

# Battery Operated DC Motor Speed Control



65 Series



OMDC-65E60

OMDC-65E10-12

OMDC-65E10

- ✓ Provides Smooth Variable Speed Capability for Mobile Equipment
- ✓ Increases Range or Running Time of Battery Operated Equipment Through High Efficiency
- ✓ Automatic Compensation to Allow for Declining Battery Voltage
- ✓ Speed Regulation is  $\pm 1\%$  of Base Speed
- ✓ Adjustable Min/Max Speed
- ✓ Adjustable Current Limit
- ✓ Adjustable Acceleration Rate
- ✓ Speed Adjustment Using  $5\text{ k}\Omega$  Speedpot or 0 to 10 Vdc Analog Input Signal
- ✓ 3 Voltage Ranges: 0 to 12, 0 to 24, 0 to 36 Vdc

All models shown smaller than actual size.

The 65 Series DC drives are high performance Pulse Width Modulation (pwm) speed controls for 12, 24, and 36V battery-powered equipment providing smooth control with high efficiency operation. The advanced design permits a substantial increase in the equipment running time between charges over conventional techniques. Features include adjustable maximum speed, minimum speed, current limit, I.R. compensation, and acceleration. The adjustable current limit feature protects the control, battery, and motor from sustained overloads. The higher capacity models also provide thermal protection.

The 65 Series controls are designed for heavy-duty battery operated permanent magnet DC motor applications, such as: floor scrubbers, small personnel carriers, AGV's, agricultural sprayers and a vast variety of portable equipment. All the 65 Series speed controls come standard with a speedpot, knob and dial plate.

## SPECIFICATIONS

### OPERATING CONDITIONS

**Operating Temperature:** -10 to 45°C (14 to 113°F)

**Input Frequency:** DC

**Weight:**

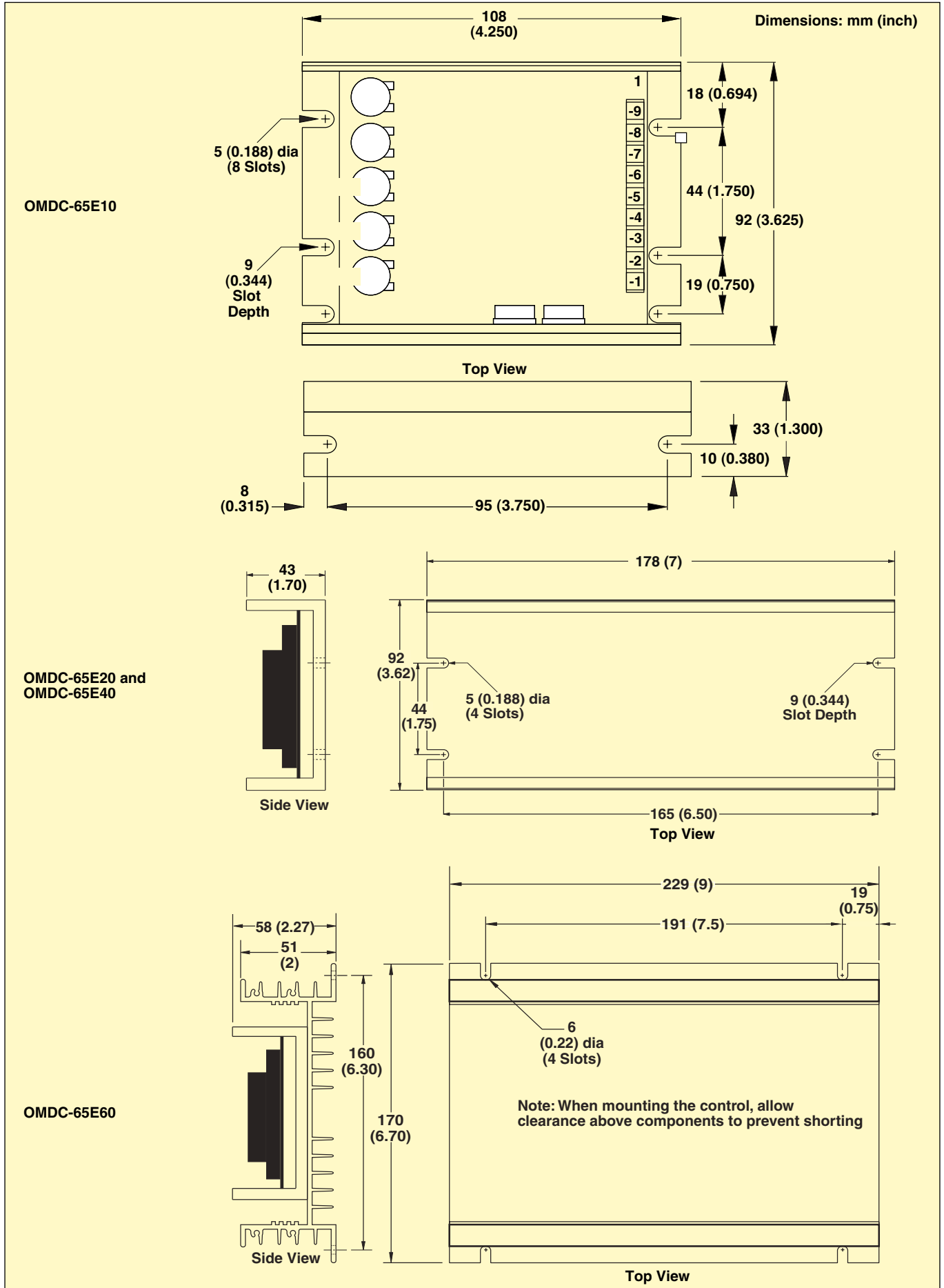
**OMDC-65E10:** 170 g (6 oz)

