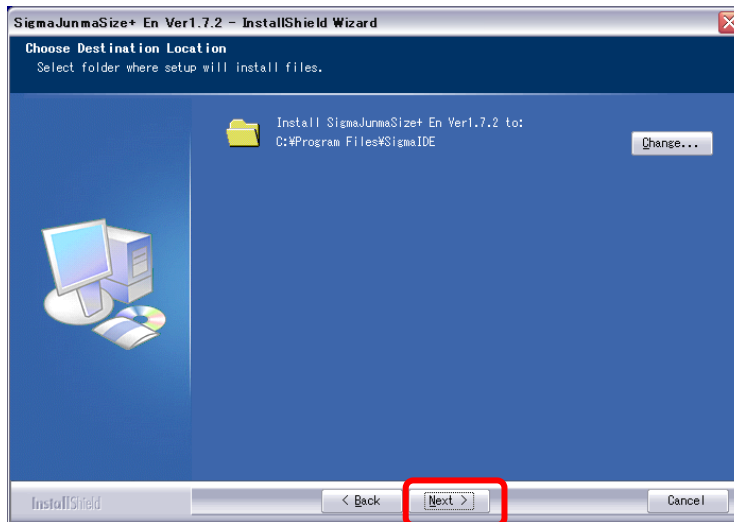


- (2) Confirm the End-User License Agreement, and select "I accept the terms of the license agreement." and click "Next>".

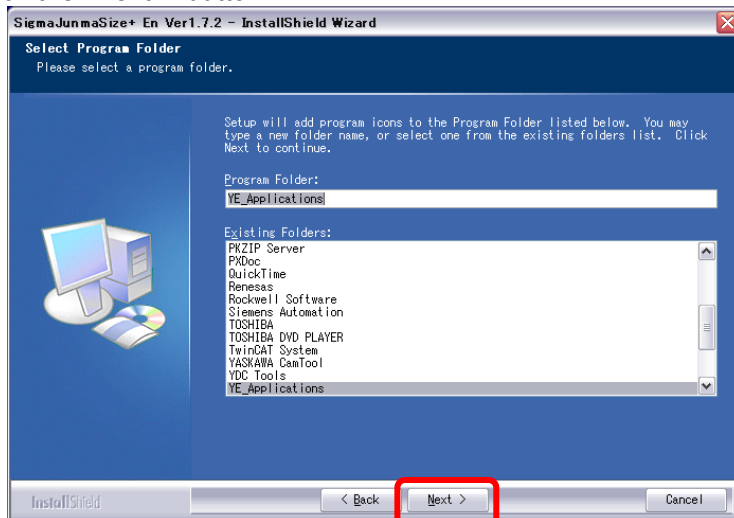


(2) Click the "Next>" button.

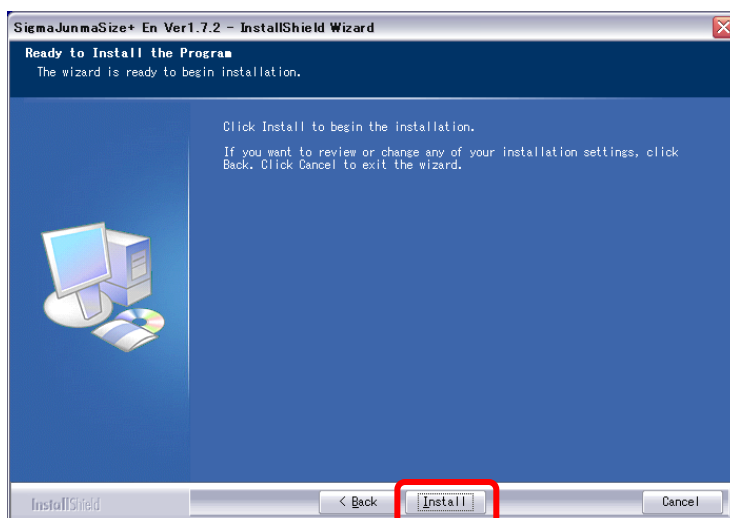
To change the installation location, click the "Change..." button on the display, and specify the new installation location.



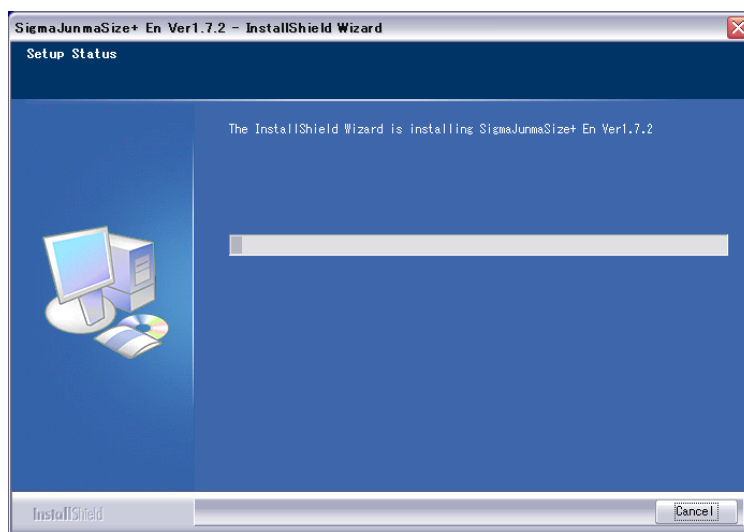
(4) Click the "Next>" button.



(5) Click the "Install" button.



