

# ISOCTR SERIES IsoCenter™ Isolation Transformer System

EIA/TIA Compliant

## Features

- Provides isolation from electrical and electronic noise, while deriving a new ground
- Very high efficiency toroidal transformer - greater than 98%
- Negligible magnetic leakage allows mounting within a rack
- Integrated load center with four 20 amp circuits all on the same phase
- Eighteen receptacles for load distribution
- Voltage and Ground integrity monitoring with shutdown function
- Main circuit breaker



ISOCTR-5R-208-NS

## Architects and Engineers' Specifications

IsoCenter™ Isolation Transformer shall be a Middle Atlantic brand IsoCenter series provided in 240 and 208 input voltages and has 5KVA of power with a new separately derived neutral ground bond point. The IsoCenter unit shall be controlled by a main circuit breaker located in the front of the unit which will disconnect all primary power to the transformer. The isolation transformer shall have a Faraday shield to attenuate common-mode noise. The IsoCenter unit shall control all circuits via four 20A breakers in a load center located in the front panel and contain two indicating LEDs for ground integrity and voltage monitoring status. The monitoring circuits are equipped to shut down the receptacles if the ground or voltage is compromised. When the ground or voltage returns back to normal operation the auto function will restore the receptacles to a normal condition. The IsoCenter unit shall be provided with a 10' 30A power cord and a twist-lock molded male plug. There shall be nine specification grade gray 20 Amp duplex receptacles on the back of the unit for power distribution as well as a low impedance ground bus for rack enclosure grounding and connected equipment. The Unit shall occupy 4 rackspaces.

The IsoCenter unit shall have telescopic rear mounting brackets. The IsoCenter unit shall be NRTL Listed to UL standard 1012 in the US and to CAN/CSA C22.2#107.1 in Canada. The IsoCenter unit shall be warranted to be free from defects in material and workmanship under normal use and conditions for a period of 10 years.

### Standard Specifications

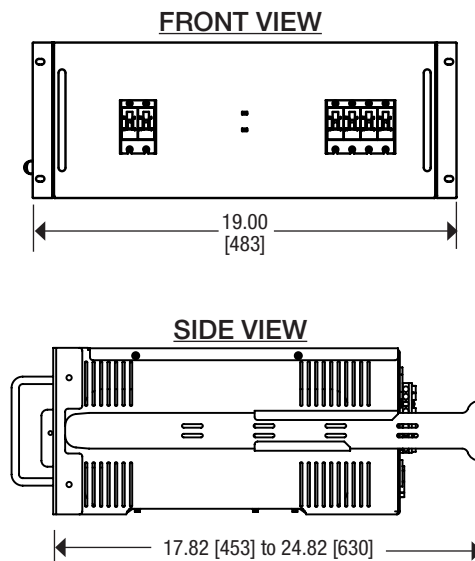
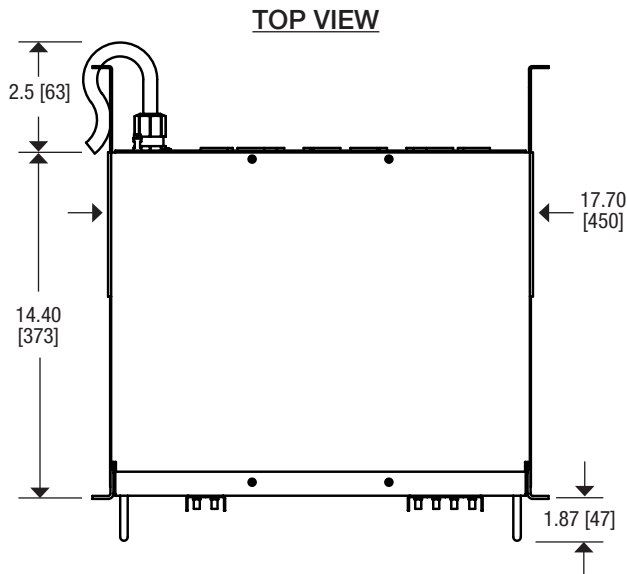
- 240 V 1 $\phi$  input model (ISOCTR-5R-240-NS)
- 208 V 1 $\phi$  input model (ISOCTR-5R-208-NS)
- Input power plug (NEMA L630P)
- Output power receptacles (NEMA 5-20R)
- 5KVA isolation transformer with a Faraday shield incorporated to attenuate common-mode noise
- Optimized for high-frequency differential-mode noise attenuation
- Inaudible acoustical noise
- Dimensions: 19.00"W x 7.00"H x 14.4"D
- Rear rack rail mounting range- 17.9" to 24.9"
- Weight- 105lbs

customizable specification clips available at [middleatlantic.com](http://middleatlantic.com)

