



# ICT AZ HIGH POWER SERIES

## INSTRUCTION MANUAL



INNOVATIVE CIRCUIT TECHNOLOGY LTD.

# WARNING

## SAVE THESE INSTRUCTIONS. THIS MANUAL CONTAINS IMPORTANT SAFETY AND OPERATING INFORMATION

- ▶ Do not block side or bottom vents
- ▶ Do not place unit on or near sources of heat and moisture
- ▶ Incorrect wiring may result in serious damage to both power supply and connected equipment
- ▶ Use DC wires of an appropriate size for the distance and load.
- ▶ High voltages are present inside. Unit service should only be done by a qualified technician.

## SETUP

- ▶ Connect DC equipment to the load terminals, observing correct polarity. NOTE: Keep wires short to avoid excess radiated noise.
- ▶ If using the optional battery backup option, connect the appropriate battery to the provided terminals, observing correct polarity. An appropriately sized inline fuse is recommended. NOTE: Reverse connection will damage the unit.
- ▶ Make sure AC switch (if provided) is set to off. NOTE: This switch inhibits the power supply, but does not disconnect AC power.
- ▶ Connect AC to the power supply using either the provided AC inlet or terminal block.
- ▶ An auxilliary connector is provided for load sharing, remote shut-down, and AC good.

1	2	3	4	5
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PIN 1: Remote Shutdown +

PIN 2: Remote Shutdown –

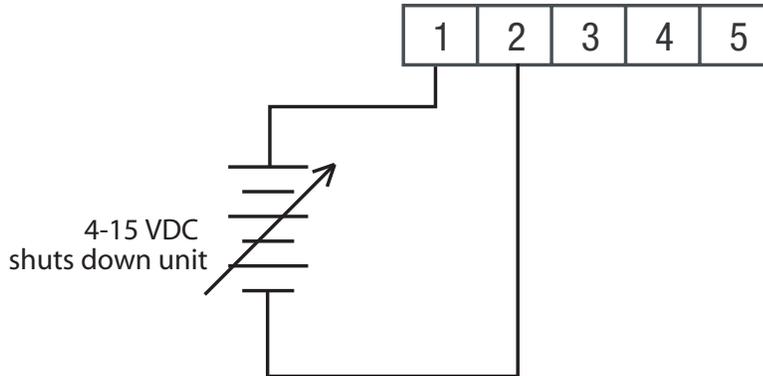
PIN 3: AC Good +

PIN 4: AC Good –

PIN 5: Sharing

## REMOTE SHUTDOWN

Remote shutdown allows the the unit to be turned off from a remote location. Apply 4–15Vdc to these pins to shut down the unit.

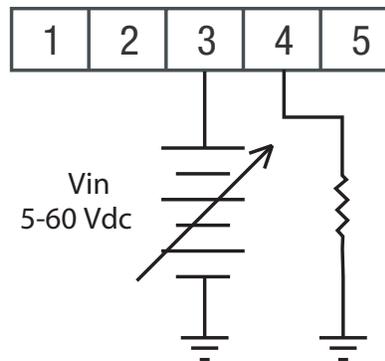


Sample configuration. Contact factory for application assistance.

## AC GOOD

AC Good is a status signal that indicates AC power is available to the unit. These two pins are the collector and source of an optocoupler which are closed when AC is good, open when AC is removed. Maximum recommended current is 5 mA.

AC Present	Voltage at Pin 4
Yes	Voltage at Pin 3
No	0



Sample configuration. Contact factory for application assistance.

## SHARING

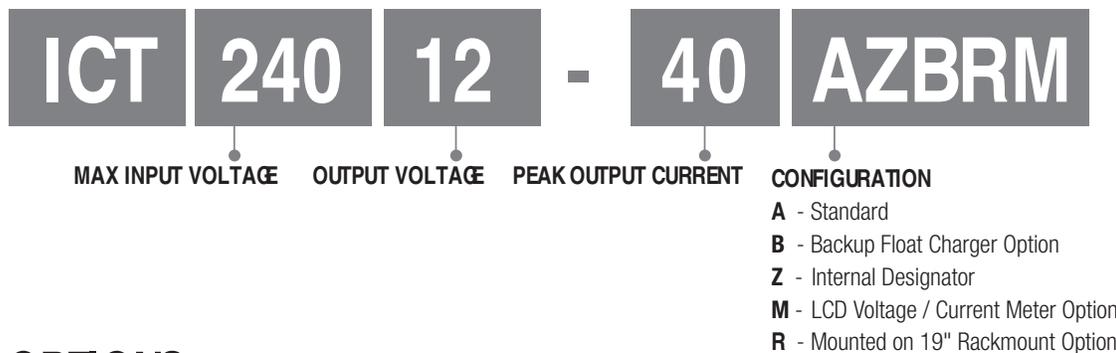
If multiple units are wired in parallel, connection of a wire between the SHARE pins will force the units to share the load equally.

