BUYLOG SECTION 3

Residential smart devices

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

Section Updated 12/2025

Table of contents

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

ReliaHome Smart Panel

Table of contents

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

ReliaHome Smart Panel

Product overview

Product overview

ABB is committed to electrifying the future of housing. The 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 through its intuitive app. For additional information on the app, see page 3-11.

Features

- Add-on for existing systems
- 12 circuit load management
- 1P and 2P wiring
- Surface and flush mountable
- Includes 200A CT kit
- Patented, UL/CSA Listed
- Application works with IOS, Android, and Web devices

Description	Material #	ABB Product ID
ReliaHome™ Smart Panel - indoor	ABBHEM2	1TQJ102110A1004
ReliaHome™ Smart Panel - outdoor	ABBHEM2N3R	1TQJ102110A1005

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

ReliaHome Smart Panel

Technical specifications

Installation	
Type	Wall-mount; Indoor only
	Surface-mount; Indoor or outdoor
Installer qualification	Local electrical codes and certified installer
Typical time required	1.5–4 hours
Temperature	0°C to 60°C (32°F to 140°F)
Humidity	< 80% RH (non-condensing)
Altitude	< 3000 m
Dimensions	44.6 cm × 44.6 cm × 10.1 cm (17.5 in × 17.5 in × 4.0 in)
Weight	12 kg (27 lb)
Conductor length	All extend 76 cm (30 in) beyond conduit end
Additional units	One ReliaHome Smart Panel per electrical panel

Electrical system	
AC voltage	120/240 VAC split-phase, 50–60Hz
Supply breaker rating	15–20 A

Connectivity and security	
Connection options	Wi-Fi or Ethernet
Internet bandwidth	Approx. 0.02 Mbps
Wi-Fi protocols	802.11 b/g/n, 2.4 GHz
Wi-Fi encryption	WPA and WPA2 methods
Ethernet port	1×RJ-45 (10/100/1000 Mbps)
IP addressing	Dynamic (DHCP)
Cryptographic system	TLS 1.2 (minimum)
Firewall outbound access required	Ports 53, 123, 443–444, and 50050–50059
Supply amperage	0.4A (maximum)
Standby power	6W
Voltage fluctuations	+- 10% from nominal
TPU (optional)	Load shedding supports toggling all lines a minimum of once during a power outage

Managed loads	
Max. load breaker ratings up to 50 °C	60 A per line × 6 lines and 30 A per line × 6 lines
Load breaker ratings at 50-60 °C	50 A per line × 6 lines and 20 A per line × 6 lines
Breaker types	Single pole (1 line) and dual pole (2 lines)

Measurement	
Accuracy	±0.5% of Load
Monitoring type	Separate measurement of lines (including dual-pole)
Split-phase voltage	Separate line-to-neutral potential measurement
Current transformers	2 split-core 200 A included; up to 2 additional available
Measurement category	Loads: CAT III (mains distr.) GDC: CAT IV (mains source)

Support and compliance	
Warranty	10-year limited
Compatible equipment	All makes/models/brands of electrical panels and breakers
Safety compliance	UL 916; UL and CSA C22.2: 61010-1 and 61010-2-030,
Radiofrequency compliance	47 CFR 15 (FCC) RSS-Gen and RSP-100 (ISED)

User Access	
Local network	Live data and controls
Applications	iOS, Android, and Web
Data	1-second granularity (averaged from 16 kHz)
Load controls	Manually/directly, automated schedules, and automated modes

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

ReliaHome Smart Panel
Accessories

If the ABBHEM2 is being used for battery backup to shed loads exceeding capacity following a grid outage, a Temporary Power Unit (ABBHEM1TPUK) accessory device may be required in the rare instance that the transfer to backup power takes more than 70 ms. Without the ABBHEM1TPUK, 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.

The smart panel is shipped with a pair of 200 A main CTs. Optional auxiliary 200 A CTs are available for purchase.

Description	Material #	ABB Product ID
ReliaHome™ Smart Panel Temp Power Kit	ABBHEM1TPUK	1TQJ103000E1003
ReliaHome™ Smart Panel Spare 200 A CTs	ABBHEM1CT	1TQJ103000E1001
50A EV Receptacle	ABBHEMEV[1]	1TQM102058U0580

[1]Additional information on ABBHEMEV can be found with the ReliaHome enclosed circuit breakers and power outlets on page 1-55.

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

ReliaHome® Flex

Table of contents

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

ReliaHome® Flex

Product overview

Product overview

Homeowners are demanding more electric appliances—EV chargers, induction cooktops, pool pumps and more. But upgrading load centers or utility service to accommodate these appliances can be costly, time-consuming, and unpredictable.