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# IsoCenter™ Isolation Transformer System



Part #	Description
ISOCTR-5R-240-NS	5kVA Rackmount Integrated Load Center - 240 V 1 $\phi$ input
ISOCTR-5R-208-NS	5kVA Rackmount Integrated Load Center - 208 V 1 $\phi$ input

## A. Master Power 2-Pole Circuit Breaker:

Switches the main power on and off to the primary side of the isolation transformer provides 25 A at 208 V (20 A at 240) of over-current protection.

## B. Load Center Breakers:

Provides four circuits of 20 amp over current protection to the designated banks of receptacles on the back of the unit.

## C. Status Indicators:

### C1 Ground Integrity Monitor:

The "ground integrity monitor" will constantly monitor the primary ground conductor for the proper connection. A green LED will be illuminated if a proper ground is sensed. A red LED will illuminate if the ground integrity is compromised. Power to the outlets will be disconnected if the ground is not present. The unit will automatically reset and power up the load receptacles if a proper ground connection is re-established.

Green=Ground present, Red=Ground fault

### C2 Voltage Range Monitor:

The voltage range monitor circuit will be incorporated to monitor the 240/208 Volt input. A green LED will illuminate to indicate that proper voltage is being applied to the transformer primary. A red LED will illuminate if the voltage is out of range (High or Low). This monitor LED function will operate when the main circuit breaker is in the "on" position. If the "out of voltage range" is detected a signal will be sent to the output power relay to disconnect the output power. Power on will automatically be re-initiated when the voltage is "in range". A delay circuit is incorporated to allow short, out of voltage range aberrations to be ignored.

### Voltage Specs:

Operating Voltage 208V

Range: 181V to 232V (will shut down below 181V and start back up at 185V) (will shut down above 232V and start back up at 228V)

Operating Voltage 240V

Range: 210V to 266V (will shut down below 210V and start back up at 214V) (will shut down above 266V and start back up at 262V)

Green=Within acceptable range, Red=Outside acceptable range

## D. External Ground / Bonding Bus:

An external ground bus is located at the rear of the unit in order to provide a termination point for establishing a low impedance single point grounding system (SPG) for the rack enclosure and connected equipment. This bus is a seven (7) position grounding terminal strip (screw type).

## E. Transformer:

Includes a Toroid isolation transformer, with a 98% high efficiency type with a proprietary alloy core, a single 120V secondary winding (all circuits on the same phase) with a Faraday shield.

## F. Chassis:

The IsoCenter system is housed in a rack mountable steel enclosure with a built in rear rail telescoping support. Overall dimensions: 7" high (4RU), 14.4" deep, 19" wide at the mounting ears and 17.5" wide at the chassis body, enclosure is black powder coat.

## G. Power In-feed:

Feeder circuit is a pluggable inlet. The unit is fed via a fixed molded "twist-lock" male plug (NEMA configuration L6-30P) and 10' long power cord.

## H. Power output Receptacles:

The receptacle branch circuits are made up of eighteen 20 A specification grade gray receptacles, NEMA configuration is 5-20R. The receptacle labels are laser engraved indicating the circuit identification and bank arrangement.

## I. Maximum Load:

The maximum load shall not exceed 41.66A @ 120 V (5000 watts) continuous. A de-rating factor of 80% may be required under certain conditions of installation and/or NRTL Requirements.

## J: Controls:

All control circuits and relays are grouped onto two printed circuit boards with terminal strip connections for all wiring points

## K: Listings:

The IsoCenter unit shall be NRTL Listed to UL standard 1012 in the US and to CAN/CSA C22.2#107.1 in Canada.

