

# DM2282

# Stepper Motor Driver

Digital Driver  
Model DM2282



Digital Technology, max. 230 VAC / 8.2 A (PEAK)

### FEATURES:



- Anti-Resonance provides optimal torque and nulls mid-range instability
- Operating voltage: 150 - 230 VAC or 212 - 325 VDC
- Motor auto-identification and parameter auto-configuration technology, offers optimal responses with different motors
- Multi-Stepping allows a low resolution step input to produce a higher microstep output, thus offers smoother motor movement
- Soft-start with no “jump” when powered on
- Output current programmable, from 0.5A to 8.2A. It can also be set via DIP switches.
- Pulse input frequency up to 200 kHz
- TTL compatible and optically isolated input
- Automatic idle-current reduction (Reduction rate can be software configured)
- Suitable for 2-phase and 4-phase motors
- Support PUL/DIR and CW/CCW modes
- Over-voltage, under-voltage, over-current, phase-error protections

### DESCRIPTION:

The DM2282 is a high voltage, fully digital stepper drive developed with advanced DSP control algorithm based on the latest motion control technology. It has achieved a unique level of system smoothness, providing optimal torque and nulls mid-range instability. Its motor auto-identification and parameter auto-configuration feature offers quick setup to optimal modes with different motors. Compared with traditional analog drives, DM2282 can drive a stepper motor at much lower noise, lower heating, and smoother movement. Its unique features make DM2282 an ideal choice for high requirement applications.

### APPLICATIONS:

Suitable for a wide range of stepper motors, from NEMA size 34 to 51. It can be used in various applications such as laser cutters, laser markers, high precision X-Y tables, labeling machines, CNC router, etc. Its unique features make the DM2282 an ideal choice for applications that require both low-speed smoothness and high speed performances

### GENERAL SPECIFICATIONS:

#### Electrical Specifications (T<sub>j</sub> = 25°C/77°F)

Parameters	DM2282			
	Min.	Typ.	Max.	Unit
Output current (PEAK)	0.5	-	8.2	A
Input voltage	80 (115)	230 (325)	253 (325)	VAC (VDC)
Logic signal current	7	10	16	mA
Pulse input frequency	0	-	200	kHz
Microstep resolution	200		102400	Steps per rev.
Isolation resistance	500			MΩ

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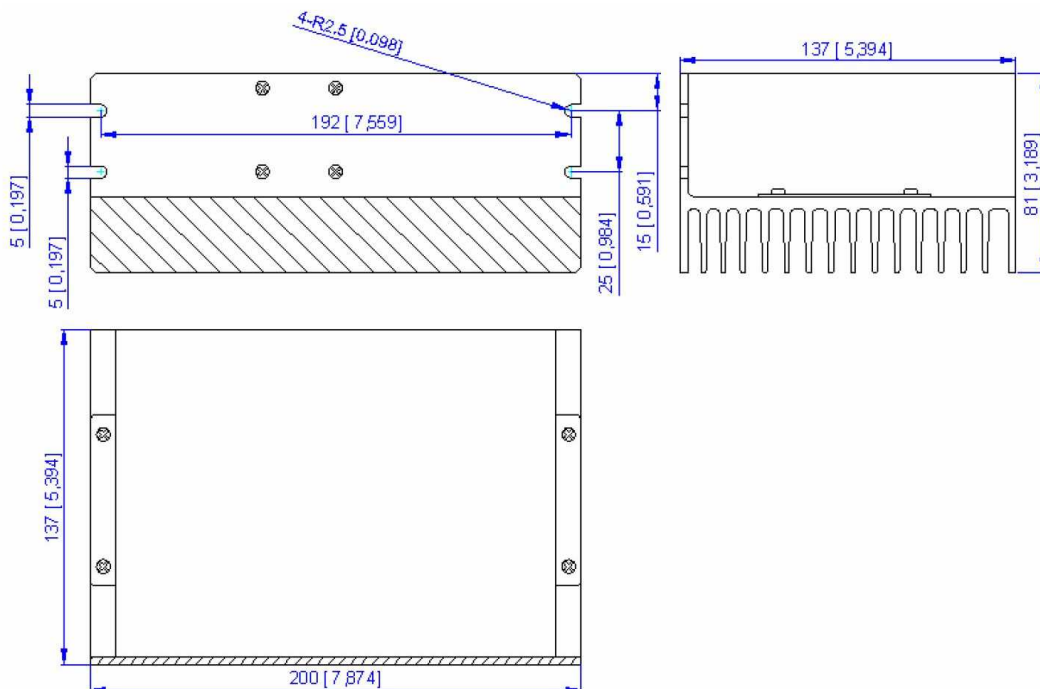
### Further Specifications:

