

## SPECIFICATIONS

Model Number	Input Voltage Range	Output Voltage	Output Adjust (Typ)	Output Current (Cont.)	Output Current (Peak)	Current Limiting	Under / Over Voltage Shutdown	Line Regulation	Load Regulation	Output Ripple (Max)	Efficiency (Typ @ 48V In)	Input Current @ Vin(min)	Operating Temperature Range
ICT206012-70AI2	20-60 VDC	13.8 VDC +/- 300 mV	12.5 - 14.5 VDC	64.0 Amps	70.0 Amps	74.0 Amps +/- 5%	< 20 VDC / > 60 VDC	0.5%	3.0%	20mV RMS	90%	55 Amps	-20°C to +40°C
ICT206012-100AI2	20-60 VDC	13.8 VDC +/- 300 mV	12.5 - 14.5 VDC	96.0 Amps	105.0 Amps	110.0 Amps +/- 5%	< 20 VDC / > 60 VDC	0.5%	3.0%	20mV RMS	90%	78 Amps	-20°C to +40°C
ICT206024-35AI2	20-60 VDC	27.6 VDC +/- 300 mV	25.0 - 29.0 VDC	32.0 Amps	35.0 Amps	37.0 Amps +/- 5%	< 20 VDC / > 60 VDC	0.5%	3.0%	20mV RMS	90%	55 Amps	-20°C to +40°C
ICT206024-50AI2	20-60 VDC	27.6 VDC +/- 300 mV	25.0 - 29.0 VDC	48.0 Amps	50.0 Amps	52.0 Amps +/- 5%	< 20 VDC / > 60 VDC	0.5%	3.0%	20mV RMS	90%	78 Amps	-20°C to +40°C

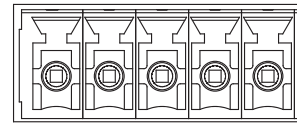
## REMOTE / STATUS CONNECTOR

### REMOTE STATUS (COMMON, NC, NO)

The Common, NC, and NO contacts of a small Form C relay are provided for alarm monitoring. A voltage comparator monitors the output voltage of the system and drives the relay. When the output voltage is good the NO pin is connected to the COMMON pin. The relay is rated 1A / 30VDC.

### REMOTE SHUTDOWN (SD+, SD-)

When 5-15Vdc is applied between these two pins, the output of the unit is disabled. Please observe polarity.



1 2 3 4 5

**PIN 1: COMMON**

**PIN 2: NC**

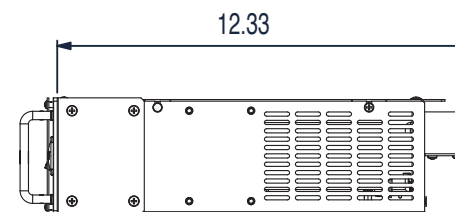
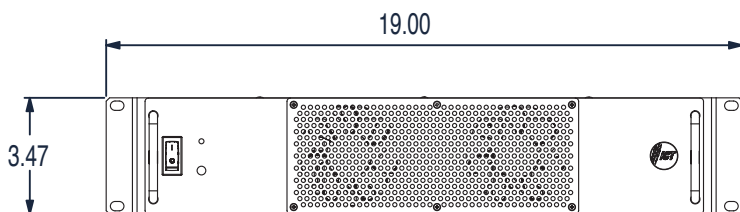
**PIN 3: NO**

**PIN 4: SD +**

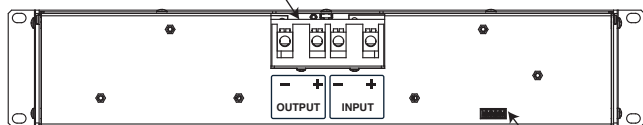
**PIN 5: SD -**

## OUTLINE DRAWING

DIMENSIONS IN INCHES



**DC CONNECTOR**  
WIRE SIZES: #2 - #14 CU/ #8 AL



**REMOTE / STATUS CONNECTOR**

**ALTERNATE RACK EAR POSITION**



# ICT DC SITE CONVERTERS

## INSTRUCTION MANUAL



**Models:**  
ICT206012-70AI2  
ICT206012-100AI2  
ICT206024-35AI2  
ICT206024-50AI2

INNOVATIVE CIRCUIT TECHNOLOGY LTD.

855-334-002

## ICT DC SITE CONVERTERS

ICT DC SITE CONVERTERS feature an all-new design that builds on the ICT legacy of reliability and performance.

ICT DC SITE CONVERTERS are fully isolated. They can operate from a negative or positive ground electrical system, and are ideal for applications where complete isolation is required between primary and secondary circuits, as well as from the chassis.

