KR-A55MC

DC24V Input Microstep Driver

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

■Specifications

CE RoHS

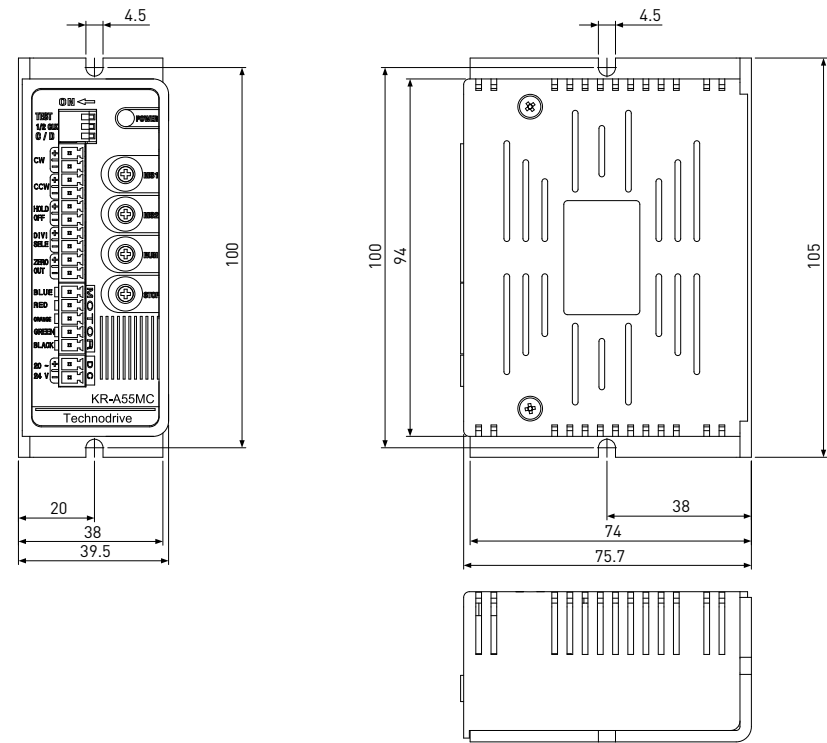| Items	Specification		
Power supply	DC20-35V (-10%,+20%) max.3A		
Output current (0.75A/phase at shipping)	Rated current : 0.4~1.4A/phase Capable of setting the current to 0.4~1.4A/phase by the digital switch "RUN"		
Driving Type	Bipolar pentagon constant current drive		

Input signal circuit	Signal name	Functional description	Input resistance
	CW+	Pulse signal input for 1 clock mode CW rotation input for 2 clock mode	270Ω
	CW-		
	CCW+	Rotational direction input for 1 clock CCW rotation input for 2 clock	270Ω
	CCW-		
	H.O.+	Motor excitation OFF control signal "H" for motor exciting OFF	390Ω
	H.O.-		
	D.S.+	Micro-step interpolation selection "L" for MS1 & "H" for MS2	390Ω
	D.S.-		
	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 Triggerd 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 interpolution 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
Interpolation	1	2	4	5	8	10	16	20	25	40
	A	B	C	D	E	F				
	50	80	100	125	200	250				

Note 1) MS1 MS2

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
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				

RUN

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
(%)	27	31	36	40	45	50	54	58	62	66
	A	B	C	D	E	F				
	70	74	78	82	86	90				

STOP

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

ON ← OFF
Note2

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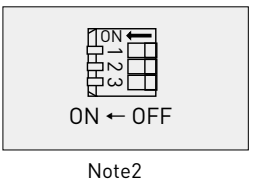
Note 1) Micro-step angle for 1 pulse=Basic step angle / Number of interpolation
Note 2) Approx. 250pps is generated inside, regardless of splits setting ; CCW rotation when the dip switch NO.2 is ON, and CW rotation when the dip switch NO.2 is OFF.

●Driver Outer Dimensions

4.5
100
20
38
39.5

4.5
100
94
105
38
74
75.7