

KR-A55MC

DC24V Input Microstep Driver

DC24V 0.4~1.4A / phase Micro-step Case type



Specifications



Items		Specification												
Power supply		DC20-35V (-10%,+20%) max.3A												
Output current (0.75A/phase at shipping)		Rated current : 0.4~1.4A/phase Capable of setting the current to 0.4~1.4A/phase by the digital switch "RUN"												
Driving Type		Bipolar pentagon constant current drive												
Input signal circuit	Signal name	Functional description								Input resistance				
	CW+	Pulse signal input for 1 clock mode								270Ω				
	CW-	CW rotation input for 2 clock mode												
	CCW+	Rotational direction input for 1 clock								270Ω				
	CCW-	CCW rotation input for 2 clock												
	H.O.+	Motor excitation OFF control signal								390Ω				
	H.O.-	"H" for motor exciting OFF												
	D.S.+	Micro-step interpolation selection								390Ω				
D.S.-	"L" for MS1 & "H" for MS2													
		Pulse width : 0.25μs min., Rising-up time : 1μs max. Pulse interval : 0.25μs min., Pulse frequency : 500kpps max. Pulse voltage : "H" for 4~8V & "L" for 0~0.5V Triggerred at the edge of OFF (Logic"L") to ON (Logic"H") of photo-coupler current CCW rotation with CCW input of "L" in 1-clock system												
Output signal Circuit	Signal name	Functional description								Output capacity				
	Z.P.+	Origin exciting output signal								DC30V max.				
	Z.P.-	Switched ON while origin is being excited								50mA max.				
		This signal is ON at the exciting sequence of [0] and is transmitted at each 7.2 degrees for the Step Motor with 0.72°steps. When micro-step angle is changed after the power supply is turned on, it may not be transmitted.												
Setting of micro-step Interpolation (MS1 : 5, MS2 : 0 at shipping)		For micro-step driving of one type only, set the number interpolation using the digital SW MS1. For micro-step driving of two types. (i.e. when changing speed for going and returning in reciprocating motion) set respective numbers of interpolation using the digital SW MS1 and MS2.												
		Set No.		0	1	2	3	4	5	6	7	8	9	Note 1)  MS1  MS2
		Interpolation		1	2	4	5	8	10	16	20	25	40	
				A	B	C	D	E	F					
				50	80	100	125	200	250					
		When the setting of micro-step interpolating No. is "0.1", 1/4-interpolate low-frequency driving takes place inside.												
Setting of driving current (Setting "5" at shipping)		The output current to the motor in rotation is set by the digital switch "RUN" to select from the table below.												
		Set No.		0	1	2	3	4	5	6	7	8	9	 RUN
		Current (A)		0.4	0.5	0.57	0.63	0.71	0.77	0.84	0.9	0.96	1.02	
				A	B	C	D	E	F					
				1.09	1.15	1.22	1.27	1.33	1.4					
Automatic current-down (Setting "5" at shipping)		The output current to the motor at stationary is set by the digital switch "STOP" to select from the table below. The value is set by the percent to "RUN" current. The current decreases at approx. 500ms after the last pulse.												
		Set No.		0	1	2	3	4	5	6	7	8	9	 STOP
		(%)		27	31	36	40	45	50	54	58	62	66	
				A	B	C	D	E	F					
				70	74	78	82	86	90					

Items	Specification					
Setting of dip-switches (All off at shipping)	No.	symbol	Function	ON	OFF	
	1	TEST	Self test function	Rotating at 250pps	Normal operation	
	2	1 / 2 CLK	Switching of clock	1 clock mode	2 clock mode	
	3	C / D	Automatic current-down	Invaild	Vaild	
Operating temperature & humidity	0 ~ 40℃ 85%RH Max. without any condensation.					
Storage temperature & humidity	-10 ~ 70℃ 85%RH Max. without any dew condensation.					
Mass	Approximately 220g					

Note 1) Micro-step angle for 1 pulse=Basic step angle / Number of interpolation
Note 2) Approx. 250pps is generated inside, regardless of splits setting ; CCW rotation when the dip switch NO.2 is ON, and CW rotation when the dip switch NO.2 is OFF.

Driver Outer Dimensions