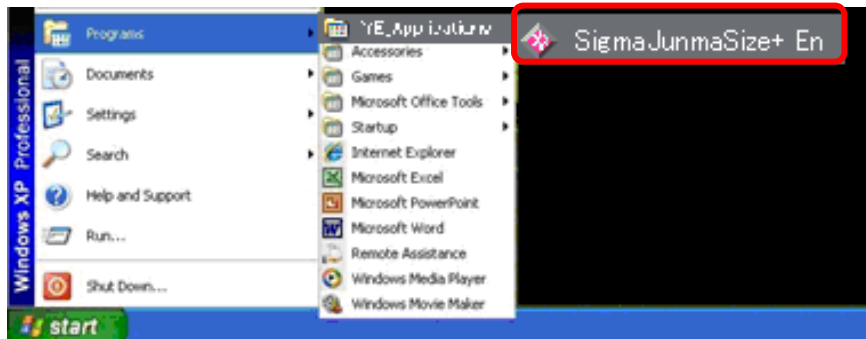
- (6) Installation process starts.  
After installation is complete, click the "Finish" button.



## 2. Regenerative Resistance Calculation Method

### 2.1 Startup of [AC Servo Drive Capacity Selection Program/SigmaJunmaSize+]

Click "SigmaJunmaSize+" from the start menu.

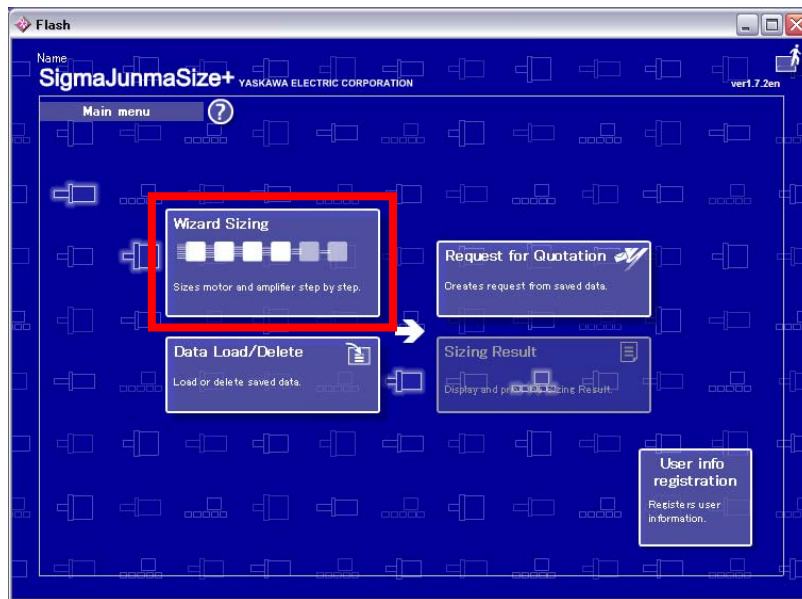


The "SigmaJunmaSize+ En" display will appear.  
Click the "Enter" button.



## 2.2 「Main menu」 - 「Wizard Sizing」

Click "Wizard Sizing".

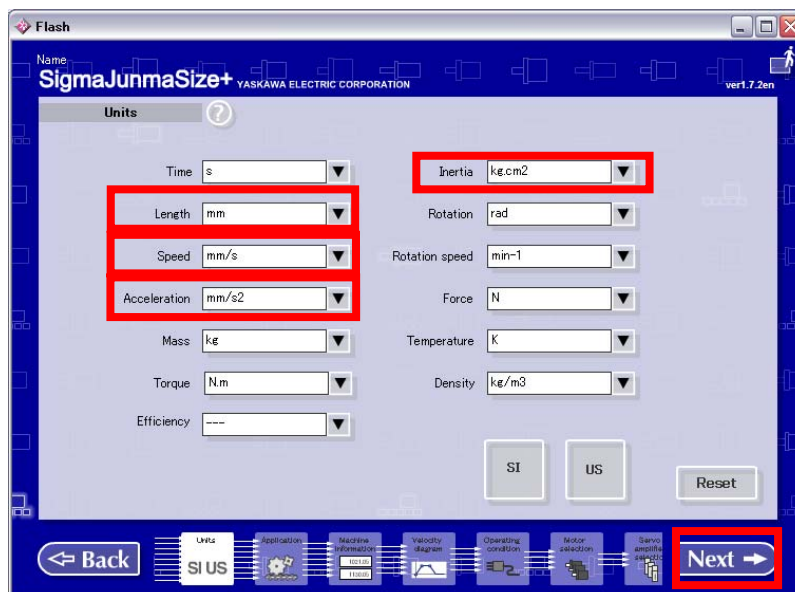


## 2.3 『Units』 setting

Select the following units from the pull-down menu.

Length	mm
Speed	mm/s
Acceleration	mm/s <sup>2</sup>
Inertia	kg·cm <sup>2</sup>

Click the "Next" button.





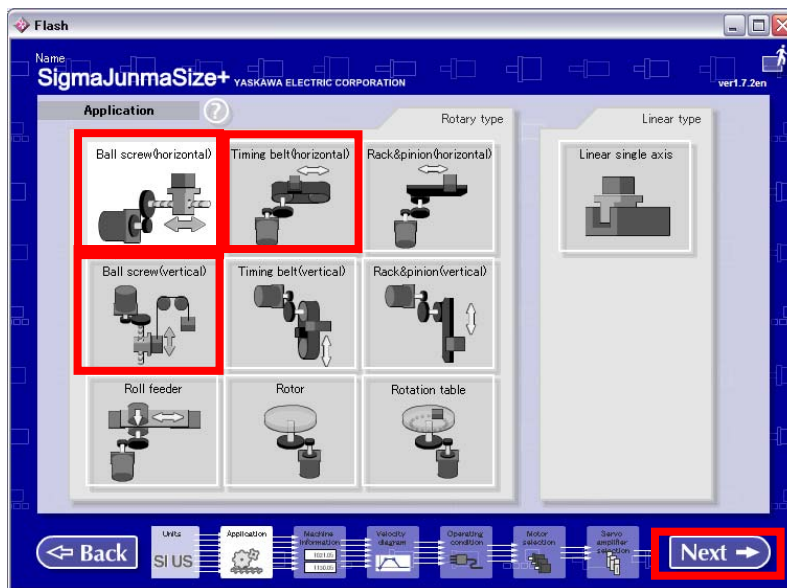
## 2.4 Selection of [Mechanism]

Select the mechanism in accordance with the model and mounting orientation of the electrical actuator.

