



**Contact us** 











It's great to save the planet It's greater to save money











established in 2013, we has got ISO9001

offered to the customers. With solar

power system supporting products

and ISO14001 approved, with 6000 square

meters plant, 5 production lines, advanced

produce and test equipment, the best quality products and perfect services always be

continuing to be widely used in families and countries all over the world, we sincerely feel

honored that the solar system we designed

and produced are very appreciated by the

market as well as applied widely in every field. We are committed to regarding customers'

real requirements as our deep research and

and completely dedicated to our vision and to

development direction all the way. This is

what inspires us to be original, creative

our customers.

# What we can do?

- 1. Professional pre-sales engineering team solution support, OEM & ODM customized services.
- 2. High-quality control, 90% of our products are self-developed and manufactured. All products we offer users the most popular and high-quality brand materials in the world with strict quality control.
- 3. Perfect after-sale service, detailed installation drawing and video, and user manual will be offered. 24hrs after-sale engineer service.







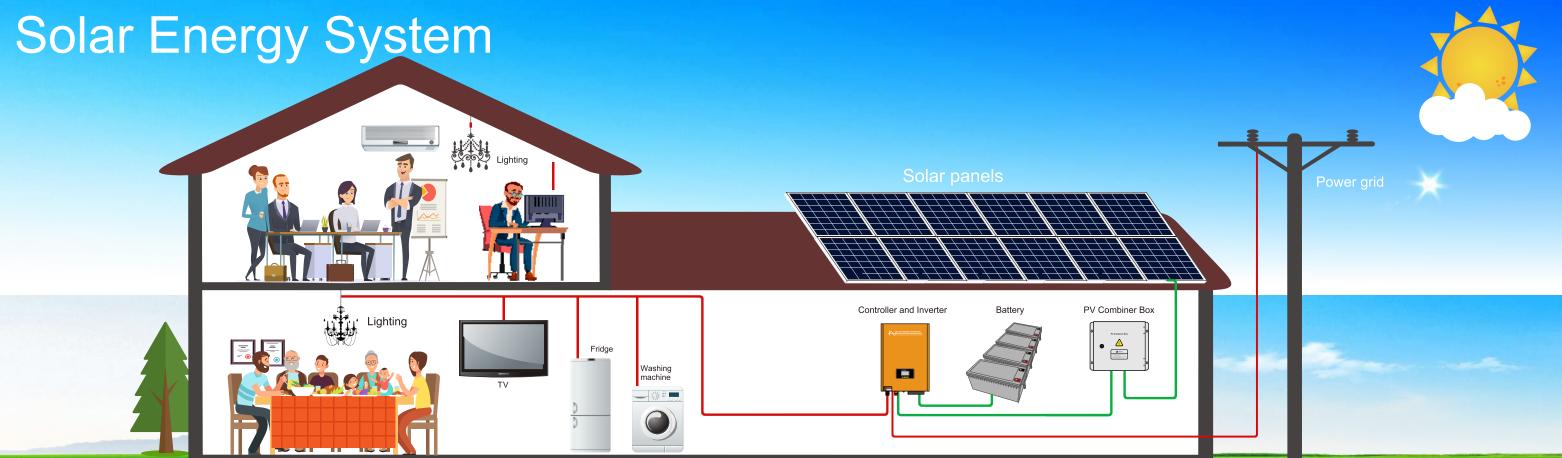
### **Our Advantages**

Our complete solar energy systems are perfect for the contractor competing for a bid or the homeowner avoiding the exorbitant costs of a solar system installation company. The sales engineers on our sta ffhave many years of experience and can design any complete solar system for residential or commercial applications. Our remote industrial solar systems are designed to reliably power our clients critical loads in remote locations.

Our residential systems ship complete with solar panels, inverter, solar panel mounting, interconnect cables, AC and DC disconnects. Any other options you may need are available at low wholesale prices. Site specific one and three line electrical schematics are included with every system and denote all wiring sizing and type and all recommended breakers, disconnects and components. They will more than likely be all you need to obtain your installation permit for your area if one is required.

