



LINEAR ACTUATORS | 102 - 610 mm 1500 - 7000 N

AMA-SERIES

We offer a broad range of high quality linear actuators in standard and customized configurations. Our customer-centric approach makes us the ideal supplier for your project, especially to instrument and apparatus builders. In addition, we offer immediate delivery, thanks to always having a high number of motors in stock.

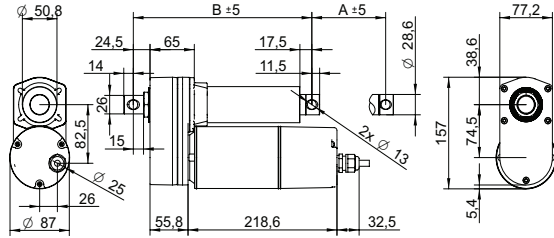
Customizations include:

- ✓ Customized harness
- ✓ Winding configuration
- ✓ Shaft configuration
- ✓ And more...

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MODEL	MAX. STATIC LOAD N	NOMINAL DYNAMIC LOAD N	STROKE LENGTH mm	FEATURES	PAGE
AMA-X-X-A-X-IP65	4500	1500 to 3500	102 to 610	-	1
AMA-X-X-A-X-POT-IP65	4500	1500 to 3500	102 to 610	Potentiometer	2
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AMA-X-X-A-X-LT-POT-IP65	4500	1500 to 3500	102 to 610	Limit switch and potentiometer	4
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AMA-X-X-B-X-LT-POT-IP65	14000	2600 to 7000	102 to 610	Limit switch and potentiometer	8

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: AMA-230-20-A-305-IP65

ACCESSORIES



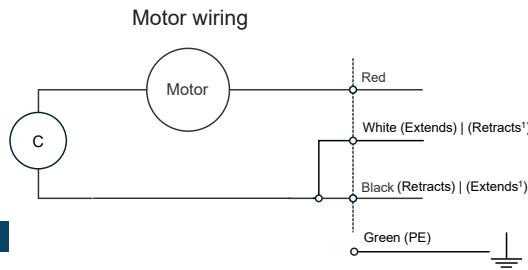
● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

ACTUATOR DATA					C
Gear ratio		10:1	20:1	40:1	●
Voltage	V	115 230	115 230	115 230	
Frequency	Hz	60 50	60 50	60 50	
Current at nominal dynamic load	A	3.1 1.8	2.7 1.9	2.7 1.9	
Nominal dynamic load	N	1500	2500	3500	
Max. static load	N	4500	4500	4500	
Speed at nominal dynamic load	mm/s	23 18	12 9.3	6 4.9	
Speed at no load	mm/s	27 22	13 11	6.6 5.4	

ACTUATOR STROKE DATA								C
Stroke length A	mm	102	153	203	305	457	610	●
Retracted length B	mm	262	313	364	465	668	821	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

ACTUATOR FEATURES			C
Type	Electric linear actuator		
Motor type	Single phase AC induction motor		
Cable type	Flying wire (4 wires)		●
Power cable	AWG18		
Cable length	mm	600	●
Voltage	V	115 230	●
Screw type	ACME		
Noise level	dB(A)	≤ 70	
Life time	4 million mm total stroke		
Limit switches	No		●
Overload protection	By clutch		
Direction movement	By changing neutral cable		
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	240 nominal dynamic load	
IP rating	IP65		
Insulation class	F		
Max. motor winding temp.	°C	105	
EMC	EMC Directive 2014/30/EU		
Gear box	Metal spur gears		
Gear box material	Aluminum alloy		
Rod and house material	Steel 12L14 STKM11A		
Feedback options	Potentiometer		
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standards	ISO 9001:2015		
Performance tolerance	%	± 15	

