## SNADI\*



# Off Grid Solar Product

Manufacturer

-Since 2010

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**Advanced Solar energy system Solutions** 



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PRODUCT CATALOGUE

Safe

## COMPANY **PROFILE**

Foshan SNAT Energy(SNADI Solar) Electrical Technology Co., LTD. was established in 2010, specialized in R&D and manufacturing of solar power system products, is a high-tech enterprise certificated.

SNADI's main products include:

Solar inverter, Solar charge Controller, UPS, Solar power system, Lithium energy storage battery, Lead-acid gel battery, etc



**Production Space** 



Factories



**Employees** 































AC Load



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### **LiFePO4 Lithium Battery Bank**

(25.6V&51.2V-100Ah, 150Ah, 200Ah)

### MAIN FEATURES



Big discharge current, Suitable for solar system



Smart BMS system to optimize the eormance



RS485/CAN compatible with different brand of solar inverter



### Product Specifications

Model	LPBF24100	LPBF24150	LPBF24200	LPBF48100	LPBF48150	LPBF48200					
Rated Capacity	2.56KWH	3.84KWH	5.12KWH	5.12KWH	7.68KWH	10.24KWH					
Nominal Voltage	nal Voltage 25.6 25.6		25.6	25.6 51.2		51.2					
Voltage Range	20-28.8	20-28.8	20-28.8	40-57.6	40-57.6	40-57.6					
Recommend Charge Cut-off Voltage	28.8	28.8	28.8	57.6	57.6	57.6					
Recommend Discharge Cut-off Voltage	20	20	20	40	40	40					
MAX. Charge & Discharge Current			100A/150	A/200A							
DOD			>959	%							
Modules Connection			1~6 in po	arallel							
Communication			CAN & R	\$485							
Ingress Protection			IP21								
Cycle Life		>3000 @25°c									
Working Temperature Range		Disc	charge:-20°C to +65°C,	Charge:+0°C to +55°C							
Internal Resistance			≤30m	Ω							
Maximum Continuous Charging Current			0-70	A							
Maximum Continuous Discharge Current			0-100	A							
Power Instructions			Have	<b>&gt;</b>							
Weakness Switch			Often Open Of	ften Closed							
RS485 Communication Port			Two								
Display Screen			Have								
Storage Temperature			Save For Three Months	From 0 °C To 30°C							
Transport And Storage Form		Static Batteries Shall B	etransported And Stored	Under Semifilled Cond	itions (About 70%)						
Charging And Protection Voltage			3.75V±50mV(	monomer)							
Overcharge is slow, overvoltage			3.55V±50mV(	monomer)							
Discharge Protection Voltage		2.2V±100mV( monomer)									
Overslow, Complex Voltage			2.7V±100mV(	monomer)							
Overcurrent Protection	180±10A										
Short circuit Protection		( Release condition	is off- load) / MOS Tube	Bears The Highest Shor	t Circuit Current						
Balanced Function			Equilibrium Curren	nt is 45 ± 5mA							

### **Rechargeable Li-ion Battery**

(51.2V 100Ah)

### MAIN FEATURES



Big discharge current, Suitable for solar system



Smart BMS system to optimize the eormance



RS485/CAN compatible with different brand of solar inverter



### Product Specifications

Items	Specifications	Remark		
Nominal Capacity	100Ah	0.20 Standard discharge		
Minimum Capacity	98Ah	0.2C Standard discharge		
Nominal Voltage	3.2V	Mean Operation Voltage		
Delivery Voltage	≥3.2V	Within 10 days from Factory		
Charge Voltage	3.65±0.03V	By standard charge method		
Standard Charging Method	23±3℃, 0.2C constant current,3.65V constant voltage char	arge to 3.65V,continue charging till current decline to ≤0.02C		
Charge Current	0.2C,20A	Standard charge, charge time about 7h(Ref)		
Charge Current	0.5C.50A	Rapid Charge, charge time about: 2h(Ref)		
Standard Discharging Method	0.2C constant current discharge to 2.5V			
Cell Internal Impedance	≤2mΩ	Internal resistance measured at AC 1KHZ after 50% charge		
Maximum Charge Current	0.5C,50A	For continuous charging mod		
Maximum Discharge Current	1C,100A	For continuous discharging mode		
Operation Temperature and	Charge: 0.2C(0-10°C) 60±25%R.H.0.5C(10-45°C)	Charge at a very low temperature such as blew 0°C,will		
relative humidity Range	Discharge:0.2C(-15~15°C)60±25%R.H.1C(15-60C)	be get a lower capacity and reduce cycle life of the battery		
Storage temperature for a long time	0-45°C60±25%R.H.	Do not storage exceed half year. Must charge once when storage for half year must charge the battery which with protect circuit when storage for three month		

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### **AL- AC & DC Solar Power Generator**

(0.3KW/12V、0.5KW/12V、1KW/12V、1KW/24V、1.5KW/24V)

