



Special Design Features

- Low standby current drain - typically 5mA or less
- -40 to +85°C operating temperature at full current-derated at higher temperatures
- Thermally protected for over temperature conditions
- Short-circuit and overcurrent protected
- Reverse polarity protected
- Overvoltage/low voltage protected
- Will continuously stand off up to 100Vdc
- RoHS units available with select Converters and Equalizers
- Loss of ground protected
- EMI/EMC Compliance - Depending upon the requirements, we offer models designed to meet specific customer, SAE, ISO, E mark, CE or military standards
- Operating input voltage range from 9V-96Vdc negative ground
- Shock and vibration resistant
- Environmentally protected and splash-proof sealed models available
- Typical efficiency of 94%
- Units can be paralleled for greater output capacity

Pure Reliable Power

Sure Power Industries offers an expanded line of DC-DC Converters and Battery Equalizers from low to high output current capabilities (2.5 amps to 100 amps). Sure Power is setting the pace when it comes to the growing demands for dual voltage applications

The Sure Power Battery Equalizer maintains battery balance or “equalization” in a predominantly 24V system that requires 12V power. The Sure Power Battery Equalizer can deliver up to 100 amps of continuous 12V current for practically any 12V load ranging from fare boxes, destination boards, two way radios, and transmission controls, to engine controls and lighting. Sure Power DC-DC Converters continue to provide regulated power directly to accessory or main loads. Sure Power offers DC-DC Converters producing up to 40 amps at 24V from a 12V source and up to 100 amps at 12V from a 24V source. Sure Power offers a wide variety of features and multiple levels of protection.

MODEL	VOLTAGE INPUT	VOLTAGE OUTPUT	OUTPUT CURRENT	FUNCTION	SPECIAL FEATURES
12010X	12	24	10	Converter/Equalizer	Switched Output
12025X	12	24	25	Converter/Equalizer	Switched Output/Available Offset Output
12040X	12	24	40	Converter/Equalizer	Switched Output w/ Offset Output
12055C0	12	24	55	Converter	12V or 24V Selectable Input
52100	24	12	2.5	Converter	Switched & Unswitched Output
21008C10	24	12	7.5	Converter	IP 67, Rohs, Switched & Unswitched Output
21012C10	24	12	12	Converter	IP 67, Rohs, Switched & Unswitched Output
21015C10	24	12	15	Converter	Switched & Unswitched Output
21020C10	24	12	20	Converter	Switched & Unswitched Output
21030X00	24	12	30	Converter/Equalizer	Switched & Unswitched Output
52X04	24	12	40	Converter/Equalizer	High Current Converter/Equalizer
21060X00	24	12	60	Converter/Equalizer	High Current Converter/Equalizer
21080X00	24	12	80	Converter/Equalizer	High Current Converter/Equalizer
21100X00	24	12	100	Converter/Equalizer	High Current Converter/Equalizer
41102	9-16	14	10	Voltage Conditioner	
11020C01	9-14	14	20	Voltage Conditioner/Trail Charger	
11020C00LO	9-14	14	20	Trail Charger	Lockouts
11050C00	9-14	14	50	Trail Charger	
41010C00	27-70	13.5	10	Converter	Switched Output/Unswitched 12V Output
41020C00	28-70	13.5	20	Converter	Switched Output/Unswitched 12V Output
71030i	57-124	13.5	30	Converter	Isolated Output/Unswitched 12V Output

DC-DC Converter



Tapping off of the batteries of a Golf Cart to power 12V accessories can quietly cause damage to the batteries by creating a charge/discharge imbalance. This imbalance results in overcharging part of the string of batteries and undercharging the rest.

Benefits

- **Use 12V accessories without harming the batteries and the performance of the cart**
A Sure Power DC-DC Converter solves this problem by powering 12V accessories from the entire battery string, resulting in much longer battery life.

- **Example Applications:**

AM/FM CD Player

12V GPS

Cell phone or laptop charging

12V cooler

Pure Reliable Power

Sure Power Industries offers an expanded line of DC-DC Converters from low to high (high to low for 210XXX series) output current capabilities (2.5 amps to 80 amps). Sure Power is ready to keep pace with growing demands for a variety of dual voltage applications.

Sure Power's DC-DC Converters continue to provide regulated, clean power directly to accessory or main loads. Sure Power offers DC-DC Converters for 12V, 24V, 36V, 48V, 72V, 80V, and 96V systems. Sure Power also offers a wide variety of features and multiple levels of protection.

Please contact Sure Power Industries for specifications, pricing, leadtime, or custom products.

MODEL	OUTPUT CURRENT	NOMINAL INPUT VOLTAGE	OUTPUT VOLTAGE	SPECIAL FEATURES	DIMENSIONS
24V/12V DC-DC CONVERTER					
21008C10	7.5A	24V	13.7V	Switched Output, Unswitched 12V Output, Short-Circuit and Overcurrent Protection, Thermal Protection, Sealed Connector	3.0"L x 4.5"W x 2.35"H
21015C10	15A	24V	13.7V	Switched Output, Unswitched 12V Output, Short-circuit and Overcurrent Protection, Thermal Protection, Sealed Connector	5.75"L x 4.5"W x 2.35"H
21020C10	20A	24V	13.5V	Switched Output, Unswitched 12V Output, Short-circuit and Overcurrent Protection, Thermal Protection, Sealed Connector	5.75"L x 4.5"W x 2.35"H
21030X00	30A	24V	13.5V	Switched Output, Unswitched 12V Output, Short-circuit and Overcurrent Protection, Thermal Protection, Sealed Connector	8.25"L x 5.75"W x 2.35"H
21060X00	60A	24V	13.5V	Tightly Regulated 60A Output	10.5"L x 8.5"W x 3.17"H
21080X00	80A	24V	13.5V	Tightly Regulated 80A Output	10.5"L x 8.5"W x 3.17"H
48V/12V DC-DC CONVERTER					
41010C00 ¹	10A	27-70V	13.5V	Switched Output, Unswitched 12V Output, Short-circuit and Overcurrent Protection, Thermal Protection	3.0"L x 4.5"W x 2.35"H
41020C00 ¹	20A	28-70V	13.7V	Switched Output, Unswitched 12V Output, Short-circuit and Overcurrent Protection, Thermal Protection	5.75"L x 4.5"W x 2.35"H
72V/12V DC-DC CONVERTER					
71030i ²	30A	57-124V	13.5V	Isolated Output, Unswitched 12V Output, Short-circuit and Over Limit Protection, Thermal Protection	7.125"L x 5.62"W x 2.35"H

¹ Can also be used for 36V battery systems.

² Can also be used for 80V & 96V battery systems.

Specifications subject to change without notice.

