

Take charge of your energy future.

Introducing the Evolve - a versatile, residential powerhouse for homes both large and small. Evolve is fully loaded to deliver your preferred energy savings program when installed in parallel with a solar PV system. Automated backup power capability ensures your essential home loads keep running even when the power goes out.



Industry leading lithium-ion batteries

LG Chem's lithium-ion battery modules offer high performance deep-discharge use in daily cycle applications, and are backed by a 10 year performance guarantee. Their industry-leading energy density means less installation space is required vs other battery technologies.

Features

Base model: 5 kW power / 13 kWh storage.

Expandable storage: from 13 kWh to 39 kWh.

Outdoor rated.

Lithium batteries with 10 year performance guarantee.

Automated backup power with solar charging, black-start, and emergency reserve controls.

SGIP approved in California.



Simple, modular installation with new or existing solar PV systems.

The Evolve is easily coupled to new or existing solar installations using your preferred solar inverter brand. The modular wall-mount format for both indoor or outdoor use maximizes installation flexibility without consuming valuable space.

When it comes to energy resiliency, one size does not fit all.

Evolve's expandable battery capacity means essential home loads can be powered through multi-day grid outages. Black-start capability ensures the battery can be recharged directly from the solar PV system.



Model
EVOLVE ESS
5 kW / 13 kWh

AC RATINGS

| | | |
|---|-------|---------------------|
| Rated power | [kVA] | 5.0 |
| Rated voltage | [V] | 240/120 split-phase |
| Rated frequency | [Hz] | 60 |
| Rated current | [A] | 20.8 |
| Maximum overcurrent protection ¹ | [A] | 60.0 |
| Power factor range | | 0.8 lead to 0.8 lag |
| DC ground fault monitoring | | Included |

BATTERY RATINGS - MODULE DATA

* System capacity is flexible from two to six modules. See ordering information below.

| | | |
|--|-------|---|
| Manufacturer / Model / Chemistry | | LG Chem / EM048126P3S7 / Lithium ion, NMC |
| Voltage range | [Vdc] | 51.2 (42.0 to 58.5) |
| Maximum charge & discharge current | [Adc] | 63.0 |
| DC rated capacity / (AC rated usable capacity) | [kWh] | 6.5 / (6.1) |
| Cycle life (metered energy throughput) | [MWh] | 19.2 |

BACKUP POWER RATINGS

| | | |
|--|-------|---------------------------|
| Rated output power | [kVA] | 5.0 |
| Surge rating (3+ battery modules required) | [%] | 120 (30 min), 170 (5 sec) |
| Transfer power interrupt time: to backup / to grid | [s] | 4.0 / 0.0 |

GENERAL RATINGS

| | | |
|---|------|---------------------------------------|
| Mounting method | | Wall-mount |
| Ambient operating temperature range (recommended) | [°C] | -10 to +45 (15 to 30) |
| Relative air humidity, maximum | [%] | 95 (non-condensing) |
| Roundtrip efficiency ² | [%] | > 86.8 |
| Protection degree | | Type 3R (NEMA), Indoor / Outdoor |
| Galvanic Isolation | | Transformer |
| Cooling - PCS / Battery | | Fan (thermostat) / convection |
| Energy consumption, standby (operating) | [W] | 8 (30) |
| Display | | LED: battery SOC level, system status |
| EMS communication | | Modbus RS-485 |

CERTIFICATIONS & WARRANTY

| | |
|---|---|
| EMC | FCC Part 15 Class B |
| Safety | UL 9540, UL 1741, UL 1973, CSA 22.2 No 107.1, IEEE 1547 |
| Utility interface | CSIP Rule 21, HI Rule 14H |
| Warranty / battery performance guarantee (per module) | 10 year / 19.2 MWh (DC) throughput, 60% capacity, pro-rated |

1- The installed circuit breaker rating is dependent upon the interconnected Evolve Hub model rating.

2- Combined minimum roundtrip efficiency (RTE) of the base PCS model with two battery modules. The RTE increases with each additional battery module.

528 mm (20.8") 572 mm (22.5") 572 mm (22.5") 572 mm (22.5") 400 mm (15.7")

782 mm (30.8")

Ordering Information

| Model | Parts |
|------------------------|-------------|
| ● Evolve ESS | ACB05U-LP + |
| ◊ Evolve ESS 0007 | ACB05U-LB + |
| ◆ Evolve ESS 0013 | ACB05U-LB + |
| Capacity Selector, kWh | |
| 13 ● | 20 ● ◊ |
| 26 ● ◆ | 33 ● ◆ ◊ |
| | 39 ● ◆ ◆ |