NEOVOLTA

# Hybrid Inverter

## NV16KAC

Designed and Engineered
in California since 2018




**24kW DC PV Input**

**On Grid and Off Grid**

**16kW of AC Output in Backup Mode**

**Ease of Installation: 200A Passthrough Design**

**100% Unbalanced Loads Capability**

**3rd Multi-Purpose AC Terminal**

For support scan here

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## PV Input Data

| | |
|---|---|
| Max. PV Input Power (W) | 24,000 |
| Max. PV Input Voltage (Voc)* | 500* |
| Startup Voltage (Vmp) | 120 |
| MPPT Voltage Range (V) | 120-430 |
| Max. Input Current (A) @ MPPT | 20/20/20/20 |
| Max. Input Short-Circuit Current (A) @ MPPT* | 25A/25A/25A/25A* |
| MPPT \| Strings per MPPT* | 4 \| 1+1+1+1 (2 \| 2+2)* |

***Reference Technical Notes for additional information.**

## Battery Input Data (DC)

| | |
|---|---|
| Battery Type (Compatible) | Lithium Iron Phosphate (LiFePO4) |
| Battery Voltage Range (V) | 40-58 |
| Nominal Voltage (V) | 48 |
| Max. Charging / Discharging Current (A)* | 260/280* |
| Charging Strategy for Li-ion Battery | BMS Autodetect |
| Number of Battery Inputs | 2 x positive, 2 x negative |

## AC Output (on-grid)

| | |
|---|---|
| Nominal AC voltage (L-N/L1-L2) | (110-120)/(220-240V) Split Phase, 240V single phase |
| Nominal AC Output (W) | 16,000 |
| Max. Apparent power output to grid (VA) | 17,600 |
| Nominal AC Output (A) | 66.7 |
| Max. Continuous AC Passthrough (A) | 200 |
| Max. AC Output Current (A) | 73.3 |
| Total Current Harmonic Distortion (THDi) | <3% (of nominal power) |
| Grid Connection | 2L + N + PE |

## AC Output (back-up)

| | |
|---|---|
| Max. apparent output power with battery only | 13.2kVA - 100% |
| Max output power with PV (W) | 16,000 |
| Output THDU | <2% |
| Surge Capacity | LRA:167A (20kW@10s / 14.3kW@30s / 13.6W@60s) |
| Power Factor Settings Range | 0.8 leading - 0.8 lagging |
| Nominal Output Voltage \| Voltage Range (V) | 120/240; 120/208@3-Phase |
| Nominal Output Frequency \| Frequency Range (Hz) | 60 \| 55-65 |

## Environment

| | |
|---|---|
| Operating Temperature F/C | -13°F - 140°F / -25°C - 60°C |
| Humidity Limit (%) | <=95% |
| Max. Elevation | 4,000m/13,123ft (10% derating at 2,000m/6,561ft) |
| Noise (dB) | 57dB |
| IP Rating / Nema | IP65/NEMA 3R |
| Cooling Method | Fan Cooling |

## Communication

| | |
|---|---|
| BMS Communication | CAN |
| Communication | RS485 \| WiFi \| 4G (optional) |

## General

| | |
|---|---|
| GEN/ Multifunction Port | Available for Generators @120/240V <= 90A, AC Coupled Solar 16kW, and Load Shed 120/240V <= 90A |
| Integrated Protection | GFC detection, Arc fault protection, PV reverse polarity protection, Island protection, Insulation PV test, Leakage current protection, AC output short circuit and over current protection, AC output over/under-voltage protection |
| Surge Protection | Type II (DC), TYPE II (AC) |
| Max. Efficiency (%) | 96.5% |
| MPPT Efficiency (%) | >99.0% |
| Warranty | 15 Years |
| Dimensions (W x H x D) in/mm | 19.5"x 35.4"x 10.2" / (495mm x 900mm x 260 mm) |
| Weight lbs/ kg | 123 lbs / 56kg |
| Safety Certifications | UL1741 \| UL1741SA&SB all options \| UL1699B \| FCC part 15 class B CSA -C22.2 NO.107.1-01 \| RSD(NEC690.5,11,12) |
| Grid Connection Standards | IEEE 1547 \| IEEE 2030.5 \| HECO Rule 14H \| CA Rule 21 Phase I,II,III,CEC \| CSIP \| SRD2.0 \| OGPe \|NOM \| California Prop65 \| SGIP |



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