Selecting a Motor and Drive

After entering motion profile data, a linear mechanism if your application requires it, and a transmission into Motion Analyzer, you are ready to select a Drive and Motor for the application.

1. Begin by selecting a Voltage and Phase in the Power Requirements section of the Axis page. In this case, 460 volts and 3 phase were selected, but your inputs will vary depending on your application. Your axis is now automatically saved.



2. Next, click on the Search for solutions button.



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Note: The **Search for Solutions** button will automatically scan the product catalog for matching motors and drives and sort them by how well they suit your application. If there is a specific motor or drive you would like to use for your application and you want to save some time, you can manually add that motor or drive. In that case, do not select **Search for Solutons**.

Start by selection Add Motor or Add Drive.



If there is a specific catalog number you would like to use, enter it and select Add to Axis.
ADD DRIVE FROM CATALOG
By Catalog Number By Browsing
Enter Full Product #
Select a family v
CANCEL ADD TO AXIS
If you do not have a specific catalog number, you can select a product family from the dropdown menu, and a size from the size dropdown menu, then select Add to Axis .
ADD DRIVE FROM CATALOG
By Catalog Number By Browsing
Enter Fuß Product #
2198-0032-ER53 V
CANCEL ADD TO AXIS
If you do not know the specifics of the product you would like to use but would still like to manually select it, click By Browsing and then Browse Products .
ADD DRIVE FROM CATALOG
By Catalog Number By Browsing
Select families or a specific product.
Browse Products
CANCEL
This will bring you to a product selection page. You can filter the products shown by using the filters on the left. You can then
select one or more families to use, and then select Add Selected Families to Axis.

Drives			3 Add Sele	cted Families to Axis Go to A
Selection Filters clear	ROCKWELL AUTO	MATION		Compare Selected Families (0)
Commonly Used (6) >	Drive select	Drive select	Drive select	Drive select
Voltage & Phase (4) Voltage & Phase (4)		10 10	B.(5/5/5.	Q1-20-20-20-1
Single Phase				-
Innee Phase	Kinetix 5500 Servo	Kinetix 5700 Servo	Kinetix 6000 Servo	Kinetix 6200 Servo
	0 Sizes Available	Drive 14 Sizes Available	Drive 20 Sizes Available	Drive 10 Sizes Available
Low High	Select	Select 2	Select	Select
Input Voltage Min	Drive select	Drive select	Drive select	Drive select
input voltage with	: 1111		5	
Low High		. H	1	
	Kinetix 6500 Servo Drive	Kinetix 300 Servo Drive	Kinetix 350 Servo Drive	Kinetix 7000 Servo Drive
IP Ratings (4)	10 Sizes Available Select	12 Sizes Available Select	12 Sizes Available Select	7 Sizes Available Select
Options (7)				
Certifications (16)		VIEW	MORE	
Controller (4)				
Features (35)				
Motor Control (9)				

3. After Motion Analyzer performs the necessary calculations, the Solution List will appear with a list of the motor and drive combinations which meet the application requirements.

OLUTIONS LIST	Vie	wing 1 - 5 of 103 < <u>1</u> 2 3 4 5	6 21	>	Sort t	by: Profi	le Match	(%)	~
Clear Filters		Note: Some solutions may have access	sories addeo	I to meet	your filte	er criteria.			
Selection Filters		> Filter Solutions by Product Fa	mily						
Solution Filters (6)	>	Drive PowerFlex 525 25B-D010N1x4	View To	orque Spee	ed Curve			Sele	ect
Selection Filters		Motor							
Commonly Used (6)	>	CM222 Induction Motor CM222-FC7F518AXZCA	Profile Match	Relative Price	Average Current	Force Or Torque Utilization	Inertia Ratio	Peak Current Utilization	Thermal Capacity
Torque/Force Ratings (6)	>	Gearbox	88.9%	\$\$\$\$\$\$	7.34	60.3%	1.50	69.9%	21.9%
Induction Motor (5)	>								
Physical Dimension (2)	>	Drive PowerFlex 525 25B-D010N1x4	View To	orque Spee	ed Curve			Sele	ect
Options (10)	>	Motor CM222 Induction Motor I CM222-NV00518AXZCA	Profile Match	Relative Price	Average Current	Force Or Torque	Inertia Ratio	Peak Current	Thermal Capacity
IP Ratings (4)	>	Gearbox	88.7%	\$\$\$\$\$\$	6.60	59.5%	2.86	69.7%	31.1%
Certifications (3)	>								
Environment (3)	>	Drive 25C-D010N1x4 25C-D010N1x4	View To	orque Spee	ed Curve			Sele	ect
Feedback (3)	>	Motor	Profile	Relative	Average	Force Or	Inertia	Peak	Thermal
Selection Filters		CM222 Induction Motor CM222-FC7F518AXZCA	Match	Price	Current	Torque Utilization	Ratio	Current Utilization	Capacity
Commonly Used (6)	>	Gearbox	•1.0%	499999	1.04	57.1%	1.50	03.3%	21.3%
Voltage & Phase (4)	>	Drive							
IP Ratings (4)	>	25C-D010N1x4 25C-D010N1x4	View To	orque Spee	ed Curve			Sele	ect
		Motor							

