iFortress: Modular and Scalable Data Centers

The Modular MCF (Mission Critical Facility) iFortress™ is a panelized, construction technology that is used to establish the most energy-efficient data centers while mitigating disastrous risk — including fire, smoke, water, hurricanes, EMF, RFI, break-ins, explosions and the increasingly high cost of energy.

iFortress is a scalable, re-useable, re-locatable, LEED–compliant energy– Efficient and “Green” (for example, fabricated with recycled and recyclable materials: no dust in the creation of, or in the field assembly of, the panels) panel-based system that can be rapidly field-assembled and joined with high –tension interlocking devices every 2 feet’ on center. iFortress has a core that is comprised of multiple layers of special-purpose materials: PolyFortrexx MT (Multi-Threat) Core™. The entire system of floor, wall, and ceiling panels and all Penetration Management Devices (PMD’s)— including the door and cable portals — is designed to provide a hermetically sealed, controlled environment that fully facilitates energy-efficiency and “best practices”. This system standardizes facilities using a repeatable set of structural panels that has been engineered, tested, and rated as a full assembly — designed to protect against an extensive and broad range of threats. The entire enclosure is an air tight, water-tight, fire/thermal resistant, highly insulated (R22) enclosure.

iFortress can be deployed and operational in significantly less time than a conventional build — resulting in — a quicker path to revenue/savings: providing a reduction in energy cost; generating turn-key facilities that can be leased, creating tax benefits of a five-year depreciation — it has been definitively proven that iFortress is the most cost-effective and beneficial option available for securing, owning, and operating a mission-critical facility.

System Benefits:

- **Energy Efficient**: Highly Insulated environment allows exceptional HVAC efficiency. High white reflective walls allow for a large reduction in lighting requirements.
- **Modular**: Can be easily scaled to fit any size requirement.
- **Secure**: Structurally, hydro-dynamically, and environmentally proven and secure: fire/thermal-resistant.
- **Sustainable and Mobile**: Assemblies can be easily disassembled, moved, and reused. Military & CONEX Applications.
- **Rapid Deployment**: Creates drastic reduction in path to revenue and/or savings.
- **Repeatable Standards**: Provides consistent deliverable, regardless of location or environment.
- **Financially Sound** – Turn-key facilities can be leased as an operating expense, with shortened depreciation schedules vs the capital expense of conventional construction, with twenty-year amortization.

Critical Power Group is a trained, authorized, manufacturers representative for iFortress. For more detailed information, scan this QR code to transfer directly to our iFortress Modular MCF website page or go to http://criticalpowergroup.com/products/scalable-scif-modular-mcf/
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Integrated Facility Specifications:

Structural IBC 2006 Exterior Building Code
- Roof Load - Minimum 40 Lb/Ft²
- Wind Load - Minimum 2 hour 75 MPH sustained force
- Bending Stresses - Minimum 13,000 Lb/ln²
- Seismic - Site Class D
- Sound Transfer Classification — Minimum STC 45 (All Groups, 705 & 705.1)
- DCID 6/9 Compliant for Sensitive Compartmented Information Facilities (SCIF) & Tempest Rated

Fire/Thermal Certifications
- 90 Minute Minimum Fully Rated Assembly in Accordance with ASTM E119
- 90 Minute Rated Door in Accordance with NFPA 252
- Minimum R22 rating on the completely assembles facility

Hydro-dynamics/Permeability
- Airtight - NFPA 2001: Time (Size Dependent) Annually Recertified
- Encapsulation - ASTM E1795-97*
- Mildew Resistant - ASTM D3273/3274*
- Permeability - ASTM D 1653*
- Weathering - ASTM G53/B 117 – Federal TT-C-555B*
- Humidity - ASTM D 4585 *
- Hose Stream Test—ASTM E119

Environmental
- Manufactured with recycled and recyclable materials, can be disassembled, relocated, and re-used
- LEED Component Contributor - Innovation Points, Green, Reduces Operating Costs, and offers non-invasive field assembly (i.e. no dust impact during factory fabrication, as well as field assembly)
- Reduction of utility bills from 20% - 40% due to high insulation factor
- High Reflectance White - Minimum 85% Reflectance Quality

Warranty
- Conditional Lifetime - Annually Recertified by Factory Authorized Personnel

Rapid Deployment:
- End of Day One: MCF 2800 Sq Ft
- End of Day Four: MCF 2800 Sq Ft
- End of Day Six: MCF 2800 Sq Ft

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