



# N3H-X Series Split Phase Inverter

## Hybrid On/Off-Grid Inverter

N3H-X5-US/N3H-X8-US/N3H-X10-US

120V/240V(split phase) , 208V(2/3 phase) ,230V(single phase)



Equipped with 4 MPPT  
Max. input current of  
14A for each MPPT



AC coupling function,  
Max. 3 pcs parallel  
for on-grid and off-grid



Easy installation with  
flexible configuration  
plug-and-play



Enables remote intelligent  
monitoring through  
SOLARMAN APP



Support OEM/ODM  
UL multiple listing  
for customers



UL1741SA CUL1741/  
UL1699B CSA 22.2



object	Description
1	BAT inpu/BAT output
2	WIFI
3	Communication Port
4	CTL 2
5	CTL 1
6	Load 1
7	Ground
8	PV input
9	PV output
10	Generator
11	Grid
12	Load 2

Technical Data	N3H-X5 -US	N3H-X8 -US	N3H-X10 -US
<b>PV Input Data</b>			
MAX.DC Input Power	7.5kW	12kw	15KW
No.of MPPT Trackers	4		
MPPT Range	120 - 430V		
MAX.DC Input Voltage	500V		
MAX.Input Current	14A×4		
<b>Battery Input Data</b>			
Nominal Voltage(Vdc)	48V	48V	48V
MAX.Charging/Discharging Current	120A/120A	190A/190A	190A/210A
Battery Voltage Range	40-60V		
Battery Type	Lithium and Lead Acid Battery		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
<b>AC Output Data(On-Grid)</b>			
Nominal Output Power Output to Grid	5KVA	8KVA	10KVA
MAX. Apparent Power Output to Grid	5.5KVA	8.8KVA	11KVA
Output Voltage Range	110-120V220-240V split phase, 208V(2/3 phase),230V(1 phase)		
Output Frequency	50/60Hz (45 to 54.9Hz / 55 to 65Hz)		
Nominal AC Current Output to Grid	20.8A	33.3A	41.7A
Max.AC Current Output to Grid	22.9A	36.7A	45.8A
Output Power Factor	0.8leading ...0.8lagging		
Output THDI	< 2%		
<b>AC Output Data(Back-Up)</b>			
Nominal. Apparent Power Output	5KVA	8KVA	10KVA
MAX. Apparent Power Output	5.5KVA	8.8KVA	11KVA
Nominal Output Voltage L-N/L1-L2	120/240V		
Nominal Output Frequency	60Hz		
Output THDU	< 2%		
<b>Efficiency</b>			
Europe Efficiency	≥97.8%		
MAX. Battery to Load Efficiency	≥97.2%		
<b>Protection</b>			
Grounding Detection	YES		
Arc Fault Protection	YES		
Island Protection	YES		
Battery Reverse Polarity	YES		
Insulation Resistor Detection	YES		
Residual Current Monitoring Unit	YES		
Output Over Current Protection	YES		
Back-up Output Short Protection	YES		
Terminal Temperature Detection	YES		
Output Over Voltage Protection	YES		
Output Under Voltage Protection	YES		
<b>General Data</b>			
Output Conduit	25.4mm		
PV Input Conduit	25.4mm		
BAT Input Conduit	34.5mm		
Operating Temperature Range	-25 ~ +60°C		
Relative Humidity	0-95%		
Operating Altitude	0~4000m		
Ingress Protection	IP65/NEMA 3R		
Weight	41kg		
Size (Width*Height*Depth)	430mm x 710mm x 220mm		
Cooling	Air Cooling		
Noise Emission	<38dB		
Display	LCD		
Communication With BMS/Meter/EMS	CAN, RS485		
Supported Communication Interface	RS485, WLAN, 4G (optional)		
Self-consumption at Night	< 15W (with battery enabling < 20W)		
Safety	UL1741SA all options , UL1699B, CSA 22.2		
EMC	FCC Part 15 Class		
Grid Connection Standards	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III		