# SEPARATELY EXCITED ELECTRONIC Motor speed controller







#### DESCRIPTION

Curtis PMC Model 1268 SepEx® controllers are programmable and microprocessor based, with an advanced MOSFET power section for smooth and seamless control of separately excited motors.

#### APPLICATION

Curtis PMC 1268 SepEx® controllers are designed for use in heavy-duty golf/utility vehicles.

#### FEATURES

- Power MOSFET technology provides smooth, silent, efficient, and cost-effective operation.
- Adjustable parameters enable custom optimization of speed, torque, and braking control.
- Half bridge armature and full bridge field provides regenerative braking down to zero speed.
- Sealed package rated at IP64 and IP67.
- Overspeed braking (regenerative) limits speed while driving downhill.
- WalkAway<sup>™</sup> braking feature limits any stopped or key-off rolling to very low speed.
- System uses Hall effect speed sensor on motor or drive train to control vehicle speed.
- Tow switch enables free rolling for towing of vehicle.
- Anti-rollback function provides improved control when throttle is released on hills.
- Anti-stall function helps prevent motor commutator damage.
- Controller drives warning buzzer steady in reverse; intermittent during WalkAway<sup>™</sup> braking.
- Optional electromagnetic brake output.
- Optional brake light output.
- MultiMode<sup>™</sup> inputs provide for multiple speed and power modes of operation.
- Timed shutdown of main contactor after pedal is released and vehicle has stopped.
- LED status indicator with external output.
- Fully compatible with 1311, 1314 and 1307 Programmers for parametric adjustment, tuning, test, and diagnostics.
- Extensive fault detection and diagnostic reporting using a Curtis Programmer including (partial list):
  - Main contactor weld check and driver check
  - Throttle and wiring faults
  - Open or shorted motor field winding
  - Open motor armature winding
  - Over-temperature
- Missing or failed speed sensor
- Armature drive failure.

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# MODEL 1268 SepEx<sup>®</sup>

#### FEATURES continued

- Extensive system monitor capabilities using a Curtis Programmer, including (partial list):
  - Battery voltage
  - Throttle input
  - Direction and throttle switch operation
  - Motor field and armature currents
  - Controller heatsink temperature

#### **OPTIONS**

- External LED for remote status indicator.
- Warning buzzer for audible indicator of reverse and WalkAway™ modes.

- Brake lamp relay to drive external lights for visual indicator of braking conditions.
- Electromagnetic brake at 24V or 48V (programmable) to lock vehicle at rest.
- WalkAway™ braking feature to slow vehicle during key-off.
- 5K 3-wire, 0-5V, or ITS throttle.

#### Meets or complies with relevant US and International Regulations

- Manufactured under ISO 9001 certified Quality Management System.
- UL Recognized Component Status.

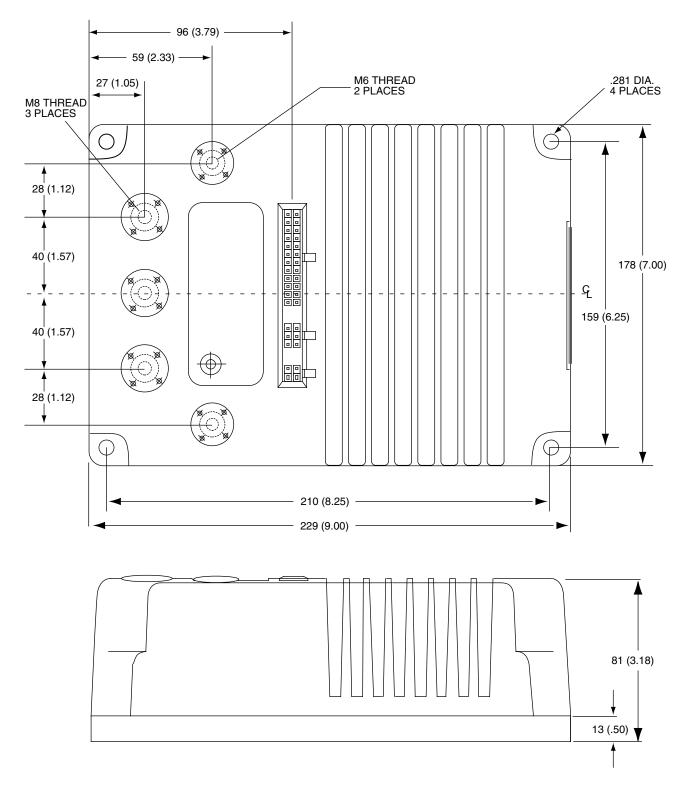
#### MODEL CHART

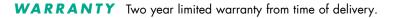
| Curtis PMC Model | Voltage<br>(Volts) | Armature Rating<br>(Amps) 2 Minute | Field Rating<br>(Amps) 2 Minute |  |
|------------------|--------------------|------------------------------------|---------------------------------|--|
| 1268-54xx        | 36-48              | 400                                | 50                              |  |
| 1268-55xx        | 36-48              | 500                                | 50                              |  |

#### EM BRAKE COIL (OPTIONAL) TYPICAL WIRING DIAGRAM Шr MAIN OR COIL CONTAC U LOW ~# ~# 0-5K THROTTLE LED (OPTIONAL ) нісн MOTOR SPEED SENSOR 0 0 + U h \*000 PROGRAMMER INTERFACE в <sup>N</sup> О F MODE SWITCH DIRECTION SWITCH PEDAL 0 Q ତ B-REVERSE 9 KEYSWITCH ALARM 0 0 RELAY m A O ARMATURE MAIN W FIELD WALKAWAY FUSE (20 AMP) ENABLE POWER FUSE (OPTIONAL) CHARGER SWITCH BATTERY INTERLOCK (5 AMP) SWITCH (OPTIONAL)

# MODEL 1268 SepEx<sup>®</sup>

#### **DIMENSIONS** mm





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