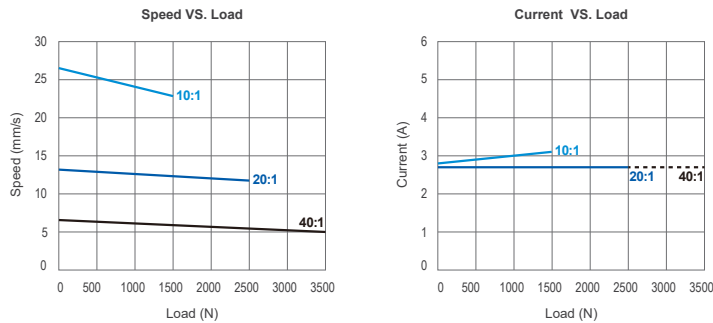
WIRING DIAGRAMS¹



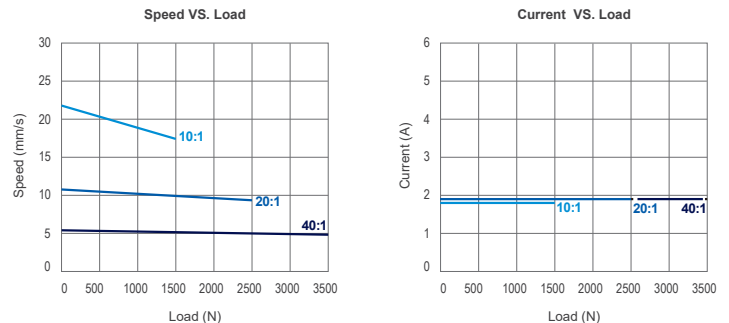
NOTES

1. For gear ratio 40:1, White retracts and Black extends.

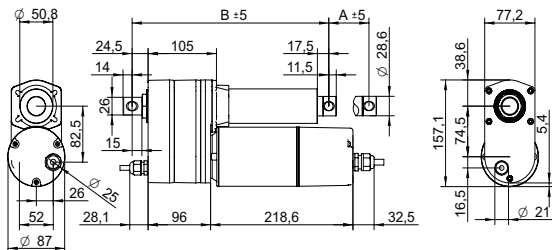
MOTOR GRAPHS 115 V



MOTOR GRAPHS 230 V



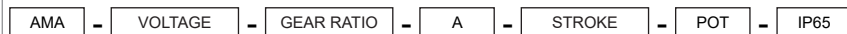
DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: AMA-230-20-A-305-POT-IP65

ACCESSORIES

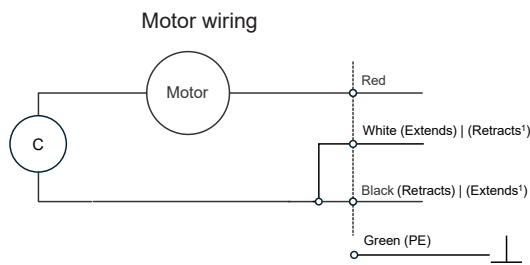


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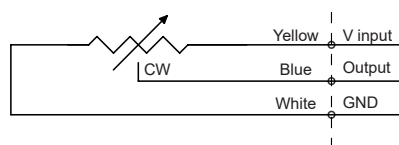
ACTUATOR DATA					C
Gear ratio		10:1	20:1	40:1	●
Voltage	V	115 230	115 230	115 230	
Frequency	Hz	60 50	60 50	60 50	
Current at nominal dynamic load	A	3.1 1.8	2.7 1.9	2.7 1.9	
Nominal dynamic load	N	1500	2500	3500	
Max. static load	N	4500	4500	4500	
Speed at nominal dynamic load	mm/s	23 18	12 9.3	6 4.9	
Speed at no load	mm/s	34	17	8.4	

ACTUATOR STROKE DATA								C
Stroke length A	mm	102	153	203	305	457	610	●
Retracted length B	mm	302	353	404	505	708	861	
Feedback	Ω/mm	100	67	50	33	22	17	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

WIRING DIAGRAMS¹



Potentiometer wiring



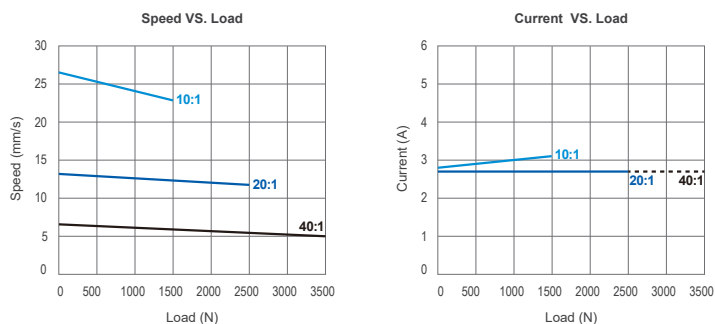
NOTES

1. For gear ratio 40:1, White retracts and Black extends.

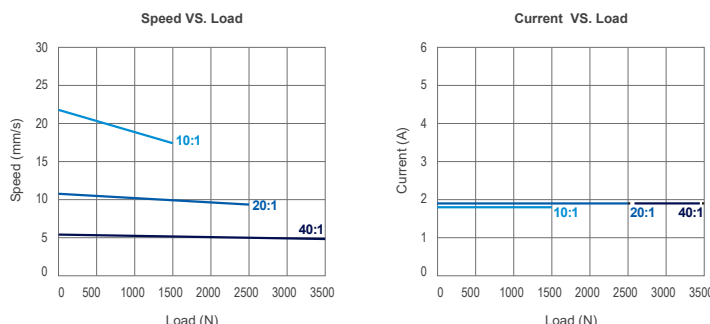
ACTUATOR FEATURES			C
Type	Electric linear actuator		
Motor type	Single phase AC induction motor		
Cable type	Flying wire (4+2 wires)		●
Power cable	AWG18		
Signal cable	AWG22		
Cable length	mm	600	●
Voltage	V	115 230	●
Screw type	ACME		
Noise level	dB(A)	≤ 70	
Life time	4 million mm total stroke		
Limit switches	No		●
Overload protection	By clutch		
Direction movement	By changing neutral cable		
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	240 nominal dynamic load	
IP rating	IP65		
Insulation class	F		
Max. motor winding temp.	°C	105	
EMC	EMC Directive 2014/30/EU		
Gear box	Metal spur gears		
Gear box material	Aluminum alloy		
Rod and house material	Steel 12L14 STKM11A		
Feedback	Potentiometer		
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standards	ISO 9001:2015		
Performance tolerance	%	± 15	