Mechanism	Model	Mounting orientation
Ball screw (Horizontal)	LEFS / LEJS / LEY / LEYG	Horizontal
Ball screw (Vertical)	LEFS / LEJS / LEY / LEYG	Vertical
Timing belt (Horizontal)	LEFB / LEJB	Horizontal

- [Ball screw (Horizontal)] -> Chapter "2.5"
- [Ball screw (Vertical)] -> Chapter "2.6"
- [Timing belt (Horizontal)] -> Chapter "2.7"

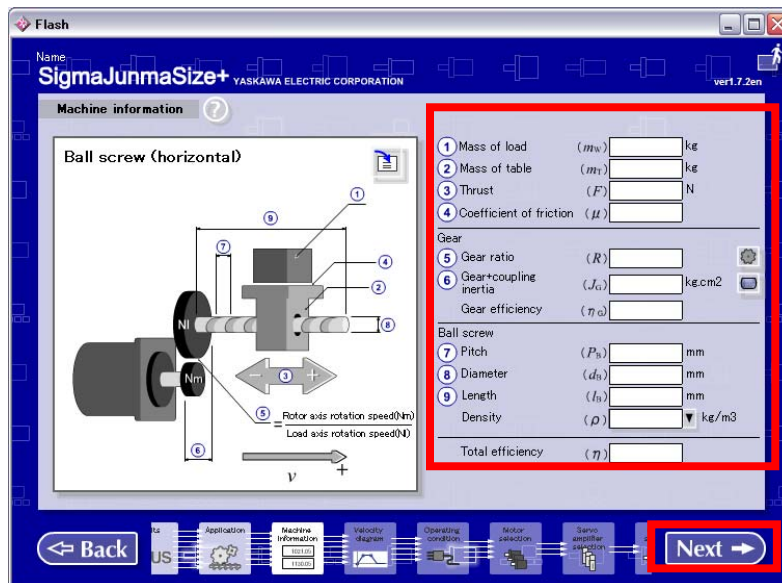
Click the "Next" button.



## 2.5 [Ball screw (Horizontal)] setting

Enter each item and click the "Next" button.

Execute "2.5.5 Setup of drive condition "Ball screw (Horizontal)".



Input values of each actuator are as follows.

Input value of LEFS (Ball screw): Refer to "2.5.1".

Input value of LEJS (Ball screw): Refer to "2.5.2".

Input value of LEY (Ball screw): Refer to "2.5.3".

Input value of LEYG (Ball screw): Refer to "2.5.4".

### 2.5.1 Input value of LEFS (Ball screw)

SQ Series	Actuators type		LEFS25			LEFS32			LEFS40		
	Lead symbol		H	A	B	H	A	B	H	A	B
	Lead		20	12	6	24	16	8	30	20	10
No.	Items to enter	units	Input value								
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.								
(2)	Mass of table	kg	0.2			0.3			0.55		
(3)	Thrust	N	3								
(4)	Coefficient of friction	-	0.05								
(5)	Gear ratio	-	1								
(6)	Gear+coupling inertia	kg.cm2	0.02			0.08					
	Gear efficiency	-	1								
(7)	Ball screw pitch	mm	20	12	6	24	16	8	30	20	10
(8)	Ball screw diameter	mm	10			12			15		
(9)	Ball screw length	mm	stroke + 150			stroke + 185			stroke + 235		
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.								
-	Total efficiency	-	0.8								

## 2.5.2 Input value of LEJS (Ball screw)

SQ Series	Actuators type		LEJS40			LEJS63		
	Lead symbol		H	A	B	H	A	B
	Lead		24	16	8	30	20	10
No.	Items to enter	units	Input value					
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.					
(2)	Mass of table	kg	0.86			1.37		
(3)	Thrust	N	40					
(4)	Coefficient of friction	-	0.05					
(5)	Gear ratio	-	1					
(6)	Gear+coupling inertia	kg.cm2	0.031			0.129		
	Gear efficiency	-	1					
(7)	Ball screw pitch	mm	24	16	8	30	20	10
(8)	Ball screw diameter	mm	12			15		
(9)	Ball screw length	mm	stroke + 118.5			stroke + 126.5		
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.					
-	Total efficiency	-	0.8					

### 2.5.3 Input value of LEY (Ball screw)

Series	Actuators type		LEY25			LEY25D			LEY32			LEY32D		
	Lead symbol		A	B	C	A	B	C	A	B	C	A	B	C
	Lead		12	6	3	12	6	3	20	10	5	16	8	4
No.	Items to enter	units	Input value											
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.											
(2)	Mass of table	kg	0.44						0.98					
(3)	Thrust	N	0											
(4)	Coefficient of friction	-	0.05											
(5)	Gear ratio	-	1											
(6)	Gear+coupling inertia	kg.cm2	0.012			0.015			0.035			0.061		
	Gear efficiency	-	1											
(7)	Ball screw pitch	mm	12	6	3	12	6	3	20	10	5	16	8	4
(8)	Ball screw diameter	mm	10						12					
(9)	Ball screw length	mm	stroke + 93.5						stroke + 104.5					
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.											
-	Total efficiency	-	0.8											

