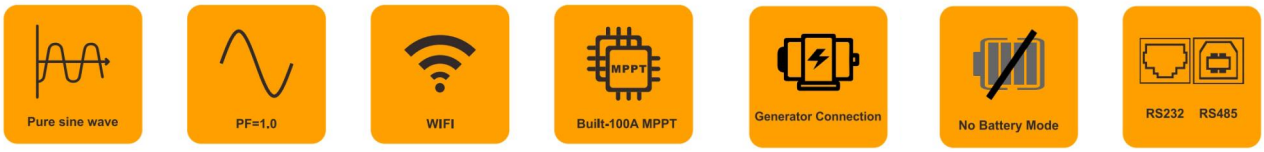
Amensolar Ess Co.,Ltd

Hybrid Off-grid inverter

N1F -A3.5/24EL
[PV 30-160Vdc]

3.5KW 220V/230Vac Output



-Pure sine wave

-Power factor 1.0

-PV input Voltage 30Vdc~160Vdc

-Built-in MPPT 50A/60A

-Detachable dust cover for harsh environment

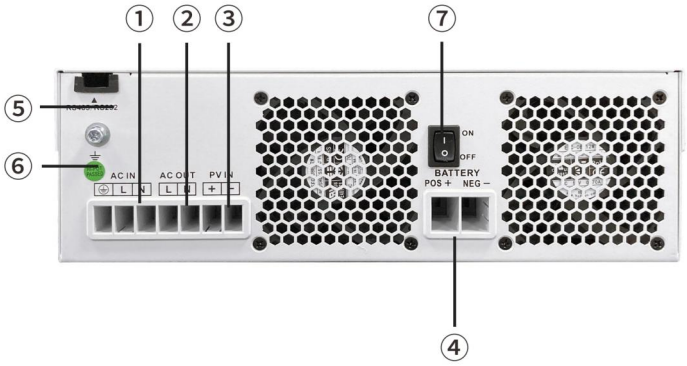
-WiFi remote monitoring optional

-Support multiple output priority: UTL,SOLSBU

-Compatible work with lifepo4 battery via RS485

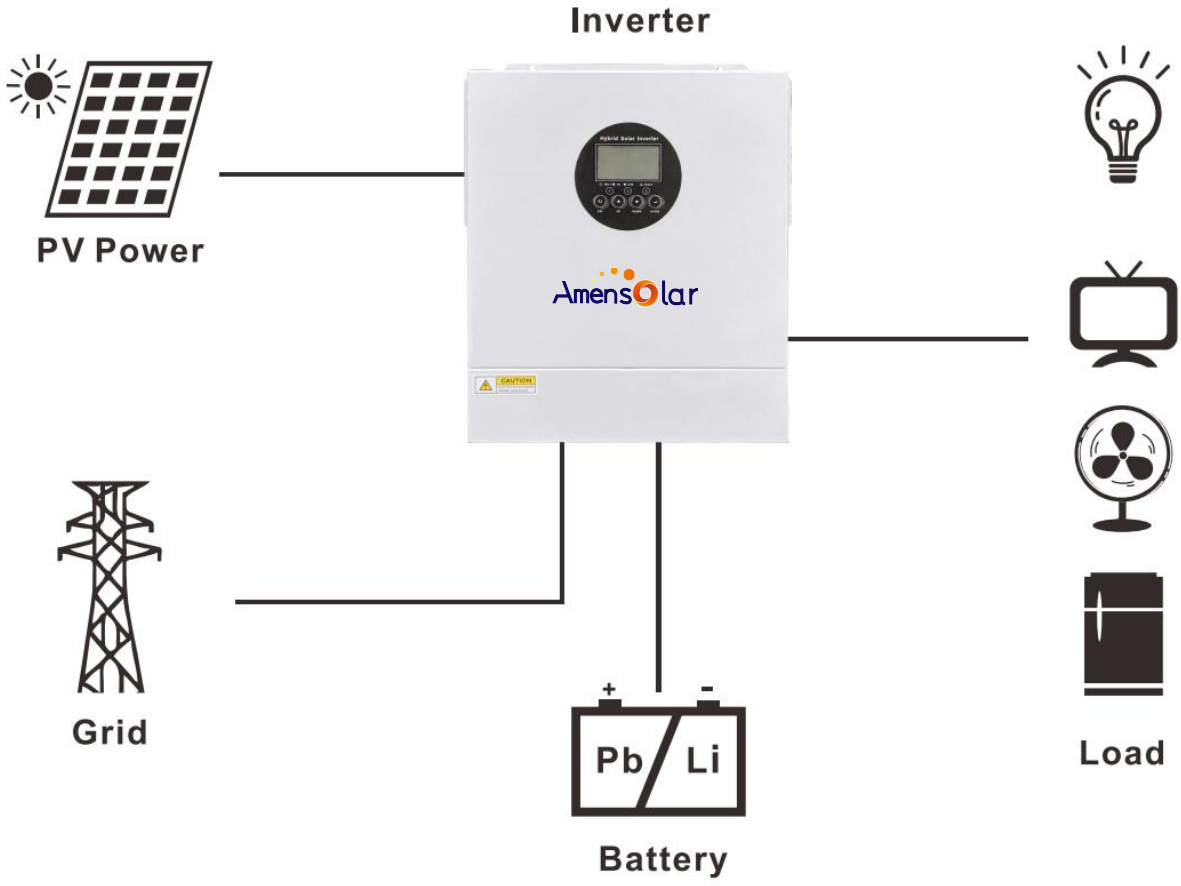
-Lithium battery activation function, which can be triggered by mains or PV