POTENTIOMETER DATA			C
Potentiometer type	Wire wound		
Resistance	kΩ	0.3 to 9.7	
Resolution	%	0.025	
Resistance tolerance	%	± 5	
Linearity	%	± 0.25	

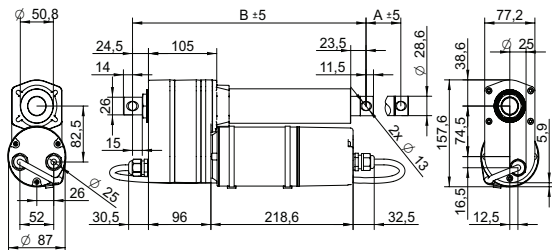
MOTOR GRAPHS 115 V



MOTOR GRAPHS 230 V



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

AMA - VOLTAGE - GEAR RATIO - A - STROKE - LT - IP65

Example: AMA-230-20-A-305-LT-IP65

ACCESSORIES



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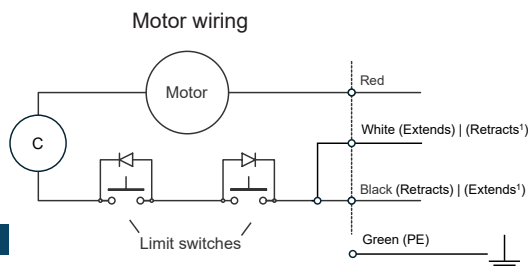
ACTUATOR DATA

		10:1	20:1	40:1	C
Gear ratio		10:1	20:1	40:1	●
Voltage	V	115 230	115 230	115 230	
Frequency	Hz	60 50	60 50	60 50	
Current at nominal dynamic load	A	3.1 1.8	2.7 1.9	2.7 1.9	
Nominal dynamic load	N	1500	2500	3500	
Max. static load	N	4500	4500	4500	
Speed at nominal dynamic load	mm/s	23 18	12 9.3	6 4.9	
Speed at no load	mm/s	34	17	8.4	

ACTUATOR STROKE DATA

		102	153	203	305	457	610	C
Stroke length A	mm	102	153	203	305	457	610	●
Retracted length B	mm	359	410	460	613	765	918	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

WIRING DIAGRAMS¹



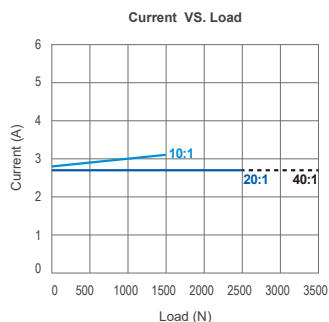
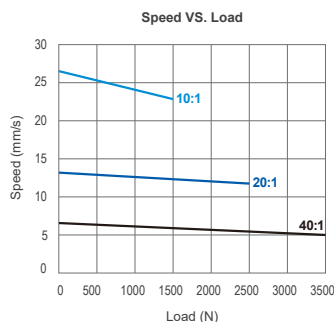
NOTES

1. For gear ratio 40:1, White retracts and Black extends.

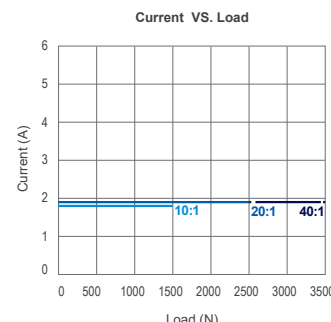
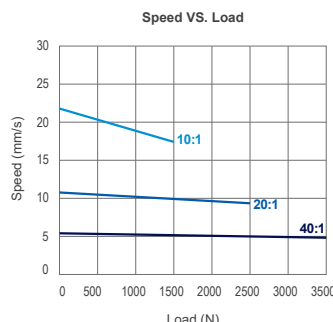
ACTUATOR FEATURES

			C
Type		Electric linear actuator	
Motor type		Single phase AC induction motor	
Cable type		Flying wire (4 wires)	●
Power cable		AWG18	
Cable length	mm	600	●
Voltage	V	115 230	●
Screw type		ACME	
Noise level	dB(A)	≤ 70	
Life time		4 million mm total stroke	
Limit switches		Yes	
Overload protection		By clutch	
Direction movement		By changing neutral cable	
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	240 nominal dynamic load	
IP rating		IP65	
Insulation class		F	
Max. motor winding temp.	°C	105	
EMC		EMC Directive 2014/30/EU	
Gear box		Metal spur gears	
Gear box material		Aluminum alloy	
Rod and house material		Steel 12L14 STKM11A	
Feedback options		Potentiometer	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standards		ISO 9001:2015	
Performance tolerance	%	± 15	

