

Datron RHINO

All Weather & Environmentally Controlled
Transportable Field Equipment Shelters

TACTICAL
NETWORKING



DATRON RHINO

The Datron RHINO Environmental Equipment Enclosure is an all-weather, environmentally-controlled equipment shelter designed to transport and support reliable and safe operation of Commercial-Off-The-Shelf (COTS) electronic equipment in nearly any environmental condition.

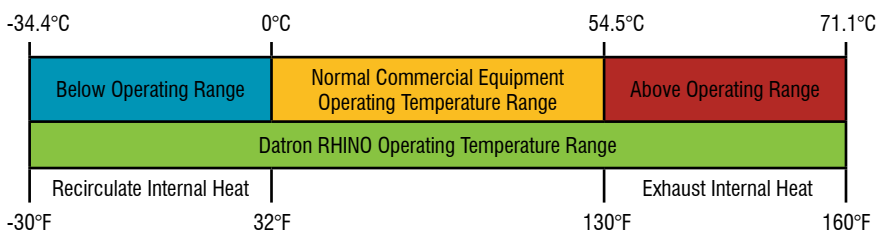
Built around the rugged, field-proven Hardigg™ MAC Rack transportable case, an industrial grade environmental processor and a state-of-the-art thermal barrier system, the RHINO provides an economical, all-weather platform for IT and wireless equipment.

Use the Datron RHINO to pre-stage system solutions and rapidly respond to critical deployment requirements anytime, anywhere.

THEORY OF OPERATION

The Datron RHINO employs multiple active and passive thermal dissipation and barrier subsystem components to maintain a safe and reliable operating environment for the enclosed electronics it protects.

1. The exterior of the Datron RHINO uses a highly reflective proprietary transparent paint. This first line of defense reflects up to 90% of the sun's heat.
2. Internal space avionics-type Aerogel absorbs and reflects heat transmitted through the RHINO's tough, durable skin. Together with the reflective paint, the Datron RHINO blocks upwards of 97% of the sun's radiant energy from reaching internal equipment.
3. The RHINO's environmental computer monitors both internal and external temperatures to control the powerful suite of intake/exhaust fan assemblies and dynamically control internal temperature.
4. In a cold environment (<35° F or 1.6° C) the system is reversed, and the environmental computer controls the recirculation of the internally generated heat, thereby maintaining a safe internal operating range.



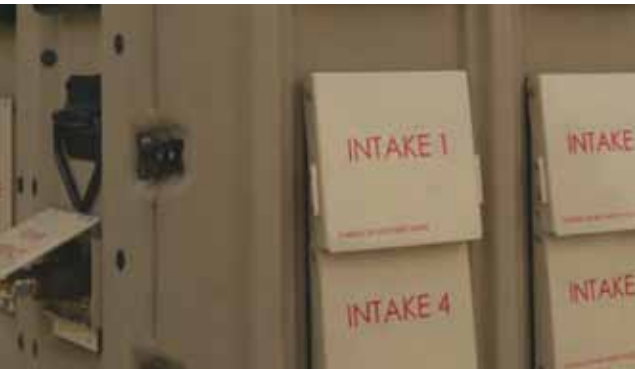
- Enables operation of high-value communications and IT equipment in extreme temperatures and harsh weather conditions
- Provide continuous, redundant, uninterrupted support from multiple power sources (AC, DC, battery, solar, vehicular)
- Remotely monitor and maintain performance and operation via a wide range of wired and wireless networks
- Minimize cost of deployment and operation by pre-staging and shipping a completed, tested solution
- Durable Hardigg™ MAC rack mil-spec quality case for proven ruggedness in extremes of rain, sand, wind, shock, temperature and internal load
- Industrial quality processor-controlled 2nd order internal cooling system
- State-of-the-art ultra-efficient Aerogel internal insulation system
- Multiple AC and/or DC backup options and configurations to maintain continuous operation
- Rugged communications interfaces (USB, Ethernet, serial, and RF)
- Network-ready full TCP/IP connectivity for local and remote site monitoring control and alarm status
- Rugged and weatherproof external-to-internal equipment interfaces
- RF/antenna panel option supports up to four (4) HF-to-microwave external wireless connectors



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RHINO BOX®

The durable 14 U Hardigg™ MAC case is mil-spec-tested for rain, sand, wind, shock and temperature extremes to guarantee durability and integrity in protecting your specialized equipment.

Eight independently-controlled, high-reliability 183m³/hour high-flow fans and calibrated silicon temperature sensors monitor ambient air intake, internal equipment heat rise and exhaust temperature.



Stand Alone Solar Powered Station

Datron World Communications, Inc.

3055 Enterprise Ct.

Vista, CA, USA 92081

Tel: +1-760-597-1500

Fax: +1-760-597-1510

E-mail: solutions@dtwc.com

Web: <http://www.dtwc.com>



Certification # 08,347.1
ISO 9001:2008
Registered Quality System
Datron World Communications, Inc.

* Subject to export regulations.

Rhino Box® is a trademark of Metric Systems Corporation.

Hardigg™ is a registered and/or unregistered trademark of Pelican Products, Inc., its affiliates or subsidiaries.

Specifications subject to change without notice - rev 120301
Made in the USA

- Standard GFI safety protection system protects people and property
- Rugged external AC (110-240) and DC (12 or 24 VDC) electrical power interfaces
- Integrated 600 or 1000 watt pure sine wave AC inverter options
- External USB Ethernet network maintenance port
- Internal case illumination system options (select from white, red, or blue)
- Free case color selection (ten options available)
- Supports up to 200 lbs. internal equipment load

	With Datron RHINO	Without Datron RHINO
AMBIENT TEMP:	115°F	115°F
GROUND TEMP:	140°F	140°F
CASE TEMP:	150°+F	150°+F
INTERNAL TEMP:	< 117°+F	160°+F

TECHNICAL SPECIFICATIONS

- STANDARD ENCLOSURES Available in 9U, 11U, 12U, 14U, and 21U
 - OVERALL SIZE (9U) 23" w x 30" h x 27" l
Width 58.4 cm, Height 76.2 cm, Length 68.6 cm
 - EXTERNAL OPERATING TEMPERATURE -22° F (-34° C) TO 160° F (70° C)
 - OPERATING HUMIDITY 100%
 - RAINFALL MIL-STD-810F – 4 inches per hour per side
 - SOLAR RADIATION Free standing at any latitude
 - SYSTEM RESPONSE TIME < 5 minutes @ 1000 Watt equipment load internal temperature reduced to 5-6 degrees of ambient intake air temperature
 - TOTAL SYSTEM INTAKE AND EXHAUST AIR MOVEMENT CAPACITY 864 CFM or 1,464 m³/hour
 - CONTROL OPTIONS Automatic closed loop or manual user control
 - SYSTEM POWER OPTIONS
 - 110 VAC 60 HZ
 - 110 - 240 VAC 50-60 HZ
 - 12 VDC @ 75 AMP CAPACITY
 - 24 VDC @ 50 AMP CAPACITY
 - INTERNAL INVERTER AC POWER OPTIONS
Operating external air temperature less than 120° F – 48° C
 - 600 WATT 12 VDC TO 110 VAC 60 HZ
 - 600 WATT 12 VDC TO 220 VAC 50 HZ
 - 600 WATT 24 VDC TO 110 VAC 60 HZ
 - 600 WATT 24 VDC TO 220 VAC 50 HZ
- Note AC Voltage Pure Sine Wave



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