



ESS Model Number Explanation

(Hybrid Inverter Configurations)

EG4 Electronics is a leading provider of inverter and battery technologies serving the U.S. market. Our inverters are ETL listed in accordance with UL 1741, including SA and SB requirements, and our batteries are listed to UL 1973 and tested to UL 9540A standards.

To support safe and compliant energy storage system (ESS) deployments, EG4 ESS configurations are certified to UL 9540 through ETL listings that pair designated combinations of EG4 inverters and batteries. Given the flexible and modular nature of our product offerings, a variety of inverter–battery configurations are possible.

Each UL 9540-certified configuration is assigned a unique, test-specific ESS model number. These identifiers differ from the individual product model numbers of the inverters and batteries themselves. This distinction enables clarity in certification tracking and ensures that each configuration's compliance with UL 9540 is independently verified.

Once the nomenclature and structure of EG4's ESS model numbers are understood, installers, inspectors, and regulators can easily determine whether a given inverter–battery combination is UL 9540 certified. EG4 remains committed to transparency, safety, and efficiency across its growing portfolio of energy storage solutions.

Please see the example below of how to decipher the ESS model number.

ESS Model Number: **PP-48-280A**[X¹]-**21FX**[X²]-**AW**-* (may be followed by 00-99)

Inverter Model: FlexBOSS21 Hybrid Inverter (IV-16000-HYB-AW-)

Battery Model: EG4® WallMount All Weather 280Ah Battery (WP-16/280-1AWLL/WM-48-280-AW-)

PP = EG4 ESS Designator

48 - 280A = Battery Voltage and Amperage in the ESS configuration

X¹ = Quantity of batteries in this ESS configuration

21FX = Inverter model in this ESS configuration

[18FX=FlexBOSS18; **21FX=FlexBOSS21**; 18K=18KPV; 12K=12KPV]

X² = Quantity of inverter(s) in this ESS configuration

AW = Weather rating of battery model in this ESS configuration

[AW=All Weather Battery; IN=Indoor Battery]

* (may be followed by 00-99) = Product version

The attached sheets have descriptions of the current UL 9540 certified ESS configurations for EG4 hybrid inverters with EG4 280Ah wall mount batteries

ESS 9540 Detailed Configuration Requirements

Refer to ETL UL9540 Certificate of Compliance for Report 241126115GZU-001 (Dated Dec. 11, 2024)

EG4 Inverter Model: EG4® FlexBOSS21 (IV-16000-HYB-AW-)

EG4 Battery Model: EG4® WallMount All Weather 280Ah Battery (WP-16/280-1AWLL, WM-48-280-AW-)

UL 9540 ESS Model/Type reference	PP-48-280A1-21FX1-AW-	PP-48-280A2-21FX1-AW-	PP-48-280A3-21FX1-AW-	PP-48-280A4-21FX1-AW-	PP-48-280A5-21FX1-AW-	PP-48-280A6-21FX1-AW-
Configuration Description	One (1) FlexBOSS21 Hybrid Inverter with One (1) WallMount All Weather 280Ah Lithium Battery	One (1) FlexBOSS21 Hybrid Inverter with Two (2) WallMount All Weather 280Ah Lithium batteries	One (1) FlexBOSS21 Hybrid Inverter with Three (3) WallMount All Weather 280Ah Lithium batteries	One (1) FlexBOSS21 Hybrid Inverter with Four (4) WallMount All Weather 280Ah Lithium batteries	One (1) FlexBOSS21 Hybrid Inverter with Five (5) WallMount All Weather 280Ah Lithium batteries	One (1) FlexBOSS21 Hybrid Inverter with Six (6) WallMount All Weather 280Ah Lithium batteries

UL 9540 ESS Model/Type reference	PP-48-280A2-21FX2-AW-	PP-48-280A3-21FX2-AW-	PP-48-280A4-21FX2-AW-	PP-48-280A5-21FX2-AW-	PP-48-280A6-21FX2-AW-
Configuration Description	Two (2) FlexBOSS21 Hybrid Inverters with Two (2) WallMount All Weather 280Ah Lithium batteries	Two (2) FlexBOSS21 Hybrid Inverters with Three (3) WallMount All Weather 280Ah Lithium batteries	Two (2) FlexBOSS21 Hybrid Inverters with Four (4) WallMount All Weather 280Ah Lithium batteries	Two (2) FlexBOSS21 Hybrid Inverters with Five (5) WallMount All Weather 280Ah Lithium batteries	Two (2) FlexBOSS21 Hybrid Inverters with Six (6) WallMount All Weather 280Ah Lithium batteries