### MAIN FEATURES



A wide range of applicable loads because of pure sine wave AC output



Convenient and practical 5VDC USB output port and 12VDC output port



Excellent performance because of an MCU intelligent control technology



#### Product Specifications

	Model:AL	0.3KW/12V	0.5KW/12V	1KW/12V	1KW/24V	1.5KW/24V			
	Battery Voltage		12V		2	4V			
	In-built Battery Specification	1*55Al	H/12V	100AH/12V	2*55AH/12V、2*100AH/12V	2*100AH/12V			
Inverter	Rated Power	300W	500W	1000W	1000W	1500W			
Iliveriei	Output Voltage			110/220VC					
	Output Frequency			50/60Hz					
	Output Waveform			Pure Sine Wave					
Charge By A	Input Voltage		110/220V	AC*(* means an option	nal function)				
Mains Supply	Charge Current	10A(MAX) -* ( '*' med	ins an optional function)	10A(MAX) -*	( '*' means an optio	nal function)			
	Maximum Photovoltaic Voltage	≤2	5V		≤50V				
	Charge Voltage	10-	25V		20-50V				
	Rated Charge Current(A)			30A					
	Maximum Power(Wp)	360	ОWр	720Wp					
	Voltage Of Overcharge Protection	14.	2V		28.4V				
	Voltage Of Overcharge Recovery	14.	.0V		28.0V				
	Voltage Of Floating Charge	13.	7V	27.4V					
	Voltage Of High-voltage Protoction	16	SV .	32V					
	Voltage Of High Voltage Recovery	15.	2V		30.4V				
DC Output	Voltage Of Low Voltage Recovery	12.	6V	25.2V					
De conpor	Voltage Of Low Voltage Protection	11	V		22V				
	5VDC USB Output Port		2 ones/	MAX 2A					
	12VDC Output Port	2	DC ports + backboard 1:	2V terminal block (MAX	8A)				
Startii	ng Temperature Of The Exhaust Fan		>	45°C					
Am	bient Temperature For Operation	0-40℃							
Ar	nbient Temperature For Storage		-25-+55℃						
	Operation/Storage Conditions	0-90% (no condensation)							
Ex	temal Dimensions: DxWxH (mm)	343*225*443		423*260*453	3 5	13*310*493			
Pa	cking Dimensions: DxWxH (mm)	420*29	90*490	520*370*520	0 6	10*420*550			

### High Quality Modular&Stacked Lithium Battery System

(51.2V 100-900Ah with 5000 cycles)

### MAIN FEATURES



Optional cell brand and IP rate (IP20/IP65)



Modular & Stacked design for easy installation and extension



With LCD screen and CAN/RS485 / RS232 communication interface



#### Inverter Parameter Table

	Model:	NKH-5KW	NKH-10KW					
	Rated Power	5000W	10000W					
	Rated Input Voltage (Settable)	208VAC/220VAC	/230VAC/240VAC					
Mains Input	Mains Supply Input Voltage Range	170-280VAC	; 90-280VAC					
	Mains Supply Input Frequency	50Hz/60Hz(Auto detection)						
	Rated Output Voltage (settable)	208VAC/220VAC/23	0VAC/240VAC ±5%					
	Surge Power	20000VA						
Output	Efficiency	94	1%					
	Switching Time	10	ms					
	Overload power	1min@102%-110% Load, 10s@110%-130% Lo	oad, 3s@130%-150% Load,0.2s@>150% Load					
	Battery Voltage Rating	51.2VDC						
Battery And	Floating Charge Voltage	54\	/DC					
AC Charging	Overcharge Protection	64\	/DC					
	Maximum Charging Current	80A	160A					
	Maximum PV Array Power	PV 5500w	1 way PV 5500w; 2 way PV 5500w					
	MPPT Range Operating Voltage	120-43	30VDC					
PV Charging	Maximum PV Array Open Circuit Voltage	450	VDC					
	Maximum Charge Current	80A	160A					
	Maximum Efficiency	98	3%					
Mains Supply And PV Charging	Mains Supply and PV charging Maximum charging current (AC charger plus PV charger)	80A	160A					
Basic Specifications	Communication Interface	vUSB/RS232	/GPRS/WIFI					
202 ( 22)	Humidity	5% to 95% relative hur	midity(non-condensing)					
Working Environment	Operating Temperature Range	0°C-	.55℃					
Livironmeni	Storage Temperature	-15°C	-60℃					
	Dimension (L*W*H)	770*410*222.5mm	930*410*222.5mm					

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### **AL Solar Power System**

(AL-S600、AL-S1200、AL-S2200、AL-S3500、AL-S5000)

#### MAIN FEATURES

Overcharge protection and overdischarge protection for a longer battey life



LCD and LEDS for visualization of operation status of the equipment



Solar array and battery connrnon-anode systern input;



