

The NeoVolta NV14 is a complete, fully integrated Alternating Current (AC) or Direct Current (DC) Solar, 208 V Commercial and/or 120 V/240 V Residential Hybrid Inverter Energy Storage System (ESS). It includes a Lithium Iron Phosphate (LiFePO₄) rechargeable battery system for photovoltaic energy conversion and storage, which allows consumers to use their own solar generation after the sun has set. The NV14 also allows consumers to power their homes in grid outages using either their solar or their stored energy in the battery system. The NV14 weighs 560 pounds and has to be ground mounted.

INVERTER SPECIFICATIONS

BAT Voltage	48 V DC (42 V - 58 V)
BAT Current	175 A DC
AC Voltage	208 V or 120 V / 240 V AC (Split Phase)
AC Frequency	60 Hz (59.5 Hz - 60.5 Hz)
AC Input/Output Current	32 A AC (grid tie)
AC Input Power	7,680 W

Output

Nominal AC Power Output	7,680 W
Max. AC Power Output	8,448 W
Max. Continuous Output Current	32A AC

PV

Max. AC Power Input Current*	32A AC (7,680 W)
Max. DC PV Power Input (STC)**	8,448 W
MPPTs	2 (2 strings) (5,000 Watts, 500 V & 22 A per MPPT)
MPPT range	Range 125 VDC to 425 VDC
BAT Discharge Power	7,680 W (8,448 W max)

Input

Operating Temperature -25.C to 60.C (>45.C derating)

DC = Direct Current AC = Alternating Current W = Watts
V = Volts A = Amps Hz = Hertz

* A higher PV current source may be used up to 40A Continuous (9,200 W).

**A higher PV Power Input may be used up to 9,200 W; the inverter will limit its input to the values stated.

BATTERY SPECIFICATIONS

NOMINAL CHARACTERISTICS

Nominal Voltage	48 V
Typical Capacity	100 Ah (25.C)
Typical Energy	14,400 Wh
Volumetric Density	122.3 Wh/dm
Gravimetric Density	102.1 Wh/Kg

ELECTRICAL CHARACTERISTICS

Voltage Window	42.0 V ~ 54.0 V
Max Permanent Discharge Current	120 A
Max Permanent Charge Current	100 A
Energy Charge Efficiency	94% (20.C)

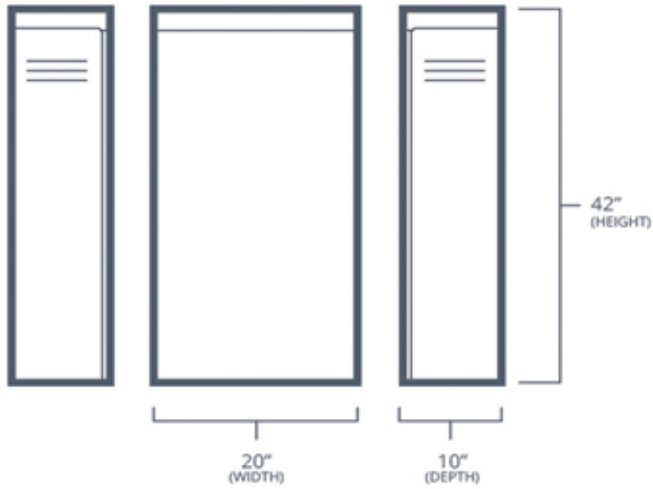
OPERATION ENVIRONMENT

Charge Temperature	0.C to 55.C
Discharge Temperature	-20.C to 60.C
Storage Temperature	-20.C to 60.C



QUESTIONS
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The NeoVolta NV24 is an additional 9,600 W battery capacity option that combines with the NV14. Total energy storage capacity is increased from 14.4 kWh to 24.0 kWh of Lithium Iron Phosphate (LiFePO4) rechargeable battery. The NV24 weighs 280 pounds and has to be ground mounted.

BATTERY SPECIFICATIONS

NOMINAL CHARACTERISTICS

Nominal Voltage	48 V
Typical Capacity	100 Ah (25.C)
Typical Energy	9,600 Wh
Volumetric Density	122.3 Wh/dm
Gravimetric Density	102.1 Wh/Kg

ELECTRICAL CHARACTERISTICS

Voltage Window	42.0 V ~ 54.0 V
Max Permanent Discharge Current	120 A
Max Permanent Charge Current	100 A
Energy Charge Efficiency	94% (20.C)

OPERATION ENVIRONMENT

Charge Temperature	0.C to 55.C
Discharge Temperature	-20.C to 60.C
Storage Temperature	-20.C to 60.C

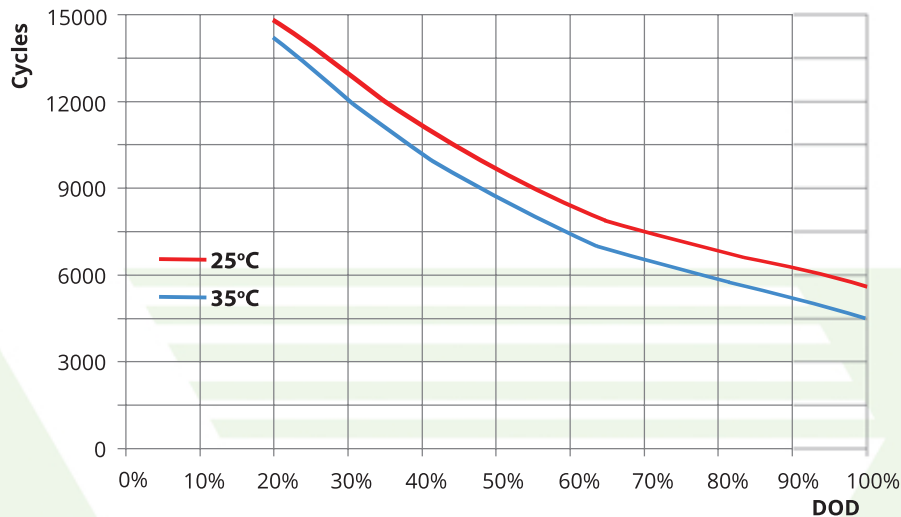
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NV14/24 CYCLE LIFE VS DEPTH OF DISCHARGE (6,000 cycles at 90% DOD)



*A cycle is considered one full charge and one full discharge.

NV14/24 ENERGY STORAGE SYSTEM SPECIFICATIONS

- Underwriters Laboratories (UL) 9540, 9540A, 1973, 1741, 1642, and 1699B Arc Fault Circuit Protection Type 1
- UL 1741 third edition (including UL 1741 Supplemental SB)
- UL 9540A Battery Energy Storage System (ANSI/CAN/UL 9540:2020)
- Institute of Electrical and Electronics Engineers (IEEE) 1547 (2018 standard)
- International Electrotechnical Commission (IEC) 62897
- Electrical Codes: National Fire Protection Association's NFPA 70 National Fire Codes (NEC) 2023
- California Public Utilities Commission (CPUC) Rule 21 Interconnection
- Hawaii Electric Companies Source Requirement Document Version 1.1 (SRD-UL-1741-SA-V1.1)
- CSA Group C22.2 No. 107.1:2001 Ed. 3
- Federal Communications Commission (FCC) 15 Class B
- National Electrical Manufacturers Association (NEMA) Type 3R
- California Energy Commission (CEC): Grid Support Utility, Utility Interactive, Energy Storage System
- California installs: Residential: Intended "for use in residential dwelling units."



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