2M2280N

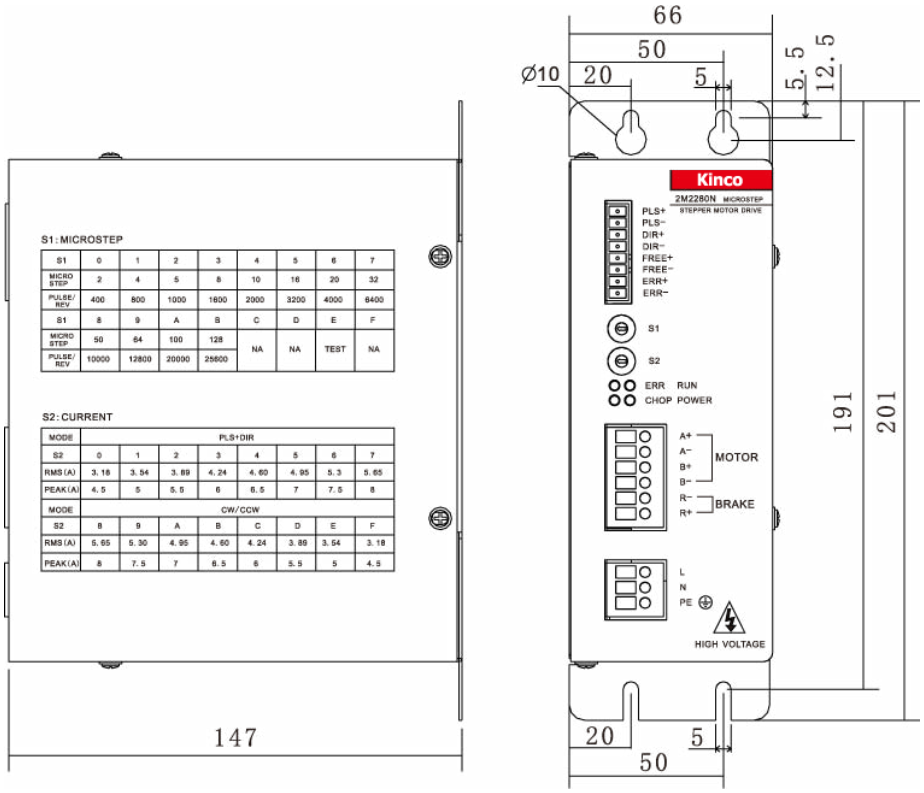
FEATURES

- ***Input Voltage 220VAC + 15% (50Hz/60Hz) (187~253VAC)***
- ***Over-Voltage Protection 395VDC***
- ***Under-Voltage Protection 200VDC***
- ***Cooling Method (Fan Cooling)***
- ***Operating Temperature - 0 C- +40 C***
- ***Operating Humidity 85%, RH (Non-Condensing or Water Drops)***
- ***Weight 1.5Kg***
- ***Storage Temperature -20 C - +70 C***
- ***Ingress Protection IP20***

DESCRIPTION

The 2M2280N Series Stepper Driver provides improved dynamic drive performance. This series drive accepts 187~253VAC input, with up to 8 Amps per phase, and provides users with a step resolution of up to 25,600 steps per revolution. As an additional feature, this drive provides users with the ability to select an auto reduce current setting which helps reduce power consumption and motor heat, while improving motor lifetime. Also, the isolation inputs help minimize interference from external electrical equipment as well has improving performance.

DIMENSIONS



S1: MICROSTEP

S1	0	1	2	3	4	5	6	7
MICRO STEP	2	4	5	8	10	16	20	32
PULSE/ REV	400	800	1000	1600	2000	3200	4000	6400
S1	8	9	A	B	C	D	E	F
MICRO STEP	50	64	100	128	NA	NA	TEST	NA
PULSE/ REV	10000	12800	20000	25600				

S2: CURRENT

MODE	PLS+DIR							
S2	0	1	2	3	4	5	6	7
RMS (A)	3.18	3.54	3.89	4.24	4.60	4.95	5.3	5.65
PEAK (A)	4.5	5	5.5	6	6.5	7	7.5	8
MODE	CW/CCW							
S2	8	9	A	B	C	D	E	F
RMS (A)	5.65	5.30	4.95	4.60	4.24	3.89	3.54	3.18
PEAK (A)	8	7.5	7	6.5	6	5.5	5	4.5

(Units Are In mm)