UL 9540 ESS Model/Type reference	PP-48-280A3-21FX3-AW-	PP-48-280A4-21FX3-AW-	PP-48-280A5-21FX3-AW-	PP-48-280A6-21FX3-AW-
Configuration Description	Three (3) FlexBOSS21 Hybrid Inverters with Three (3) WallMount All Weather 280Ah Lithium batteries	Three (3) FlexBOSS21 Hybrid Inverters with Four (4) WallMount All Weather 280Ah Lithium batteries	Three (3) FlexBOSS21 Hybrid Inverters with Five (5) WallMount All Weather 280Ah Lithium batteries	Three (3) FlexBOSS21 Hybrid Inverters with Six (6) WallMount All Weather 280Ah Lithium batteries

ESS 9540 Detailed Configuration Requirements

Refer to ETL UL9540 Certificate of Compliance for Report 241126115GZU-001 (Revised July 23, 2025)

EG4 Inverter Model: EG4® FlexBOSS18 (IV-13000-HYB-AW-)

EG4 Battery Model: EG4® WallMount All Weather 280Ah Battery (WP-16/280-1AWLL, WM-48-280-AW-)

UL 9540 ESS Model/Type reference	PP-48-280A1-18FX1-AW-	PP-48-280A2-18FX1-AW-	PP-48-280A3-18FX1-AW-	PP-48-280A4-18FX1-AW-	PP-48-280A5-18FX1-AW-	PP-48-280A6-18FX1-AW-
Configuration Description	One (1) FlexBOSS18 Hybrid Inverter with One (1) WallMount All Weather 280Ah Lithium Battery	One (1) FlexBOSS18 Hybrid Inverter with Two (2) WallMount All Weather 280Ah Lithium batteries	One (1) FlexBOSS18 Hybrid Inverter with Three (3) WallMount All Weather 280Ah Lithium batteries	One (1) FlexBOSS18 Hybrid Inverter with Four (4) WallMount All Weather 280Ah Lithium batteries	One (1) FlexBOSS18 Hybrid Inverter with Five (5) WallMount All Weather 280Ah Lithium batteries	One (1) FlexBOSS18 Hybrid Inverter with Six (6) WallMount All Weather 280Ah Lithium batteries

UL 9540 ESS Model/Type reference	PP-48-280A2-18FX2-AW-	PP-48-280A3-18FX2-AW-	PP-48-280A4-18FX2-AW-	PP-48-280A5-18FX2-AW-	PP-48-280A6-18FX2-AW-
Configuration Description	Two (2) FlexBOSS18 Hybrid Inverters with Two (2) WallMount All Weather 280Ah Lithium batteries	Two (2) FlexBOSS18 Hybrid Inverters with Three (3) WallMount All Weather 280Ah Lithium batteries	Two (2) FlexBOSS18 Hybrid Inverters with Four (4) WallMount All Weather 280Ah Lithium batteries	Two (2) FlexBOSS18 Hybrid Inverters with Five (5) WallMount All Weather 280Ah Lithium batteries	Two (2) FlexBOSS18 Hybrid Inverters with Six (6) WallMount All Weather 280Ah Lithium batteries

UL 9540 ESS Model/Type reference	PP-48-280A3-18FX3-AW-	PP-48-280A4-18FX3-AW-	PP-48-280A5-18FX3-AW-	PP-48-280A6-18FX3-AW-

Configuration Description	Three (3) FlexBOSS18 Hybrid Inverters with Three (3) WallMount All Weather 280Ah Lithium batteries	Three (3) FlexBOSS18 Hybrid Inverters with Four (4) WallMount All Weather 280Ah Lithium batteries	Three (3) FlexBOSS18 Hybrid Inverters with Five (5) WallMount All Weather 280Ah Lithium batteries	Three (3) FlexBOSS18 Hybrid Inverters with Six (6) WallMount All Weather 280Ah Lithium batteries
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ESS 9540 Detailed Configuration Requirements

Refer to ETL UL9540 Certificate of Compliance for Report 241126115GZU-001 (Dated Dec. 11, 2024)

EG4 Inverter Model: EG4® FlexBOSS21 (IV-16000-HYB-AW-)

EG4 Battery Model: EG4® WallMount Indoor 280Ah Battery (WM-48-280-1-IN-LL-00, WM-48|280-LL-00

UL 9540 ESS Model/Type reference	PP-48-280A1-21FX1-IN-	PP-48-280A1-21FX2-IN-	PP-48-280A1-21FX3-IN-	PP-48-280A1-21FX4-IN-	PP-48-280A1-21FX5-IN-	PP-48-280A1-21FX6-IN-
Configuration Description	One (1) FlexBOSS21 Hybrid Inverter with One (1) WallMount Indoor 280Ah Lithium Battery	One (1) FlexBOSS21 Hybrid Inverter with Two (2) WallMount Indoor 280Ah Lithium batteries	One (1) FlexBOSS21 Hybrid Inverter with Three (3) WallMount Indoor 280Ah Lithium batteries	One (1) FlexBOSS21 Hybrid Inverter with Four (4) WallMount Indoor 280Ah Lithium batteries	One (1) FlexBOSS21 Hybrid Inverter with Five (5) WallMount Indoor 280Ah Lithium batteries	One (1) FlexBOSS21 Hybrid Inverter with Six (6) WallMount Indoor 280Ah Lithium batteries