### Product Specifications

	Model:AL	AL-S600	AL-S1200	AL-S2200	AL-S3500	AL-S5000		
	Battery Voltage	12.8V	25	.6V				
	In-built Battery Specification	50AH/12.8V	50AH/25,6V	100AH/25.6V	75AH/51.2V	100AH/51.2V		
	Rated Power	600W 1200W 2200W		2200W	3500W	5000W		
Inverter	Output Voltage			110/220VAC				
IIIveriei	Output Frequency			50/60Hz				
	Output Waveform			Pure Sine Wave				
	Input Voltage Range	72-138/14	45-275VAC		85-138/170-275VAC			
	Input Frequency			45-65Hz				
	Maximum Photovoltaic Voltage	≤100V	≤100V ≤100V			50V		
	PV Input Range Voltage	18-100V 35-100V			60-150V			
	Rated Charge Current		MPP	Г 30А		60A(MAX.)		
\	Maximum Power	420Wp	840Wp		1600Wp	3000Wp		
	Voltage Of Floating Charge	14.2V	28	.4V	56	.8V		
	MPPT Efficiency	≥97%			≥99%			
	Voltage Of High-voltage Protection	16V	32	32V		64V		
	Voltage Of High Voltage Recovery	14.5V	29	V	58V			
DC Output	Voltage Of Low Voltage Recovery	13V	26	V	5	2V		
DC Cuipui	Voltage Of Low Voltage Protection	11.2V	22.	4V	44	1.8V		
	5VDC USB Output Port			2 Units/MAX 2A				
	12VDC Output Port			2DC Ports/MAX 2A				
	Heat Dissipation/Cooling		Temperature	Control By Intelligent I	Exhaust Fan			
	Ambient Temperature For Operation			-20-+50°C				
Other	Ambient Temperature For Storage			-25 -+55°C				
Other	Operation/Storage Conditions		0	-90% (no condensation	)			
	External Dimensions: DxWxH (mm)	460*182*397	485*202*406	540*229*464	577*350*644	627*405*664		
	Packing Dimensions: DxWxH (mm)	527*267*470	552*277*477	570*310*535	665*450*825	715*505*845		

## All In One Solar Energy System LiFePO4 Battery Inbuilt (Solar Generator)

(2KW、3KW、4KW、5KW、6KW)

#### MAIN FEATURES



Combined power inverter, MPPT solar charge controller



Simple installation and free maintenance to user



Pure sine wave inverter power supply stable electricity to house applicances



### Product Specifications

	Model:ALP	2KW	3KW	4KW	5KW	6KW		
	Battery/System Voltage			51.2VDC/48VDC				
	Built-in LiFePO4 Lithium		100	0AH/150AH/200AH*51.2	2V			
	Rated Power	2000W	3000W	4000W	5000W	6000W		
Inverter	Input Voltage (VAC)		8	35-138VAC/170-275VAC				
	Input Frequency (Hz)			45-65				
	Output Voltage (VAC)			110/220				
	Output Frequency (Hz)			50/60				
	Output Wave			Pure Sine Wave				
	MPPT Voltage Range	60VDC-150VDC						
	PV Power	15	00W	3000W				
Input	Rated Charge Current	30A	(Max.)		60A (Max.)			
	MPPT Efficiency	≥99%						
	Floating Charge Voltage	57.6VDC						
	Maximum Power			3200Wp				
	Low Voltage Recovery Voltage			57.6VDC				
DC Output	Low Voltage Protection Voltage			53.6VDC				
DC Output	5VDC USB Output			2PCS/Max.2A				
	12VDC Output Ports			2PCS/Max.2A				
	Operating Ambien Temperature			-20°C-50°C				
	Storage Ambient Temperature			-25°C-55°C				
Other	Operating/Storage Ambient			0-90% No Condensation	1			
Parameters	Heat Dissipation/Cooling		Temperature	e Control By Intelligent	Exhaust Fan			
	Display			Digital LCD				
	Packing Dimensions: DxWxH (mm)			620*420*580				

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### **FT Series Pure Sine Wave Inverter With Charger**

(1KW, 1.5KW, 2KW, 3KW, 4KW, 5KW, 6KW, 8KW, 10KW)

#### MAIN FEATURES



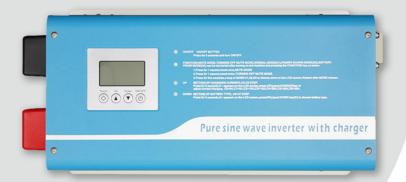
Pure sine wave output for compatibility with loads of different types



Visualization of operation status of the equipment through a digital LCD



A wide range of input voltage, accurate output and automatic voltage stabilization



### Product Specifications

	Model:FT	1KW	1.5KW	2KW	3KW	4KW	5KW	6KW	8KW	10KW
	Rated Power	1000W	1500W	2000W	3000W	4000W	5000W	6000W	8000W	10000W
	Rated Voltage		12VDC/24	VDC/48VDC		24VDC	/48VDC	4	8VDC/96VD	C
Battery	Charge Current				30A (d	default) -CO-	C6			
	Battery Type					U0-U7				
	Voltage Range				85-138\	/AC/170-275	SVAC			
Input	Frequency					45-65Hz				
прот	Product Size:L"W"H(mm)		555*307*189			653*332*260				
	Package Size: L"W"H(mm)		550*3	640*370*240			715*365*310			
	Voltage Range	110VAC/220VAC; ±5%( Inversion mode)								
	Frequency				50/60Hz±	1%( Inversion	mode)			
	Output Wave				Pur	e Sine Wave				
	Conversion Time				<10n	ns(Typical loa	d)			
10000000	Efficiency				>85% (8	30% resistive	load)			
Output	Overload				110-120%/	30S; >160%,	/300ms;			
	Protection Function	Battery overvolta	ge protection, bo	ittery undervolto	ge protection,	overload,protect	ion, short circuit	t protection, o	vertemperature	protection, etc.
	Operation Of Ambient Temperature					0-40°C				
	Ambient Temperature For Storage					-15-+50°C				
	Operation/Storage Ambient				0-90%	No Condensat	ion			

P.S.: We keep the right to change without any information.