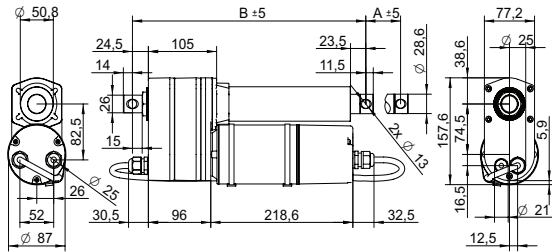
MOTOR GRAPHS 115 V



MOTOR GRAPHS 230 V



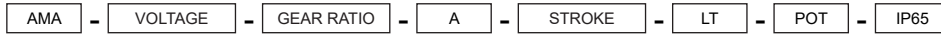
DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: AMA-230-20-A-305-LT-POT-IP65

ACCESSORIES

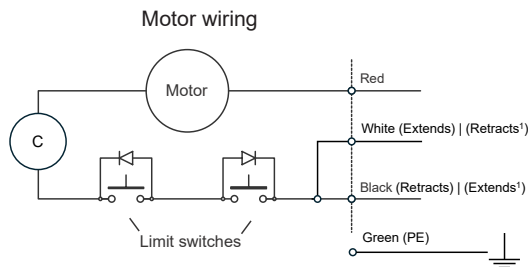


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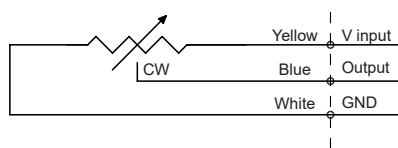
ACTUATOR DATA					C
Gear ratio		10:1	20:1	40:1	●
Voltage	V	115 230	115 230	115 230	
Frequency	Hz	60 50	60 50	60 50	
Current at nominal dynamic load	A	3.1 1.8	2.7 1.9	2.7 1.9	
Nominal dynamic load	N	1500	2500	3500	
Max. static load	N	4500	4500	4500	
Speed at nominal dynamic load	mm/s	23 18	12 9.3	6 4.9	
Speed at no load	mm/s	34	17	8.4	

ACTUATOR STROKE DATA								C
Stroke length A	mm	102	153	203	305	457	610	●
Retracted length B	mm	359	410	460	613	765	918	
Feedback	Ω/mm	100	67	50	33	22	17	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

WIRING DIAGRAMS¹



Potentiometer wiring



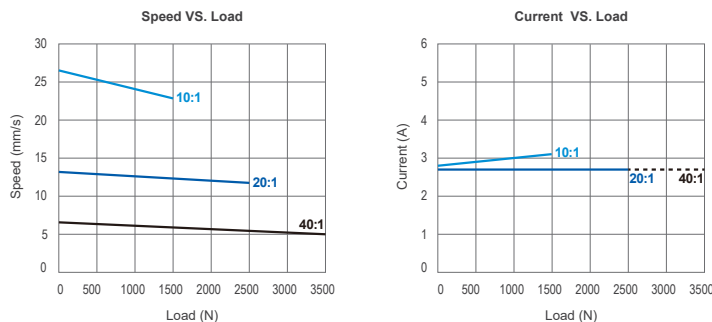
NOTES

1. For gear ratio 40:1, White retracts and Black extends.

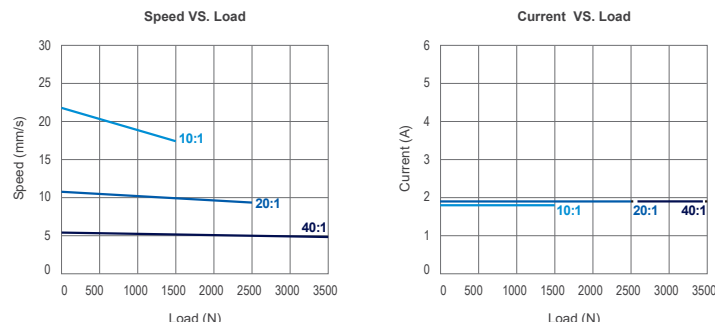
ACTUATOR FEATURES			C
Type		Electric linear actuator	
Motor type		Brush PM AC motor	
Cable type		Flying wire (4+2 wires)	●
Power cable		AWG18	
Signal cable		AWG22	
Cable length	mm	600	●
Voltage	V	115 230	●
Screw type		ACME	
Noise level	dB(A)	≤ 70	
Life time		4 million mm total stroke	
Limit switches		Yes	
Overload protection		By clutch	
Direction movement		By changing neutral cable	
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	240 nominal dynamic load	
IP rating		IP65	
Insulation class		F	
Max. motor winding temp.	°C	105	
EMC		EMC Directive 2014/30/EU	
Gear box		Metal spur gears	
Gear box material		Aluminum alloy	
Rod and house material		Steel 12L14 STKM11A	
Feedback		Potentiometer	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standards		ISO 9001:2015	
Performance tolerance	%	± 15	