4. Click the Expand button next to Product Family Matrix.

SOLUTIONS LIST	View	ving 1 - 5 of 103 <	<u>1</u> :	23	4 5	6 21	>	Sort I	by: Profi	le Match	(%)	~
Clear Filters		Note ome solution:	s may I	nave a	accesso	ories adde	d to meet	your filte	er criteria.			
Selection Filters	(Filter Solution	ns by I	Produ	ct Fan	nily						
Solution Filters (6)	>	Drive PowerFlex 525 25E	3-D010N1	x4		View T	orque Spe	ed Curve			Sele	ct
Selection Filters		Motor				Profile	Palativa	Average	Eoroa Or	Inertia	Peak	Thermal
Commonly Used (6)	>	CM222 Induction Motor CM222-FC7F518A	XZCA			Match	Price	Current	Torque Utilization	Ratio	Current Utilization	Capacity
Torque/Force Ratings (6)	>	Gearbox				88.9%	555555	7.34	60.3%	1.50	69.9%	21.9%

Clear Filters		Note	Some solutions may have access	ories adde	d to meet	your filter	criteria.			
Selection Filters		~	By Drive Family 🗸	and By Mo	otor Family		*			
Solution Filters (6)	>	ct Family			KINETIX 5500 SERVO	KINETIX 5700 SERVO	KINETIX 6000 SERVO	KINETIX 6200 SERVO	KINETIX 6500 SERVO	H S
Commonly Llood (6)		roduc			DRIVE	DRIVE	DRIVE	DRIVE	DRIVE	
Commonly Used (6)	`	УP	CM222 - AC SPINDLE MOTOR		0	0	0	0	0	
Torque/Force Ratings (6)	>	ons t	EZF HOLLOW-BORE MOTOR		0	0	0	0	2	
Induction Motor (5)	>	olutio	EZM HOLLOW-BORE MOTOR		0	0	0	0	3	
Physical Dimension (2)	>	lter S	EZS HOLLOW-BORE MOTOR		0	0	0	0	3	
Options (10)	>	Ē	HPK-SERIES SERVO MOTORS		0	0	0	0	0	
ID Detinge (4)			MP-SERIES FOOD GRADE SERVO	MOTOR	1	2	1	1	1	
IF Raungs (4)	<i>'</i>		MP-SERIES LOW INERTIA SERVO	NOTOR	1	1	0	2	2	
Certifications (3)	>		MP-SERIES MEDIUM INERTIA SER	O MOTOR	1	2	0	1	1	
Environment (3)	>		RDD-SERIES DIRECT DRIVE		0	0	3	3	3	
Feedback (3)	>		VP LOW INERTIA SERVO MOTOR		3	3	0	0	0	
Selection Filters			VP STAINLESS STEEL SERVO MOT	OR	1	1	0	0	0	
Commonly Used (6)	>		•							÷
		Dri		View 1	Torque Spee	ed Curve			Select	

5. Here you can view a table of all the drives and motors that fit the solution.

6. To narrow the search results, you can select a single drive family.

In this case, the KINETIX 5700 SERVO DRIVE heading is selected in the Product Family table.