### FT-B Series Pure Sine Wave Inverter With Charger

(0.3KW、0.5KW、0.7KW、1KW)

#### MAIN FEATURES



Pure sine wave output for compatibility with loads of different types



Visualization of operation status of the equipment through a digital LCD



A wide range of input voltage, accurate output and automatic voltage stabilization



### Product Specifications

	Model:FT-B	0.3KW	0.5KW	0.7KW	0.7KW	1KW		
	Rated Power	300W	500W	700W	700W	1000W		
Battery	Rated Voltage	12VDC	/24VDC	24VDC	12VDC	12VDC/24VDC		
	Voltage Range		7	3-138VAC/145-275VA	C			
Input	Frequency			45-65Hz				
прот	Product Size:L"W"H(mm)		302*122*188	316*1	49*215			
	Package Size: L"W"H(mm)		15*280					
	Voltage Range	110VAC/220VAC; ±5%( Inversion mode)						
	Frequency	50/60Hz±1%( Inversion mode)						
	Output Wave	Pure Sine Wave						
	Conversion Time			<10ms(Typical load)				
Output	Efficiency		>	85% (80% resistive load	d)			
Colpoi	Overload		110-	-120%/30S; >160%/30	Oms;			
	Protection Function	Battery overvoltage protect	ion, battery undervoltage pro	tection, overload,protection,	short circuit protection, ove	rtemperature protection, etc		
	Operation Of Ambient Temperature			0-40℃				
	Ambient Temperature For Storage	-15-+50°C						
	Operation/Storage Ambient	0-90% No Condensation						

P.S.: We keep the right to change without any information.

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### **SN Single-phase IGBT Low Frequency Inverter**

(6KW, 8KW, 10KW, 12KW, 15KW, 20KW, 30KW)

#### MAIN FEATURES



A wide range of input frequency, which realizes stable operation of fuel generators



A power-on test function, which can avoid the faults because of hazards of the inverter



Overall automatic protection and alarms such as output overload protection



### Product Specifications

	Model:SN-	6KW	8KW	10KW	12KW	15KW	20KW	30KW		
	Rated Power	6KW	8KW	10KW	12KW	15KW	20KW	30KW		
	Rated Voltage		96VDC/192VD0	C		192	VDC			
Battery	Charge Current				10A-20A					
	Low Voltage Protection		84VDC/168VD0	С		168	VDC			
Lamor	Voltage Range			88-	132VAC/176-26	54VAC				
Input	Frequency				45-65Hz					
	Voltage Range	110VAC/220VAC; ±5%( Inversion mode)								
	Frequency	50/60Hz±1%( Inversion mode)								
	Output Wave	Pure Sine Wave								
	Conversion Time	<10ms(Typical load)								
	Efficiency	>85%	(100% Resistive	Load)	>90% (100% Resistive Load)					
Output	Overload			110-120	0%/30S; >160%	/300ms;				
	Protection Function	Battery overvoltage	e protection, battery	undervoltage protect	tion, overload,protec	tion, short circuit pro	tection, overtemper	ature protection, etc.		
	Operation Of Ambient Temperature				0-40°C					
	Ambient Temperature For Storage				-15-+50°C					
	Operation/Storage Ambient			0-	90% No Condensa	tion				
	Product Dimensions:DxWxH(mm)			638*260*750			690*370*810	740*720*1340		
	Gross Weight (KG)	80	90	110	130	150	170	227		

### **TP Three-phase IGBT Low Frequency Inverter**

(10KW, 20KW, 30KW, 50KW, 60KW, 80KW, 100KW, 150KW, 200KW)

#### MAIN FEATURES



Intelligent battery charge



Efficient IGBT (Insulated Gate
Bipolar Transistor) inversion technology



Suitability for industrial applications such as machine tools and wire cutters





### Product Specifications

	Model:TP-	TP-10KW	TP-20KW	TP-30KW	TP-50KW	TP-60KW	TP-80KW	TP-100KW	TP-150KW	TP-200KW		
	Rated Power	10KW	20KW	30KW	50KW	60KW	80KW	100KW	150KW	200KW		
Wo	orking methods and principles	PWM (pulse width modulation) based on DSP accurate control technology and double built-in MCUs Complete isolation of the outout power supp							tout power supply			
	Phase					Three phase	N+G					
AC Input	Voltage				AC	220V/AC38	80V±20%					
	Frequency					50Hz/60Hz	z+5%					
	DC voltage	DC192V/DC	220V/DC24	0V/DC384V			D	C384V				
DC Input	Floating battery		13	3.6V of each	battery x bo	ıttery quanti	ty [13.6Vx 1	6 batteries = 1	217.6V]			
	Cut-off voltage		1	0.8V of each	battery x bo	attery quanti	ity [10.8Vx 1	6 batteries = 1	172.8V]			
	Phase					Three phase	N+G					
	Voltage		AC220V/AC380V ± 1% (steady load)									
	Frequency			50	Hz/60Hz+	5%(mains) 5	0Hz+0.5% (	battery)				
	Efficiency					≥90% (Load	100%)					
	Output wave form	Sine wave										
AC Output	Total harmonic distortion	Linear load<3%. Non-linear loads<5%										
	Dynamic load voltage				< ±	5% (From 0	to 100%)					
	Instant recovery time					<100m	ıs					
	Battery and mains switching		3S-5S					<4ms				
	Unbalanced voltage				<±3% <±1	1% (Unbalar	ced load vol	tage)				
	Overload	120%, 2	20s; > 150%	, 100ms			125%,2	0s;>150%,1s				
	Working efficiency					≥90% (load	l: 100%)					
System	Computer communication			RS232/4	85 (SNMP I	Remote Mon	itoring Netw	ork Adapters)				
	Operating temperature					-10-40°	C					
Specifications	Relative humidity (no condensation)				0.90	0% (no cond	ensation)					
	Noise from the machine 1M		40-50dB		50-60dB							
Structure	Dimensions:D×W×H(mm)		580*750*920	)	608*728*1475	1	138*795*172	25	1138*94	5*1725		
311001016	Weight (Kg)	180	220	300	470	620	680	730	954	980		