## PRODUCT DESCRIPTION

The ICT AZ Series universal input offline power supplies are a family of AC to DC power supplies capable of providing 550 to 1600 watts in a very compact size. This high efficiency design has a 100–265 VAC power factor corrected input. Another benefit of the advanced design is the extremely low output voltage ripple – perfect for powering sensitive communications equipment.

Wallmount brackets are available to mounting to a fixed surface. ICT–WMB fits the smallest size, and ICT–WMB2 fits the two larger sizes.

## MODEL NUMBERS



## OPTIONS

### Backup Float Charger (Suffix “B”)

A 5 Amp float charger with battery revert. This float circuit will limit the current used to charge the batteries when AC power is available. It will charge the batteries with a maximum float voltage of 13.65, or the output voltage – 0.5Vdc, whichever is less. If the battery bank has a terminal voltage of less than 10.5Vdc, a low current trickle charge is applied until the voltage is within range.

### LCD Meter (Suffix “M”)

A character type LCD meter is present on the front panel, with a switch to select output voltage or current. This option also includes the front panel AC switch.

### Rackmount (Suffix “R”)

The smallest format models (eg ICT24012–40AZ) are provided on the standard ICT 2U rack, part ICT–RMK1. Two units can be supplied on a single rack side by side. The larger models (eg ICT24012–50AZ) come on a dedicated 2U rack.

# PRODUCT SPECIFICATIONS

Input Voltage Range: 100–265 VAC, 50/60 HZ  
 Power Factor: >0.99, Typical  
 Operating Temperature Range: –20F to +105F (–30C to +40C)  
 Cooling: Forced air, temperature controlled  
 Protection: Overtemperature shutdown  
 Overcurrent shutdown, hiccup restart  
 Short circuit protection

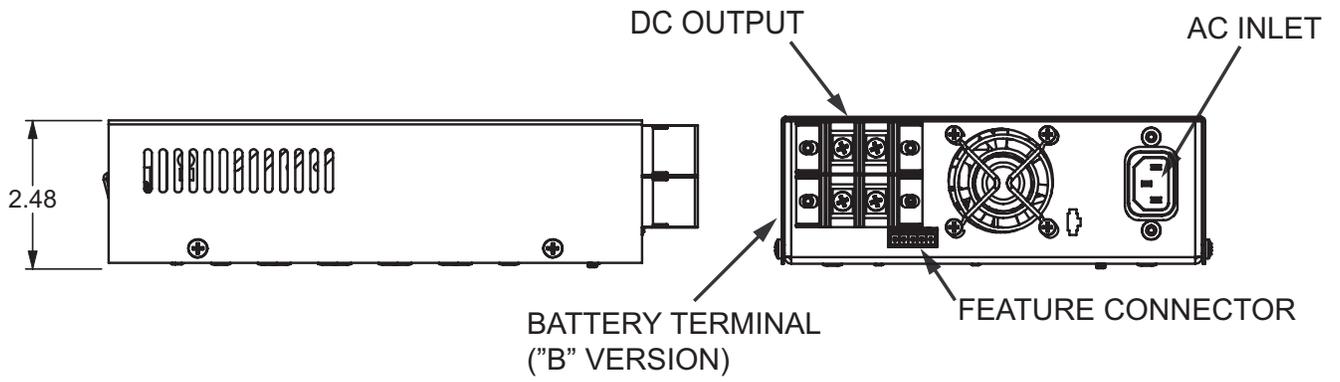
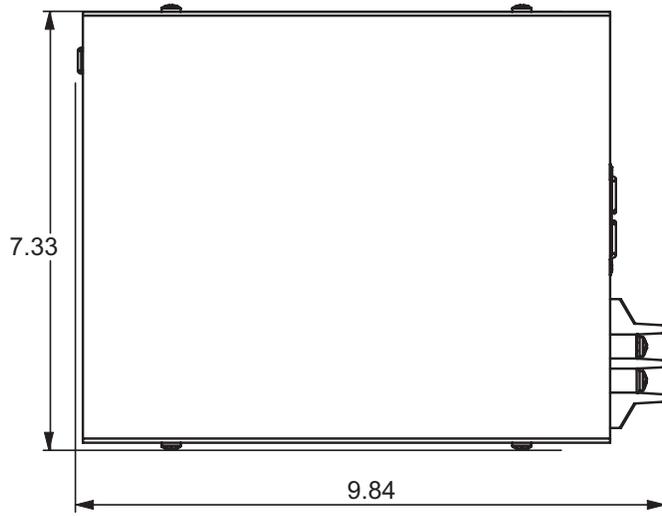
	Output Voltage	Output Current (Cont.)	Output Current (Peak)	Current Limiting (5%)	Line Regulation	Load Regulation	Output Ripple (Typical)	Efficiency (Typical)
ICT24012-40AZ	13.8 VDC	40.0 Amps	40.0 Amps	41.0 Amps	<0.50%	<0.50%	40 mV RMS	89%
ICT24024-20AZ	27.6 VDC	20.0 Amps	20.0 Amps	21.0 Amps	<0.50%	<0.50%	80 mV RMS	89%
ICT24048-10AZ	48.0 VDC	10.0 Amps	10.0 Amps	11.0 Amps	<0.50%	<0.50%	100 mV RMS	89%