We pride ourselves on providing the best custom electrical engineering drawings, system design and installation technical support in the industry. Whether you're an experienced installer, electrical contractor or the do-it yourself homeowner. We will be here to support you every step of the way throughout the design, permitting and installation process.





### 10KW Solar System in Dominica

Solar Panel: 400W 24pcs Inverter: 10KW / 96VDC Battery: 200AH /16pcs







# **5KW Solar System in Indonesia**

Solar Panel: 400W 12pcs Inverter: 5KW / 96VDC Battery: 200AH /8pcs



Solar Panel: 400W 48pcs Inverter: 20KW / 196VDC Battery: 150AH / 32 pcs





### 10KW Solar System in Cameron

Solar Panel: 400W 24pcs Inverter: 10KW / 96VDC Battery: 200AH /16pcs



Battery: 150AH /16pcs











Easy Installation



High Efficiency

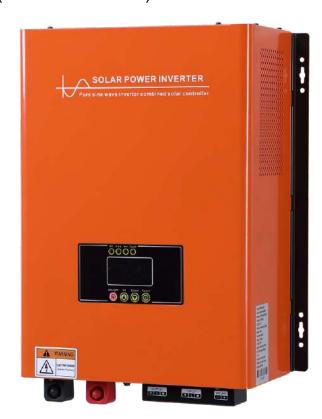






# Low Frequency Inverter

(build-in controller)





Build-in MPPT



Full Protection



Pure Sine Wave



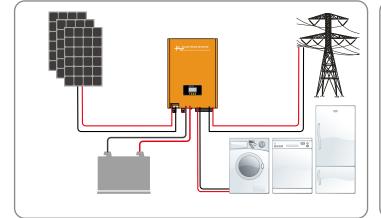
Safe



Single Phase



Easy



- This compact inverter is ideal for residential and small-scale commercial applications. With power categories from 0.5kw to 6kw and built-in MPPT controller, It can operate efficiently at a maximum input voltage for increasing efficiency and additional
- Pure sine wave
- MPP tracking
- Metal case design to enhance heat dissipation and prevent rust corrosion, prolong life time
- Gel battery and LiFePO4 battery can be configured flexibly

### **Technical Specification**

	reormical opeomodion							
Technical Specification	HIM0K5E	HIM1K0E	HIM1K5E	HIM2K0E	HIM3K0E	HIM4K0E	HIM5K0E	HIM6K0E
				AC II	NPUT			
Input Voltage Range				85~138VAC /				
Frequency Range				50/6				
Max Bypass Overload Current	30A	30A	30A	30A	30A	30A	30A	30A
AC Reverse Protection		<u> </u>		Avail	lable		<u> </u>	
				OUT	PUT			
Rated Power	500W	1000W	1500W	2000W	3000W	4000W	5000W	6000W
Peak Power	1000W	2000W	3000W	4000W	6000W	8000W	10000W	12000W
Wave Form		<u>I</u>	-	Pure Sir	ne Wave			
Efficiency				>85	5%			
Output Voltage				110/VAC/	240VAC			
Output Frequency				50/60Hz (	(+/-0.5Hz)			
Transfer Time				8n	าร			
				PV CH	ARGING			
Voltage Range	12Vdc	/24Vdc		24Vdc/48Vdc			48Vdc/96Vdc	
MPPT Voltage Range		12V:(15~1	50Vdc) / 24V:(	30~150Vdc)/	48V:(60~150\	/dc) / 96V:(13	0~180Vdc)	
Max Output Power	12Vdc 30 24Vdc 30	,		Vdc 60A(1600 Vdc 60A(3200	*		Vdc 60A(3200 Vdc 60A(6400	,
Charging Current Range	0-3	80A			0-6	0A		
Battery Type				Gel / Li	FePO4			
Battery Voltage Range	12Vdc	/24Vdc		24Vdc/48Vdc			48Vdc/96Vdc	
				PROTE	ECTION			
Output Short Circuit			AC mode:	Jump fuse, Inv	verter mode: S	Shut down		
Overload	If overload 10	05%, Inverter v		erload 130%, I		ut down in 10s	s Once the inv	erter is off, It
High AC Voltage				C,Turn to Inve		omatically		
Low DC Voltage	Inverte	r shut down at	utomatically, O	nce the AC re	cover, Inverte	r turn on and o	charge automa	ntically
Over Temperature	Inv	erter will alarm	and turn off o	output but it wi	Il recover to no	ormal state aft	er cooling dow	/n
				DISF	PLAY			
Content	Input/Out	put Voltage, B st		, Battery Capa				iency, PV
			·	GENER	AL DATA			
Humidity				15~9				
Operating Temperature				-10~4				
Ambient Temperature		-15~60°C						
Altitude	<3000m							
Degree of Protection		IP21						
Cooling Method		Intelligent redundant fan cooling						
Noise [dBA]				<30	dBA			
Fixing System				Wall mo	unt lugs			
Net Weight / Gross	12kg / 14kg	14kg / 16kg	15.6kg/17.6kg	16.3kg/18.7kg	18.6kg/21.5kg	25.1kg/27.2kg	27.5kg/30.5kg	29.5kg/32.5kg
Dimensions	420 x 313	x 117mm	486	6 x 361 x 175n	nm	553	3 x 411 x 175n	nm
Package Size	505 x 374 x 178mm 571 x 422 x 236mm 641 x 470 x 236mm					nm		