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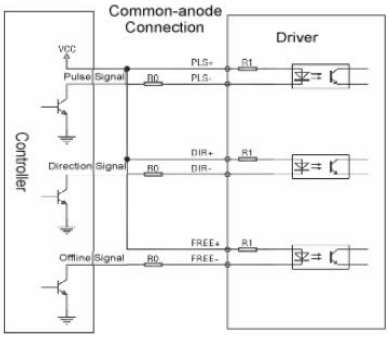
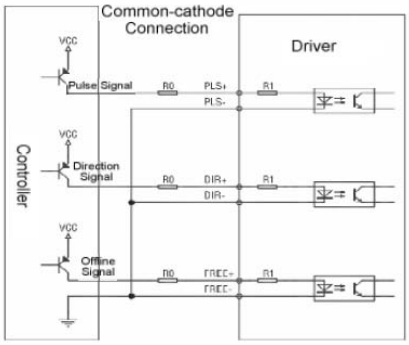
WIRING DIAGRAM





TECHNICAL SPECIFICATIONS

Technical Specifications	
Input Voltage	220VAC + 15% (50Hz) (187-253VAC)
Over-Voltage Protection	395VDC
Under-Voltage Protection	200VDC
Output Current	4.5-8A
Micro Step	2-128
Adaptable Motor	56, 86 and 110 Series Two-Phase Bipolar Hybird Stepper Motors
Input Signal	PLS(CW), DIR(CCW), A/B, FREE; Current Range: 6-16mA
Output Signal	ERR, Open Collector Output, Maximum Current: 20mA
Control Signal Mode	PLS+DIR; CW/CCW, A+B
Automatic Half Current	The Driver Will Reduce Phase Current of the Motor by A Half in 1.5 Seconds
Protection	Over-Voltage, Under-Voltage, Short Circuit and Heat Protection
Dynamic Breaking Circuit	Absorb Regenerated Energy of Motor by Connecting to Power Resistor. Custom Function
Technical Specifications (Environment)	
Cooling Method	Fan Cooling
Operation Environment	Avoid the Environment with Great Amount of Metallic Powder, Oil Mist, or Erosive Gases
Operation Humidity	85%, RH (Non-Condensing or Water Drops)
Operation Temperature	0 C - +40C
Storage Temperature	-20 C- +70 C
Weight (Net)	1.5Kg
Dimensions	201 x 147 x 66 mm
Ingress Protection	IP20

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FUNCTION OF ROTARY SWITCH

S1, Micro-Step: Switch for Subdivision and Test Running Function								
S1	0	1	2	3	4	5	6	7
Microstep	2	4	5	8	10	16	20	32
Pulse/Rev	400	800	1000	1600	2000	3200	4000	6400
S1	8	9	A	B	C	D	E	F
Microstep	50	64	100	128	NA	NA	TEST	NA
Pulse/Rev	10000	12800	20000	25600				

S2, Current: Switch for Current and PLS/DIR, CW/CCW Setting								
Mode	PLS+DIR							
S2	0	1	2	3	4	5	6	7
Rms(A)	3.18	3.54	3.89	4.24	4.60	4.95	5.30	5.65
Peak (A)	4.5	5	5.5	6	6.5	7	7.5	8
Mode	CW/CCW							
S2	8	9	A	B	C	D	E	F
Rms(A)	5.65	5.30	4.95	4.60	4.24	3.89	3.54	3.18
Peak(A)	8	7.5	7	6.5	6	5.5	5	4.5

OPERATION TABLE

Mode	S1	S2	Method
Auto Run	E	0~F	Set S1=E, S2=0~F When Driver is Powered Off, Then Power on the Driver, The Motor Will Run at 60RPM Automatically.
PLS+DIR	0~B	0~7	Set S1=0-B, S2=0~7 When Driver is Powered Off, Then Power on the Driver, the Motor Will Run in PLS+DIR Mode.
CW/CCW	0~B	0~7	Set S1=0-B, S2=8-F When Driver is Powered Off, Then Power pm the Driver, the Motor Will Run in CW/CCW Mode
Half Current	F	C	Set S1 and S2 as the “MODE Settings (as the Left Table)” When Driver is Powered Off. Then Power On the Driver, the 4 LED’s Will Run as: RUN LED Blinks, POWER LED is Green, ERR LED is Red, CHOP LED is Off. It Means the Mode Setting is Succeed, Then Restart the Driver, the Driver Will Work in Setting Mode.
Full Current	F	D	
Step Smooth Filter Enable	F	F	
Step Smooth Filter Disable	F	E	

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