SOLUTIONS LIST	Viev	ving 1 -	5 of 103 < <u>1</u> 2 3 4	56	21	>	Sort b	y: Profile	Match (%))	*
Clear Filters		Note: \$	Some solutions may have acces	ssories	added	to meet	your filte	r criteria.			
Selection Filters		*	By Drive Family	and	By Mot	or Family		~			
Solution Filters (6)	>	amily					KINETIX	KINETIX	KINETI	KINETI	х кі
Selection Filters		luct F				SERVO	SERVO	SERVO	SERVO	SERVO DRIVE) SI E D
Commonly Used (6)	>	Proc	CM222 - AC SPINDLE MOTOR			0	0	0	0	0	
Torque/Force Ratings (6)	>	d su	EZF HOLLOW-BORE MOTOR			0	0	0	0	2	
Induction Motor (5)	>	olutio	EZM HOLLOW-BORE MOTOR			0	0	0	0	3	
Physical Dimension (2)	>	Iter S	EZS HOLLOW-BORE MOTOR			0	0	0	0	3	
Options (10)	>	Ϊ	HPK-SERIES SERVO MOTORS			0	0	0	0	0	
IP Ratings (4)	>		MP-SERIES FOOD GRADE SERVO	о мото	R	1	2	1	1	1	
Certifications (3)	,		MP-SERIES LOW INERTIA SERVO	мото	R	1	1	0	2	2	
5			MP-SERIES MEDIUM INERTIA SEI	RVO M	DTOR	1	2	0	1	1	
Environment (3)	>		RDD-SERIES DIRECT DRIVE			0	0	3	3	3	
Feedback (3)	>		VP LOW INERTIA SERVO MOTOR			3	3	0	0	0	
Selection Filters			VP STAINLESS STEEL SERVO MO	OTOR		1	1	0	0	0	
Commonly Used (6)	>										•
Voltage & Phase (4)	>	Driv Power	e /Flex 525 25B-D010N1x4		View To	orque Spee	d Curve			Select	
IP Ratings (4)	>	Mot CM22	OF 2 Induction Motor CM222-EC7E518AX2CA		Profile Match	Relative Price	Average Current	Force Or Torque	Inertia Ratio (Peak Th Current Ca	ermal pacity
Environment (1)	>		CHEELER OFFOTORALOA		88.9%	222222	7 34	Utilization	1.50 F	tilization	9%

Clear Filters	Not	e: Some solutions may have acces	sories adde	d to meet	your filter	criteria.			
Selection Filters	·	By Drive Family	and By Mo	tor Family		~			
Solution Filters (6) Selection Filters	<			KINETIX 5500 SERVO DRIVE	KINETIX 5700 SERVO DRIVE	KINETIX 6000 SERVO DRIVE	KINETIX 6200 SERVO DRIVE	KINETIX 6500 SERVO DRIVE	ĸ
Commonly Used (6)	Produ	CM222 - AC SPINDLE MOTOR		0	0	0	0	0	
Torque/Force Ratings (6)	v Vd sn	EZF HOLLOW-BORE MOTOR		0	0	0	0	2	
Induction Motor (5)	< l	EZM HOLLOW-BORE MOTOR		0	0	0	0	3	
Physical Dimension (2)	v se	EZS HOLLOW-BORE MOTOR		0	0	0	0	3	
Options (10)	Ē	HPK-SERIES SERVO MOTORS		0	0	0	0	0	
ID Detings (4)		MP-SERIES FOOD GRADE SERVO	MOTOR	1	2	1	1	1	
TP Raungs (4)	<u> </u>	MP-SERIES LOW INERTIA SERVO	MOTOR	1	1	0	2	2	
Certifications (3)	`	MP-SERIES MEDIUM INERTIA SER	VO MOTOR	1	2	0	1	1	
Environment (3)	>	RDD-SERIES DIRECT DRIVE		0	0	3	3	3	
Feedback (3)	>	VP LOW INERTIA SERVO MOTOR		3	3	0	0	0	
Selection Filters		VP STAINLESS STEEL SERVO MO	TOR	1	1	0	0	0	
Commonly Used (6)	>	•							Þ
V-14 9 Db (4)		rive	View T		d Curve			Select	

