



AC Servo Driver MINAS A6 family

Special Order Product



# MINAS A6BN Series

Application Highlighted  
Linear Motor Control  
Servo Driver

## Gantry Control

Responsive

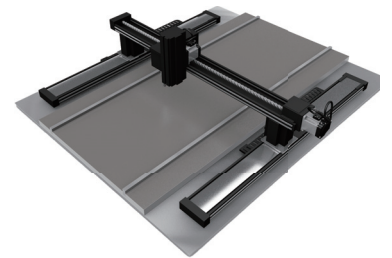
Accurate

Simple

Multi-axis cooperative control for gantry system

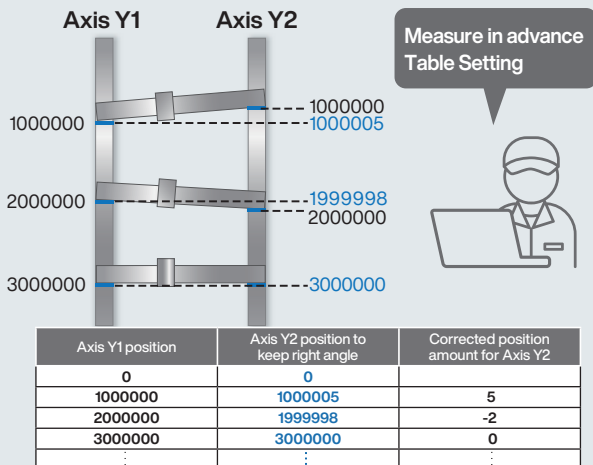
Automatic table twist correction

Real-time response to changes in weight balance



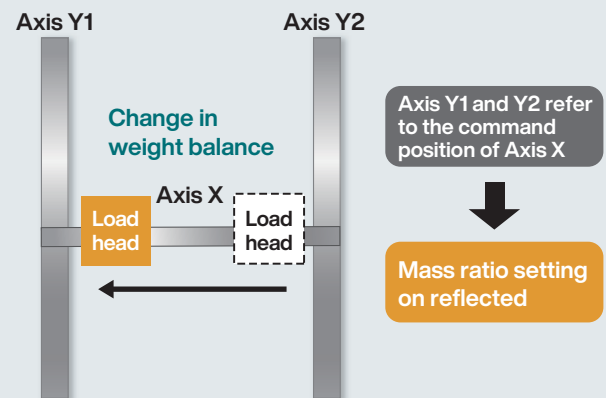
### Automatic generation Table twist correction

Generates a position correction data and stores it in the driver. The driver corrects the operation according to the data.



### Real time control Mass ratio correction

Automatically applies change of the mass ratio of the Axis Y1 and Axis Y2 in real time interacting with the position of the mass. It suppress twisting and contributes to improved settling performance.



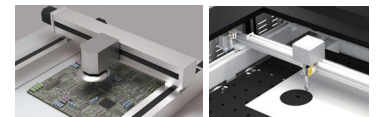
### Application examples

Key application industries

LCD manufacturing, electronic component mounting, machine tools, etc.

Main application equipment

Conveyance equipment, inspection equipment, coating equipment, laser processing machines, etc.



\* EtherCAT is a patented technology and registered trademark licensed by Germany Beckhoff, Automation GmbH.

## Lineup Details

Power supply	Part number	Frame	Rated current A (rms)			Max Current A(rms)	Power supply	Part number	Frame	Rated current A (rms)			Max Current A(rms)
			Carrier frequency							Carrier frequency			
			6 kHz	8 kHz	12 kHz				6 kHz	8 kHz	12 kHz		
Single /Three Phase AC 200 V to 240 V	MADLT05BN	A	-	-	1.2	3.8	Single-phase AC 100 V to 120 V	MADLT01BN	A	-	-	1.2	3.7
	MADLT15BN	A	-	-	1.6	4.8		MADLT11BN	A	-	-	1.6	5.5
	MBDLT25BN	B	2.6	2.1	-	7.3		MBDLT21BN	B	2.5	2.1	-	7.4
	MCDLT35BN	C	4.1	-	-	13.2		MCDLT31BN	C	4.6	4.1	-	14.3
	MDDLTL45BN	D	5.2	-	-	15.5		MDDLTL44BN	D	1.5	1.2	0.8	4.5
	MDDLTL55BN	D	9.4	-	-	26.1		MDDLTL54BN	D	2.9	-	-	8.7
Three-phase AC 200 V to 240 V	MEDLT83BN	E	13.4	-	-	37.4	Three-phase AC 400 V	MDDLTL64BN	D	4.7	-	-	14.1
	MEDLT93BN	E	17.0	-	-	48.0		MEDLT84BN	E	6.7	-	-	19.7
	MFDLTA3BN	F	18.7	-	-	54.4		MFDLTA4BN	F	9.4	-	-	28.2
	MFDLTB3BN	F	33.0	-	-	72.1		MFDLTB4BN	F	16.5	-	-	42.4
	MGDLT3C3BN	G	40.0	-	-	116.6							
	MHDLTE3BN	H	-	66.1	-	167.2							
	MHDLTF3BN	H	80.2	-	-	207.9							