UL 9540 ESS Model/Type reference	PP-48-280A2-21FX2-IN-	PP-48-280A3-21FX2-IN-	PP-48-280A4-21FX2-IN-	PP-48-280A5-21FX2-IN-	PP-48-280A6-21FX2-IN-
Configuration Description	Two (2) FlexBOSS21 Hybrid Inverters with Two (2) WallMount Indoor 280Ah Lithium batteries	Two (2) FlexBOSS21 Hybrid Inverters with Three (3) WallMount Indoor 280Ah Lithium batteries	Two (2) FlexBOSS21 Hybrid Inverters with Four (4) WallMount Indoor 280Ah Lithium batteries	Two (2) FlexBOSS21 Hybrid Inverters with Five (5) WallMount Indoor 280Ah Lithium batteries	Two (2) FlexBOSS21 Hybrid Inverters with Six (6) WallMount Indoor 280Ah Lithium batteries

UL 9540 ESS Model/Type reference	PP-48-280A3-21FX3-IN-	PP-48-280A4-21FX3-IN-	PP-48-280A5-21FX3-IN-	PP-48-280A6-21FX3-IN-
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Configuration Description	Three (3) FlexBOSS21 Hybrid Inverters with Three (3) WallMount Indoor 280Ah Lithium batteries	Three (3) FlexBOSS21 Hybrid Inverters with Four (4) WallMount Indoor 280Ah Lithium batteries	Three (3) FlexBOSS21 Hybrid Inverters with Five (5) WallMount Indoor 280Ah Lithium batteries	Three (3) FlexBOSS21 Hybrid Inverters with Six (6) WallMount Indoor 280Ah Lithium batteries
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ESS 9540 Detailed Configuration Requirements

Refer to ETL UL9540 Certificate of Compliance for Report 241126120-GZU-001 (Revised July 23, 2025)

EG4 Inverter Model: EG4® FlexBOSS18 (IV-13000-HYB-AW-)

EG4 Battery Model: EG4® WallMount Indoor 280Ah Battery (WM-48-280-1-IN-LL-00, WM-48|280-LL-00)

UL 9540 ESS Model/Type reference	PP-48-280A1-18FX1-IN-	PP-48-280A2-18FX1-IN-	PP-48-280A3-18FX1-IN-	PP-48-280A4-18FX1-IN-	PP-48-280A5-18FX1-IN-	PP-48-280A6-18FX1-IN-
Configuration Description	One (1) FlexBOSS18 Hybrid Inverter with One (1) WallMount Indoor 280Ah Lithium Battery	One (1) FlexBOSS18 Hybrid Inverter with Two (2) WallMount Indoor 280Ah Lithium batteries	One (1) FlexBOSS18 Hybrid Inverter with Three (3) WallMount Indoor 280Ah Lithium batteries	One (1) FlexBOSS18 Hybrid Inverter with Four (4) WallMount Indoor 280Ah Lithium batteries	One (1) FlexBOSS18 Hybrid Inverter with Five (5) WallMount Indoor 280Ah Lithium batteries	One (1) FlexBOSS18 Hybrid Inverter with Six (6) WallMount Indoor 280Ah Lithium batteries

UL 9540 ESS Model/Type reference	PP-48-280A2-18FX2-IN-	PP-48-280A3-18FX2-IN-	PP-48-280A4-18FX2-IN-	PP-48-280A5-18FX2-IN-	PP-48-280A6-18FX2-IN-
Configuration Description	Two (2) FlexBOSS18 Hybrid Inverters with Two (2) WallMount Indoor 280Ah Lithium batteries	Two (2) FlexBOSS18 Hybrid Inverters with Three (3) WallMount Indoor 280Ah Lithium batteries	Two (2) FlexBOSS18 Hybrid Inverters with Four (4) WallMount Indoor 280Ah Lithium batteries	Two (2) FlexBOSS18 Hybrid Inverters with Five (5) WallMount Indoor 280Ah Lithium batteries	Two (2) FlexBOSS18 Hybrid Inverters with Six (6) WallMount Indoor 280Ah Lithium batteries

UL 9540 ESS Model/Type reference	PP-48-280A3-18FX3-IN-	PP-48-280A4-18FX3-IN-	PP-48-280A5-18FX3-IN-	PP-48-280A6-18FX3-IN-
Configuration Description	Three (3) FlexBOSS18 Hybrid Inverters with Three (3) WallMount Indoor 280Ah Lithium batteries	Three (3) FlexBOSS18 Hybrid Inverters with Four (4) WallMount Indoor 280Ah Lithium batteries	Three (3) FlexBOSS18 Hybrid Inverters with Five (5) WallMount Indoor 280Ah Lithium batteries	Three (3) FlexBOSS18 Hybrid Inverters with Six (6) WallMount Indoor 280Ah Lithium batteries