These instructions should be read before using the product and saved for future reference.

### WARNING

- ▶ Incorrect wiring may result in personal injury or serious damage to both the converter and equipment connected to the converter.
- ▶ Do not place unit on or near sources of heat and moisture.
- ▶ Servicing of unit should be done only at ICT factory.

### SETUP

- ▶ Mount converter securely
- ▶ Do not apply power until unit is completely wired
- ▶ Connect load to output
- ▶ Connect power source to input using appropriate fusing for the application using wire of size and type appropriate for the current and length of the connection
- ▶ The front panel switch turns the unit on and off. This is a low current switch that inhibits the internal modules but does not interrupt the input power.
- ▶ A front panel potentiometer allows adjustment of the output voltage. Always verify the output voltage of the system with a meter while adjusting by connecting voltmeter probes to the output terminals of the system.
- ▶ The front panel LED is lit when the output voltage is within typical operating range.
- ▶ A remote access terminal is available on the rear of the unit that allows remote shutdown of the unit as well as monitoring of output voltage status. See the "REMOTE/STATUS CONNECTOR" section for further details.

## NOTES

- ▶ Isolated converters can be used in parallel or series configuration. Please contact ICT for further information.
- ▶ These converters incorporate a special noise filter design. For proper filter operation, the converter must be chassis grounded.

## TROUBLESHOOTING

- ▶ Check for proper voltage at input while converter is under load. This unit has undervoltage and overvoltage shutdown, so temporary voltage fluctuations outside of the rated input voltage range of the unit will cause loss of output. The converter will automatically restart when the input voltage is within range.
- ▶ Verify the load current. This converter has current limiting so currents exceeding the rated current limit will cause loss of output. The converter will automatically restart when the excess load is removed.
- ▶ Check the environment. This converter features thermal shutdown so if the environment is too hot or cooling vents are blocked the converter will turn off. The unit will restart when the ambient temperature is within normal operating limits.

## LIMITED WARRANTY

ICT Limited Warranty is only intended for the benefit of the original Purchaser of this product. This Warranty is not transferable or assignable without the prior written permission of ICT. ICT's sole obligation and liability under this warranty is limited to either repairing or replacing defective products at the sole discretion of ICT. When repairing or replacing the products, ICT may use products or parts that are new, equivalent to new or re-conditioned. Parts repaired or replaced during the warranty period will be under warranty for the remainder of the warranty period.

The warranty period on ICT products purchased new from ICT is two years. The warranty period for a repaired product or part thereof is ninety (90) days or the remainder of the unexpired term of the new product warranty period, whichever is greater. Repair or replacement of a defective product or part does not extend the original warranty coverage period.

No claim will be accepted unless written notice of the claim is received by ICT in accordance with ICT's Return Material Authorization (RMA) procedure, as soon as reasonably possible after the defect is discovered. A valid product serial number must be provided with the RMA claim to prove eligibility. The RMA form is available on the ICT website at [www.ict-power.com/support/warranty-repair/](http://www.ict-power.com/support/warranty-repair/).

The Purchaser shall at their own risk and cost return the defective product to ICT's factory or designated repair center once an RMA is issued by ICT. Return of the products to the customer after repair is completed shall be prepaid by ICT unless otherwise mutually agreed between the parties. Products shipped to ICT which have incurred freight damage will not be covered by this Warranty and any repairs or replacement parts, components or products needed will be invoiced in the full current price amount and returned freight collect to Purchaser. It is the Purchaser's responsibility to check the product upon receipt for any damage during shipping and to contact the carrier or shipper regarding such damage. Product that is returned as defective, which is determined to operate within published specifications will be returned to the Purchaser freight collect.

This Warranty will be void if the product has been subjected to misuse, neglect, accident, exposure to environmental conditions not conforming to the products' limits of operation, improper installation or maintenance, improper use of an electrical source, defects caused by sharp items or by impact pressure, a force majeure event, has been modified or repaired by anyone other than ICT or its authorized representative, has been subjected to unreasonable physical, thermal or electrical stress, improper maintenance, or causes external to the unit including but not limited to general environmental conditions such as rust, corrosive atmospheres, sustained temperatures outside the specified operating range of the equipment, exposure to power surges and/or electrical surges, improper grounding, mould or dust, animal or insect damage, water damage or immersion in liquid of any kind.

ICT does not control the installation and use of any ICT product. Accordingly, it is understood this does not constitute a warranty of performance or a warranty of fitness for a particular purpose.