Parameters	Min.	Typ.	Max.
Pulse / Direction (PUL / DIR)		X	
Double pulse (CW / CCW)		X	
NEMA sizes	34		51
Motor type Mecheltron	86BYGH-XXX		110BYGH-XXX
Weight		1.3kg	

### Operating Environment:

Protection grade	IP20
Cooling	Natural cooling or forced cooling
Environment	Avoid dust, water, oil, water- or oil fog and corrosive gases
Ambient temperature	0°C – 50°C (32°F – 122°F)
Operating Temperature (Heat Sink)	70°C (158 °F) Max
Storage Temperature	-20°C – 65°C (-4 °F – 149°F)
Humidity	40% RH – 90% RH

### MECHANICAL SPECIFICATIONS:



Unit: mm [ inch ]

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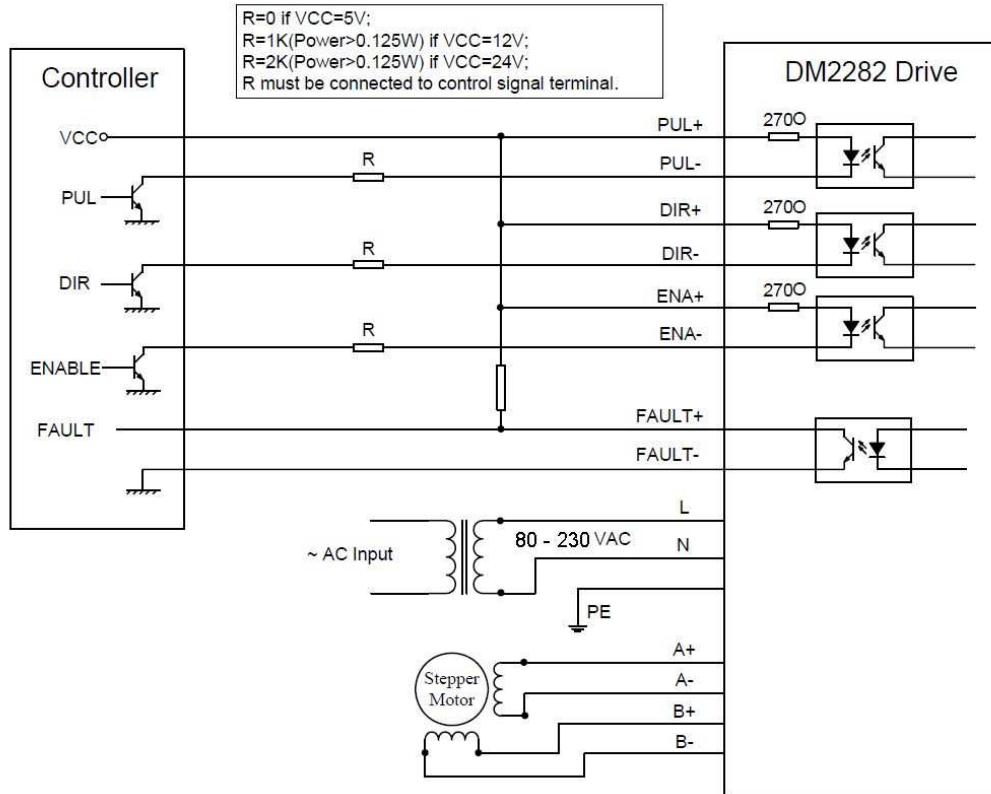
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**TYPICAL CONNECTION:**



Connection to controller with sinking output (NPN control signal)

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