



ABB ReliaHome™ Smart Panel

Intelligent Energy Management

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01 "Use of energy explained. Energy use in homes", U.S. Energy Information Administration, December 2023

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02 "Households and the Environment Survey: Energy use, 2021", Statistics Canada, March 2024

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03 "Energy Use in the Residential Sector", Government of Canada

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04 "U.S. energy consumption increases between 0% and 15% by 2050", U.S. Energy Information Administration, April 2023

Homes in North America represent a substantial demand on energy resources, with residential consumption making up 44% of total usage in the United States⁰¹ and almost 46% in Canada^{02/03}. Projections indicate a significant increase in U.S. residential energy demand, potentially rising by 14% to 22% between 2022 and 2050⁰⁴. This surge creates a prime opportunity for energy-efficient home renovations – such as the addition of electrified appliances and energy storage systems.

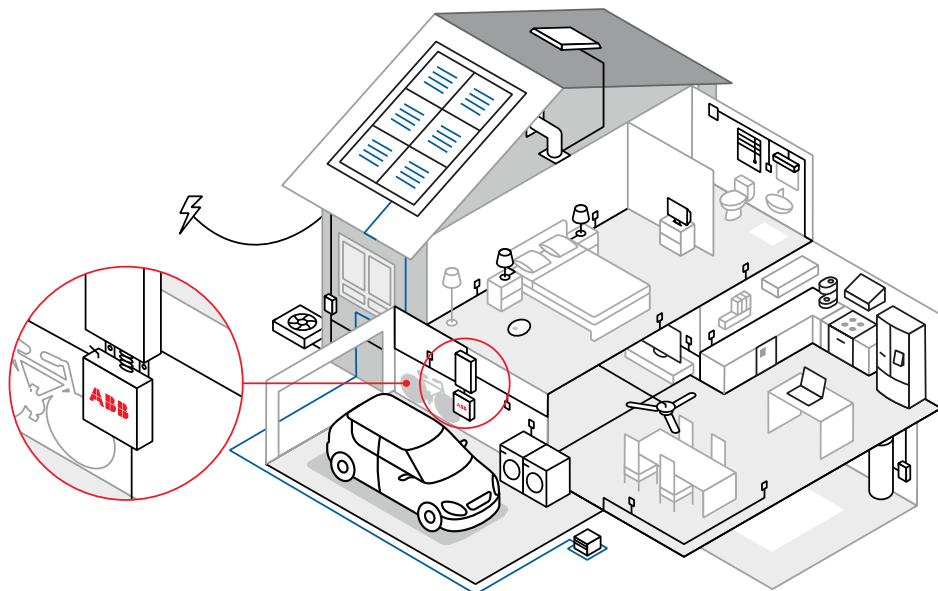
The ABB ReliaHome Smart Panel directly addresses this opportunity, facilitating the transition to efficient, all-electric homes and maximizing the benefits of solar and storage by extending battery runtime, all while offering enhanced energy transparency and control.

Enabling smarter homes through reliable load management

At ABB, we're committed to electrifying the future of housing. Our latest milestone, the ABB ReliaHome Smart Panel, supports the energy transition by evolving the home's traditional electrical distribution. Designed to optimize and dynamically control the home's highest consumption loads, the smart panel is system agnostic and can be used in new single-family homes or renovation projects next to the existing load center.

The ReliaHome Smart Panel is an excellent choice for those wanting to avoid costly service or panel upgrades when adding large electrical loads. Using intelligent energy management software, the Smart Panel adapts to the homes' energy needs and intelligently manages circuits to stay within electrical limits. Appliances such as electric vehicle chargers, heat pumps, and induction ovens can all be monitored and controlled at the touch of a finger using a phone or tablet.

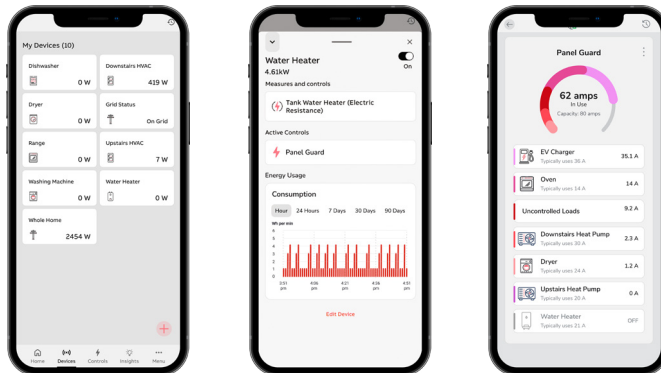
This innovative technology is also an ideal solution for homeowners with solar who aspire to optimize their battery storage and maximize its runtime when off-grid. Universally compatible with major battery brands, the ReliaHome Smart Panel offers both real-time and historical consumption data and customizable circuit scheduling and through its intuitive app.