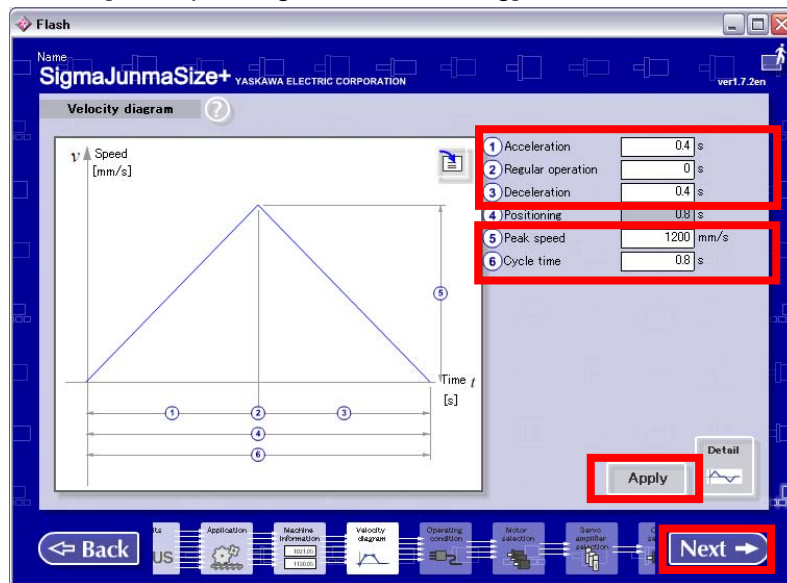
Series	Actuators type		LEY63				LEY63D		
	Lead symbol		A	B	C	L	A	B	C
	Lead		20	10	5	2.86	20	10	5
No.	Items to enter	units	Input value						
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.						
(2)	Mass of table	kg	3.25						
(3)	Thrust	N	0						
(4)	Coefficient of friction	-	0.05						
(5)	Gear ratio	-	1						
(6)	Gear+coupling inertia	kg.cm2	0.11			0.054		0.056	
	Gear efficiency	-	1						
(7)	Ball screw pitch	(mm)	20	10	5	2.86	20	10	5
(8)	Ball screw diameter	mm	20						
(9)	Ball screw length	mm	Stroke + 147						
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.						
-	Total efficiency	-	0.8						

## 2.5.4 Input value of LEYG (Ball screw)

Series	Actuators type		LEYG <sup>M</sup> / <sub>L</sub> 25			LEYG <sup>M</sup> / <sub>L</sub> 25D			LEYG <sup>M</sup> / <sub>L</sub> 32			LEYG <sup>M</sup> / <sub>L</sub> 32D		
	Lead symbol		A	B	C	A	B	C	A	B	C	A	B	C
	Lead		12	6	3	12	6	3	20	10	5	16	8	4
No.	Items to enter	units	Input value											
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.											
(2)	Mass of table	kg	0.92						1.34					
(3)	Thrust	N	5											
(4)	Coefficient of friction	-	0.05											
(5)	Gear ratio	-	1											
(6)	Gear+coupling inertia	kg.cm2	0.012			0.015			0.035			0.061		
	Gear efficiency	-	1											
(7)	Ball screw pitch	mm	12	6	3	12	6	3	20	10	5	16	8	4
(8)	Ball screw diameter	mm	10											
(9)	Ball screw length	mm	stroke + 93.5						stroke + 104.5					
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.											
-	Total efficiency	-	0.8											

## 2.5.5 Setting of Drive Condition "Ball screw (Horizontal)"

Enter each item in accordance with the drive condition, click "Apply", then "Next".  
Please execute [2.8 "Operating condition" setting].



Refer to the following description for the input values of each drive condition.

Acceleration	s	Read acceleration/deceleration from the <Work Load -Acceleration/Deceleration Graph>. Calculate the acceleration time (maximum speed ÷ acceleration/deceleration) and input the value.  * For LEY, the maximum acceleration/deceleration is 5000mm/s <sup>2</sup> regardless of the work load. Only for LEY63 lead L, the maximum acceleration/deceleration is 3000mm/s <sup>2</sup> . <b>Therefore, the acceleration/deceleration used for calculating the acceleration time should be not more than the maximum acceleration.</b>
Regular operation	s	0
Deceleration	s	Input the value same as the acceleration time.
Peak speed	mm/s	Input the "maximum speed" of each actuator specification.
Cycle time	s	Input "acceleration time x 2".

## 2.6 [Ball screw (Vertical)] setting

Enter each item and click the "Next" button.

Execute 2.6.5 Drive condition "Ball screw (Vertical)".

**Machine information**

**Ball screw (vertical)**

1 Mass of load ( $m_w$ )  kg  
2 Mass of table ( $m_T$ )  kg  
3 Mass of counter ( $m_{wc}$ )  kg  
4 Thrust in ascending ( $F_{vp}$ )  N  
5 Thrust in descending ( $F_{vd}$ )  N

**Gear**

6 Gear ratio ( $R$ )   
7 Gear+coupling inertia ( $J_G$ )  kg·cm<sup>2</sup>  
Gear efficiency ( $\eta_g$ )

**Ball screw**

8 Pitch ( $P_B$ )  mm  
9 Diameter ( $d_B$ )  mm  
10 Length ( $L_B$ )  mm  
Density ( $\rho$ )  kg/m<sup>3</sup>

Total efficiency ( $\eta$ )

**Navigation:** Back | Machine information | Velocity diagram | Operating condition | Motor selection | Servo amplifier selection | Option selection | **Next**

Input values of each actuator are as follows.

Input value of LEFS (Ball screw): Refer to "2.6.1".

Input value of LEJS (Ball screw): Refer to "2.6.2".

Input value of LEY (Ball screw): Refer to "2.6.3".

Input value of LEYG (Ball screw): Refer to "2.6.4".