Bottom view



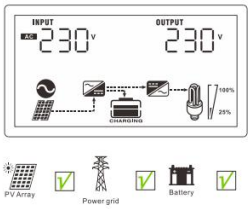
1. AC input
2. AC output
3. PV input
4. Battery input
5. RS232 / RS485 communication port
6. Grounding
7. Power on/off switch

System Diagram

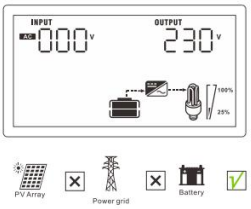


Working Mode

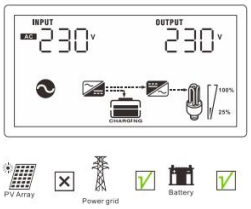
A



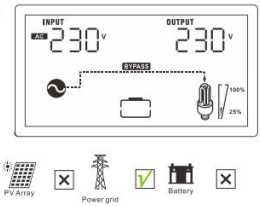
B



C



D



MODEL	N1F-A3.5/24EL
Capacity	3.5KVA/3.5KW
Parallel Capability	NO
INPUT	
Nominal Voltage	230VAC
Acceptable Voltage Range	170-280VAC(For personal Computer);90-280vac(For Home Appliances)
Frequenc)	50/60 Hz(Auto sensing)
OUTPUT	
Nominal Voltage	220/230VAC±5%
surge Power	7000VA
Frequency	50/60Hz
Waveform	Pure Sine wave
ransfer Time	10ms(For personal Computer);20ms(For Home Appliances)
Peak Efficiency(PV to INV)	96%
Peak Efficiency(Battery to INV)	93%
Overload Protection	5s@>=140%load;10s@100%~140%load
Crest Factor	3:1
Admissible Power Factor	0.6~1(inductive or capacitive)
BATTERY	
Battery Voltage	24VDC
Floating Charge Voltage	27.0VDC
OverCharge Protection	28.2VDC
Charging Method	CC/CV
Lithium Battery Activation	YES
Lithium Battery Communication	YES(RS485
SOLAR CHARGER & AC CHARGER	
Solar Charger Type	MPPT
Max.PV Array Powe	1500W
Max.PV Array Open Circuit Voltage	160VDC
PV Array MPPT Voltage Range	30VDC~160VDC
Max.Solar Input Current	50A
Max.Solar Charge Current	60A
Max.AC Charge Current	80A
Max.Charge Current(PV+AC)	120A
PHYSICAL	
Dimensions,Dx WxH(mm)	358x295x105.5
Package Dimensions,D x Wx H(mm	465x380x175
Net Weight(Kg)	7.00
Communication Interface	RS232/RS485
ENVIRONMENT	
Operating Temperature Range	(-10℃ to 50℃)
Storage Temperature	(-15℃~50℃)
Humidity	5%to 95%Relative Humidity(Non-condensing)