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### **CM-MPPT Solar Charge Controller**

(12-48V/30A、40A、50A、60A、80A、100A)

#### MAIN FEATURES



High precision and high effciency with DSP chip control



Display technology parameter with 7 inch touch screen



RS485 remote communication and data transmission(optional)



### Product Specifications

Model:CM-			30A	40A	50A	60A	80A	100A			
	Charging M	ode		MPPT	Γ Automatic Maximu	m Power Point Tracl	king				
	Charging Me	thod		Three stages: Cons	tant Current (MPPT)	, Balanced Charging	g, Floating Charge				
System Type		12V/24V/48V			Automatic Identifica	tion/Manual Setting					
		12V System			DC9V-I	DC15V					
System Ident Voltage Rang		24V System			DC18V-	DC30V					
vollage kariç	ge	48V System			DC36V-	DC60V					
Soft Start Tin	ne	12V/24V/48V	≤10s								
Dynamic Respon	nse Recovery Time	12V/24V/48V			≤50	Ous					
Static Power		12V/24V/48V			≤2	W					
Machine Effic	ciency	12V/24V/48V			≥96	.5%					
PV Module U	Itilization	12V/24V/48V			≤9	9%					
Input Chara	cteristics										
		12V System			DC18V-	DC150V					
MPPT Opera Voltage Rang		24V System	DC34V-DC150V								
vollage Kariç	ge	48V System	DC65V-DC150V								
		12V System	420W	570W	700W	900W	1100W	1400W			
Maximum Sc Panel Input F		24V System	840W	1130W	1400W	1700W	2200W	2800W			
uner import ower		48V System	1650W	2270W	2800W	3400W	4400W	5600W			
<b>Output Char</b>	acteristics										
Optional Battery	Type (Default is	10\//04\//40\/	Lead-acid maintenance-free Battery, Gel Battery, Lithium Battery								
lead-acid mainte	enance- free battery)	12V/24V/48V	(Can also be customized for other types of battery)								
Current Limit	ting Protection	12V/24V/48V	32A	42A	52A	62A	82A	102A			
Temperature	Coefficient	12V/24V/48V			± 0.02	%/°C					
Temperature	Compensation	12V/24V/48V		14	.2V-(Maximum Tem	perature -25°C)*0.3	3				
Output Regu	lation Accuracy	12V/24V/48V			≤±1	5%					
	Input Low Volt	age Protection			Reference Input	Characteristics					
	Input High Vol	tage Protection			Reference Input	Characteristics					
Protection	Short Circuit P	rotection		After 5 trial s	tarts will enter the p	rotection state, Rest	art Recovery				
	Temperature P				90	°C					
	Temperature R			R	educe Power Outpu	t When Exceed 85°C					
	Noise				≤50	)dB					
Other	Heat Dissipation	on Method		Forced a	ir cooling, fan speed	d is adjusted by temp	perature				
Parameters	Mechanical Pro				IP:						
	Humidity				0-90%RH (No	condensation)					
System Battery Voltage			PV module load voltage (Recommended Value)								
PV Module	12V System		18V-60V (30V module*1 string, 36V module*1 string)								
Configuration	/			36V-72	V (30V module*2 str	ing, 36V module*2	string)				
4	48V System			72V-144	V (30V module*3 st	ring, 36V module*3	string)				

### **CM-MPPT High Voltage Charge Controller**

(96-192 V / 50 A \ 100 A)

#### MAIN FEATURES



Innovative maximum power point tracking technology, the conversion rate of up to 97%



Quick scan of the entire I-V curve, Efficient track the maximum power point.



