



NESSEL V9 Data Sheet

Overview

The Nessel V9 is a spacious, family-sized modular housing solution engineered for **rapid deployment** in disaster recovery, emergency housing scenarios, and transitional housing projects. With its **advanced technology, structural resilience, and premium interior design**, the V9 is tailored to meet the needs of families and larger groups, providing safety, comfort, and long-term durability in challenging environments.

Specifications

General Dimensions

- **Length:** 37.4 ft
- **Width:** 11.2 ft
- **Height:** 11.2 ft
- **Interior Area:** 417.6 sq. ft.
- **Weight:** 10 tons
- **Sleeping Capacity:** Up to 4 occupants

Power Requirements

- **Standard Power Demand:** 19 kW
- **With Heated Floor Option:** 24 kW
- **Electrical Supply:** Dual supply: 240V and 120V connections with optional solar panel integration
- **Advanced Electrical Panel:**
 - Surge-protected and overload-resistant
 - Dedicated breakers for:
 - Three mini-split HVAC systems
 - Lighting and power outlets



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- Kitchen and bathroom appliances
 - Smart home features (e.g., Alexa integration)

Structural Resilience

- **Wind Resistance:** Withstands sustained winds of 156+ mph (Category 5 hurricane equivalent)
- **Earthquake Resistance:** Rated for seismic activity up to **10.0 magnitude earthquakes**, ensuring stability in high-risk seismic zones
- **Fire Resistance:**
 - **Exterior:** Flameproof 3mm fluorocarbon aluminum cladding provides superior weather resistance and thermal efficiency
 - **Frame:** Reinforced galvanized steel exceeds 300% of manufactured structural requirements
 - **Door:** Heavy-duty fire-rated steel door with four deadbolts and four-barrel hinges
- **Corrosion Resistance:** Rustproof materials ensure longevity in humid, coastal, or flood-prone environments

Insulation and Extreme Weather Resilience

- **Insulation:**
 - Polyurethane foam and XPS boards for superior energy efficiency and thermal performance
 - Interior flameproof wood panels rated for **minimum one-hour fire resistance**
- **Temperature Range:** Fully operational from **-40°F to 160°F**, providing comfort in extreme climates
- **Weatherproofing:**
 - UV-resistant exterior cladding prevents degradation from prolonged sun exposure
 - Seamless construction resists water ingress and protects against moisture buildup



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Climate Control

- **Three Mini-Split HVAC Systems:**
 - Zonal climate control allows efficient heating and cooling throughout the unit
 - Advanced filtration systems ensure clean air quality, ideal for post-disaster environments
 - HVAC systems are encased in fire-resistant galvanized steel compartments for durability and safety

Interior Features

- **Open Floor Plan:** Maximizes functionality and comfort, with designated areas for living, dining, sleeping, and storage
- **Premium Interior Design:**
 - Durable yet elegant finishes suitable for transitional or permanent use
 - Configurable pre-installed furniture options for immediate usability
- **Alexa Voice Command Integration:**
 - Full smart home functionality, including:
 - Heating and cooling systems
 - Lighting and curtain controls
 - Appliance operations
 - Enhances convenience and accessibility, especially for individuals recovering from trauma or with disabilities



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Utility Integration

- **Rapid Utility Hookups:**
 - Pre-installed water, sewage, and electrical connections for quick on-site setup
- **Off-Grid Ready:**
 - Internal cavity supports:
 - Solar panel integration with renewable energy storage
 - Battery systems for off-grid power solutions
- **Sanitation:**
 - Full bathroom with heated shower, fire-rated toilet, and sink
 - Optional UL-approved incinerator toilet for septic-free operation in remote areas

Deployment

- **Setup Time:** Fully operational in **2–3 hours** using crane-assisted placement
- **Foundation Options:**
 - Ground placement for emergency scenarios
 - Compatible with permanent solutions, including:
 - Concrete slabs
 - Piers
 - Helix anchors

Certifications

- **ICC NTA Certification:** In progress; includes factory and unit inspections to meet international standards
- **A-Rated Fire Safety Certification:** Ensures compliance with international fire safety protocols



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- **California Code Compliance:**
 - Fully compliant with **Government Code Section 8698.4** and **SB 1395**

Key Advantages Over E3

- **Larger Living Space:** At 417.6 sq. ft., the V9 is double the size of the E3, accommodating up to four occupants
- **Enhanced HVAC System:** Three-zoned mini-split units provide precise temperature control
- **Expanded Utility Integration:** Designed for higher energy loads and additional appliances, such as dishwashers and laundry systems

Optional Features and Customization

- **Accessibility Upgrades:**
 - ADA-compliant features include ramps, roll-in showers, and widened doorways
- **Custom Branding:**
 - Exterior logo placement and custom paint finishes for government or enterprise-specific needs
- **Luxury Upgrades:**
 - Enhanced materials and appliances for private enterprise or high-income housing applications
- **A-Rated Fire Safety Certification:** Ensures compliance with international fire safety protocols
- **California Code Compliance:**
 - Fully compliant with **Government Code Section 8698.4** and **SB 1395**