

COREPOWER®

1434

Regulated Power Conversion Unit (RPCU)

The COREPOWER® Regulated Power Conversion Unit performs the function of a traditional Transformer Rectifier Unit while leveraging solid-state technology to provide dramatic improvements in performance ultimately providing more power with significantly less weight. This unit takes variable frequency 3-phase 115VAC, converts it to regulated 28VDC, and is available in 250 Amp and 150 Amp output configurations.



Features

- Maintains tight output regulation over full AC voltage range and during AC power line transients
- High efficiency ~ 93%
- Low current distortion ~ 2% THD
- Near unity power factor at full load ~ 0.99
- Power line isolated
- Overload operation
 - 150% for 2 minutes
 - 200% for 5 seconds
- Cooling options:
 - Built-in cooling fan (1434-10)
 - Passive cooling (1434-20)
- Full performance from:
 - -55°C to +70°C (1434-10)
 - -40°C to +55°C (1434-20)
- ATR rack mount or mounting flange versions available
- BIT with output current and fault reporting
- High reliability MTBF of 50,000 to 65,000 hours (environment dependent)
- Circular connectors

Power

Input: 115VAC, 324–800Hz, 3-phase

Output: Regulated 28VDC \pm 0.3VDC

- 250 Amps continuous (1434-10)
- 150 Amps continuous (1434-20)

Safety

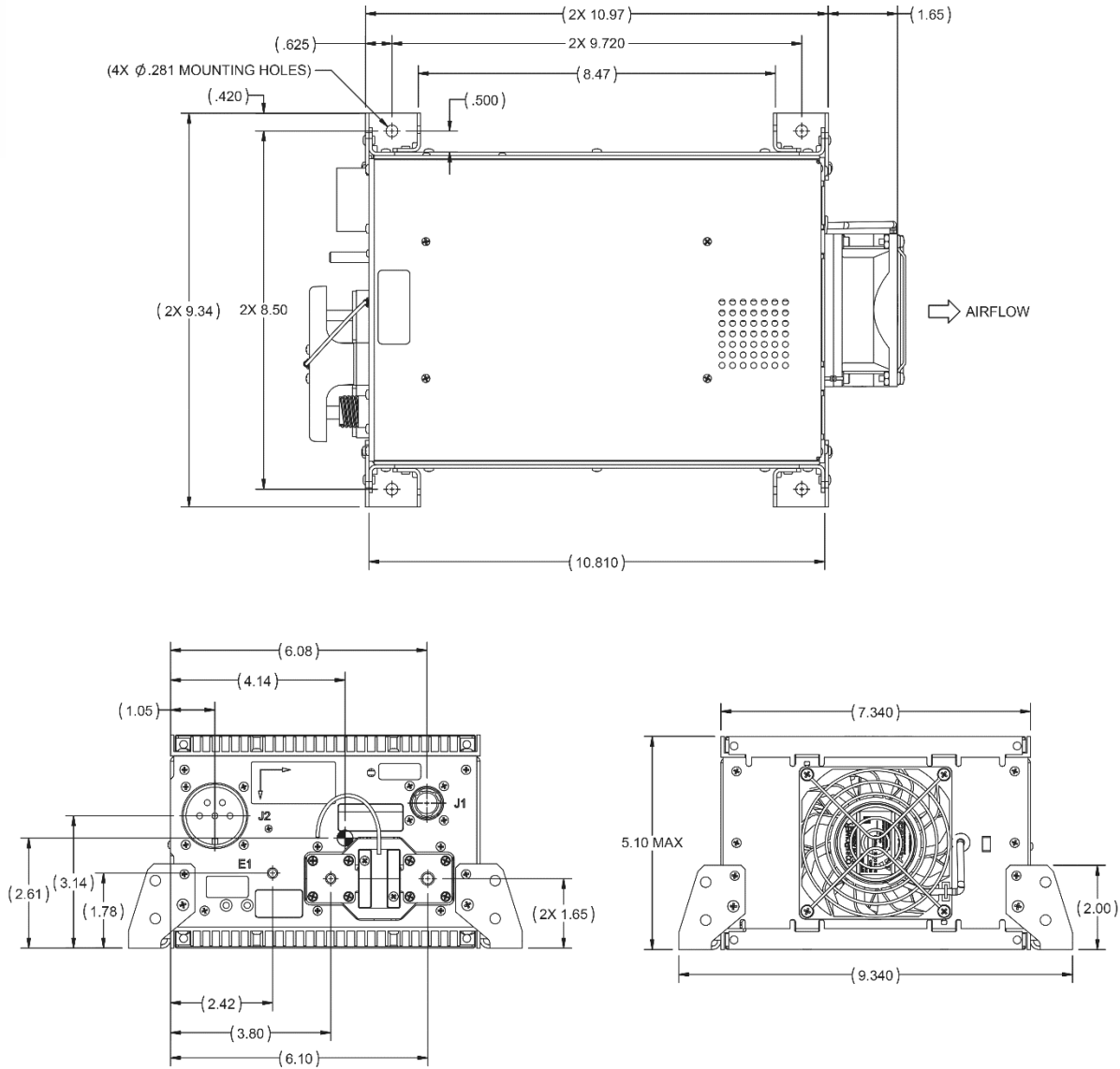
- Redundant over-voltage protections
- Over-temperature protection
- Over-current protection

KEY BENEFITS

- Significant weight savings over traditional Transformer Rectifier Units
- Regulated high power quality reduces wire size and weight
- High efficiency and low distortion means greater power yield versus conventional units
- Fan-less cooling (1434-20) provides silent operation

Qualification

- RTCA/DO-160G
- RTCA/DO-254 DAL B



Size

Fits within 3/4 ATR Short (if rack mounted)

1434-10: 7.50 in W x 12.82 in L x 5.1 in H
(190.5 mm W x 325.5 mm L x 129.5 mm H)

1434-20: 7.50 in W x 12.63 in L x 5.1 in H
(190.5 mm W x 320.5 mm L x 129.5 mm H)

Weight

1434-10: 16.55 lbs (7.5 kg)

1434-20: 15.51 lbs (7.0 kg)

CONTACT INFO

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