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# High Frequency Inverter

(build-in controller)





Build-in MPPT



High Efficiency



Pure Sine Wave



Full Protection



Expansion in parallel



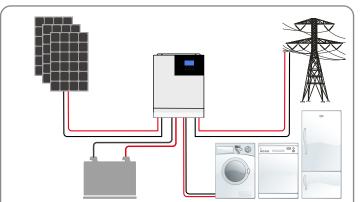
Safe



Three Phase



Easy



High frequency pure sine wave

- Build-in MPPT controller
- High expansion to 30KW in parallel mode
- Support single phase, split phase, 3-phase
- Small, light, and easy to install
- Available in 4 charging modes: only solar, mains priority, Solar priority and solar&mains hybrid charging
- Metal case design to enhance heat dissipation and prevent rust corrosion, prolong life time
- Save surplus electricity, increase self-use rate of PV generation
- Gel battery and LiFePO4 battery can be configured flexibly
- Supply of variety of communication functions such as Rs485, GPRS, WIFI. Bluetooth, CAN, USB, etc.

#### **Technical Specification**

Technical Specification	HIA0K2E24	HIA0K3E24	HIA0K3E48	HIA0K5E48		
		AC	INPUT			
Input Voltage Range		90~2	80Vac			
Frequency Range		50/	60Hz			
Max Bypass Overload Current	30A	30A	40A	40A		
AC Reverse Protection		Ava	ilable			
		OU	TPUT			
Rated Power	2000W	3000W	3000W	5000W		
Peak Power	4000W	6000W	6000W	10000W		
Wave Form		Pure Si	ne Wave	•		
Efficiency		>9	95%			
Output Voltage		230	)Vac			
Output Frequency		50/60Hz	(+/-0.5Hz)			
Transfer Time		10	)ms			
		PV CH	IARGING			
Voltage Range	30~10			45Vdc		
MPPT Voltage Range	30~8	5Vdc	60~1	15Vdc		
Max Output Power	140	0W	420	OOW		
Charging Current Range	0-6	0A	0-8	30A		
Wiring Protection			arity Protection			
Battery Type			iFePO4			
Battery Voltage Range	18~33		1	40~60Vdc		
			ECTION			
Output Short Circuit	А	C mode: Jump fuse, Ir	nverter mode: Shut dowr	1		
Overload			ad 130%, Inverter will sh			
High AC Voltage	Т	Turn off AC, Turn to Inve	erter mode automatically	′		
Low DC Voltage	Inverter shut down	•	ne AC recover, Inverter to natically	urn on and charge		
Over Temperature	Inverter will alarm and		rill recover to normal stat	te after cooling down		
		DIS	PLAY			
Content	Input/Output Voltage		ery Capacity, Load Capa ency, PV	acity, Working mode,		
		GENEF	RAL DATA			
Humidity		15~	95%			
Operating Temperature		-15~	-55°C			
Ambient Temperature	-25~60°C					
Altitude	<3000m					
Degree of Protection	IP21					
Cooling Method	Intelligent redundant fan cooling					
Noise [dBA]		<60	) dBA			
Fixing System		Wall mo	ount lugs			
Net Weight / Gross	6.2kg /	7.8kg	10.8kg	/ 11.8kg		
Dimensions	378*280*	103mm	426*322	*124mm		
	1	176mm	498*410			

