

FSD-A2 SERVO SERIES



Servo Amplifier model FSD-A2-□□□-□			004-2	007-2	010-2	020-23	030-23
Basic Specification	Max. Applicable Servo Motor Capacity(KW)		0.4	0.75	1.0	2.0	3.0
	Continuous Current Output(A rms)		2.5	4.4	5.16	9.5	15.0
	Max. output Current(A rms)		7.5	13.2	15.5	28.5	42.0
	Power Supply	Main Circuit R.S.T	Single-phase/Three-phase AC 170~253V			Three-phase AC 170~253V	
			50/60Hz ± 5%				
		Control Circuit r.s	Single-phase AC 170~253V				
	50/60Hz ± 5%						
	Cooling System		Natural Air Circulation				Fan Cooling
Control Method		Three-phase full-wave rectification IGBT-PWM[SPWM]					
Feedback[Encoder Resolution]		15-bit Absolute encoder / 17-bit Incremental encoder					
Common Function	LED Display		Charge /Power lamps ; Five 7-segment LEDs; Four function keys				
	Control Method		Position(External Pulse Command/Internal Pulse Command), Speed, Torque and Dual control model(P/S 、 S/T 、 P/T)				
	Regenerative Discharge		Built-in breaking transistor(External braking resistor available)				
	Dynamic Brake		Active after Power-off, Servo-off, Limit switch and protective function				
	Protective Function		Under voltage, Over voltage, Over load, Over current, Encoder error, Abnormal DI/DO programming, Memory abnormal, Emergency stop, Pulse deviation, Over speed, CPU abnormal, Limit switch error, Over heat..ect.				
	Communication Interface		RS-232/ RS-485(Modbus protocol)				
	Command Source		External pulse train/Internal parameter				
	Position control	Input Signals	Type	Positive/Negative edge trigger: Sign+Pulse train, CCW+CW pulse train, 90° phase difference			
Form			2-phase pulse(A phase +B phase)				
Frequency			Line driver (+5V Level) 、 Open collector (+5~+24V Level)				
Electronic Gear Ratio		4 Mpps (Line driver) / 200Kpps (Open collector)					
Position Time Constant		1/200 ≤ A/B ≤ 200 (A=1~50000 ; B=1~50000)					
Final Position Tolerance		Smoothing : 0~10sec					
Feed Forward Compensation		0~50000 Pulse					
Homing Function		0~100%					
Speed control	Command Source		Set by parameter				
	Analog Input Signals	Voltage Range	External analog signal / Internal parameter(3 speed set-up)				
		Impedance	-10~+10Vdc / 0~4500rpm(Set by parameter)				
	Speed Control Range		10KΩ				
	Speed Fluctuation Rate	1:5000 (Internal command) / 1:2000 (External command)					
		Load fluctuation : 0~100% ± 0.03% or less (at rated speed)					
		Power fluctuation : ± 10% ± 0.2% or less (at rated speed)					
	Accel / Decel. Time Constant		Ambient temperature fluctuation : 0~50℃±0.5% or less (at rated speed)				
	Frequency Characteristic		Linear : 0~50sec,S-Curve : 0~5sec, Smoothing : 0~10sec				
	Torque Limit Operation		800Hz(at J _L =J _M)				
Torque control	Torque Limit Operation		External analog signal / Internal parameter				
	Zero Speed/ Speed Reach Range		0~4500rpm (Set by parameter)				
	Command Source		External analog signal				
	Analog Input Signals	Voltage Range	-10~ +10Vdc / -300%~+300%				
		Impedance	10KΩ				
	Accel / Decel. Time Constant		Linear : 0~50sec				
	Speed Limit Operation		External analog signal / Internal parameter				
	Torque Reach Range		0~300% (Set by parameter)				
I/O Signals	Position Output	Output Signal	Phase A 、 B 、 Z line driver / Phase Z open collector				
		Division of encoder feedback pulse	Set up of any value is enabled (encoder pulse is the max.)				
	Digital Input [NPN/PNP]	Programmable 12 points	Servo on, Alarm reset, P/PI switching, Forward/Reserve limit switch, External torque limit, Pulse deviation clear, Servo lock, Emergency stop, Speed command selection, Control model switching, Pulse command inhibit, Gain switching, Electronic gear ratio setting, Internal pulse command trigger, Internal pulse command pause, Homing mode positioning, External reference signal, Internal position command switching, Speed/Torque command reverse, Torque mode forward/reverse start ...etc.				
	Digital Output [Photocoupler]	4 points	Servo alarm code, Torque limit, Limit switch, Baseblock				
		Programmable 4 points	Servo ready, Servo alarm, Zero speed, Brake interlock, Speed reach, Positioning completed, Homing completed, Torque reach				
Environment	Analog Output Signal	Programmable 2 points	Speed feedback, Torque / Speed /Position command, Pulse deviation value, Electrical angle, Main circuit voltage (DC bus)				
	Installation Site		Indoor location(Avoiding direct sunshine)				
	Altitude		No corrosive liquid and gas(avoiding oil mist, flammable gas,dust)				
	Temperature		Altitude 1000M or lower above sea level				
	Humidity		Operating temperature : 0~50℃; Storage temperature : -20~+65℃				
Vibration			90%RH or less(No condensation)				
			10~57Hz : 20m/s ² ; 57~150Hz : 2G				