



Ezi-STEP ALL is a network based All-in-one motor with integrated micro stepping drive. This makes it possible to incorporate many functions such as sensorless detection, smooth control, higher torque operation and no vibration. The resolution of Ezi-STEP ALL can be selected from basic 1.8 ° up to 0.0072 ° (1/250). In addition, Ezi-STEP ALL is a network-based motion control with a maximum 16 axis which can be operated from a PC through RS-485 communications. Motion Library (DLL) is provided for programming under Windows 7/8/10.

Their main characteristics are :

- Motor + Drive + Controller + Network
- Embedded Controller
- Micro Stepping
- Software Damping
- Run/Stop Signal Output

Technical Data

Motor Model	Driver Model	Number of phases	Current	Holding Torque	Rotor Inertia	Weights	Length (L)	Permissible Overhung Load (Distance from end of shaft)				
								3mm	8mm	13mm	18mm	
Units		-	A	Nm	g.cm ²	g	mm	N				
Ezi-STEP-ALL-42	42S	Ezi-STEP-ALL-42	2	1,2	0,32	35	250	34	22	26	33	46
	42M		2	1,2	0,44	54	280	40	22	26	33	46
	42L		2	1,2	0,5	77	350	48	22	26	33	46
	42XL		2	1,2	0,65	114	500	60	22	26	33	46
Ezi-STEP-ALL-56	56S	Ezi-STEP-ALL-56	2	3,0	0,64	180	500	46	52	65	85	123
	56M		2	3,0	1,0	280	720	55	52	65	85	123
	56L		2	3,0	1,5	520	1150	80	52	65	85	123

SPECIFICATIONS

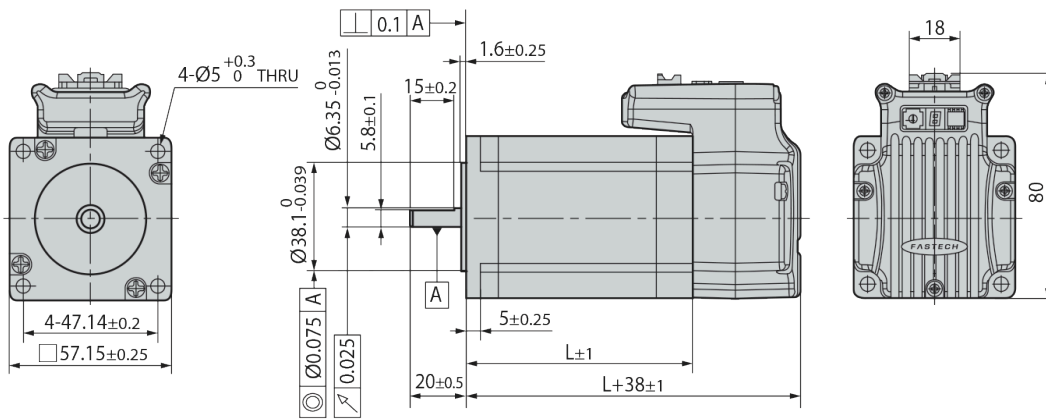
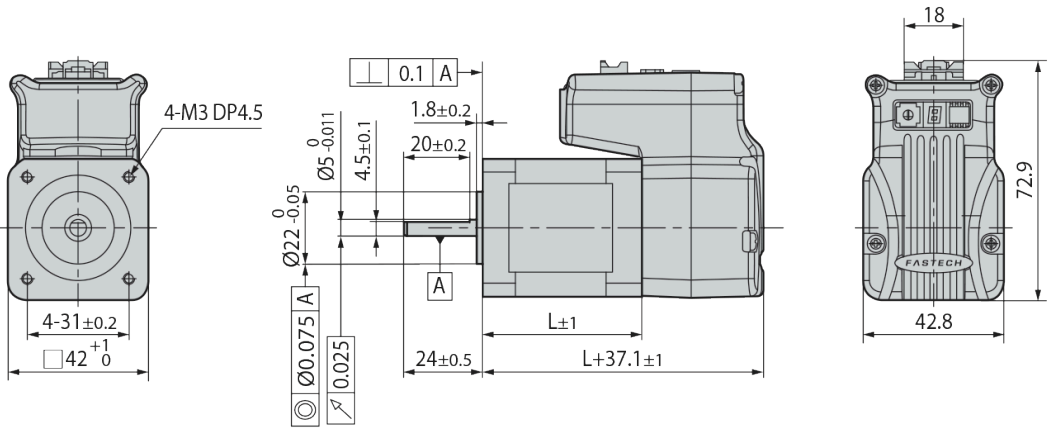
SPECIFICATIONS OF MOTOR

Drive Method	BIPOLAR
Permissible Thrust Load (N)	Lower than motor weight
Insulation Resistance (Mohm)	100 MIN.(at 500 VDC)
Insulation Class	CLASS B(130°C)
Operating Temperature (°C)	0 to 55

SPECIFICATIONS OF DRIVE

Input Voltage	24 VDC \pm 10%	
Control Method	Bipolar PWM drive with 32bit MCU	
Curent Consumption	Max 500mA (Except motor current)	
Operating Condition	Ambient Temperature	In use : 0 - 50°C / In storage : -20 - 70°C
	Humidity	In use : 35 - 85% RH (Non-Condensing) / In storage : 10 -90% RH (Non-Consending)
	Vib.Resist	0,5g
Function	Rotation Speed	0 - 3,000 (rpm)
	Resolution (ppr)	500 1,000 1,600 2,000 3,200 3,600 4,000 5,000 6,400 8,000 10,000 20,000 25,000 36,000 40,000 50,000 (Selectable by parameter) *Default: 10,000
	Protection Functions	Over Current Error, Over Speed Error, Step Out Error, Over Temperature Error, Over Regenerated Voltage Error, Motor Connect Error, Motor Voltage Error, System Error, ROM Error
	7-Segment	Power, Alarm, Communication ID
I/O Signal	Input Signals	3 dedicated inputs (LIMIT+, LIMIT-, ORIGIN), 7 programmable inputs (Photocoupler)
	Output Signals	1 dedicated output (Compare Out), 1 programmable output (Photocoupler), Brake
Return to Origin	Origin Sensor, \pm Limit sensor	
Communication Interface	RS-485 serial communication Communication speed: 9,600~921,600[bps]	

DRAWING



PART NUMBER COMPOSITION

Ezi-STEP ALL-42S-BK-X

① ② ③ ④ ⑤

① Drive Series Type
ALL : All Type

② Motor Flange Size
42 : 42mm
56 : 56mm

③ Motor Length
S : Small
M : Medium
L : Large
XL : Extra Large

④ Brake
Blank : Without Brake
BK : Brake

⑤ User Code

In accordance with our policy of continual product improvement, A2V reserves the right to amend the specification of these products without prior notification