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## Low Frequency Inverter Single Phase





Build-in MPPT



Full Protection



Pure Sine Wave



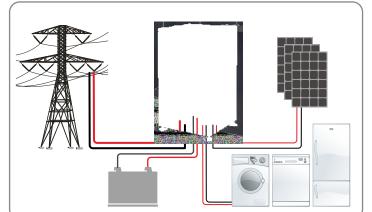
Safe



Single Phase



Easy



- Pure sine wave
- Build-in MPPT controller
- Easy to use
- Single phase
- Efficient IGBT (Insulated Gate Bipolar Transistor) inversion technology has a lower saturation voltage drop and higher operation efficiency and reliability
- Metal case design to enhance heat dissipation and prevent rust corrosion, prolong life time
- Save surplus electricity, increase self-use rate of PV generation
- Gel battery and LiFePO4 battery can be configured flexible

Technical Specification	HIK8K0E96	HIK8K0E192	HIK10KE96	HIK10KE192	HIK15KE192	HIK20KE192
			AC I	NPUT		
Input Voltage Range			110Vac	′220Vac		
Frequency Range			50/6	60Hz		
			OUT	TPUT		
Rated Power	8000W	8000W	10000W	10000W	15000W	20000W
Peak Power	16000W	16000W	20000W	20000W	30000W	40000W
Wave Form			Pure Sir	ne Wave		
Efficiency			>9	0%		
Output Voltage			110Vac	/220Vac		
Output Frequency			50/60Hz	(+/-0.5Hz)		
Transfer Time			<30	)ms		
			PV CH	ARGING		
Voltage Range	115~230Vdc	220~430Vdc	115~230Vdc	220~430Vdc	220~430Vdc	220~430Vdd
Charging Current Range	50 (2 input o	A channel)		10 (4 input o		
Wiring Protection			Reverse Pola	rity Protection		
Battery Type			Gel / Li	FePO4		
Battery Voltage Range	96Vdc	192Vdc	96Vdc	192Vdc	192Vdc	192Vdc
			PROTI	ECTION		
Output Short Circuit		AC mode	e: Jump fuse, In	verter mode: Sh	ut down	
Overload	If overload 10			ad 130%, Inverte t be turned on n		n in 10s Once
High AC Voltage		Turn off	AC,Turn to Inve	rter mode auton	natically	
Low DC Voltage	Inverter sh	ut down automa	-	e AC recover, In aticallv	verter turn on a	nd charge
Over Temperature	Inverter will al	arm and turn of		Il recover to nor	mal state after o	cooling down
			DISI	PLAY		
Content	Input/Output	Voltage, Batter		ery Capacity, Loa ency, PV	ad Capacity, Wo	orking mode,
				AL DATA		
Humidity			15~	95%		
Operating Temperature			-15~	40°C		
Altitude		<3000m				
Degree of Protection			IP	21		
Cooling Method			ntelligent redun	dant fan cooling		
Noise [dBA]			<60	dBA		
Weight	180kg	180kg	200kg	200kg	240kg	257kg
Dimensions			536*560*	1015mm		
Package Size			675*700*	1180mm		

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## Low Frequency Three Phase Inverter





Build-in MPPT



Full Protection



Pure Sine Wave



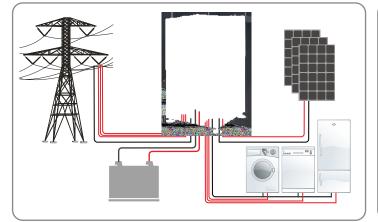
Safe



Three Phase



Easy



- Three Phase
- Pure sine wave
- Build-in MPPT controller
   DSP intelligent control technology high performance
- Efficient IGBT (Insulated Gate Bipolar Transistor) inversion technology has a lower saturation voltage drop and higher operation efficiency and reliability
- Metal case design to enhance heat dissipation and prevent rust corrosion, prolong life time
- Save surplus electricity, increase self-use rate of PV generation
- Gel battery and LiFePO4 battery can be configured flexible

