



The NeoVolta NV14 is a complete, fully integrated Alternating Current (AC) or Direct Current (DC) Hybrid (120V / 240V) Residential 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.

Inverter Specifications

Battery Specifications

CHARGE MODE

BAT Voltage	48 V DC (42 V - 58 V)
BAT Current	175 A DC
AC Voltage	120 V / 240 V AC (Split Phase)
AC Frequency	60 Hz (59.5 Hz - 60.5 Hz)
AC Input Current	32 A AC
AC Input Power	7,680 W
PV Input Voltage	370 V DC (100 V - 500 V DC)
MPPT Input Range	150 V DC - 425 V DC
PV Input Current	18 A DC (x 2)
PV Input Power	7,680 W (8,448 W max)

DISCHARGE MODE

AC Voltage	120 V / 240 V AC (Split Phase)
Max AC Frequency	60 Hz (59.5 Hz - 60.5 Hz)
AC Output Current	32 A AC
AC Output Power	7,680 W
BAT Discharge Voltage	42 V - 58 V DC
BAT Discharge Current	175 A DC max
BAT Discharge Power	7,680 W (8,448 W max)

OFF-GRID MODE

AC Output Voltage	120 V / 240 V AC (Split Phase)
AC Output Frequency	60 Hz (59.5 Hz - 60.5 Hz)
AC Output Current	32 A AC
AC Output Power	7,680 W
MPPT Input Range	150 V DC - 425 V DC
PV Input Voltage	370 V DC (100 V - 500 V DC)
PV Input Current	18 A DC (x 2)
PV Input Power	7,680 W (8,448 W max)
BAT Voltage	42 V - 58 V DC
BAT Current	175 A DC max
BAT Power	7,680 W (8,448 W max)

Operating Temperature -20°C to 60°C (>45°C derating)

NOMINAL CHARACTERISTICS

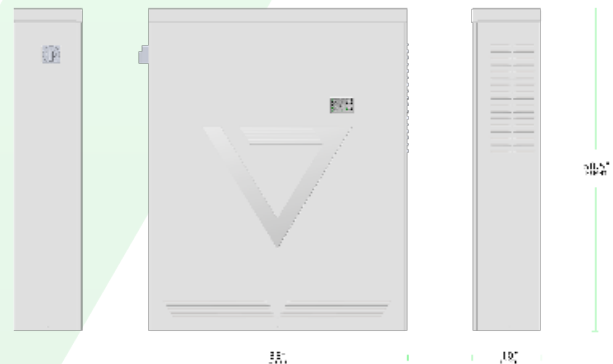
Nominal Voltage	48 V
Typical Capacity	100 Ah (25°C)
Typical Energy	14,400 Wh
Volumetric Density	122.3 Wh/dm
Gravimetric Density	102.1 Wh/Kg

ELECTRICAL CHARACTERISTICS

Voltage Window	40.5 V ~ 54.0 V
Charge Voltage Range	53.25 V ~ 54.0 V
Max Permanent Discharge Current	100 A
Max Permanent Charge Current	100 A
Faradic Charge Efficiency	99% (20°C)
Energy Charge Efficiency	94% (20°C)
Communications Interface	Modbus / SNMP

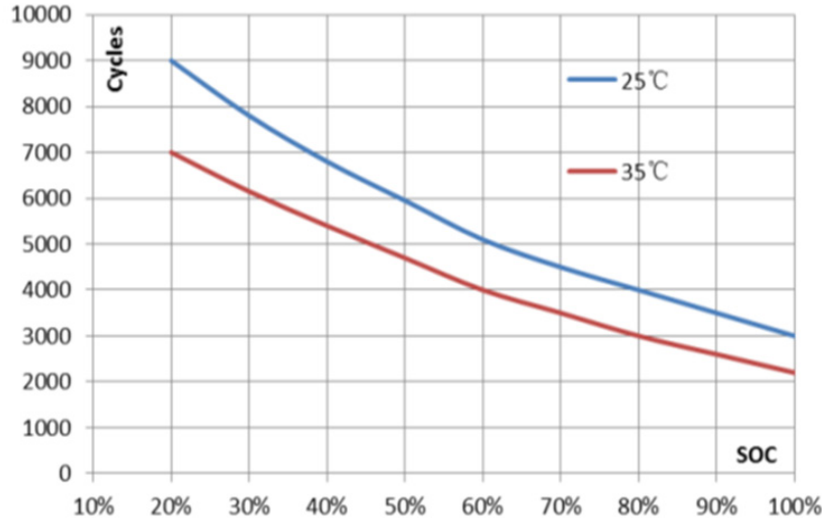
OPERATION ENVIRONMENT

Charge Temperature	0°C to 55°C
Discharge Temperature	-20°C to 60°C
Storage Temperature	-20°C to 60°C
Protection Class	IP20



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

NVI4 Cycle Life vs Depth of Discharge



NVI4 Energy Storage System Specifications

- Underwriters Laboratories (UL) 9540, 9540a, 1973, 1741, 1741 SA, 1642, and 1699B Arc Fault Circuit Protection Type 1
- Institute of Electrical and Electronics Engineers (IEEE) 1547 (2003 standard)
- International Electrotechnical Commission (IEC) 62897
- Electrical Codes: National Fire Codes (NEC) 2017
- 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 (expected March 2019)
- California Energy Commission (CEC) application R-F38, R-F58
- San Diego Gas & Electric (SDG&E)



CSA Group



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