POTENTIOMETER DATA			C
Potentiometer type		Wire wound	
Resistance	kΩ	0.3 to 9.7	
Resolution	%	0.025	
Resistance tolerance	%	± 5	
Linearity	%	± 0.25	

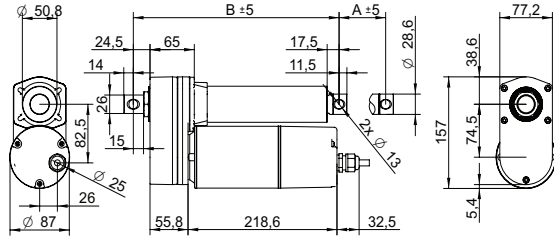
MOTOR GRAPHS 115 V



MOTOR GRAPHS 230 V



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

AMA - VOLTAGE - GEAR RATIO - B - STROKE - IP65

Example: AMA-230-20-B-305-IP65

ACCESSORIES



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ACTUATOR DATA

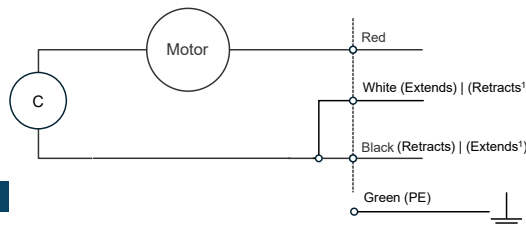
		5:1	10:1	20:1	30:1	40:1	C
Gear ratio		5:1	10:1	20:1	30:1	40:1	●
Voltage	V	115 230	115 230	115 230	115 230	115 230	
Frequency	Hz	60 50	60 50	60 50	60 50	60 50	
Current at nominal dynamic load	A	3.5 1.8	3.1 1.8	2.7 1.9	2.7 1.9	2.7 1.9	
Nominal dynamic load	N	2600	3500	4500	6000	7000	
Max. static load	N	14000	14000	14000	14000	14000	
Speed at nominal dynamic load	mm/s	41 29	23 18	12 9.3	7.9 6.3	6 4.9	
Speed at no load	mm/s	67	34	17	11	8.4	

ACTUATOR STROKE DATA

		102	153	203	305	457	610	C
Stroke length A	mm	102	153	203	305	457	610	●
Retracted length B	mm	302	353	404	506	735	888	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

WIRING DIAGRAMS¹

Motor wiring



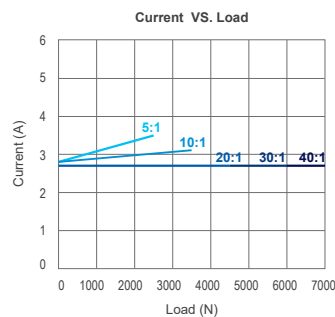
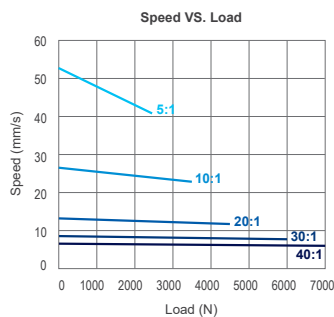
NOTES

1. For gear ratios 30:1 and 40:1, White retracts and Black extends.

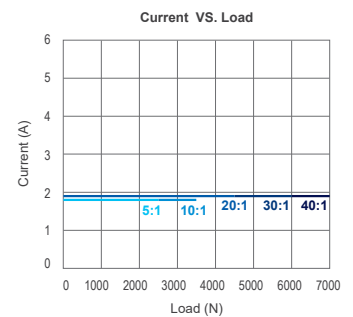
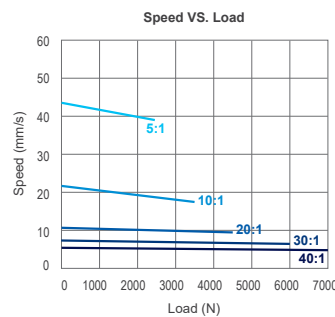
ACTUATOR FEATURES

			C
Type		Electric linear actuator	
Motor type		Single phase AC induction motor	
Cable type		Flying wire (4 wires)	●
Power cable		AWG18	
Cable length	mm	600	●
Voltage	V	115 230	●
Screw type		Ball screw	
Noise level	dB(A)	≤ 70	
Life time		4 million mm total stroke	
Limit switches		No	●
Overload protection		By clutch	
Direction movement		By changing neutral cable	
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	240 nominal dynamic load	
IP rating		IP65	
Insulation class		F	
Max. motor winding temp.	°C	105	
EMC		EMC Directive 2014/30/EU	
Gear box		Metal spur gears	
Gear box material		Aluminum alloy	
Rod and house material		Steel 12L14 STKM11A	
Feedback options		Potentiometer	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standards		ISO 9001:2015	
Performance tolerance	%	± 15	