RS485 communication interface



#### Product Specifications

riodo	ct Specification	15					
Model:CM-			50A	100A			
	Charging Mo	de	MPPT Automatic Maximum Power Point Tracking				
	Charging Met	nod	Three stages: Constant Current (MPPT), Balanced Charging, Floating Charge				
System Type			96V/192V				
System Voltage Range 96V System		96V System	DC72V-DC120V				
System vond	ge kunge	192V System	DC144V	-DC240V			
Soft Start Time 96V/192V		96V/192V	≤10s				
Dynamic Resp	onse Recovery Time	96V/192V	≤50	00us			
Static Power		96V/192V	≤€	SW			
Machine Effic	ciency	96V/192V	≤96	5.5%			
PV Module U	tilization	96V/192V	≤9	9%			
Input Charac	teristics						
MPPT Opera	ting	96V System	DC130V-DC180V	/ DC130V-DC420V			
Voltage Rang	ge	192V System	DC260V	-DC420V			
Maximum Solar		96V System	5300W	10600W			
Panel Input Power 192V System		192V System	8000W	20000W			
Output Characteristics							
Optional Battery	Type (Default is ance-free battery)	96V/192V	Lead-acid maintenance-free Battery, Gel Battery, Lithium Battery (Can also be customized for other types of battery)				
Current Limiti	ing Protection	96V/192V	82A	102A			
Temperature	e Coefficient	96V/192V	± 0.0	02%/°C			
Temperature (	Compensation	96V/192V	14.2V-(Maximum Temperature -25°C)*0.3				
Output Regula	ation Accuracy	96V/192V	≤±1.5%				
	Input Low Voltage	Protection	Reference Inp	ut Characteristics			
	Input High Voltag	e Protection	Reference Input Characteristics				
Protection	Short Circuit Prot	ection	After 5 trial starts will enter the protection state, Restart Recovery				
	Temperature Prot	ection	90℃				
	Temperature Rise	Protection	Reduce Power Output When Exceed 85℃				
	Noise		≤50dB				
Other	Heat Dissipation	Method	Forced air cooling, fan speed is adjusted by temperature				
Parameters	Mechanical Prote	ction Type	IP21				
	Humidity		0-90%RH (No condensation)				
DV AA I - I	System Battery Vo	ltage	PV module load voltage (Recommended Value)				
PV Module Configuration	96V System		144V-320V (30V module9 string, 36V module*8 string)				
3-1-1011	192V System		230V-420V (30V module*11 string, 36V module*10 string)				

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### **NKM Series Hybrid Solar Inverter**

(0.3KW, 0.5KW, 0.7KW, 1KW, 1.5KW, 2KW, 3KW, 4KW, 5KW, 6KW)

#### MAIN FEATURES



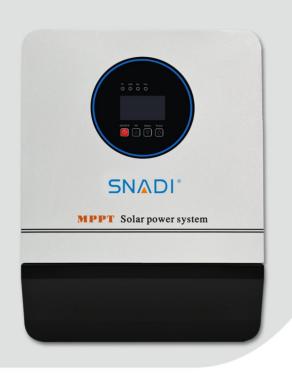
Double CPU intelligent control technology, performance excellence



The power mode / energy saving mode / battery mode can be set up.Flexible application



The LCD real-time display device parameters



### Product Specifications

Model:NKM-		0.3-1KW		1.5-6KW				
Power Rating(w)		300	700	1500	3000	5000		
			1000	2000	4000	6000		
	Rated Voltage(VDC)	12,	/24	12/24/48	24/48	48		
Battery	Charge Current	10A	MAX	30A MAX				
	Battery Type			Can be set				
Input	Voltage Range	73-138VAC/	145-275VAC	85-138VAC/170-275VAC				
Прог	Frequency	45-65Hz						
	Voltage Range		110VAC	/220VAC; ±5%( Invert	er mode)			
	Frequency		50/	60Hz±1%( Inverter m	ode)			
	Output Wave			Pure Sine Wave				
Output	Change Time	<10ms(Typical load)						
	Frequency	>85% (80% Resistive load)						
	Overcharge	110-120%/30S; >160%/300ms;						
	Protection Function	Battery over-voltage and low-voltage protection, overload protection, short circuit protection, over-temperature protection						
	MPPT Voltage Range	12VDC:15V-150VDC;24VDC:30V-150VDC:48VDC:60V ~150VDC						
	PV Power	12VDC-30A(400W); 24VDC-30A(800W)   12VDC-60A(800W); 24VDC-60A/1600W); 48VDC-60A(3200W)						
	Rated Charge Current	30A(Max)			60A(Max)			
	MPPT Efficiency	≥99%						
	Average Charging Voltage(lead acid battery)	y) 12V/14.2VDC;24V/28.4VDC;48V/56.8VDC						
Solar	Floating Charge Voltage	12V/13.75VDC;24V/27.5VDC;48V/55VDC						
Controller	Operating Ambient Temperature	-15-+50°C						
	Storage Ambient Temperature	-20-+50℃						
	Operating / storage Environment	0-90% No Condensation						
	Dimensions:W*D*H (mm)	420*321*125		545*461*170				
	Packing size: W*D*H (mm)	515*380*205		645*555*260				
Note: Our co	Note: Our company has the right of changing this user manual without any information							

### **NKH High Frequency MPPT Hybrid Solar Inverter**

(3.5KVA, 5.5KVA, 10KVA, 12KVA)

