

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

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|---------------------------------------|--|
| 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

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

Work Modes

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|------------------|
| Self-Consumption |
| Load Shifting |
| Backup Standby |

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|-------------------------------------|-------|
| Maximum Supply Fault Current | 20 kA |
|-------------------------------------|-------|

Electrical Connections

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|--|--|
| 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

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|--------------------|---|
| 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

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|-------------------------|--|
| 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

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|---------------|--|
| 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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