7. You can collapse the Product List by clicking on the carrot for the list.

8. You can also sort the solutions list by using the drop down menu and selecting a trait.

SOLUTIONS LIST	Viev	ving 1 - 5 of 103 < <u>1</u> 2 3 4 5	6 21	>	Sort t	oy: Bus	Utilizatior	1	*
Clear Filters		Note: Some solutions may have accesso	ories addeo	i to meet	your filte	Cho er ci Prof	ose Sort ile Match	(%)	
Selection Filters		> Filter Solutions by Product Fam	nily			List	Price		
Solution Filters (6)	>	Drive	View T	orque Sper	ed Curve	Ave	utilization	er	
Selection Filters		Kinetix 7000 2099-BM06-S				Wind	ding lemp	0.	
Commonly Used (6)	>	MPL Motor MPL-8540D-xxxxxx	Profile Match	Relative Price	Average Current	Fo T∈ Inerf	tia Ratio		-
Torque/Force Ratings (6)	>	Gearbox	72.6%	\$\$\$\$\$\$	5.82	57.9%	32.20	55.5%	50.4%
Induction Motor (5)	>	Drive	View T	orque Sner	ed Curve			Sele	ct
Physical Dimension (2)	>	Kinetix 5700 2198-D020-ERS3	view is		eu ourve				
Options (10)	>	MPL Motor MPL-B540D-xxxxxxx	Profile Match	Relative Price	Average Current	Force Or Torque Utilization	Inertia Ratio	Peak Current Utilization	Thermal Capacity
IP Ratings (4)	>	Gearbox	79.5%	\$\$\$\$\$\$	5.82	57.9%	32.20	55.5%	52.2%
Certifications (3)	>	Drive							
Environment (3)	>	Kinetix 5500 2198-H015-ERSx	View To	orque Spee	ed Curve			Sele	ct
Feedback (3)	>	Motor MPL Motor MPL-8540D-x000000	Profile Match	Relative Price	Average Current	Force Or Torque	Inertia Ratio	Peak Current	Thermal Capacity
Selection Filters		Gearbox	81.7%	\$\$\$\$\$\$	5.82	92%	32.20	82%	83%
Commonly Used (6)	>								
Voltage & Phase (4)	>	Drive Kinetix 6200 2094-BM01-M	View T	orque Spee	ed Curve			Sele	ct
IP Ratings (4)	>	Motor MPL Motor MPL-8540D-xxxxxxx	Profile Match	Relative Price	Average Current	Force Or Torque	Inertia Ratio	Peak Current	Thermal Capacity
Environment (1)	>	Gearbox	83.7%	\$\$\$\$\$\$	5.82	Utilization 72.6%	32.20	Utilization 64.7%	75.6%

9. To help select a solution, you can click **View Torque Speed Curve** to show the Torque/Speed graph for that solution.

Drive Kinetix 5700 2198-D012-ERS3	View To	rque Spee	d Curve		l	Sele	ct
Actuator MPAS-B80902-V20SxA MPAS-B80902-V20SxA	Profile Match	Relative Price	Average Current	Force Or Torque	Inertia Ratio	Peak Current	Thermal Capacity
Gearbox	81.9%	\$\$\$\$\$\$	3.48	106.7%	17.78	87%	79.1%
	•						



10. Select a solution with the **Select** button.

OLUTIONS LIST	Viewir	ng 1 - 5 of 103 < <u>1</u> 2 3 4	5 6 21	>	Sort t	oy: Bus	Utilizatior	1	~
Clear Filters	N	ote: Some solutions may have acces	ssories addeo	i to meet	your filte	er criteria.			
Selection Filters		> Filter Solutions by Product F	amily						
Solution Filters (6)	>	Drive Kinetix 7000 2099-BM06-S	View To	orque Spee	ed Curve			Sele	ect
Selection Filters		Motor							
Commonly Used (6)	>	MPL Motor MPL-B540D-xxxxxxx	Profile Match	Relative Price	Average Current	Force Or Torque Utilization	Inertia Ratio	Peak Current Utilization	Thermal Capacity
Torque/Force Ratings (6)	>	Gearbox	72.6%	\$\$\$\$\$\$	5.82	57.9%	32.20	55.5%	50.4%
Induction Motor (5)	>	Drive	Mary T					Colo	t
Physical Dimension (2)	>	Kinetix 5700 2198-D020-ERS3	view it	orque Spee	ed Curve			Sele	CI .
Options (10)	>	Motor MPL Motor MPL-8540D-xxxxxx	Profile Match	Relative Price	Average Current	Force Or Torque	Inertia Ratio	Peak Current	Thermal Capacity
IP Ratings (4)	>	Gearbox	79.5%	\$\$\$\$\$\$	5.82	57.9%	32.20	55.5%	52.2%
Certifications (3)	>	Drive					Y		
Environment (3)	>	Kinetix 5500 2198-H015-ERSx	View To	orque Spee	ed Curve		(Sele	ct
Feedback (3)	>	Motor MPL Motor MPL-8540D-xxxxxxx	Profile Match	Relative Price	Average Current	Force Or Torque	Inertia Ratio	Peak Current	Thermal Capacity
Selection Filters		Gearbox	81.7%	\$\$\$\$\$\$	5.82	92%	32.20	82%	83%
Commonly Used (6)	>	Deius							
Voltage & Phase (4)	>	Kinetix 6200 2094-BM01-M	View To	orque Spee	ed Curve			Sele	ct
IP Ratings (4)	>	Motor MPL Motor MPL-8540D-xxxxxxx	Profile Match	Relative Price	Average Current	Force Or Torque	Inertia Ratio	Peak Current	Thermal Capacity
	>	Gearbox	83.7%	\$\$\$\$\$\$	5.82	72.6%	32.20	64.7%	75.6%