Technical Specification	HIT10KE192	HIT15KE192	HIT20KE192	HIT25KE240	HIT30KE240	
			AC INPUT			
Input Voltage Range			380Vac			
Phase			3-Phase			
Frequency Range			50/60Hz			
			OUTPUT			
Rated Power	10000W	15000W	20000W	25000W	30000W	
Peak Power	20000W	30000W	40000W	50000W	60000W	
Wave Form			Pure Sine Wave			
Efficiency			>90%			
Output Voltage			380Vac 3-phase			
Output Frequency			50/60Hz (+/-0.5Hz	)		
Transfer Time			<3s			
			PV CHARGING			
Voltage Range		220~430Vdc		276~4	30Vdc	
Charging Current Range			100A (4 input channel)			
Wiring Protection	+	Rev	erse Polarity Prote	ction		
Battery Type	+		Gel / LiFePO4			
Battery Voltage Range	+	192Vdc		240	Vdc	
, , ,			PROTECTION			
Output Short Circuit		AC mode: Jum	p fuse, Inverter mo	de: Shut down		
Overload	If overload 105%,		.lf overload 130%, off, It must be turne		own in 10s Once	
High AC Voltage		Turn off AC,Tu	rn to Inverter mode	automatically		
Low DC Voltage	Inverter shut d	lown automatically	, Once the AC reco	over, Inverter turn o	on and charge	
Over Temperature	Inverter will alarm	and turn off outpu	ıt but it will recover	to normal state aff	ter cooling down	
			DISPLAY			
Content	Input/Output Vo	ltage, Battery Volta	age, Battery Capac Frequency, PV	ity, Load Capacity,	Working mode,	
			GENERAL DATA	<u> </u>		
Humidity			15~95%			
Operating Temperature	-15~40°C					
Altitude	<3000m					
Degree of Protection	IP21					
Cooling Method		Intelligent redundant fan cooling				
Noise [dBA]			<60 dBA			
Weight	220kg	240kg	262kg	319kg	365kg	
Dimensions		635*566*1295mm				
Package Size			760*690*1540mm			

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Solar Controller Technical Specification







Efficiency





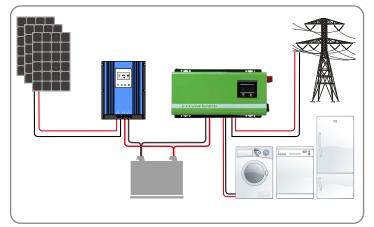


Safe



Full Protection

Easy



The MPPT Charge Controller utilizes Maximum Power Point Tracking technology to extract maximum power from the solar PV module(s). The tracking algorithm is fully automatic and does not require user adjustment. MPPT technology will track the array's maximum power point voltage (Vmp) as it varies with weather conditions, ensuring that the maximum power is harvested from the array throughout the course of the day.

This controller is suitable for off-grid solar applications. It protects the battery from being over-charged by the solar modules and over-discharged by the loads.

