# INDUSTRIAL POWER SERIES

## Class I Div 2 Hazardous Location Rated DC-DC Converters

ICT INDUSTRIAL POWER SERIES FOR HAZARDOUS LOCATIONS are non-isolated DC to DC converters that are approved for use in Class I Div 2 locations such as oil fields, chemical and refinery plants, or engine compartments. They are designed for use on negative ground systems. Each converter is designed for high efficiency and long service life. The rugged case and modular design is especially well suited for durability in harsh environments where heat, humidity, or vibration are present. Standard features include current limiting, over-voltage protection, high surge capacity, easy access mounting holes, internal fuse protection, and a rugged terminal block connector.


### Designed For The Role

ICT designed and certified these converters specifically for hazardous location applications. They are convection cooled, with no fan to pull contaminants into the electronics. They are certified to CSA Standard C22.2 No. 107.1-01 (213-M1987) and UL No. 1012 (6th Ed.) 1604 (3rd Ed.)

### 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 electrical spikes and drops. Every unit is extensively tested before it leaves the factory. A rugged terminal block connector provides for strong, secure wiring connections.

### Built In Protection Features

Extra filtering, current limiting, over voltage protection, high surge capacity and an internal fuse all combine to eliminate problems due to unstable power, voltage spikes, or transients.

MODEL SELECTOR GUIDE

| Input Voltage | Output Voltage | Output Current | Model Number |
|---|---|---|---|
| 24VDC | 12VDC | 10 Amps | ICT2412-10AH |
| | | 15 Amps | ICT2412-15AH |
| | | 20 Amps | ICT2412-20AH |

**TECH NOTE** *Class 1 Div 2 converters are intended to be used in locations where fumes may be present, such as oil and gas pipelines, SCADA monitoring sites, chemical refineries or engine compartments, where one DC voltage level needs to be converted to another. For example a 24VDC engine battery may need to be converted to 12VDC to power an emission control solenoid, or a solar powered remote SCADA site may have to step 12VDC up to 24VDC to run an industrial communications radio.*

Class I Div 2

## Specifications

| | Input Voltage Range | Output Voltage | Output Current (Cont.) | Output Current (Peak) | Current Limiting | Line Regulation | Load Regulation | Output Ripple (Max) | Over-voltage Protection | Efficiency (Typical) | Fuse |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **ICT2412-10AH** | 20-30 VDC | 13.8 VDC +/- 300 mV | 10.0 Amps | 10.0 Amps | 10.5 Amps +/- 5% | 0.50% | 0.40% | 40 mV RMS | 16.0 VDC | 80% | 10 Amp |
| **ICT2412-15AH** | 20-30 VDC | 13.8 VDC +/- 300 mV | 14.0 Amps | 15.0 Amps | 16.0 Amps +/- 5% | 0.45% | 0.30% | 40 mV RMS | 16.0 VDC | 88% | 15 Amp |
| **ICT2412-20AH** | 20-30 VDC | 13.8 VDC +/- 300 mV | 20.0 Amps | 20.0 Amps | 21.0 Amps +/- 5% | 0.45% | 0.30% | 40 mV RMS | 16.0 VDC | 88% | 20 Amp |

NOTE: These converters can be mounted on a standard 19" Rackmount, ICT model number ICT-RMK2.

## Dimensions

| Length | Width | Height |
|---|---|---|
| 9.49” | 4.06” | 1.77” |

## Note On Certification

Class I Div 2

This mark means that the product is certified for use in Class I, Division 2 (Groups A, B, C, & D) hazardous locations.

Hazardous locations are areas in which a fire or an explosion could potentially occur due to the presence of gases, dust, or easily ignitable fibers or flyings within the atmosphere. These Hazardous areas are separated by class, division, and group to determine the safety level required for equipment installation.

Class I locations are areas where flammable gases may be present in sufficient quantities to create explosive or ignitable mixtures. Division 2 indicates that these conditions of Class I are only present under abnormal circumstances (eg: system breakdown). Groups A through D include acetylene, hydrogen, ethylene, and gasoline (or gases of equivalent hazard).



*The Power of Reliability*

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