**OMDC-65E20:** 297 g (10.5 oz)

**OMDC-65E40:** 297 g (13.4 oz)

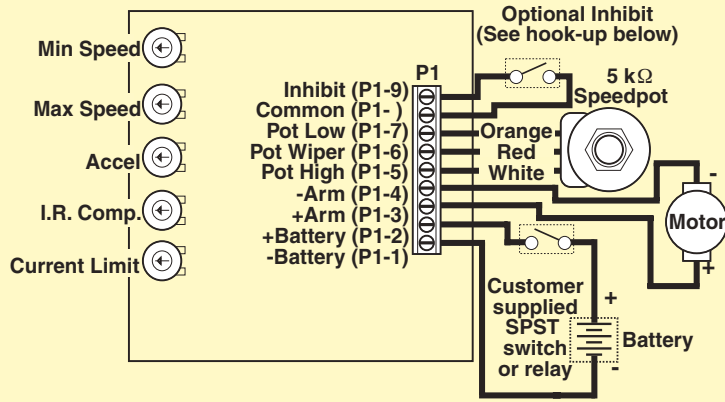
**OMDC-65E60:** 962 g (34.0 oz)

# MOUNTING DIMENSIONS

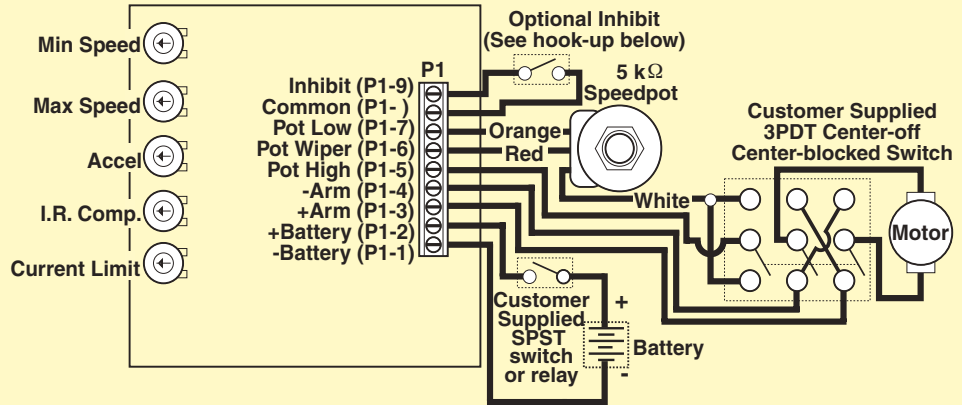


# HOOK-UP DIAGRAMS

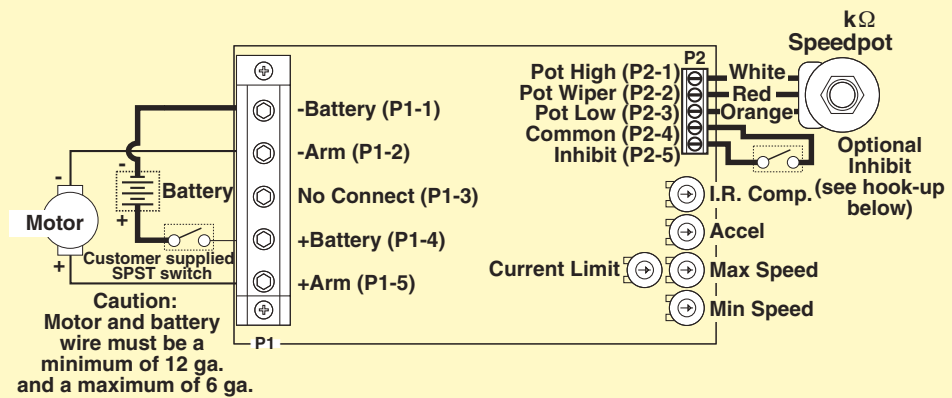