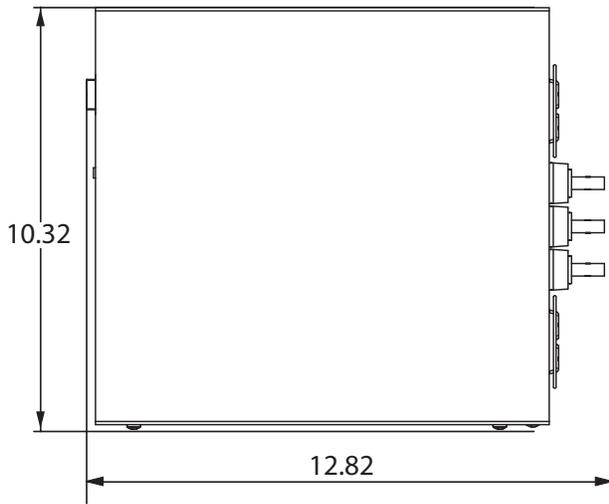
	Output Voltage	Output Current (Cont.)	Output Current (Peak)	Current Limiting (5%)	Line Regulation	Load Regulation	Output Ripple (Typical)	Efficiency (Typical)
ICT24012-60AZ	13.8 VDC	60.0 Amps	60.0 Amps	61.0 Amps	0.10%	0.50%	40 mV RMS	89%
ICT24012-80AZ	13.8 VDC	80.0 Amps	80.0 Amps	81.0 Amps	0.10%	0.50%	40 mV RMS	89%
ICT24024-40AZ	27.6 VDC	40.0 Amps	40.0 Amps	41.0 Amps	0.10%	0.50%	60 mV RMS	89%
ICT24048-20AZ	48.0 VDC	20.0 Amps	20.0 Amps	21.0 Amps	0.10%	0.50%	85 mV RMS	89%

	Output Voltage	Output Current (Cont.)	Output Current (Peak)	Current Limiting (5%)	Line Regulation	Load Regulation	Output Ripple (Typical)	Efficiency (Typical)
ICT24012-100 AZ	13.8 VDC	100.0 Amps	100.0 Amps	101.0 Amps	0.10%	0.50%	60mV RMS	89%
ICT24012-120 AZ	13.8 VDC	120.0 Amps	120.0 Amps	121.0 Amps	0.10%	0.50%	70 mV RMS	89%
ICT24024-60AZ	27.6 VDC	60.0 Amps	60.0 Amps	61.0 Amps	0.10%	0.50%	90 mV RMS	89%
ICT24048-30AZ	48.0 VDC	30.0 Amps	30.0 Amps	31.0 Amps	0.10%	0.50%	100 mV RMS	89%