11. Your Axis will then automatically save.

Motion /	Analyz	er	L TLSTONE@RA.R	OCKWELL.COM V Notifica	ations 17 Rockwell Automation
PRODUCTS	LIBRARY	TOOLS	SUPPORT	Enter keyword or pl	roduct # Products 🔹 🔎
♠ \ Library \	Vertical Lift A	pplication \ Axis 1	1		
			CONTINUE TO PROJEC	т	
Axis 1 > Linear Axis wit	0 Shared Use h Mecha V DELETE	ers 🗸 0 Comments	v	Auton	RT EDITING natically Saved ATE A SNAPSHOT TORE FROM SNAPSHOT
Components		Performance			
POWER REQU	JIREMENTS:	Voltage 460	♥ Phase 3 ♥	SEA	RCH FOR SOLUTIONS
PROFILE		LINEAR MECH.	TRANSMISSION		MOTOR
Edit Profi Motion Profile Motion Type: Linea REMOV	ıle ır	Belt Machanism Type: Belt Drive REMOVE	Add Another Coupling Transmission REMOVE Move >	Add Another Belt Transmission REMOVE Move >	Select SET CONFIGURATION MPL Motor Catalog Number: MPL-B540D- XXXXXX CHANGE MOTOR REMOVE
4					•

12. Next, you need to select the configuration for the motor and drive. Click on the **Select Configuration** for the motor.

Motion /	Analyz	er			@RA.ROCKWEI	L.COM V Notificatio	ons 17 Roc Autom	kwel atio
PRODUCTS	LIBRARY	TOOLS	SUPPORT			Enter keyword or prod	duct # Products V	P
🔒 \ Library \	Vertical Lift A	opplication \ Axis	1					
			CON		OJECT			
Axis 1 🖌	0 Shared Use	ers 🗸 🛛 0 Comments	×			🔓 START	EDITING	
Linear Axis wit	th Mecha 🗸					💾 Automat	ically Saved	
DUPLICATE	DELETE					ia RESTO	RE FROM SNAPSHOT	
Components		Performance						
POWER REQU	JIREMENTS:	Voltage 460	~	Phase 3	*	SEAR	CH FOR SOLUTIONS	
LINEAR MECH.		TRANSMISSION	TRA	NSMISSION	МОТ	OR	DRIVE	
-	\$	0	¢ 1	¢.,				
Belt Machanism		Add Another		Add Another		Select	t Cable	
REMOV	Æ	Coupling Transmissio REMOVE	n Belt T	ransmission REMOVE	MPL I Catal	T CONFIGURATION	SET CONFIGURAT Kinetix 5500 Catalog Number: 2198-J	10N
		< Move	>	< Move	> xxxx		ERSX	=
						REMOVE	REMOVE	-
(1	

13. On the Motor Selection page, select an option that meets your motor criteria. .



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14. Click the Save Axis button to set the configuration.



16. Next, we will select the configuration for the drive. Scroll to the right in the Components section of the page to see the options for the selected Drive. Then, click the **Select Configuration** button for the drive.

Motion Analyzer										
PRODUCTS	LIBRARY	TOOLS	SUPPORT			Enter keywo	rd or product #	Products 🗸	P	
🔒 \ Library \ V	/ertical Lift App	lication \ Axis 1								
CONTINUE TO PROJECT										
Axis 1 > 0 Shared Users > 0 Comments > Linear Axis with Mecha > DUPLICATE DELETE						START EDITING Automatically Saved CREATE A SNAPSHOT RESTORE FROM SNAPSHOT				
Components		Performance								
POWER REQUIREMENTS: Voltage 460 Y Phase 3 Y										
			TRA		M0	OTOR		I I I		
Belt Machanism Type: Belt Drive REMOVE	Co	Add Another oupling Transmission REMOVE	Belt 1	Add Another ransmission REMOVE	MPI	L Motor alog Number: MPL- xx figuration: L-B540D-MJ72AA CHANGE CONFIGURATIO CHANGE MOTO REMOVE ADD ACCESSO	Select Cable SET B540D- Catalo ERSx DN DR	CONFIGURATI 5500 g Number: 2198-H CHANGE DRIVE REMOVE	ON 015-	
4									×.	

17. Select a version of the drive that meets your drive criteria.



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18. Click the **Save Axis** button to set the configuration.



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19. Click the **OK** button in the dialog box that appears to return to the Axis page.

Successfully saved item. Go to axis?		1
	ОК	
	CANCEL	