Technical Specifica	tion	HCP030A	HCP040A	HCP050A	HCP060A	HCP050B	НСР060В	HCP080B	HCP100I
					TECHNIC	CAL DATA			
Rated Charging Curr	ent	30A	40A	50A	60A	50A	60A	80A	100A
Charing Mode		00/1	40/1		maximum			00/1	100/1
/oltage Range		12V:	18~150V / :		0V / 36V:48		_	/ 96V:130~	180V
Charging Method					current, ba				
Efficiency					>99		99,	.999	
Battery Type					GEL Batte				
Non-Loading Loss						mA			
	12V	420w	570w	700w	900w				
	24V	840w	1130w	1400w	1700w				
∕/ax PV Input Power		1230w	1700w	2100w	2550				
	48V	1650w	2270w	2800w	3400w	2650w	3150w	4250w	5300w
	96V	10000	1 O V V	20000	3 +00 VV	5300w	6400w	8500w	10600w
	12V		10	6v	ļ	00000	04000	00000	100000
	24V			0v					
ow Voltage	36V		_	5v					
rotection	48V			0v			6	0v	
	96V							:0v	
	12V		15	i0v					
	24V			i0v					
Over Voltage	36V			50v					
Protection	48V			50v		150v			
	96V					230v			
					LOA	DING			
₋oad Voltage					same as	battery			
J					DIS	PLAY			
Content		Input/Out	put Voltage	, Battery Vo	ltage, Batte	ry Capacity	/, Load Cap	acity, Worki	ing mode,
Jontent						ncy, PV			
						AL DATA			
Humidity					15~9				
Operating Temperatu					-20~				
Ambient Temperatur	е				-40~				
Altitude					<300				
Degree of Protection		IP21							
Cooling Method			Intelligent redundant fan cooling						
Noise [dBA]						dBA			
Fixing System  Net Weight / Gross		1.8kg/2.1kg	1.8kg/2.1kg	2.5kg/3.0kg	Wall mo 2.5kg/3.0kg		2.5kg/3.0kg	5.8kg/6.5kg	5.8kg/6.5
Dimensions		203*197	*92mm		250*197	*92mm		322*242	<u> </u> *117mm
Package Size			*130mm		340*238			322*242	

P19 P20

# Low Frequency Inverter









Easy

Full Protection

Safe

This compact inverter is ideal for residential and small-scale commercial applications. With power categories from 0.5kw to 6kw, It can operate efficiently at a maximum input voltage for increasing efficiency and additional cost savings.

### **Technical Specification**

Technical Specification	HIS0K5E	HIS1K0E	HIS1K5E	HIS2K0E	HIS3K0E	HIS4K0E	HIS5K0E	HIS6K0E
			AC INI	PUT				
Input Voltage Range			85	~138VAC / 170	0~275VAC			
Frequency Range				50/60H	Z			
			OUTP	UT				
Rated Power	500W	1000W	1500W	2000W	3000W	4000W	5000W	6000W
Peak Power	1000W	2000W	3000W	4000W	6000W	8000W	10000W	12000W
Wave Form			•	Pure Sine V	Vave			
Efficiency				>85%				
Output Voltage				110/VAC/ 24	-0VAC			
Output Frequency				50/60Hz (+/-	0.5Hz)			
Transfer Time				8ms				
			BATTE	ERY				
Voltage Range	12Vdc/2	24Vdc		24Vdc/48Vdc			48Vdc/96Vd	С
Charging Current Range				0-30A Adjus	table			
			PROTEC	CTION				
Output Short Circuit			AC mode: Ju	mp fuse, Inver	ter mode: Shut	t down		
Overload	If overload 105	5%, Inverter wi	ll alarm.lf overlo mu	oad 130%, Inve st be turned or		lown in 10s (	Once the inve	erter is off, It
High AC Voltage			Turn off AC,	Γurn to Inverter	mode automa	ntically		
Low DC Voltage	Inverter	shut down aut	tomatically, Onc	e the AC recov	ver, Inverter tui	n on and ch	arge automa	tically
Over Temperature	Inve	rter will alarm	and turn off out	put but it will re	cover to norm	al state after	cooling dow	n
			DISPL					
Content	Input/Outp	_	ttery Voltage, B tus and specifo				mode, Freque	ency, PV
			GENERA	L DATA				
Humidity				15~95%	0			
Operating Temperature				-10~40°	С			
Ambient Temperature				-15~60°	С			
Altitude		<3000m						
Degree of Protection	IP21							
Cooling Method	Intelligent redundant fan cooling							
Noise [dBA]		<30 dBA						
Fixing System				Wall mount	lugs	<del></del>		
Net Weight / Gross	12.8kg/10.8kg	15.6kg/13.6kg	17.6kg/15.6kg	18.5kg/16.3kg	20.1kg/18.3kg	23kg / 20kg	25kg/22.7kg	27.4kg/25.1kg
Dimensions	460 x 200 :	x 121mm	460	) x 242 x 172m	ım	520	0 x 293 x 172	2mm
Package Size	530 x 260 :	x 190mm	550	) x 295 x 234m	ım	60	7 x 345 x 234	lmm