**OMDC-65E10**



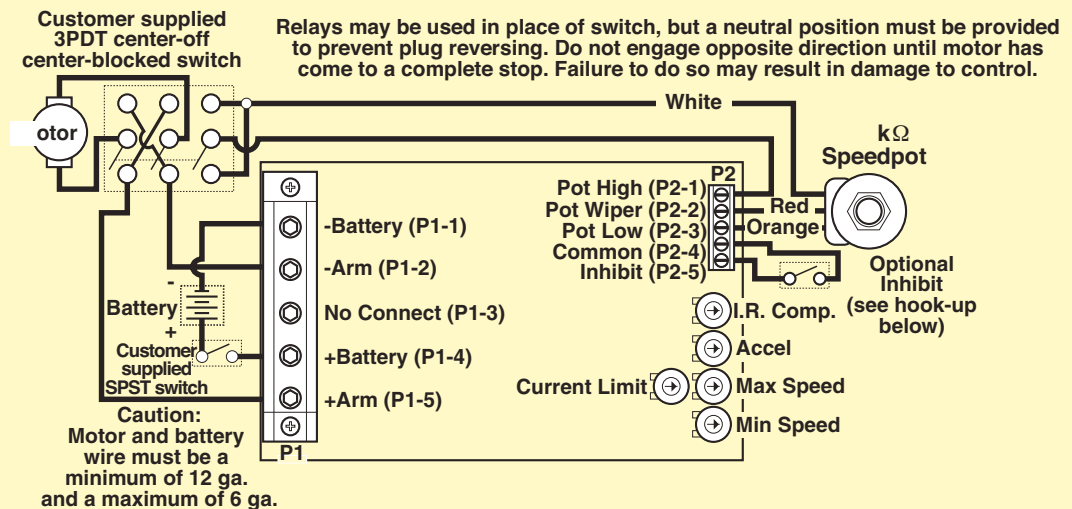
**OMDC-65E10 Reversing**

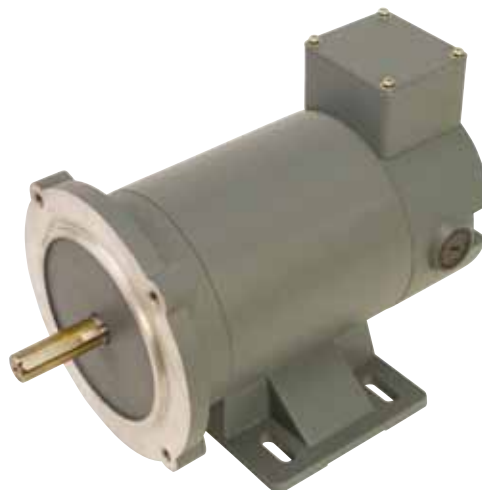


**OMDC-65E Series**



**OMDC-65E Series Reversing**





OMPMDC13-18-12V-56C shown smaller than actual size.

