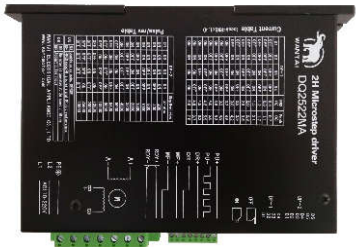## 2H

STEP MOTOR DRIVER
DQ2522MA

Microstep:1~200   Current:5A Max.   Input VAC : 110~220V AC

Product

Summary

- DSP controller
- Photoelectric isolation signal input/output
- Widely used in big and medium-sized CNC equipment.
- Fit within 5A, NEMA.23~42 stepper motor
- Phase memory function (when the input has stopped unexpectedly or powered off.)
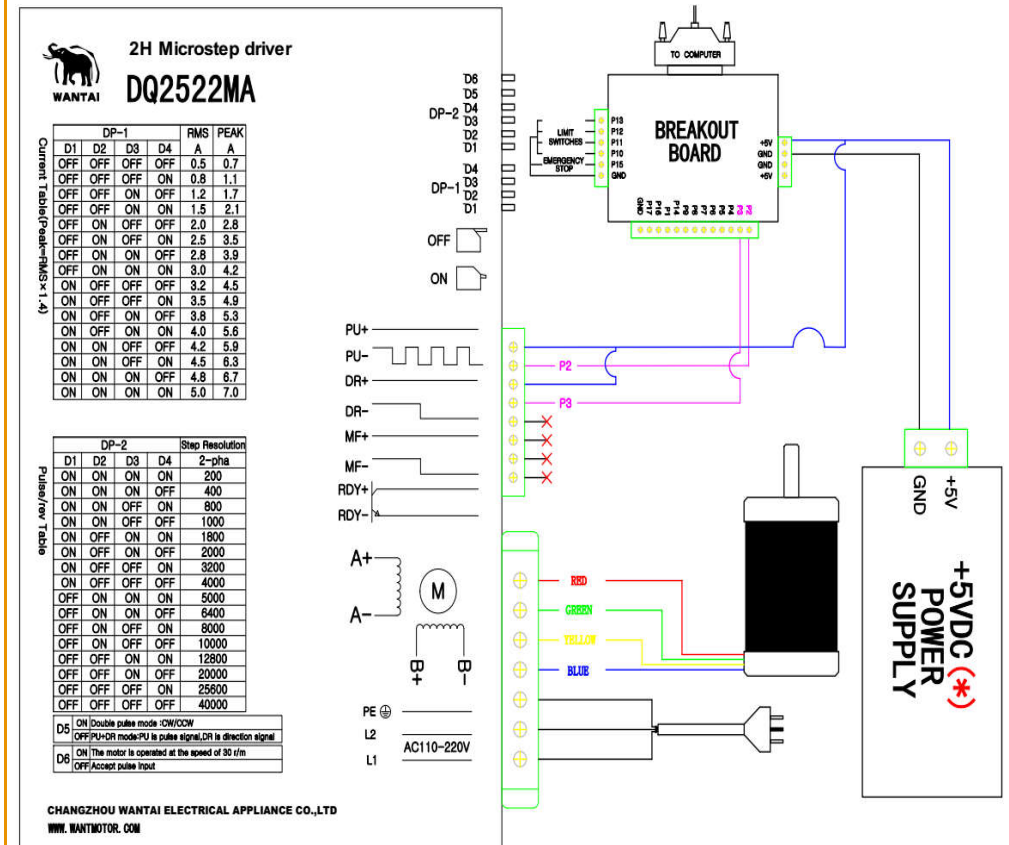- Single power input, voltage range: AC 90V to 240V

Features

Input voltage	110~220VAC
Microstep	40000 Max.
Frequency	150Kpps Max.
Working vibration	3G Max.
Use environment	0 ~ 70 ℃, no condensation, no frost
Storage environment	- 20 ~ 80 ℃, avoid direct sunlight

RS-232

1	RX	Receiving data	Function preservation
2	TX	Sending data	Function preservation
3	GND	Ground wire	Function preservation
4	+5V	5V power	Function preservation