#### MAIN FEATURES



Overload/ Over temperature/short circuit protection



Configurable battery charging current based on applications via LCD setting



Smart battery charger design for optimized battery performance



### Product Specifications

Model:NKH-		NKH-3.5KVA	NKH-5.5KVA	NKH-10KVA	NKH-12KVA			
Rated Power		3KW	5KW	8KW	10KW			
	Voltage 208VAC/220VAC/230VAC/240VAC							
Input	Selectable Voltage Range	170-280VAC(For Personal Computers)						
mpoi	Selectable vollage kange		90-280VAC(For Ho	ome Appliances)				
	Frequency Range	50Hz/60Hz(Auto sensing)						
	AC Voltage Regulation (Batt .Mode)	208VAC/220VAC/230VAC/240VAC ±5%						
	Surge Power	6KW	10KW	16KW	20KW			
Output	Efficiency (Peak)PV to INV		979	%				
	Efficiency (Peak)Battery to INV		949	%				
	Transfer Time		10 n	ns				
	Overlord Capacity	1min@102%-110	1min@102%-110% Load, 10s@110%-130% Load, 3s@130%-150% Load 02s@150% Load					
	Battery Voltage	24VDC	48VDC					
	Floating Charge Voltage	27VDC	54VDC					
AC Charge	Overcharge Protection	32VDC	64VDC					
	Maximum Charge Current	60A	80A	0A 160A				
	Maximum PV Array Power	1500W	5500W	5500W 11000W				
	MPPT Range Operating Voltage	30-115VDC	DC 120-430VDC					
PV Charge	Maximum PV Array Open Circuit Voltage	145VDC	450VDC					
	Maximum Charge Current	60A	80A	160A				
	Maximum Efficiency	99%						
AC+PV Charge	Maximum Charge Current	120A	80A	160.	A			
	Dimension D"W"H(mm)	439*320*128		640*490*152				
Physical	Net Weight(kg)	8	9.2	20				
	Communication interface		USB/RS232/GPRS/WIFI					
	Humidity		5% to 95% Relative Hur	midity(Non-condensing)				
Opera Ting Environment	Operating Temperature		0℃-	55℃				
LiviloilileIII	Storage Temperature	-15℃-60℃						
Note: Our co	mpany has the right of changing this user	manual without any infor	rmation					

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### **NKD Single-phase Inverter With Built-in Charge Controller**

(NKD-10KW, NKD-15KW, NKD-20KW, NKD-30KW)

#### MAIN FEATURES



A power-on test function, which can avoid the faults because of hazards of the inverter



A wide range of input frequency, which realizes stable operation of fuel generators



Frequency tracking, noise filtering and low distortion in inverter output



### Product Specifications

Model:NKD-		NKD-8KW	NKD-10KW	NKD-15KW	NKD-20KW	NKD-30KW		
Rated Power		8KW	10KW	15KW	20KW	30KW		
Battery Voltage		192VDC/220VDC/240VDC						
Battery	Voltage of Over discharge protection	168VDC/189VDC/210VDC						
	Restart voltage after low battery	216VDC/243VDC/270VDC						
	Controller Types		With maximum pow	er point tracking (MPPT	) function controller			
	Rate Current		S	olar1: 50A;Solar 2: 50	A			
	Current Limiting Protection		S	olar1: 52A:Solar 2: 52	Ą			
	Rate Voltage		19	2VDC/220VDC/240VD	C			
	System Identification Voltage Range			/				
	Operating Voltage Range	DC260V-DC420V						
	Charge mode	Three stages:constant current (quick charge), constant pressure, floating charge						
	Battery Type	Sealed lead-acid battery, colloidal lead-acid battery, open lead-acidbattery (you can customize parameters to charge other types ofbatteries						
	PV module input power	192VDC:Solar 1,10KW;	Solar 2,10KW; 220VDC:S	olar 1,11.5KW; Solar 2,11.	5KW; 240VDC:Solar 1,1	2.5KW; Solar 2,12.5KW;		
MPPT	Vmax-pv			<420VDC				
Controller	Vlow-py		24	0VDC/250VDC/270VD	С			
Commoner	Vstar-pv	260VDC/270VDC/290VDC						
	Vovet-pv	425VDC						
	Floating Charge Votage (Lead Acid Battery)	220.8VDC/248.4VDC/276VDC (Can be customized)						
	Average charging Voltage (Lead Acid Battery)	232VDC/261VDC/290VDC(Can be customized)						
	PV module utilization	≤99.97%						
	Machine Efficiency	≥96.5%						
	Output Regulation Accuracy	≤±1.5%						
	Temperature Coefficient	±0.02%/°C						
	Temperatue Compensation	14.2V-(Maximum Temperature-25C) *0.3						
	Protective function	Input and output over-voltage protection, anti-reverse protection, short circuit protection, etc.						
	Input voltage	220VAC±20%						
	Input Frequency	50Hz/60Hz±5%						
	Output Voltage	220VAC±5%						
	Output Frequency	50/60Hz±1%						
	Output wave	pure sine wave THD<4%(full load)						
Inverter	Conversion time			<10ms				
	Overload	110-120%/30S; >150%/300ms;						
	Efficiency		≥	90% (100% resistive loc	ıd)			
	Dynamic load voltage transient	<+5% ( 0-100% )						
	Defensive function	Output short circuit, overvoltage, low voltage, low battery power protection						
Oil	Operating ambient temperature	-10-40℃						
Other	Environment relative humidity	20-90%(No Condensation)						
	Product Size: L*W*H (mm)		536*560*	1015		635*566*1295		
Weight(Kg)		125	148	165	182	252		

### **NKG Three-phase Inverter With Built-in Charge Controller**

(NKG-10KW, NKG-15KW, NKG-20KW, NKG-30KW)

### MAIN FEATURES



Visualization of operation status of the equipmentthrough simple LEDs and a LCD



Settable battery protection parameters, and a function of password protection;



Excellent performance because of the DSP intelligent control inversion technology