## SPECIFICATIONS

	OMDC-65E10	OMDC-65E20	OMDC-65E40	OMDC-65E60
Load Current (Continuous)	10 Amps	20 Amps	40 Amps	60 Amps
Speed Adjustment	5 kΩ potentiometer or 0 to 10 Vdc input signal			
Overload Capacity	200% for 10 seconds; 150% for 1 minute			
Speed Range	30:1			
Current Limit	Adjustable 100 to 200% of full motor load, up to continuous current rating (see above)			
Acceleration	Adjustable 0 to 10 sec			
Deceleration	Non-adjustable 0.5 sec			
Maximum Speed	Adjustable 50 to 100% of base speed			
Minimum Speed	Adjustable 30% of max speed			
Input/Output Connections	Barrier terminal block/12 to 6 Ga. max			
Speed Regulation	1% of base speed			
Package Configuration	Black anodized aluminum extrusion			
Internal Operating Frequency	18K Hz	Approximately 800 Hz		
Thermal Protection	Not available		Current foldback at 80°C (176°F) heatsink temperature	

## To Order

MODEL NO.	DESCRIPTION
OMDC-65E10-12	Battery operated DC drive, 12 Vdc input, 0 to 12 Vdc output, 10A current
OMDC-65E10	Battery operated DC drive, 24/36 Vdc input, 0 to 24/0 to 36 Vdc output, 10A current
OMDC-65E20-12	Battery operated DC drive, 12 Vdc input, 0 to 12 Vdc output, 20A current
OMDC-65E20	Battery operated DC drive, 24/36 Vdc input, 0 to 24/0 to 36 Vdc output, 20A current
OMDC-65E40-12	Battery operated DC drive, 12 Vdc input, 0 to 12 Vdc output, 40A current
OMDC-65E40	Battery operated DC drive, 24/36 Vdc input, 0 to 24/0 to 36 Vdc output, 40A current
OMDC-65E60-12	Battery operated DC drive, 12 Vdc input, 0 to 12 Vdc output, 60A current
OMDC-65E60	Battery operated DC drive, 24/36 Vdc input, 0 to 24/0 to 36 Vdc output, 60A current

Comes complete with operator's manual, speedpot, knob and dial plate.

\* For DC motor details visit [omega](#).

**Ordering Examples:** OMDC-65E10-12, 12 Vdc battery operated DC drive with 10A current.

OMDC-65E10, 24/36 Vdc, battery operated DC drive with 10A current and OMPMDC13-18-24V-56C, 24V, 1/3 HP DC motor.

## RECOMMENDED DC MOTORS\*

MODEL NO.	DESCRIPTION
OMPMDC13-18-12V-56C	12V, 1/3 HP, 1800 RPM, 26.4 Armature Amps
OMPMDC12-18-12V-56C	12V, 1/2 HP, 1800 RPM, 40 Armature Amps
OMPMDC34-18-12V-56C	12V, 3/4 HP, 1800 RPM, 61.2 Armature Amps
OMPMDC13-18-24V-56C	24V, 1/3 HP, 1800 RPM, 13.2 Armature Amps
OMPMDC12-18-24V-56C	24V, 1/2 HP, 1800 RPM, 20 Armature Amps
OMPMDC34-18-24V-56C	24V, 3/4 HP, 1800 RPM, 30.6 Armature Amps
OMPMDC1-18-24V-56C	24V, 1 HP, 1800 RPM, 41.1 Armature Amps
OMPMDC1.5-18-24V-56C	24V, 1.5 HP, 1800 RPM, 62.5 Armature Amps