



Gemini Controls PWM DC Drives

Gemini pulse width modulated (PWM) DC drives are designed to operate with brush-type PM DC motors. The evolution of Gemini's PWM drives has led to numerous advantages over SCR based and other PWM drives, including:

- State-of-the-art design
- Gemini's PWM drives produce less motor heat - which allows smaller, less expensive motors
- Smooth Operation - High speed switching and exclusive motor inductance compensation provides the fastest response to load and speed changes
- Audibly quiet - Operates at an inaudible 16KHz
- Tolerant of low voltage and short duration power outages
- PWM increases brush life, reducing maintenance
- Less line current consumption at low speeds

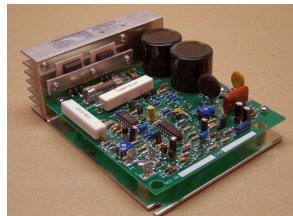
Fractional Horsepower PWM DC Drives



- Models for 1/100 to 1/4 HP
- 115 or 230VAC input, 0-90VDC or 0-180VDC output
- Maximum adjustability - Maximum and minimum speed, acceleration and deceleration, current limit and IR compensation
- Chassis or enclosure mounting
- Enable input allows remote control

12M08-11001-01	115 VAC input 0-90VDC output 0-1/4 HP 3 Amps Chassis Mount
12M08-11006-01	115 VAC input 0-90VDC output 0-1/4 HP 3 Amps in Enclosure
12M08-12001-01	230 VAC input 0-180VDC output 0-1/4 HP 3 Amps Chassis Mount
12M08-12006-01	230 VAC input 0-180VDC output 0-1/4 HP 3 Amps in Enclosure

General Purpose PWM DC Drives



- Dimensions: 5 3/4" x 5 1/2" x 2 1/2"
- Safety - provided by run-a-way protection and optional zero speed lock-out
- Adjustability - Maximum speed and IR compensation

12M04-00151-02	115 VAC input 0-90VDC output 3/4 HP 7.5 Amps Chassis Mount
12M04-00155-01	115 VAC input 0-90VDC output 1 HP 10 Amps Chassis Mount
12M04-00140	230 VAC input 0-180VDC output 3/4 HP 7.5 Amps Chassis Mount
12M04-00157-01	230 VAC input 0-180VDC output 1 HP 10 Amps Chassis Mount

DIGITAL PWM DC Drives



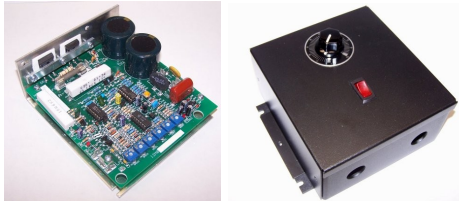
- Dimensions: 5 3/4" x 5 3/4" x 3"
- 115 or 230VAC input, 0-90VDC or 0-180VDC output
- Maximum adjustability - Maximum and minimum speed, acceleration and deceleration, current limit and IR compensation
- Enable input allows remote control

The following is a list of available changes to fit a new application

- One analog input 0-5volts dc (where speed pot is normally connected)
- One digital input (isolated contact or opto-isolator, where inhibit/enable is normally connected)

12M04-00219	115 VAC input 0-90VDC output 1 HP 10 Amps Chassis Mount
12M04-00221	115 VAC input 0-90VDC output 1/8-1/3 HP 3 Amps Chassis Mount
12M04-00222	115 VAC input 0-90VDC output 1/2-1 HP 6 Amps Chassis Mount
12M04-00223	230 VAC input 0-180VDC output 1/4-3/4 HP 5 Amps Chassis Mount
12M04-00224	230 VAC input 0-180VDC output 1/2-1 HP 7.5 Amps Chassis Mount
12M04-00220	230 VAC input 0-180VDC output 1 HP 10 Amps Chassis Mount

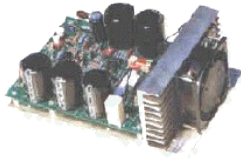
Full Feature PWM DC Drives



- Dimensions: 5 3/4" x 5 1/2" x 3"
- 115 or 230VAC input, 0-90VDC or 0-180VDC output
- Maximum adjustability - Maximum and minimum speed, acceleration and deceleration, current limit and IR compensation
- Chassis or enclosure mounting
- Enable input allows remote control
- Safety - provided by run-a-way protection

