

Franklin Home Power

The Franklin Home Power (FHP) system integrates multiple on-site sources of power generation into a robust energy control system that is managed via a simple mobile app. FHP contains an aGate, the FranklinWH mobile app and aPower batteries.



aGate - Intelligent Energy Controller

- Micro-grid interconnect device (MID)
- Stackable continuous output power 5kW to 38.4kW
- Compatible with any brand of solar inverter and standby generator
- Optional Smart Circuits Module for intelligent load management (installed internally)
- Optional Generator Module, for intelligent integrations of standby generators in power infrastructure
- Outage detection with < 16ms seamless power transfer
- Compatible for grid-tied and off-grid applications
- MPU avoidance with NEC 2017, NEC 2020 and UL1741 PCS Certification

aPower - Lithium Iron Phosphate Battery

- LFP cell battery, scalable 13.6 – 204kWh (15 units per aGate)
- 12-year warranty, 43MWh energy throughput

FranklinWH App - Easy Energy Management

- Simple one-touch programming for Backup Standby, Self-Consumption and Load Shifting operations
- Redundant communication options ensure connectivity: Ethernet, Wifi, 4G
- Quick and easy commissioning with remote diagnostic capabilities
- Real-time and historic energy monitoring and control of power generation and consumption, in one app

Performance

AC Battery

Battery Chemistry	Lithium Iron Phosphate (LFP)
Usable System Energy	13.6 kWh per unit, scalability up to 15 units ¹
Aggregate Throughput	43 MWh
Communications	Ethernet / 4G / Wifi
Nominal AC Voltage	120V / 240V, 60 Hz
Continuous / Peak Discharge Power	5 kW / 10 kW
Switch Over Time (grid to micro-grid)	<16 ms
Round Trip Efficiency	89% ²
Inverter Topology	Isolated
Noise Emission (optimal)	<30 dB (A)
User Interface	FranklinWH App
Warranty	12 years

Electrical Interface

Coupling	AC Coupled
Feed-in Phase	Split Phase
Connection Support	L1 / L2 / N / PE

Work Modes

Self-Consumption
Load Shifting
Backup Standby

Maximum Supply Fault Current	20 kA
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Electrical Connections

aPower Over Current Protection Device	100A Max
Solar Input Over Current Protection Device	80A Max
Backup Load Port Over Current Protection Device	200A Max
Generator Over Current Protection Device ³	200A Max
Smart Circuits Over Current Protection Device ⁴	Opt. a 1 × 80A Max @240 V & 1 × 50A Max @240V Opt. b 1 × 80A Max @240 V & 2 × 50A Max @120V

Mechanical

Dimensions (H*W*D)	aGate: 31.5 × 21.7 × 6.3 in (800 × 550 × 160 mm) aPower: 45.3 × 29.5 × 11.4 in (1150 × 750 × 290 mm)
Weight	aGate: 50 lb (23 Kg) aPower: 408 lb (185 Kg)
Installation	Wall mount or floor mount

Environmental

Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Operating Humidity (RH)	Up to 100% RH, condensing
Altitude	Maximum 9,843 ft (3,000 m)
Ingress Rating	IP67 (Battery and power converter system) IP56 (Wiring compartment)
Storage Condition	14°F to 113°F (-10°C to 45°C) Up to 95% RH, non-condensing
Enclosure Type	NEMA type 3R
Environment	Indoor and outdoor rated

Compliance & Certificates

Certificates	aGate: UL 1741 PCS, UL 67 ⁵ , UL 869A ⁵ , UL 916 ⁵ aPower: UL 9540, UL 1741SA, UL 1741SB, UL 1973, UL 9540A, IEEE 1547, IEEE 1547.1, UN 38.3
Seismic	AC156, OSHPD, IEEE 693-2005 (high)
Environmental	California Proposition 65 RoHS Directive 2011 / EU
Emissions	FCC Part 15 Class B, ICES 003

1: Please contact us for solution design support if you have large capacity requirements.

2: At beginning of life, AC to battery to AC, 50% power rating.

3: Generator Module is optional.

4: Smart Circuit Module is optional.

5: Sections from these standards were used during the safety evaluation and included in the UL 1741 listing.

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