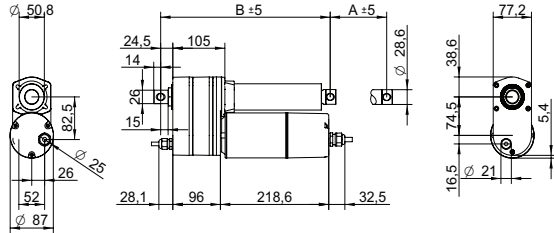
MOTOR GRAPHS 115 V



MOTOR GRAPHS 230 V



DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

AMA - VOLTAGE - GEAR RATIO - B - STROKE - POT - IP65

Example: AMA-230-20-B-305-POT-IP65

ACCESSORIES



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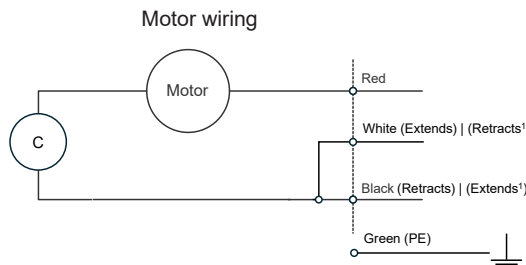
ACTUATOR DATA

		5:1	10:1	20:1	30:1	40:1	C
Gear ratio		5:1	10:1	20:1	30:1	40:1	●
Voltage	V	115 230	115 230	115 230	115 230	115 230	
Frequency	Hz	60 50	60 50	60 50	60 50	60 50	
Current at nominal dynamic load	A	3.5 1.8	3.1 1.8	2.7 1.9	2.7 1.9	2.7 1.9	
Nominal dynamic load	N	2600	3500	4500	6000	7000	
Max. static load	N	14000	14000	14000	14000	14000	
Speed at nominal dynamic load	mm/s	41 29	23 18	12 9.3	7.9 6.3	6 4.9	
Speed at no load	mm/s	67	34	17	11	8.4	

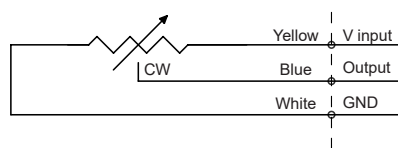
ACTUATOR STROKE DATA

		102	153	203	305	457	610	C
Stroke length A	mm	102	153	203	305	457	610	●
Retracted length B	mm	342	393	444	546	775	928	
Feedback	Ω/mm	100	67	50	33	22	17	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

WIRING DIAGRAMS¹



Potentiometer wiring



NOTES

1. For gear ratios 30:1 and 40:1, White retracts and Black extends.

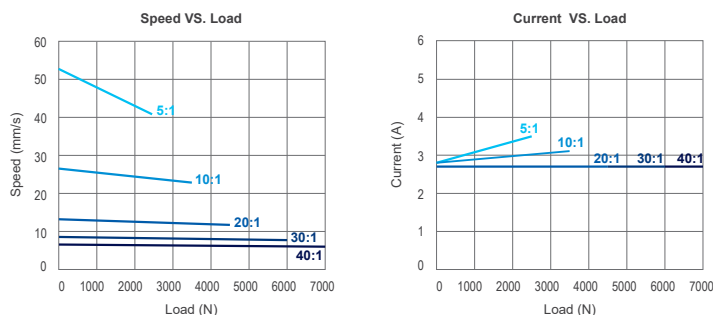
ACTUATOR FEATURES

			C
Type		Electric linear actuator	
Motor type		Single phase AC induction motor	
Cable type		Flying wire (4+2 wires)	●
Power cable		AWG18	
Signal cable		AWG22	
Cable length	mm	600	●
Voltage	V	115 230	●
Screw type		Ball screw	
Noise level	dB(A)	≤ 70	
Life time		4 million mm total stroke	
Limit switches		No	●
Overload protection		By clutch	
Direction movement		By changing neutral cable	
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	240 nominal dynamic load	
IP rating		IP65	
Insulation class		F	
Max. motor winding temp.	°C	105	
EMC		EMC Directive 2014/30/EU	
Gear box		Metal spur gears	
Gear box material		Aluminum alloy	
Rod and house material		Steel 12L14 STKM11A	
Feedback		Potentiometer	
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standards		ISO 9001:2015	
Performance tolerance	%	± 15	

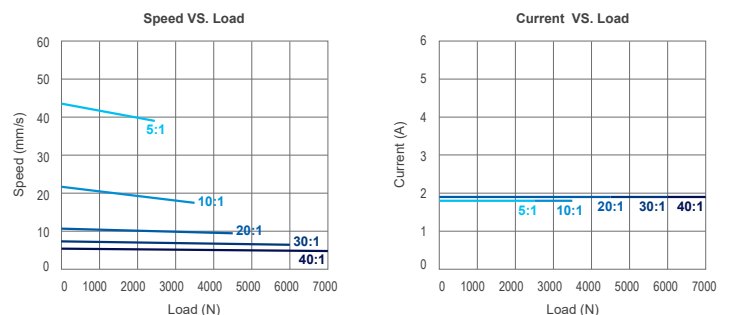
POTENTIOMETER DATA

			C
Potentiometer type		Wire wound	
Resistance	kΩ	0.3 to 9.7	
Resolution	%	0.025	
Resistance tolerance	%	± 5	
Linearity	%	± 0.25	