One versatile product for all residential load management needs

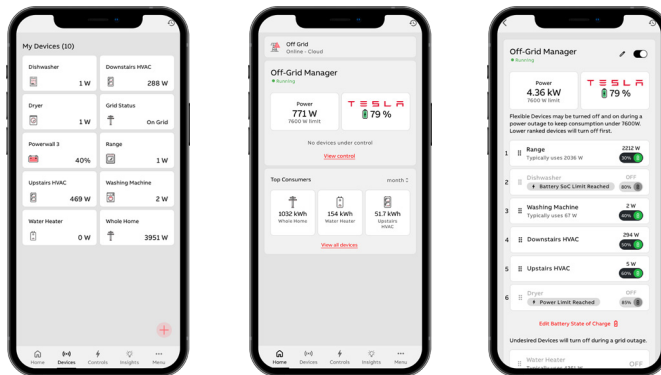
Service panel upgrade avoidance

Intelligent and dependable, the ReliaHome Smart Panel uses Panel Guard technology to manage the home's circuits and stay within the home's service limit when adding electric appliances. Cost-effective and simple to install, homeowners can monitor energy consumption in real time, set schedules and control circuits on demand.

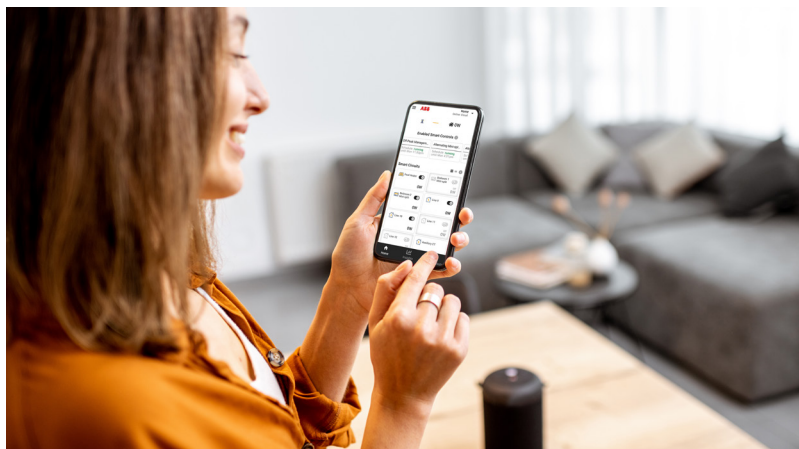


Backup power optimization

The ReliaHome Smart Panel delivers the only universally compatible, retrofit-ready energy management system that unlocks home backup and provides complete energy control. With state of charge integration with major battery manufacturers, the Off-Grid Manager feature automatically adapts to manage energy needs, helping to optimize battery use and avoid overload even during a grid outage when Wi-Fi is down.



Homeowners can set schedules to shift consumption during peak times or customize it on the go.



FEATURES AT A GLANCE

- Whole-home monitoring and automation
- Hardware-agnostic platform works with any load center, inverter or battery backup system
- Circuit level measurement and control
- Up to 12 circuits of load management
- Stackable for additional load control
- Pre-wired and labeled for straightforward installation
- Designed, engineered and assembled in Virginia
- U.S.- based customer support



ORDERING DATA

Description	Material #	ABB Product ID
ReliaHome Smart Panel	ABBHEM2	1TQJ102110A1004
ReliaHome Smart Panel Temp Power Kit ⁽¹⁾	ABBHEM1TPUK	1TQJ103000E1003
ReliaHome Smart Panel Spare 200A CTs ⁽²⁾	ABBHEM1CT	1TQJ103000E1001

(1) If the smart panel is being used in conjunction with backup storage and configured to automatically shed loads exceeding backup capacity following a grid outage, a Temporary Power Unit (ABBHEM1TPUK) accessory device may be required if the transfer to backup power takes more than 70 ms. Without it, the smart panel could lose power before the backup transfer completes, and circuit disconnection would be delayed until after the smart panel powers on with the backup source.

(2) The smart panel is equipped with leads for the main CTs as well as leads for an optional set of auxiliary CTs (ABBHEM1CT) which is available for purchase from ABB.



Additional resources

More information about the ReliaHome Smart Panel, including technical specifications, install manuals, FAQs and support articles, can be found at solutions.abb.com/reliahome-smartpanel.



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