

DISCOVER AXION HAUS



An International Team. Local Expertise.

Axion Haus is an international team of engineers and architects that blends the precision of German engineering with a deep understanding of American building standards. We design homes that meet strict technical requirements while delivering unrivaled comfort and safetywhether in the hot, humid climate of Florida or the harsh winters of New York and Pennsylvania. And while we highlight these regions, our solutions are perfectly adaptable to many other climates and locations across the United States.









Our offering is based on advanced passive technologies and certified construction methods. As a result:

- WCompliant with all state building codes, including Florida & IBC
- LEED & Passive House certified
- Fast prefabrication and logistics = shorter build time









TECHNOLOGY BUILT FOR EVERY CLIMATE

Advanced Structure. Real Savings.

Our advanced building system ensures every Axion Haus home stands strong in extreme U.S. climates. At the core: a coldformed steel frameengineered for strength and durability.

With multilayer insulation and triplepane windows surpassing all standard of airtightness and energy efficiency standards, you gain energy savings, soundproofing, and yearround indoor comfort.





Air recovery and solarready options make every project future-proof and sustainable.

- Cold-formed steel frame unmatched strength and reliability. •
- Multi-layer insulation maximum energy efficiency,
- Triple-glazed windows superior airtightness and comfort.
- **Air recovery system** delivering a healthy, fresh indoor climate,
- PV-ready prepared for solar energy installation.







Certified Quality. International Standards - Cold Formed Steel

The **FRAMECAD** system meets global building standards:

- ICC-ESR 2361 (USA) full U.S. building code compliance,
- **CE** EU compliance with safety, health and environmental directives,
- **Intertek** CCRR-0130 certified for structural and fire-rated assemblies,
- UL the most recognized and trusted certification mark in the U.S.

















STYLE, COMFORT & SECURITY



A home that looks great – and thinks with you.

Axion Haus Axion Haus homes embody the essence of modern design, unparalleled comfort, and top-tier security. Premium finishes such as Italian tiles, natural wood, and low-VOC materials are seamlessly integrated with intelligent control systems that allow remote management of lighting and climate.

Security isn't a promise – it's engineered:

- Fire-, mold-, and termiteresistant steel framing,
- Reinforced entry doors and smart surveillance systems,
- Options for backup power, hurricane shutters, and battery storage.









A home that gives you comfort and peace of mind. Every day.

Feature	Axion Haus
Security	Steel frame + smart alarm, backup-ready options
Air Quality	HRV, fresh air, balanced humidity
Smart Living	Mobile app, automation, remote control
Design	Personalized aesthetics, premium interior finishes
Eco-Friendly	Low-VOC paints, energy savings, PV-ready for solar power







Our multilayered system provides comfort in Florida heat and Northern winters alike.

Energy-Efficient Wall: 12,45", U-value: < R-40

Thermal protection

U-value: < 0.025 Btu/(hr·ft².°F) ≈ **R-40**

U-value: < ≈ R-38 excellent insufficient

Moisture proofing

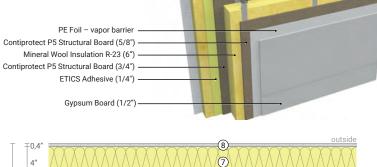
- Moisture reserve: 0.39 oz/ft²-year
- excellent moisture dissipation
- breathable wall system, mold-resistant and vapor-permeable

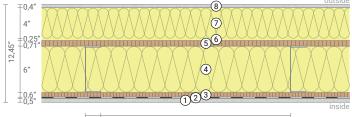


Heat protection

Thermal Mass (Interior): 10.3 Btu/(ft2.°F) Phase Shift (Thermal Delay): 11.5 hours Heat Wave Damping: 65%







- (1) Gypsum board (1/2")
- PE Foil vapor barrie
- (3) Contiprotect P5 Structural Board (5/8")-moisture-resistant (7) Mineral Wool Insulation R-15 (4")

Exterior Cement Plaster (0.4")

Mineral Wool Insulation R-15 (4") Axion Haus C-Profil (6"x2")

- (4) Mineral Wool Insulation R-23 (6")
- (5) Contiprotect P5 Structural Board (3/4") moisture-resistant
- (6) ETICS Adhesive (1/4")
- (8) Exterior Cement Plaster (0.4")

Innovation + Durability + Climate Adaptation

Why choose Axion Haus?

Our homes are not prefab boxes. They are precisionengineered cold-formed steel structures, made with the world's most advanced FrameCad technology.

Engineered for U.S. climate zones:

- Moisture & mold resistance
- Hurricane-tested cold-formed steel
- Triple insulation, RAL airtightness
- PV-ready + air recovery

List of 5 key benefits:

- Hurricane-Resistant: A robust steel construction and meticulously selected materials protect against Florida's extreme weather.
- **Ultra Energy-Efficiency**: Cooling and heating costs are reduced by up to 90%.
- Smart Home & Air Recovery: Advanced systems ensure a healthy and comfortable indoor climate.
- German Precision: Adherence to RAL standards along with compliance to the Florida Building Code and IBC guarantees durability and airtightness.
- Design Flexibility: Solutions tailored to local regul-
- ations, diverse climates, and individual requirements.