P21 P22

# Low Frequency Inverter





Pure Sine Wave



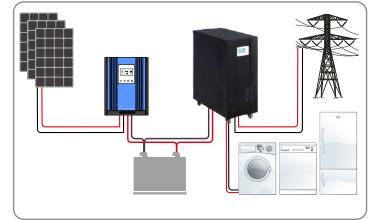
Full Protection



Safe



Easy



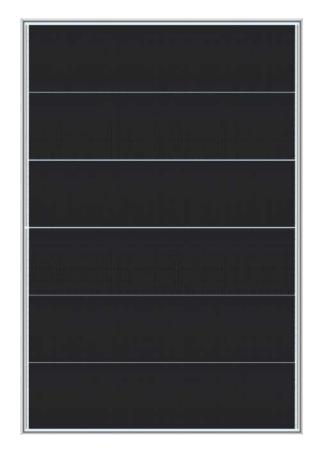
As an ideal Off-Grid inverter for households and industry, HIH series off-grid high power inverter is designed with advanced CPU and DSP. Thanks to the imported IGBT power module, it has long service life and reliable performance. With wide voltage, and pure sine wave output, it is a perfect and safe power source for home applications

### **Technical Specification**

						001111100	'		
Technical Specification	HIH8K0E	HIH10KE	HIH12KE	HIH15KE	HIH20KE	HIH25KE	HIH30KE	HIH40KE	
				AC I	NPUT				
Input Voltage Range				85~138VAC /	170~275VAC				
Frequency Range				50/6	60Hz				
				OUT	TPUT				
Rated Power	8KW	10KW	12KW	15KW	20KW	25W	30KW	40KW	
Peak Power	16KW	20KW	24KW	30KW	40KW	50W	60KW	80KW	
Wave Form		I	I	Pure Sir	ne Wave	I	I	I	
Efficiency				>8	5%				
Output Voltage				110/VAC	/ 230VAC				
Output Frequency				50/60Hz	(+/-0.5Hz)				
Transfer Time				6n	ns				
				BAT	TERY				
Voltage Range	96V/1	92Vdc			192V/240Vdc			360Vdc	
Charging Current Range				0-10A Ad	djustable			ļ	
				PROTE	ECTION				
Output Short Circuit			AC mo	de: Jump fuse, In	verter mode: Shut	down			
Overload	If overload 105%	%, Inverter will alar	m.lf overload 130	%, Inverter will shu	ut down in 10s On	ce the inverter is o	off, It must be turne	ed on manually	
High AC Voltage			Turn o	off AC, Turn to Inve	rter mode automa	tically			
Low DC Voltage		Inverter shut	down automatical	ly, Once the AC re	cover, Inverter tur	n on and charge a	utomatically		
Over Temperature		Inverter v	vill alarm and turn	off output but it wi	Il recover to norma	al state after coolir	ng down		
				DISI	PLAY				
Content	Input/Outpu	ıt Voltage, Battery	Voltage, Battery C	Capacity, Load Cap Cumulative pov	pacity, Working mo	ode, Frequency, P	Vstatus and speci	fcation, PV	
				GENER	AL DATA				
Humidity				15~9	95%				
Operating Temperature				-10~	50°C				
Ambient Temperature				-15~	60°C				
Altitude				<300	00m				
Degree of Protection		IP21							
Cooling Method	Intelligent redundant fan cooling								
Noise [dBA]	<30 dBA								
Fixing System				Wall mo	unt lugs				
Net Weight / Gross	69kg	72.5kg	81kg	85kg	108kg	130kg	143kg	161kg	
		580x290x675 mm				690x360x870 mm			
Dimensions		580x290	x675 mm			690x360x	x870 mm		

P24 P23

### Shingle Solar Panel





Loss





Easy

Shingle solar cells are solar cells which are cut into typically 5 or 6 strips. These strips can be overlaid, like shingles on a roof, to form the electrical connections. The strips of solar cells are joined together using an electrically conductive adhesive (ECA) that allows for conductivity and flexibility. This allows the cells to be connected differently to conventional solar panels, in that, there are no busbars (ribbons) required and the solar cells can be joined together resulting in no gaps between the solar cells.