## 2.6.1 Input value of LEFS (Ball screw)

Actuators type			LEFS25			LEFS32			LEFS40		
Series	Lead symbol		H	A	B	H	A	B	H	A	B
	Lead		20	12	6	24	16	8	30	20	10
No.	Items to enter	units	Input value								
<input type="checkbox"/>	Mass of load	kg	Enter the weight of the workpiece to be transferred.								
(2)	Mass of table	kg	0.2			0.3			0.55		
(3)	Mass of counter	kg	0								
(4)	Thrust in ascending	N	3								
(5)	Thrust in descending	N	3								
(6)	Gear ratio	-	1								
(7)	Gear+coupling inertia	kg.cm2	0.02			0.08					
	Gear efficiency	-	1								
(8)	Ball screw pitch	mm	20	12	6	24	16	8	30	20	10
(9)	Ball screw diameter	mm	10			12			15		
(10)	Ball screw length	mm	stroke + 150			stroke + 185			stroke + 235		
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.								
-	Total efficiency	-	0.8								



## 2.6.2 Input value of LEJS (Ball screw)

Series	Actuators type		LEJS40			LEJS63		
	Lead symbol		H	A	B	H	A	B
	Lead		24	16	8	30	20	10
No.	Items to enter	units	Input value					
(1)	Load weight	kg	Enter the weight of the workpiece to be transferred.					
(2)	Mass of table	kg	0.86			1.37		
(3)	Mass of counter	kg	0					
(4)	Thrust in ascending	N	40					
(5)	Thrust in descending	N	40					
(6)	Gear ratio	-	1					
(7)	Gear+coupling inertia	kg.cm2	0.031			0.129		
	Gear efficiency	-	1					
(8)	Ball screw pitch	mm	24	16	8	30	20	10
(9)	Ball screw diameter	mm	12			15		
(10)	Ball screw length	mm	stroke + 118.5			stroke + 126.5		
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.					
-	Total efficiency	-	0.8					

### 2.6.3 Input value of LEY (Ball screw)

Series	Actuators type		LEY25			LEY25D			LEY32			LEY32D		
	Lead symbol		A	B	C	A	B	C	A	B	C	A	B	C
	Lead		12	6	3	12	6	3	20	10	5	16	8	4
No.	Items to enter	units	Input value											
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.											
(2)	Mass of table	kg	0.44						0.98					
(3)	Mass of counter	kg	0											
(4)	Thrust in ascending	N	5											
(5)	Thrust in descending	N	5											
(6)	Gear ratio	-	1											
(7)	Gear+coupling inertia	kg.cm2	0.012			0.015			0.035			0.061		
	Gear efficiency	-	1											
(8)	Ball screw pitch	mm	12	6	3	12	6	3	20	10	5	16	8	4
(9)	Ball screw diameter	mm	10						12					
(10)	Ball screw length	mm	stroke + 93.5						stroke + 104.5					
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.											
-	Total efficiency	-	0.8											

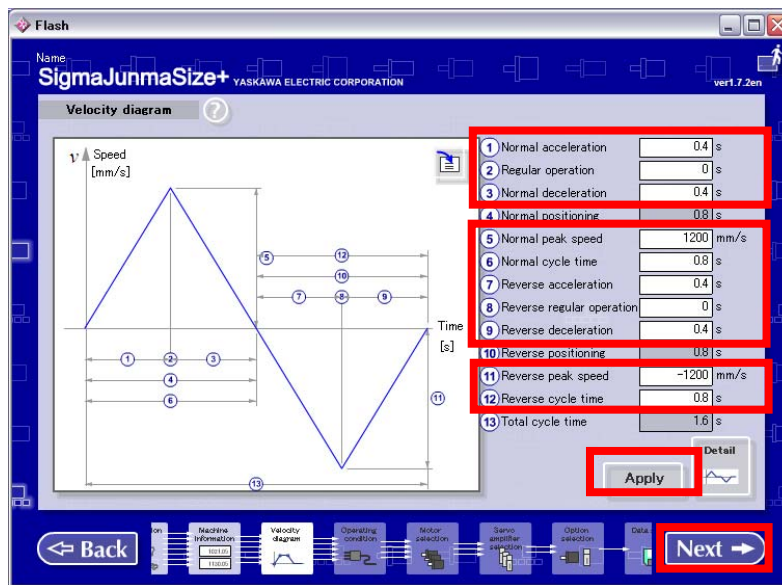
Series	Actuator model		LEY63				LEY63D		
	Lead symbol		A	B	C	L	A	B	C
	Lead		20	10	5	2.86	20	10	5
No.	Items to enter	Unit	Input value						
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.						
(2)	Mass of table	kg	3.25						
(3)	Mass of counter	kg	0						
(4)	Thrust in ascending	N	10						
(5)	Thrust in descending	N	10						
(6)	Gear ratio	-	1						
(7)	Gear + coupling inertia	kg.cm2	0.11				0.056		
	Reducer efficiency	-	1						
(8)	Ball screw pitch	(mm)	20	10	5	2.86	20	10	5
(9)	Ball screw diameter	(mm)	20						
(10)	Ball screw length	(mm)	stroke + 147						
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.						
-	Total efficiency	-	0.8						

## 2.6.4 Input value of LEYG (Ball screw)

Series	Actuator model		LEYG <sup>M</sup> / <sub>L</sub> 25			LEYG <sup>M</sup> / <sub>L</sub> 25D			LEYG <sup>M</sup> / <sub>L</sub> 32			LEYG <sup>M</sup> / <sub>L</sub> 32D		
	Lead symbol		A	B	C	A	B	C	A	B	C	A	B	C
	Lead		12	6	3	12	6	3	20	10	5	16	8	4
No.	Items to enter	Unit	Input value											
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.											
(2)	Mass of table	kg	0.92						1.34					
(3)	Mass of counter	kg	0											
(4)	Thrust in ascending	N	5											
(5)	Thrust in descending	N	5											
(6)	Gear ratio	-	1											
(7)	Gear + coupling inertia	kg.cm2	0.012			0.015			0.035			0.061		
	Reducer efficiency	-	1											
(8)	Ball screw pitch	mm	12	6	3	12	6	3	20	10	5	16	8	4
(9)	Ball screw diameter	mm	10			12			10			12		
(10)	Ball screw length	mm	stroke + 93.5						stroke + 104.5					
	Ball screw density	kg.m3	Select "Iron" from the pull-down menu.											
-	Total efficiency	-	0.8											

## 2.6.5 Setting of drive condition "Ball screw (Vertical)"

Enter each item in accordance with the drive condition, click "Apply", then "Next".  
Please execute [2.8 "Operating condition" setting].