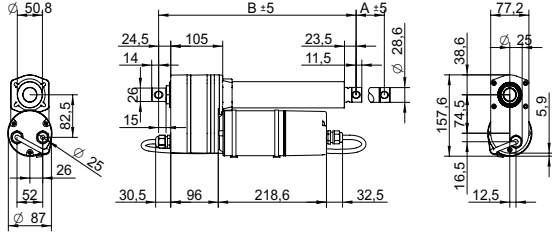
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DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION



Example: AMA-230-20-B-305-LT-IP65

ACCESSORIES



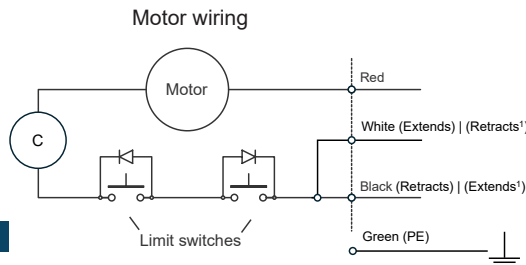
C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

ACTUATOR DATA							C
Gear ratio		5:1	10:1	20:1	30:1	40:1	●
Voltage	V	115 230	115 230	115 230	115 230	115 230	
Frequency	Hz	60 50	60 50	60 50	60 50	60 50	
Current at nominal dynamic load	A	3.5 1.8	3.1 1.8	2.7 1.9	2.7 1.9	2.7 1.9	
Nominal dynamic load	N	2600	3500	4500	6000	7000	
Max. static load	N	14000	14000	14000	14000	14000	
Speed at nominal dynamic load	mm/s	41 29	23 18	12 9.3	7.9 6.3	6 4.9	
Speed at no load	mm/s	67	34	17	11	8.4	

ACTUATOR FEATURES			C
Type	Electric linear actuator		
Motor type	Single phase AC induction motor		
Cable type	Flying wire (4 wires)		●
Power cable	AWG18		
Cable length	mm	600	●
Voltage	V	115 230	●
Screw type	Ball screw		
Noise level	dB(A)	≤ 70	
Life time	4 million mm total stroke		
Limit switches	Yes		
Overload protection	By clutch		
Direction movement	By changing neutral cable		
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	240 nominal dynamic load	
IP rating	IP65		
Insulation class	F		
Max. motor winding temp.	°C	105	
EMC	EMC Directive 2014/30/EU		
Gear box	Metal spur gears		
Gear box material	Aluminum alloy		
Rod and house material	Steel 12L14 STKM11A		
Feedback options	Potentiometer		
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standards	ISO 9001:2015		
Performance tolerance	%	± 15	

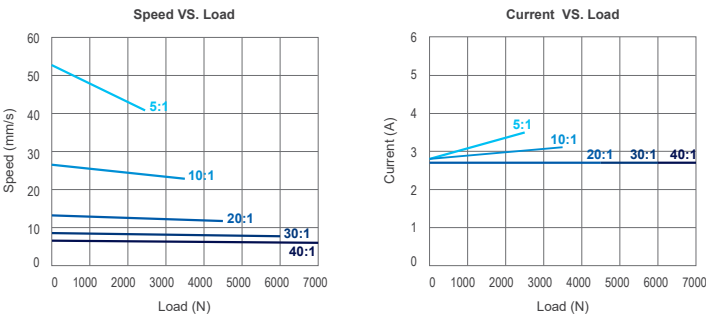
ACTUATOR STROKE DATA								C
Stroke length A	mm	102	153	203	305	457	610	●
Retracted length B	mm	399	450	501	680	832	985	
Life time number single strokes		39000	26000	20000	13000	8700	6500	
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8	

WIRING DIAGRAMS¹

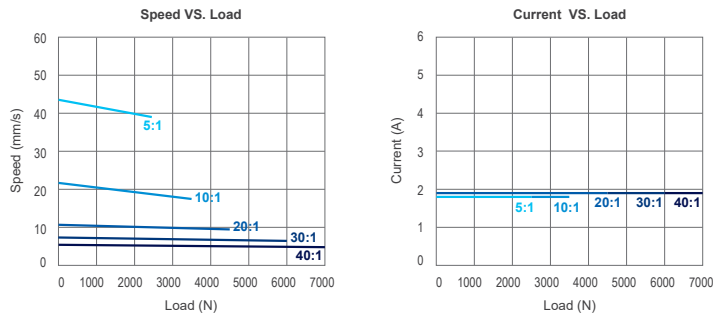


NOTES
1. For gear ratios 30:1 and 40:1, White retracts and Black extends.

