

Golf Car Motor Control SXDC GC from Kinetek



Kinetek Controls®

A Kinetek Company®

The **Kinetek Controls SXDC GC** (Separately eXcited DC) **Motor Controller** is designed for use in 36V or 48V, 300 Amp vehicles and various motor-driven equipment. The SXDC GC has programmable features and is simple to install, easy to use, inexpensive and reliable. The unit is potted for water-resistant operation and thermal efficiency.

The SXDC GC controller is fully programmable and user-configurable through serial connection to any Windows compatible PC. The controller provides silent, smooth, efficient motor control and is fully potted for superior vibration resistance and harsh environment survive-ability.

Regenerative braking down to base speed, potentiometer or inductive throttle input, on-board diagnostics, and overvoltage/undervoltage protection are standard features. Surface-mount, MOSFET designs allow the SXDC GC to provide optimum power density.



MODEL	Operating Voltage
KCCA002	36V
KCCA004	48V

Features

- Solid state MOSFET technology
- Surface mount design ensures reliability
- Fully potted for water-resistant operation
- Audible and visual diagnostics
- 0-5K potentiometer and inductive throttle support
- Constant temperature monitoring
- Full-bridge field and quarter-bridge armature power MOSFET design
- Armature and Field Current measurement for reliable operation and motor protection
- Regenerative braking, providing longer operation on a single battery charge and quicker stopping
- Programmable motor characteristics and operator preferences via PC
- Diagnostic feedback through buzzer
- Automatic braking on throttle reduction enhances safety — braking initiated in operator “hands-off” conditions and in neutral
- Reverse polarity protection prevents damage on all external controller connections
- Continuous real-time diagnostics
- Field/armature short protection to battery

Key Applications

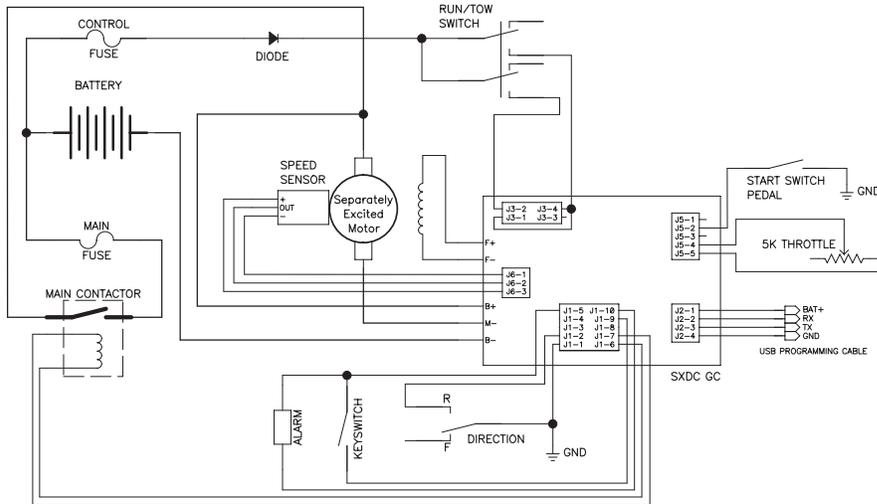
- Golf Car
- Utility Vehicle

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Golf Car Motor Control

SXDC GC Schematic



Physical

MODEL	Dimensions	Weight	Ambient Temp
SXDC GC	9 x 6.5 x 3.5 in 228.6 x 165 x 89 mm	2 lbs 0.9 kg	-30° to 40° C -22° to 104° F

Electrical

MODEL	Nominal Battery Volts	Drive Current Limit (Amps)	Armature 2 Minute Rating (Amps)	Armature 1 Hour Rating (Amps)	Field 2 Minute Rating (Amps)	Field 1 Hour Rating (Amps)	Braking Current Limit (Amps)
SXDC GC	36 or 48	300	300	100	25	10	300

Specifications

MODEL	PWM Operating Frequency	Isolation to Heatsink	Output Current	Programmable Communication	Heatsink Overtemp Cutback	Over Voltage Protection	Undervoltage Protection	Package Environment Rating	Regulatory Compliance
SXDC GC	15KHz	500VAC (min)	2A	Serial or USB port	85° C 185° F	Regen Cutback@<10% of Battery Voltage Cutoff@<15% of Battery Voltage	Cutback@<68% of Battery Voltage Cutoff@<50% of Battery Voltage	IP53	Safety, applicable portions: EN 1175-1:1998



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