### Product Specifications

	Model:NKG-	NKG-10KW	NKG-15KW	NKG-20KW	NKG-30KW		
Rated Power		10KW	15KW	20KW	30KW		
	Battery Voltage	192VDC/216VDC/240VDC					
Battery	Low power shutdown voltage	172VDC/194VDC/216VDC					
	Restart voltage after low battery		216VDC/243V	/DC/270VDC			
	Controller Types	Wi	th maximum power point trac	king (MPPT) function control	ler		
	Rate Current		Solar1: 50A;	Solar 2: 50A			
	Current Limiting Protection		Solar1: 52A:S	Solar 2: 52A			
	Rate Voltage		192VDC/216V	/DC/240VDC			
	System Identification Voltage Range		/				
	Operating Voltage Range						
	Charge mode	rge), constant pressure, floa	ting charge				
	Battery Type	Sealed lead-acid battery, colloidal	lead-acid battery, open lead-acid bo	attery (you can customize paramete	rs to charge other types of batterie		
	PV module input power		10KW, / 216VDC:Solar 1: 11.5KV				
AADDT	Vmax-pv		<420\		,		
MPPT	Vlow-py		240VDC/250V				
Controller	Vstar-pv		260VDC/270V				
	Vovet-pv		425V				
	Floating Charge Votage (Lead Acid Battery)						
	Average charging Voltage (Lead Acid Battery)						
	PV module utilization	≤99.97%					
		≥96.5%					
	Machine Efficiency	≤±1.5%					
	Output Regulation Accuracy		±0.02				
	Temperature Coefficient						
	Temperatue Compensation	14.2V-(Maximum Temperature-25C) *0.3					
	Protective function	Input and output over-voltage protection, anti-reverse protection, short circuit protection, etc.					
	Input phase number		Three-phas				
	Input voltage	AC380VAC±15%					
	Input frequency	50Hz/60Hz±5%					
	Output voltage	AC220V/AC380V±2% (Steady state load)					
	Output frequency	50Hz/60Hz±5%(main supply) 50Hz±0.1% (Battery powered)					
	Efficiency	≥90% (100% resistive load)					
Inverter	Output waveform	Pure sine wave					
	Total harmonic distortion	Linear load<3% Nonlinear load<5%					
	Dynamic load voltage transient	<±5% ( 0-100% )					
	Instantaneous recovery time	<10ms					
	Battery and mains switching time	1S-3S					
	Unbalanced voltage	<±3% (Balancing load voltage)					
	Overload capacity	120% 20s; > 150%, 100ms					
	Operating ambient temperature	-10-40℃					
Other	Relative humidity		Condensation)				
	Noise	40-50dB					
	Product Size : DxWxH(mm)			66*1295			
Struture	Package size: DxWxH(mm)			90*1540			
	Weight(Kg)	180	220	263	320		

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### **Photovoltaic Array Combiner Box**

(H4T、H4T2、H6T、H8T、H10T)

#### MAIN FEATURES



Multiple PV input arrays each of which has a maximum current of 16A



A degree of protection of IP65 for meeting the need of outdoor installation



A special high-voltage circuit breaker for output control of the PV module



### Product Specifications

Model		H4T	H4T2	H6T	Н8Т	H10T		
Input Data	Number Of PV Input Arrays	4	4	6	8	10		
	Maximum Current Of Each PV Input Array	16A						
Input Data	Fuse For Each PV Input Array	16A						
	Wire Number Of Each PV Input Array	PG7、4mm²						
	Number Of Output Channel	1		2	2			
	Maximum Output Current	60A 30A/each way, total 60A 30A/each way, total 60A 40A/each way, total 80A 50A/each way, total 10						
Output Data	Wire Number Of Each Output Channel	PG16, each way 8mm²	Pg16, each way 8mm²	Pg16, each way 10mm²	Pg16、each way 10mm²	Pg16、 each way 12mm²		
	Maximum Output Voltage	440VDC						
	DC Output Circuit Breaker	Yes						
	Protection	IP65						
	Temperature	-30°C ~ +60°C						
	Reference Weight (net weight/gross weight)	5.3/9.3	8.4/1	2.9	9.5/14.3	10.8/15.6		
Other Data	Equipment Dimensions(DXWXH)	340*300*140mm	360*340*145mm		400*420*145mm			
Other Data	Packing Dimensions(DXWXH)	450*420*245mm	470*450*255mm		530*510*255mm			
	Cooling Method	Natural Cooling						
	Surge Protection	Yes						
	Ground Wire Number	≥6mm²						

### **Photovoltaic Array Combiner Box**

(HT4, HT6, HT8, HT10, HT16)

#### MAIN FEATURES



Single way photovoltaic array output, maximum open circuit voltage 1000V.



Photovoltaic special high voltage circuit breaker control output



Photovoltaic special high voltage lightning protection device protection



### Product Specifications

Model:	HT4	HT6	HT8	HT10	HT16
PV Array Input Numbers	4	6	8	10	16
Max Single PV Array Current			16A		
Single PV Array Fuse			16A		
Single PV Array Wire Size			4mm <sup>2</sup>		
Output Numbers			1		
Max Output Current	40A	60A	80A	100A	160A
Output Wire Size mm <sup>2</sup>	10mm <sup>2</sup>	16mm <sup>2</sup>	20mm <sup>2</sup>	25mm <sup>2</sup>	35mm²
Max Output Voltage			1000VDC		
DC Output Circuit Breaker			Yes		
Protection			IP65		
Temperature Range			-30°C~60°C		
Reference Weight (N.W/G.W.)		7.6 Kg/13Kg		12.2 Kg	/18.8Kg
Machine Size (D*W*H)		458*445*150mm		458*445*150mm	
Packaging Size (D*W*H)		510*500*252mm 620*550			*262mm
Cooling Way			Natural Cooling		
SPD Protection		20KA-40KA			
Ground Wire Size			≥6mm²		

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