Refer to the following description for the input values of each drive condition.

Normal acceleration	s	Read acceleration/deceleration from the <Work Load -Acceleration/Deceleration Graph>. Calculate the acceleration time (maximum speed ÷ acceleration/deceleration) and input the value.  * For LEY, the maximum acceleration/deceleration is 5000mm/s <sup>2</sup> regardless of the work load. Only for LEY63 lead L, the maximum acceleration/deceleration is 3000mm/s <sup>2</sup> . <b>Therefore, the acceleration/deceleration used for calculating the acceleration time should be not more than the maximum acceleration.</b>
Regular operation	s	0
Normal deceleration	s	Input the value same as the normal acceleration.
Normal peak speed	mm/s	Input the "maximum speed" of each actuator specification.
Normal cycle time	s	Input [normal acceleration x 2].
Reverse acceleration	s	Input the value same as the normal acceleration.
Reverse regular operation	s	Input [Stroke / normal peak speed].
Reverse deceleration	s	Input the value same as the normal acceleration.
Reverse peak speed	mm/s	Input the value same as the normal peak speed.
Reverse cycle time	s	Input [normal acceleration x 2] + reverse regular operation.

## 2.7 [Timing belt (Horizontal)] setting

Enter each item and click the "Next" button.

Execute "2.7.3 [Setting of drive condition (Timing belt (Horizontal))]".

The screenshot shows the 'Machine information' window for 'Timing belt (horizontal)'. The window is titled 'Flash' and 'SigmaJunmaSize+ YASKAWA ELECTRIC CORPORATION ver1.7.2en'. It features a diagram of a timing belt system with numbered callouts (1-7) corresponding to the input fields on the right. The input fields are:

- 1 Mass of load ( $m_w$ ) [ ] kg
- 2 Thrust ( $F$ ) [ ] N
- 3 Coefficient of friction ( $\mu$ ) [ ]
- 4 Gear ratio ( $R$ ) [ ]
- 5 Gear+coupling inertia ( $J_G$ ) [ ] kg.cm<sup>2</sup>
- 6 Pulley inertia ( $J_P$ ) [ ] kg.cm<sup>2</sup>
- 7 Pulley diameter ( $d_P$ ) [ ] mm

Additional fields include 'Gear efficiency ( $\eta_G$ )' and 'Total efficiency ( $\eta$ )'. The diagram shows a motor (Nm) driving a pulley (NI) which is connected to a load pulley (NI) via a timing belt. The load pulley is connected to a load (N). The load is moving horizontally with velocity  $v$ . The diagram also shows the rotor axis rotation speed ( $\omega$ ) and load axis rotation speed ( $\omega$ ).

At the bottom of the window, there is a navigation bar with buttons: 'Back', 'Machine information', 'Velocity diagram', 'Operating condition', 'Motor selection', 'Servo amplifier selection', 'Option selection', and 'Data'. The 'Next' button is highlighted with a red box.

Input values of each actuator are as follows.

Input value of LEFB (Timing belt): Refer to "2.7.1".

Input value of LEJB (Timing belt): Refer to "2.7.2".

## 2.7.1 Input value of LEFB (Timing belt)

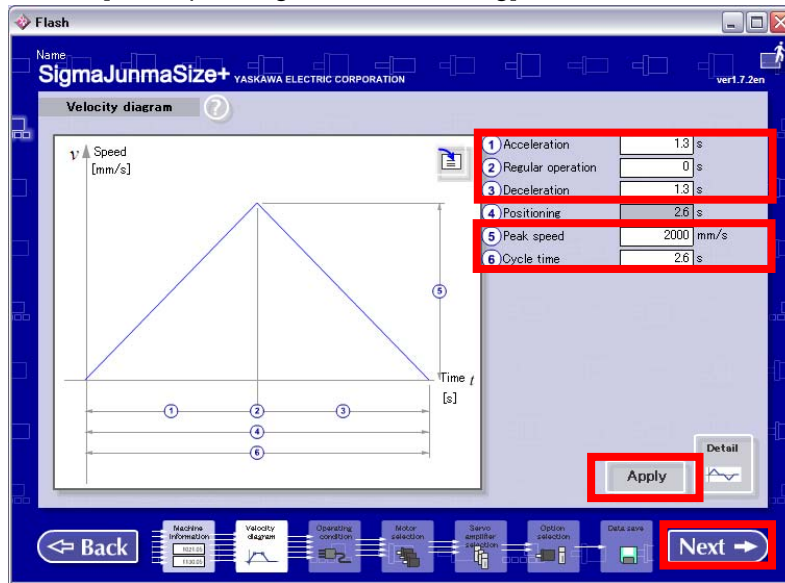
SQ Series	Actuators type		LEFB25	LEFB32	LEFB40
	Lead symbol		S		
	Lead		54		
No.	Items to enter	units	Input value		
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.		
(2)	Thrust	N	2		
(3)	Coefficient of friction	-	0.05		
(4)	Gear ratio	-	1		
(5)	Gear+coupling inertia	kg.cm2	0.2	0.2	0.25
	Gear efficiency	-	1		
(6)	Pulley inertia	kg cm²	0.006	0.008	
(7)	Pulley diameter	mm	16.42		
-	Total efficiency	-	0.8		