12M08-11002-02	115 VAC input 0-90VDC output 1/2 HP 5 Amps Chassis Mount
12M08-11003-02	115 VAC input 0-90VDC output 3/4 HP 7.5 Amps Chassis Mount
12M08-11008	115 VAC input 0-90VDC output 3/4 HP 7.5 Amps in Enclosure
12M08-11004-01	115 VAC input 0-90VDC output 1 HP 10 Amps Chassis Mount
12M08-11009	115 VAC input 0-90VDC output 1 HP 10 Amps in Enclosure
12M08-12002-01	230 VAC input 0-180VDC output 1 HP 5 Amps Chassis Mount
12M08-12008	230 VAC input 0-180VDC output 1 HP 5 Amps in Enclosure
12M08-12003-01	230 VAC input 0-180VDC output 1 1/2 HP 7.5 Amps Chassis Mount
12M08-12009	230 VAC input 0-180VDC output 1 1/2 HP 7.5 Amps in Enclosure
12M08-12004-01	230 VAC input 0-180VDC output 2 HP 10 Amps Chassis Mount

High Power PWM DC Drives

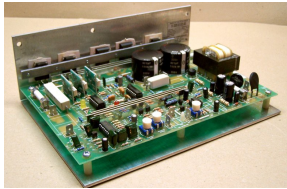


- 20 amps continuous duty for 90VDC motor, 15A for 120VDC motor
- Ideal for high power industrial applications
- 1.5HP rating (115VAC), 3HP with 230VAC
- 4 LED's provide status and diagnostic information
- Maximum drive and motor protection with: under and over voltage protection, over-temperature cutout, and fused outputs

12M08-11005 115 VAC input 0-90VDC output 1 1/2 HP 15 Amps Chassis Mount

12M08-12005 230 VAC input 0-180VDC output 3 HP 15 Amps Chassis Mount

2 Quadrant PWM DC Drives



- Dimensions: 12" x 6 1/2" x 3"
- For motoring and braking in one direction of rotation
- Braking resistors needed
- Maximum adjustability - Maximum speed, , current limit and IR compensation

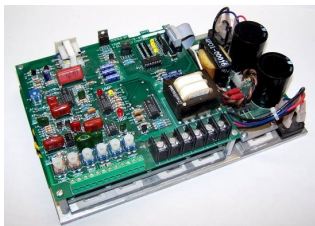
12M08-21000 115 VAC input 0-90VDC output 3/4 HP 7.5 Amps Chassis Mount

12M08-21001 115 VAC input 0-90VDC output 1 HP 10 Amps Chassis Mount

12M08-22000 230 VAC input 0-180VDC output 1 1/2 HP 7.5 Amps Chassis Mount

12M08-22001 230 VAC input 0-180VDC output 2 HP 10 Amps Chassis Mount

4 Quadrant PWM DC Drives



- Dimensions: 10" x 6 1/2" x 3"
- Forward and reverse torque in both directions of rotation
- Controlled stepless braking including zero speed
- Maintains constant speed with overhauling loads
- .1% speed regulation with tach
- 1% speed regulation over a 50:1 speed range with armature voltage feedback
- Isolated input for external signals (isolated by 1 meg resistance to ac line)

- PWM frequency of 16 kHz allows completely silent operation.
- Armature current form factor essentially 1.0
- Eliminates reversing contactors
- Positioning capability
- Applications include: web control, machine tool axis drives, overhauling loads and alternatives to expensive servos
- *Current rating can be increased by use of added heat sink.

12M08-41000 115 VAC input 0-120VDC output 3/4 HP 7.5 Amps Chassis Mount
 12M08-42000 230 VAC input 0-180VDC output 3/4 HP 7.5 Amps Chassis Mount

PWM DC Drives Accessories



12M02-00022 5k Speed Pot Assembly
 12M02-000XX 10K Speed Pot Assembly
 12M03-00366 120/240 VAC Reversing board with isolation for PWM DC Drives



Gemini Controls LLC

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