\*Select and use the applicable motor so that its rated current and maximum current are below the stated value.

## A6BN Common Specifications

Item			Contents	
Power supply	100 V system	Main circuit Power	A-C Frame	Single-phase 100 V to 120 V, -15% to + 10%, 50/60 Hz
		Control Circuit Power	A-C Frame	Single-phase 100 V to 120 V, -15% to + 10%, 50/60 Hz
	200 V system	Main circuit Power	A-D Frame	Single-phase/Three-phase 200 V to 240 V, -15% to + 10%, 50/60 Hz
			E-H Frame	Three-phase 200 V to 240 V, -15% to + 10%, 50/60 Hz
	400 V system	Control Circuit Power	A-D Frame	Single-phase 200 V to 240 V, -15% to + 10%, 50/60 Hz
			E-H Frame	Single-phase 200 V to 240 V, -15% to + 10%, 50/60 Hz
400 V system	Main circuit Power	D-F Frame	Three-phase 380 Y/220 Y to 480 Y/277 V, -15% to + 10%, 50/60 Hz, TN (Grounding neutral to earth)	
		Control Circuit Power	D-F Frame	DC 24 V, ± 15 %
External scale feedback			A/B phase/origin signal differential input type Panasonic serial communication type (* 1)	
Control signal	General Input	8 Inputs	General input function is selected by setting parameters.	
	General Output	3 Outputs	General output function is selected by setting parameters.	
Analog signal	Output	2 Outputs	Analog Monitor 1, Analog Monitor 2	
Pulse signal	Output	2 Outputs	Encoder pulses are output with A/B phase line driver signal.	
Communication function	EtherCAT	Real-time motion command transmission, parameter setting, status monitoring, etc.		
	USB	Parameter setting and status monitor are available by connecting a personal computer, etc.		
Safety terminal			Connectors for functional safety	
Front panel			(1) Rotary switch (2) 2-digit, 7-segment LED and 2 lights for status display (3) Analog monitor connector	
Regenerative			A, B, G, H frame: No built-in regenerative resistor (external only) C to F frame: Regenerative resistor built in (external also available)	
Dynamic braking			A-G Frame: Built-in H Frame: External only	
Control mode			Position Control: Cyclic Position Control (csp), Homing Position Control (hm) Speed Control: Profile Speed Control (pv), Cyclic Speed Control (csv) Torque control: Profile torque control (tq), Cyclic torque control (cst) The above control modes are switched by EtherCAT communication command.	
Gantry cooperative control function			① Automatic table twist correction ② Automatic mass ratio correction	

\*1 See our partner product catalog for compatible scale manufacturers and part numbers.

## External Dimensions



\*The photograph is the appearance of frame A product. Appearance varies by frame. On the other end of the connector, the lead wire, please secure the additional space for the mating plug and lead wire.

	W [mm]	H [mm] ( ) includes mounting hardware	D [mm] ( ) includes the power supply connector and motor connector on the driver main unit side	Mass [kg]
A	40	150(180)	130(150)	Approx. 0.8
B	55	150(180)	130(150)	Approx. 1.0
C	65	150(180)	170(191)	Approx. 1.6
D	85	150(180)	170(191)	Approx. 2.1
E	85	168(198)	196.5(216)	Approx. 2.7
F	130	220(250)	219.5	Approx. 5.2
G	184	220(257)	257	Approx. 8.2
H	244	390	222	Approx.14.2(MHDLTE3BN) Approx.15.2(MHDLTF3BN)



Driver Details Materials

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