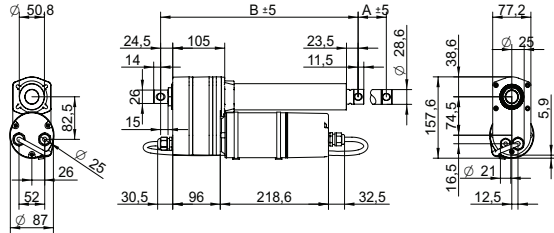
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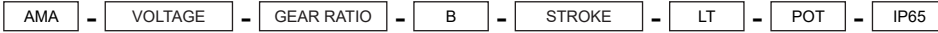
DRAWING (mm)



PHOTO

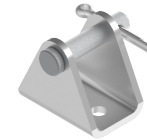


MODEL NO. DESIGNATION



Example: AMA-230-20-B-305-LT-POT-IP65

ACCESSORIES

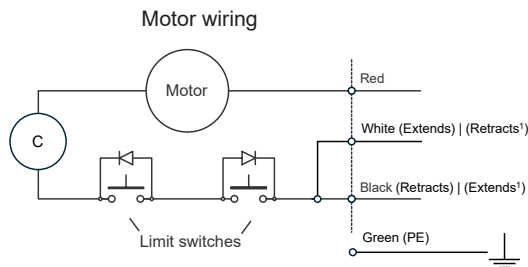


C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

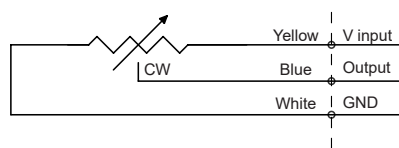
ACTUATOR DATA							C
Gear ratio		5:1	10:1	20:1	30:1	40:1	●
Voltage	V	115 230	115 230	115 230	115 230	115 230	
Frequency	Hz	60 50	60 50	60 50	60 50	60 50	
Current at nominal dynamic load	A	3.5 1.8	3.1 1.8	2.7 1.9	2.7 1.9	2.7 1.9	
Nominal dynamic load	N	2600	3500	4500	6000	7000	
Max. static load	N	14000	14000	14000	14000	14000	
Speed at nominal dynamic load	mm/s	41 29	23 18	12 9.3	7.9 6.3	6 4.9	
Speed at no load	mm/s	67	34	17	11	8.4	

ACTUATOR STROKE DATA							C
Stroke length A	mm	102	153	203	305	457	610 ●
Retracted length B	mm	399	450	501	680	832	985
Feedback	Ω/mm	100	67	50	33	22	17
Life time number single strokes		39000	26000	20000	13000	8700	6500
Weight	kg	4.3	4.6	4.9	5.4	6.2	7.8

WIRING DIAGRAMS¹



Potentiometer wiring



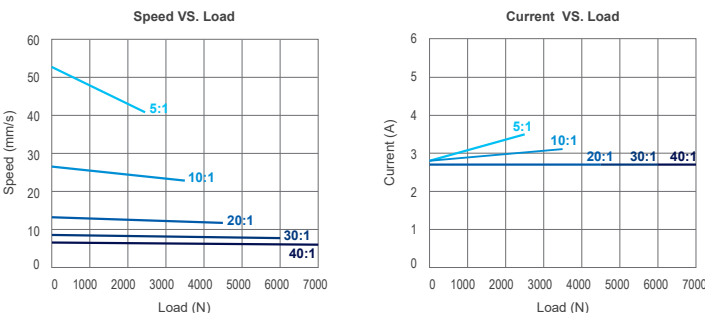
NOTES

1. For gear ratios 30:1 and 40:1, White retracts and Black extends.

ACTUATOR FEATURES			C
Type	Electric linear actuator		
Motor type	Single phase AC induction motor		
Cable type	Flying wire (4+2 wires)		●
Power cable	AWG18		
Signal cable	AWG22		
Cable length	mm	600	●
Voltage	V	115 230	●
Screw type	Ball screw		
Noise level	dB(A)	≤ 70	
Life time	4 million mm total stroke		
Limit switches	Yes		
Overload protection	By clutch		
Direction movement	By changing neutral cable		
Stroke tolerance	mm	± 2.5	
Duty cycle	%	25	
Max. duty operational time	s	240 nominal dynamic load	
IP rating	IP65		
Insulation class	F		
Max. motor winding temp.	°C	105	
EMC	EMC Directive 2014/30/EU		
Gear box	Metal spur gears		
Gear box material	Aluminum alloy		
Rod and house material	Steel 12L14 STKM11A		
Feedback	Potentiometer		
Operating and storage temperature	°C	-25 to 65	●
Manufacturing standards	ISO 9001:2015		
Performance tolerance	%	± 15	

POTENTIOMETER DATA			C
Potentiometer type	Wire wound		
Resistance	kΩ	0.3 to 9.7	
Resolution	%	0.025	
Resistance tolerance	%	± 5	
Linearity	%	± 0.25	

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