## 2.7.2 Input value of LEJB (Timing belt)

SQ Series	Actuators type		LEJB40			LEJB63		
	Lead symbol		H	A	B	H	A	B
	Lead		24	16	8	30	20	10
No.	Items to enter	units	Input value					
(1)	Mass of load	kg	Enter the weight of the workpiece to be transferred.					
(2)	Thrust	N	40					
(3)	Coefficient of friction	-	0.05					
(4)	Gear ratio	-	2			1.667		
(5)	Gear+coupling inertia	kg.cm2	0.1016			0.3184		
	Gear efficiency	-	0.9					
(6)	Pulley inertia	kg.cm2	0.012			0.047		
(7)	Pulley diameter	mm	17.19			22.28		
-	Total efficiency	-	0.8					

### 2.7.3 Setting of drive condition [Timing belt (Horizontal)]".

Enter each item in accordance with the drive condition, click "Apply", then "Next".  
Please execute [2.8 "Operating condition" setting].

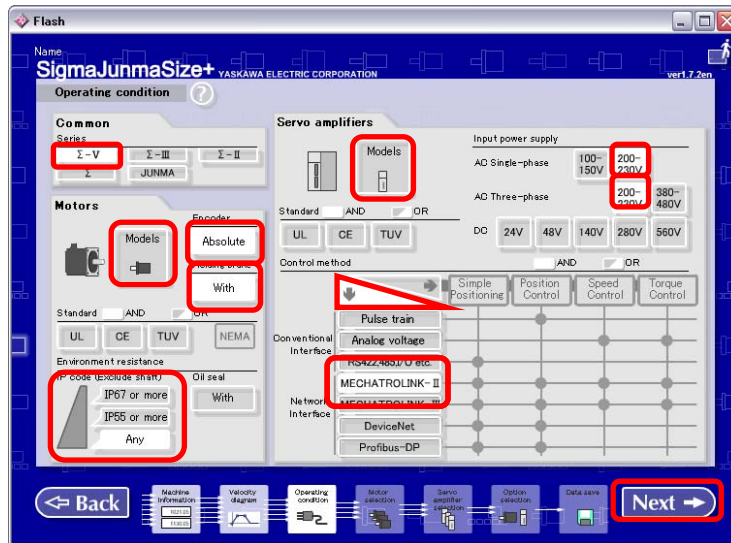


Refer to the following description for the input values of each drive condition.

Acceleration	s	Read acceleration/deceleration from the <Work Load -Acceleration/Deceleration Graph>. Calculate the acceleration time (maximum speed ÷ acceleration/deceleration) and input the value.
Regular operation	s	0
Deceleration	s	Input the value same as the acceleration time.
Peak speed	mm/s	Input the "maximum speed" of each actuator specification.
Cycle time	s	Input "acceleration time x 2".

## 2.8 [Operating condition] setting

Enter each item and click the "Next" button.  
 (The background of the selected items turns white.)  
 Please execute [2.9 "Motor selection" setting].



Refer to the following description for the selected items of each item.

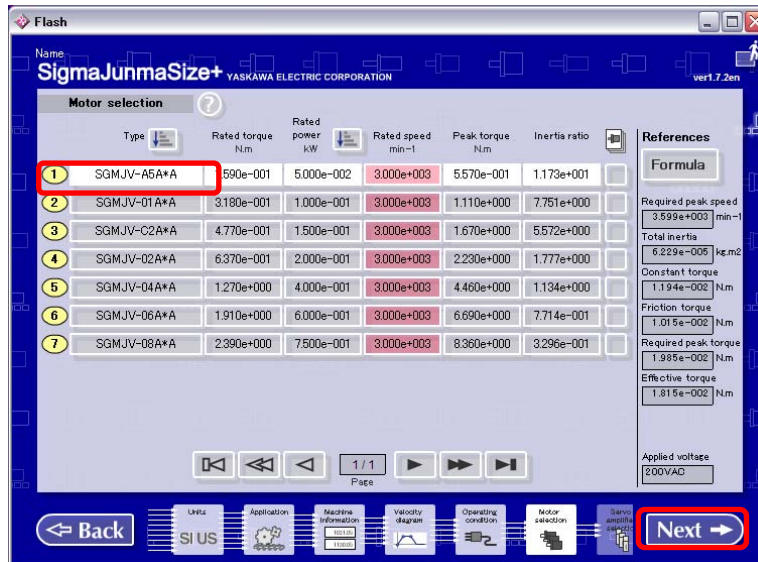
Common	Series	Σ-V
Motors	Models	SGMJV
	Encoder	Absolute
	Holding brake	Select this item for motors with lock.
	IP	Any
	Oil seal	With
Servo amplifiers	Models	SGDV
	AC Single-phase	200-230V
	AC Three-phase	200-230V
	Control method	↓
	Network Interface	Select MECHATROLINK- II or MECHATROLINK-III from the product specifications.