ReliaHome™ Flex from ABB is the smarter, contractor-friendly solution. This modular, adaptable energy management system lets you add energy demanding appliances without upgrading the main panel or utility service.

Simple for contractors to install with any brand of load center, the ReliaHome Flex automatically manages large electrical loads to keep circuits within appropriate limits. The homeowner-friendly ReliaHome app gives them control and transparency of their energy usage, while contractors benefit from predictable installs, fewer complications and quicker job close outs.

With ReliaHome Flex, contractors can tackle more jobs with less hassle. Now that's smart.

Features

- Universal compatibility with any brand of load center.
- Simple installation expedites electrification.
- Prevents connected circuits from exceeding electrical limits.
- Respects appliances cycles and avoids unnecessary shutdowns.
- Provides control of Single Pole (120V load) or Double Pole (240V, 208V, 120/240V, or 120/208V load)
- Scalable design—add as many controllers as needed.
- Communicates via Ethernet, ensuring a reliable connection.
- Utilizes secure mesh networking for seamless communication.
- Offers visibility into consumption usage, both real time and historic.
- Affordable alternative to costly main panel upgrades.

Description	Material #	ABB Product ID
ReliaHome Flex Hub	FXH1W	ABB1TQJ102110A1011
ReliaHome Flex Controller	FXC06RW	ABB1TQJ102110A1012
ReliaHome Flex Kit: Hub + 2 Controllers	FXS-1HW-2C06RW	ABB1TQJ102110A1013

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

ReliaHome® Flex

Technical specifications

Installation	
Type	Controller: Surface mount; Indoor/outdoor Hub: Indoor only
Time requirement	10 minutes for hub, 15-80 min per controller[1]
Temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Hub dimensions	5.5 × 5.5 × 1.8 in
Controller dimensions	2.8 × 9.3 × 3.9 in

Managed loads	
Electrical system	120/240VAC (±10%); 50-60 Hz
Max breaker size	60 A; Deratings apply above 50 °C (122 °F)
Breaker types	Single pole (120 V load) and double pole (240 V, 208 V, 120/240 V or 120/208 V load)
Cable types	NM (Romex), MC (metal-clad); 14-6 AWG

Connectivity & security	
Module communications	Segregated 900MHz Mesh Network; 256-bit AES CBC Encryption
Network connection	Ethernet (required for hub only)
Ethernet port	1×Rj-45 (10/100 mbps)
IP addressing	Dynamic (DHCP)
Cryptographic system	TLS 1.2 (minimum)

User access	
ReliaHome app	iOS, Android, and Web

Compliance	
Product safety	NRTL/C Listed to UL 916; and CSA C22.2 No. 205
Radio frequency	47 CFR 15 (FCC), RSS-Gen and RSP-100 (ISED)

[1]Installation time varies based on access to the desired load center wiring.

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

ABB ReliaHome® App

Product overview

App overview

The ABB ReliaHome® App is a sophisticated energy management solution designed to optimize residential electrical systems. Compatible with the ReliaHome® Smart Panel and ReliaHome® Flex, it enables intelligent control and monitoring of electric appliances, ensuring efficient energy usage and enhanced system reliability.

Key features and benefits

Intelligent load management

- Prevents service panel overload by dynamically managing connected appliances.
- Supports integration of EV chargers, water heaters, and induction stovetops without utility coordination.
- Displays real-time and historical amperage data for all connected devices.

Demand charge mitigation

- Implements customizable automation schedules to reduce energy consumption during peak hours.
- Allows users to define maximum kilowatt thresholds to maintain energy efficiency.
- Provides actionable insights through real-time and historical energy usage analytics.

Battery backup optimization

- Integrates with major battery manufacturers to intelligently manage state-of-charge levels.
- Prevents premature battery depletion during outages using automated control logic.
- Operates locally over WiFi during grid outages to maintain energy management capabilities.

User-centric design

- Offers an intuitive interface for real-time circuit scheduling and automation customization.
- Enables users to prioritize and control backed-up circuits based on individual needs.
- Ensures transparency with detailed consumption data and analytics.

Available in the App Store or Google Play, the ABB ReliaHome app empowers users with intelligent energy management capabilities, ensuring optimal performance, cost savings, and enhanced control over residential.

Off-Grid Manager
Extends battery runtime and facilitates whole-home backup functionality.

Panel Guard
Monitors and restricts appliance usage to prevent exceeding electrical capacity.

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com

Notes

Distributed by Gross Automation | +1 (262) 252-1600 | sales@grossautomation.com