

# SINE WAVE SERIES



## HIGH EFFICIENCY 1500 WATT INVERTERS CONVERT 12, 24 or 48VDC INPUT TO 230VAC OUTPUT FOR A VARIETY OF APPLICATION REQUIREMENTS

The new ICT Sine Wave Series is a pure sine wave 1500 watt inverter that will convert 12, 24 or 48 volts DC to ultra-clean 230 volts, 50 hertz AC output at 93% peak efficiency. ICT has applied its engineering and design expertise to create an inverter that is very compact for its power level, extremely efficient, and has a unique range of options including TCP/IP Ethernet for remote monitoring and control, transfer relay to allow switching between the inverter and AC grid or generator power, 19 inch rack mounting kit that holds one or two inverters, and DC wiring box for standalone installations where electrical code compliance is required. Every model can be ordered without the front AC outlet if only the rear AC wiring terminal is desirable for safety reasons in a rack installation.

The ICT Sine Wave Series is ideal for both standalone applications using its optional DC wiring box with electrical knockouts, or for communications, network and industrial power applications using the optional 19 inch rack-mounting kit and standard hardwire AC connectors on the back of the inverter. The idle current draw is very low, making the Sine Wave Series a good fit for applications where battery life is important, such as off-grid power systems, tower and communications sites, and renewable energy systems. With optional TCP/IP Ethernet, a user can monitor the inverter, power-cycle the output to reboot connected loads such as blade servers, or shut the inverter down remotely to conserve power with either the integrated HTML web server or SNMP protocols.

The ICT Sine Wave Series is designed and built in our own factory to ensure the highest quality control and reliability. When you need the most compact, efficient, reliable and flexible DC to AC inverter available, consider the ICT Sine Wave Series for your needs.

### Performance

The ICT Sine Wave Series features 93% peak efficiency, ultra-low noise, and low idle current draw to preserve battery life. The robust design will operate at 3000 watts of output for 2 seconds in order to start demanding loads. With one AC outlet on the front as well as AC hardwire points on the back, the Sine Wave Series is adaptable to various types of installation requirements, whether standalone or rack mounted. Both the standard Form C alarm contacts and optional TCP/IP Ethernet connection can be used to send a remote alarm signal for any type of fault, ideal for remote installations where the site is not easily accessible. The Ethernet option allows remote power-cycling of connected loads, possibly saving a call-out to the site.

### Reliability

The ICT Sine Wave Series is designed and manufactured by ICT, a leader in DC power conversion. Reliability is achieved through careful design, thorough qualification of every component used, and extensive verification testing. Every inverter is extensively tested and burned in before leaving the factory.

### Flexibility

The ICT Sine Wave Series provides an unparalleled set of options to meet a variety of application requirements.

OPTION	APPLICATION
TCP/IP Ethernet	Monitor and control inverter remotely using HTML or SNMP protocols
Transfer Relay	Automatically senses and switches between battery and AC grid power or generator
19" Rack Mount Kit	Mount 1 or 2 Sine Wave Series in 19" site equipment rack
DC Wiring Box	Comes with knockouts and fasteners for electrical wiring code installations



Power Specifications	
Continuous Output Power	1500 Watts
Surge Power (2 seconds)	3000 Watts
Peak Efficiency	93%
Input Voltage Range - 12V	10.5 - 16.0VDC
Input Voltage Range - 24V	21.0 - 32.0VDC
Input Voltage Range - 48V	42.0 - 64.0VDC
Battery Low Shutdown - 12VDC	10.5VDC
Battery Low Shutdown - 24VDC	21.0VDC
Battery Low Shutdown - 48VDC	42.0VDC
No Load Current Draw	<18 Watts
Switched Off Power Draw	<15 mW
Frequency Range	50Hz +/-0.2Hz
Output Voltage Range	230VAC +/-10VAC rms
Harmonic Distortion (typical)	<3%

Environment	
Operating Temperature Range	-30°C to +60°C Derate 1%/°C > 40°C.
Humidity	10% - 90% RH (non-cond.)
Temperature Controlled Fans	

Options	
Transfer Relay	Factory installed 7A transfer relay automatically switches between the inverter output and an AC power source such as the grid or generator. Transfer time is less than 1 cycle. User adjustable voltage trip level.
TCP/IP Ethernet	Factory installed RJ45 Ethernet port with built-in web server and intuitive graphical user interface. Allows remote monitoring of inverter including input voltage, output voltage, output power and alarm conditions. Remote management features include turning inverter output off and on, configuring Email alarm alerts, and configuring the network watchdog feature (cycles the inverter output power if network connectivity is lost). The interface is password protected. The built-in web server supports standard HTML web browsers, SNMPv1/v2 protocols, HTTP and HTTPS servers, and SMTP emails via Ethernet.
DC Wiring Box	Allows standalone installation of Sine Wave Series inverter for electrical code compliant installations. Comes with fasteners, four electrical knockouts and one control line grommet for wiring access.
Rack Mount Kit	Allows one or two Sine Wave Series inverters to be mounted in a single 2RU 19" rack space. Inverter DC input connectors and AC auxiliary output hardwire contacts are available on the back, close to where rack wiring connections are.

**Ordering Information** - All models are Configured To Order (CTO) at the factory. Options must be selected at time of ordering (except ICT-RMK4 and ICT-DCWB)

DESCRIPTION	12VDC Input	24VDC Input	48VDC Input
Sine Wave Series 1500 Watt Inverter, 230VAC output, no options installed.	ICT1500A-12SW	ICT1500A-24SW	ICT1500A-48SW
Inverter with factory-installed transfer relay	ICT1500A-12SWT	ICT1500A-24SWT	ICT1500A-48SWT
Inverter with factory-installed TCP/IP Ethernet communications port	ICT1500A-12SWC	ICT1500A-24SWC	ICT1500A-48SWC
Inverter with factory-installed transfer relay and TCP/IP Ethernet	ICT1500A-12SWTC	ICT1500A-24SWTC	ICT1500A-48SWTC
19" Rack Mount Kit, holds two Sine Wave Series inverters	← ICT-RMK4 →		
DC Wiring Junction Box with 5 electrical knockout positions	← ICT-DCWB →		
To order any model without front AC outlet installed	Add modification no. M100185 behind the model number when ordering		

Mechanical	
Dimensions (mm) L x W x H	328 x 205 x 65
Weight (kg)	3.6
DC Input Connectors - Rear	Bus bars, 8 mm holes
AC Outlet - Front	Australian 240V 10A
AC Outlet - Rear	Touch Safe Terminal Block
Remote Alarm Connectors	Terminal Block (#16 to #24 AWG)

Protection Features	
Automatic Overload Protection	
Over Temperature Shutdown	
Resettable 15A Circuit Breaker	
Remote Alarm Form C Contacts	

Standards	
Designed to EN 60950-1, CSA/UL 1741, EN 61000-6-3, FCC Class A	

Warranty	
Two years	