Canonical wiring diagram

Dial the code set place

D P - 1					
Rated	Peak	D1	D2	D3	D4
0.5	0.7	OFF	OFF	OFF	OFF
0.8	1.1	OFF	OFF	OFF	ON
1.2	1.7	OFF	OFF	ON	OFF
1.5	2.1	OFF	OFF	ON	ON
2	2.8	OFF	ON	OFF	OFF
2.5	3.5	OFF	ON	OFF	ON
2.8	3.9	OFF	ON	ON	OFF
3	4.2	OFF	ON	ON	ON
3.2	4.5	ON	OFF	OFF	OFF
3.5	4.9	ON	OFF	OFF	ON
3.8	5.3	ON	OFF	ON	OFF
4	5.6	ON	OFF	ON	ON
4.2	5.9	ON	ON	OFF	OFF
4.5	6.3	ON	ON	OFF	ON
4.8	6.7	ON	ON	ON	OFF
5	7.0	ON	ON	ON	ON

DP - 2		
D5	ON	Double pulse mode: forward/Reverse rotation (CW CCW)
	OFF	Single pulse mode: pulse/direction (PU DR)
D6	ON	Automatic detection: run at 30 RPM according to internal signal
	OFF	Automatic detection: driver receives external pulses

Micro-step setting

D P - 2				
Microstep	D1	D2	D3	D4
200	ON	ON	ON	ON
400	ON	ON	ON	OFF
800	ON	ON	OFF	ON
1000	ON	ON	OFF	OFF
1600	ON	OFF	ON	ON
2000	ON	OFF	ON	OFF
3200	ON	OFF	OFF	ON
4000	ON	OFF	OFF	OFF
5000	OFF	ON	ON	ON
6400	OFF	ON	ON	OFF
8000	OFF	ON	OFF	ON
10000	OFF	ON	OFF	OFF
12800	OFF	OFF	ON	ON
20000	OFF	OFF	ON	OFF
25600	OFF	OFF	OFF	ON
40000	OFF	OFF	OFF	OFF

Frequently questions and troubles shooting

Issure	Possible cause	Measures
Motor not turn	No indicator light	Please check the power supply
	'ALM'' indicator light is on	Please check the driver for overcurrent overheat, or lack of motor
	Motor shaft is locked and motor can't operate	Please check external control signals
	Indicator light is normal, motor shaft is unlocked	Please check if MF signal is active
Motor blocked	The max speed is set too high	Please lower the max speed
	The acceleration time is too short	Please Lengthen the time or increase the pulse filtering constant of the driver
Inaccurate position	Microstepping is wrong	Choose the right microstepping score
	Excessive motor load	Please replace the motor or moderately increase running current of the driver
The leakage	The driver and motor are not grounded	Please reliably ground the driver and the motor
Severe warming of the driver and the motor	Large running current or bad external thermal conditions	Please moderately reduce driver running current or improve ventilation of the driver and the motor

Signal port		
Port	Mark	Function
1	PU+	Positive Input
2	PU-	Pulse Signal
3	DR+	Positive Input
4	DR-	Dirction Signal
5	MF+	Positive Input
6	MF-	Enable Signal
7	RDY+	Ready Postive
8	RDY-	Ready Negative

Motor		
Port	Mark	Function
1	B-	Motor B phase terminal negative
2	B+	Motor B phase terminal positive
3	A-	Motor A phase terminal negative
4	A+	Motor A phase terminal positive
5	PE	Ground wire
6	L2	Power input terminal, no matter positive or negative (AC110~220V)
7	L1	

Alarm signal		
Undervoltage	●	Power supply voltage is lower than AC 65VAC
Overpressure	● ●	Power supply voltage is higher than AC 265VAC
Overheating	● ● ●	The temperature of Drive is higher than 75 ℃
Overcurrent	● ● ● ●	Driver overcurrent alarm

Attention
1. The input voltage cannot exceed AC 260V, please plug in the voltage stabilizer or isolation transformer when the power grid fluctuates greatly.
2. Falling edge is effective of input pulse signal. If you need the rising edge to be effective, please set inner parameter of the driver.
3. With over-temperature protection, the drive temperature drops to 50 degrees, and the power can be restored.
4. In case of overcurrent protection, please check the motor wiring and other short circuit faults. After troubleshooting, it is necessary to restore the power supply.
5. In case of no motor, the fault indicator ALM will be on. Please check motor wiring; after the fault is removed, it will resume upon a second-time power-on.