## 2.9 [Motor selection] setting

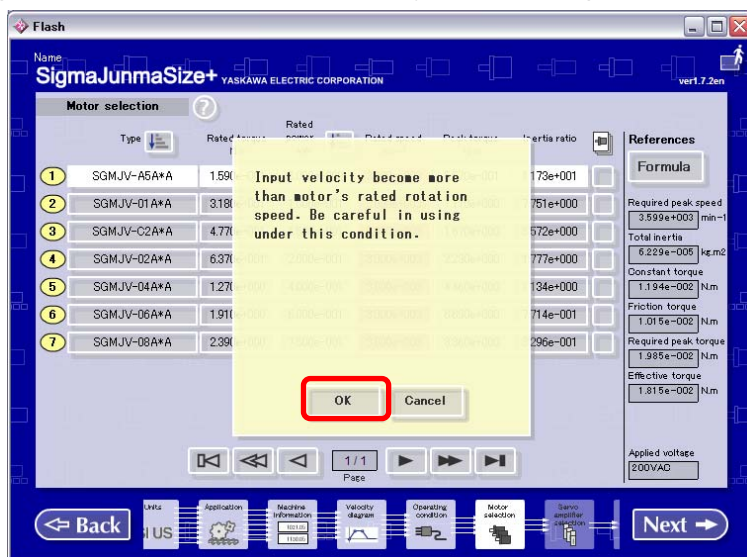
Confirm the motor output from the product model of each actuator and select the motor type to which "rated output" corresponds.  
(See the table below.)

Click the "Next" button after selecting each item.



Actuators type		Lead		
		Rated output [KW]	Motor type	Servo amplifiers (SMC Driver) type
LEF	LEFS25□	1.000e-001	SGMJV-01A3A	SGDV-R90A11□(LECYM2-V5) SGDV-R90A21□(LECYU2-V5)
	LEFS32□	2.000e-001	SGMJV-02A3A	SGDV-1R6A11□(LECYM2-V7) SGDV-1R6A21□(LECYU2-V7)
	LEFS40□	4.000e-001	SGMJV-04A3A	SGDV-2R8A11□(LECYM2-V8) SGDV-2R8A21□(LECYU2-V8)
	LEFB25□	1.000e-001	SGMJV-01A3A	SGDV-R90A11□(LECYM2-V5) SGDV-R90A21□(LECYU2-V5)
	LEFB32□	2.000e-001	SGMJV-02A3A	SGDV-1R6A11□(LECYM2-V7) SGDV-1R6A21□(LECYU2-V7)
	LEFB40□	4.000e-001	SGMJV-04A3A	SGDV-2R8A11□(LECYM2-V8) SGDV-2R8A21□(LECYU2-V8)
LEJ	LEJS40□	1.000e-001	SGMJV-01A3A	SGDV-R90A11□(LECYM2-V5) SGDV-R90A21□(LECYU2-V5)
	LEJS63□	2.000e-001	SGMJV-02A3A	SGDV-1R6A11□(LECYM2-V7) SGDV-1R6A21□(LECYU2-V7)
	LEJB40□	1.000e-001	SGMJV-01A3A	SGDV-R90A11□(LECYM2-V5) SGDV-R90A21□(LECYU2-V5)
	LEJB63□	2.000e-001	SGMJV-02A3A	SGDV-1R6A11□(LECYM2-V7) SGDV-1R6A21□(LECYU2-V7)
LEY / LEYG	LEY25□ / LEYG25□	1.000e-001	SGMJV-01A3A	SGDV-R90A11□(LECYM2-V5) SGDV-R90A21□(LECYU2-V5)
	LEY32□ / LEYG32□	2.000e-001	SGMJV-02A3A	SGDV-1R6A11□(LECYM2-V7) SGDV-1R6A21□(LECYU2-V7)
	LEY63□ / LEYG63□	4.000e-001	SGMJV-04A3A	SGDV-2R8A11□(LECYM2-V8) SGDV-2R8A21□(LECYU2-V8)

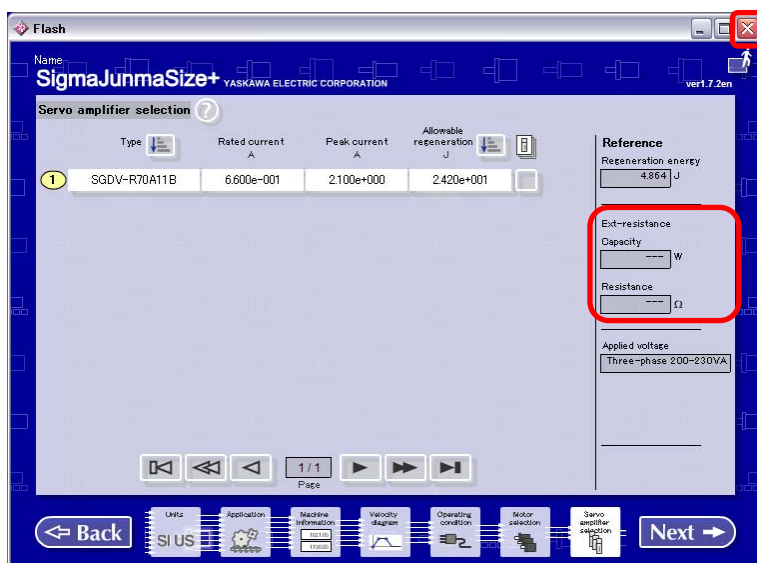
A warning for load inertia moment is displayed depending on the product, but click the "OK" button.



## 2.10 [External Regenerative Resistance "Capacity"/"Resistance"] Check

Check "capacity" and "resistance" from the "required external regenerative resistance."

When finishing the "AC servo drive capacity selection program SigmaJunmaSize+", click the [X] button.



When the value of "capacity" and "resistance" are displayed as [--], the external regenerative resistor is not required.

When values are displayed, an external regenerative resistor is required.

**The user should prepare the external regenerative resistor which conforms to the "capacity" and "resistance" shown.**

Revision history
No.LE-OM00201 Jan./2015 1st printing

## SMC Corporation

4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021 JAPAN

Tel: + 81 3 5207 8249 Fax: +81 3 5298 5362

URL <http://www.smcworld.com>

---

Note: Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.  
© 2015 SMC Corporation All Rights Reserved