# ICT24012-40ABZ

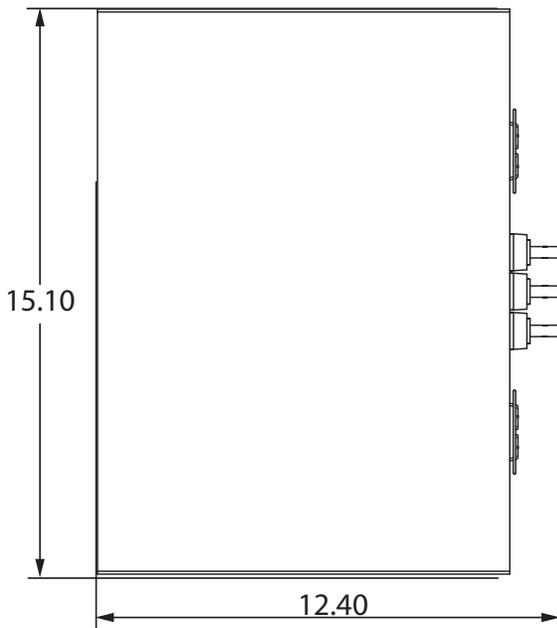
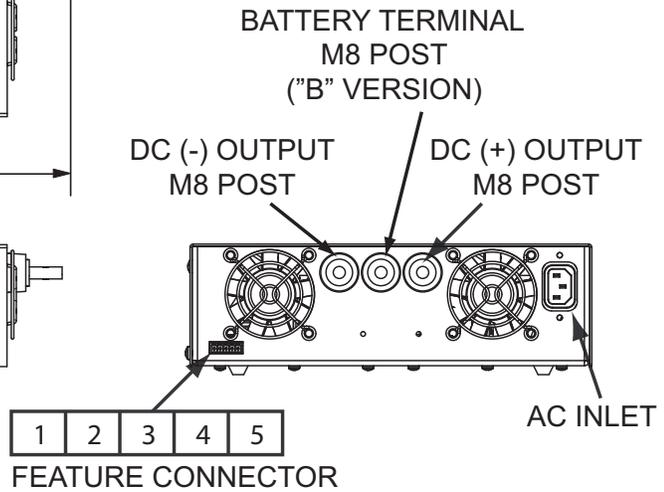
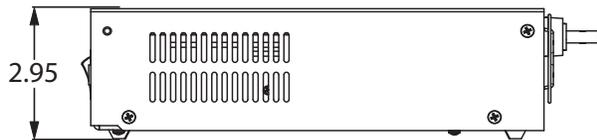
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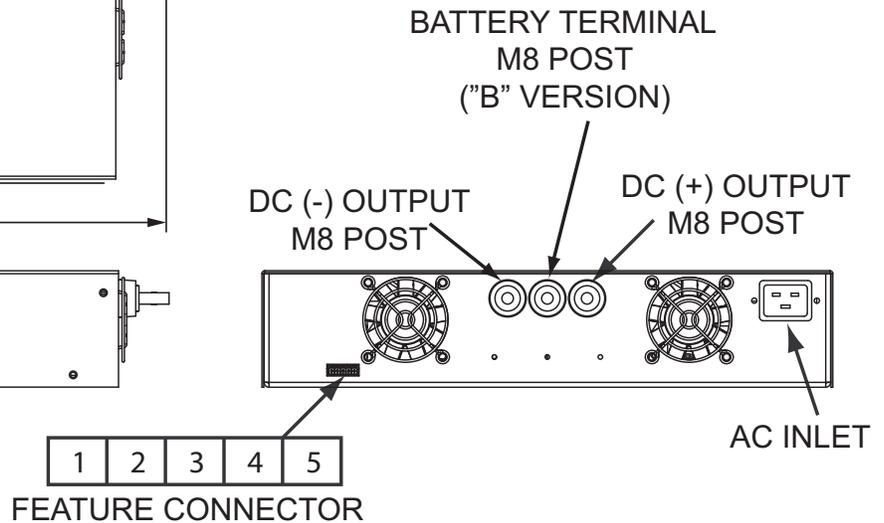
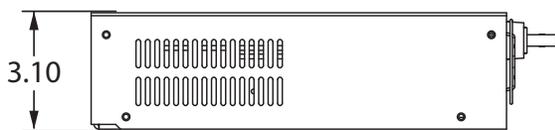
## ICT24012-80ABZ

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## ICT24012-120ABZ

(ALL DIMENSIONS IN INCHES)



## LIMITED WARRANTY

ICT Ltd. warrants to the original consumer purchaser that this product shall be in good working order, free from defects in materials and workmanship, for a period of one (1) year from the date of purchase. Should failure occur during the above stated time period, then ICT will, at its option, repair or replace this product at no additional charge except as set forth below. All parts, whether for repair or replacement, will be furnished on an exchange basis. All exchange pieces become the property of ICT. This limited warranty shall not apply if the ICT product has been damaged by unreasonable use, accident, negligence, disaster, service, or modification by anyone other than the ICT factory.

Limited warranty service is obtained by delivering the product during the above stated one (1) year warranty period to an authorized ICT dealer or ICT factory and providing proof of purchase date. If this product is delivered by mail, you will insure the product or assume risk of loss or damage in transit, and prepay shipping charges to the factory.

Every reasonable effort has been made to ensure that ICT product manuals and promotional materials accurately describe ICT product specifications and capabilities at the time of publication. However, because of ongoing improvements and updating of ICT products, ICT cannot guarantee the accuracy of printed materials after the date of publication and disclaims liability for changes, errors or omissions.

If this ICT product is not in good working order, as outlined in the above warranty, your sole remedy shall be repair or replacement as provided above. In no event will ICT be liable for any damages resulting from the use of or the inability to use the ICT product, even if an ICT employee or an authorized ICT dealer has been advised of the possibility of such damages, or for any claim by any other party.

ICT reserves the right to make changes without further notice to any products or documentation for improvement of reliability, function, or design.

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