

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**



800.364.5464  
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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)*

**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

\*Reference Technical Notes for additional information

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