



SITE CONVERTER SERIES

High Current DC to DC Isolated Converters for 12 and 24 Volt DC Site Equipment



The ICT Site Converter Series are high current, high efficiency rack mount DC to DC converters designed for dual-voltage site applications where a 24 or 48 volt DC input needs to be converted to a 12 or 24 volt DC output to power two-way radios, repeaters, RF amplifiers, trunking systems, or other sensitive electronic equipment. The wide-ranging input is 20 to 60 volts DC, so the ICT Site Converter will support a variety of input voltages. There are four models available to support peak current of 35 or 50 Amps at 24 volt output and 70 or 100 Amps at 12 volt output. Efficiency is 90%, meaning less energy will be lost in the conversion process.

The ICT Site Converter is fully isolated, and can be used in positive or negative ground environments. The wide-ranging input voltage is also ideal for sites where the DC voltage may fluctuate. The ICT Site Converter's built-in protection features protect the converter as well as the connected loads from abnormalities.

Output voltage is adjustable using a front-mounted trim pot. A remote alarm contact will signal when DC fails or the converter shuts down. A remote contact terminal allows the converter to be shut down remotely for servicing or to conserve the battery when not in use.

Performance and Flexibility

The Site Converter is based on the ICT high efficiency switch-mode design that converts more available power while reducing waste energy, lowering heat build up and power draw on the battery. The wide-ranging 20-60 volt DC input means the same Site Converter can be used with both 24 or 48 volt DC inputs to provide clean, efficient 12 or 24 volt DC power output.

The output voltage can be adjusted to allow for line drop, or for loads that have a very specific input voltage requirement. The remote alarm terminals will send a signal in the event of a failure.

Reliability

Reliability is achieved through careful design that virtually eliminates internal wiring and connections that can fail. Wide input voltage ranges are less susceptible to voltage spikes and drops. Every unit is extensively tested before it leaves the factory.

ICT DC-DC Converters have a proven track record of reliability over years of field service. The Site Converter is backed by a two year warranty.

Energy Saving Design

A high-efficiency design means less energy is lost in the conversion process. Typical efficiency for the ICT Site Converter is 90%, extremely high for this category of converters. A contact terminal is provided that allows the converter to be turned off and on by the main circuit, saving energy and avoiding standby drain on the battery.

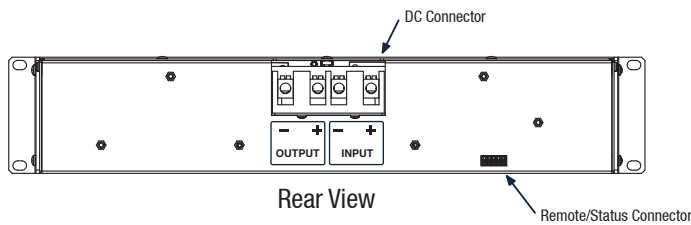
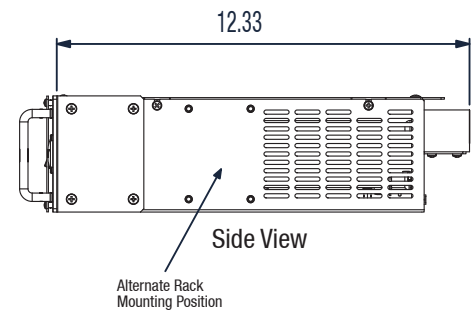
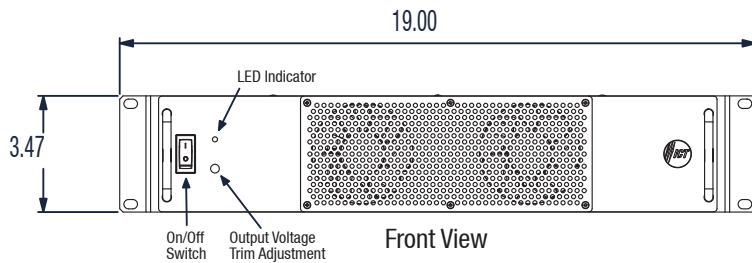


Specifications

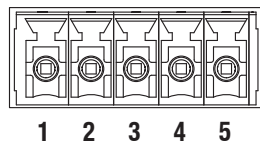
Model Number	Input Voltage Range	Output Voltage Range	Output Current (Cont.)	Output Current (Peak)	Current Limiting	Line Regulation	Load Regulation	Output Ripple (Max)	Efficiency (Typical)	Input Current @ Vin(min)	Operating Temperature Range ^{d)}
ICT206012-70AI2	20-60 VDC	12.5-14.5 VDC ^{a)} +/- 300 mV	64 Amps	70 Amps	74 Amps +/- 5%	0.5%	3.0%	20mV RMS	90%	55 Amps	-30°C to +60°C
ICT206012-100AI2	20-60 VDC	12.5-14.5 VDC ^{a)} +/- 300 mV	96 Amps	105 Amps	110 Amps +/- 5%	0.5%	3.0%	20mV RMS	90%	78 Amps	-30°C to +60°C
ICT206024-35AI2	20-60 VDC	25.0-29.0 VDC ^{b)} +/- 600 mV	32 Amps	35 Amps	37 Amps +/- 5%	0.5%	3.0%	30mV RMS	90%	55 Amps	-30°C to +60°C
ICT206024-50AI2	20-60 VDC	25.0-29.0 VDC ^{b)} +/- 600 mV	48 Amps	52 Amps	55 Amps +/- 5%	0.5%	3.0%	30mV RMS	90%	78 Amps	-30°C to +60°C

a) Factory set to 13.8VDC. b) Factory set to 27.6VDC. Adjustment requires use of an external volt meter to measure the voltage at the output terminals.
 c) The REMOTE shutdown requires a voltage between 5VDC and 15VDC be applied to the connector on the rear of the unit.
 d) Derate 2%/°C > 40°C.

Dimensions (inches)



Remote / Status Connector Functions



- PIN 1: COMMON
- PIN 2: NC
- PIN 3: NO
- PIN 4: SD +
- PIN 5: SD -

Remote shutdown requires a voltage between 5VDC and 15VDC be applied to Pin 4 and 5.