### **Technical Specification**

Technical Specification	SP150ML	SP200ML	SP300ML	SP350ML	SP400ML
		El	ectrical Characteristi	ics	
Maximum Power-Pm	150W	200W	300W	350W	400W
Voltage at Maximum Power Point-Vm	18.1V	18.1V	36.5V	31.9V	36.4V
Current at Maximum Power Point-Im	8.29A	11.05A	8.22A	10.97A	10.99A
Open Circuit Voltage-Voc	21.8V	21.8V	43.9V	38.4V	43.8V
Short Circuit Current-Isc	8.68A	11.57A	8.65A	11.49A	11.51A
			GENERAL DATA		
Front Glass		3	.2mm toughened glass	S	
Cell			Monocrystalline PERC	;	
Frame			Aluminum		
Junction Box			IP68 2 diodes		
Cable	900mm, 4mm2, with MC4 connector				
Size	1120*670*30mm	1120*875*35mm	1310*1120*35mm	1730*990*35mm	1730*1120*35mm
Net Weight / Gross	7.88kg	10.30kg	13.30kg	18.00kg	20.30kg

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### **PV Combiner Box**









Protection



With Fuse



Safe



Waterproof



Easy

Thanks to it's compact dimensions, the combiner boxes can be installed quickly, safely and easily both indoors and outdoors, while their robust enclosure and advanced surge protection devices, fuse links and circuit breaker guarantee durability and reliable safety in the PV field.

### **Technical Specification**

Technical Specification	HCA4N1P5	HCA6N1P5	HCA8N1P5	HCA10N1P5	
	PV INPUT				
PV Array Input Numbers	4	6	8	10	
MAX Circuit Voltage		DC5	500V		
MAX Single PV Array Current		1:	5A		
Single PV Array Fuse		2	0A		
Single PV Array Wire Size		PG7/	4mm2		
		OUT	<b>TPUT</b>		
Output Numbers	1/2	1/2	1/2	1/2	
MAX Output Current	60A	90A	120A	150A	
DC Output Circuit Breaker		Y	es		
Surge Protection		Y	es		
		GENER	AL DATA		
Humidity		15~	95%		
Operating Temperature		-30~	60°C		
Altitude		<30	00m		
Material		Cold Rol	led Steel		
Cooling Way		Natural	cooling		
Ground Wire Size		>6n	nm2		
MC4 Connector	For option				
Degree of Protection	IP65				
Fixing System	Wall mount lugs				
Net Weight / Gross	7.5kg / 8.5kg 7.8kg / 8.8kg 9.5kg / 10.6kg 10.8kg / 12.9				
Dimensions	406 x 360 x 145 mm 446 x 420 x 145 mm				
Package Size	470 x 435	x 250 mm	518 x 500	x 250 mm	

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**PV Combiner Box Technical Specification** 









Protection



With Fuse



Safe



Waterproof



Easy

Thanks to it's compact dimensions, the combiner boxes can be installed quickly, safely and easily both indoors and outdoors, while their robust enclosure and advanced surge protection devices, fuse links and circuit breaker guarantee durability and reliable safety in the PV field.

Technical Specification	HCB4N1	HCB6N1
	P\	V INPUT
PV Array Input Numbers	4	6
MAX Circuit Voltage	DO	C1000V
MAX Single PV Array Current		15A
Single PV Array Fuse		20A
Single PV Array Wire Size	PG <sup>-</sup>	7 / 4mm2
	0	UTPUT
Output Numbers	1	1
MAX Output Current	60A	90A
DC Output Circuit Breaker		Yes
Surge Protection		Yes
	GENI	ERAL DATA
Humidity	1:	5~95%
Operating Temperature	-3	0~60°C
Altitude	<:	3000m
Material		ABS
Cooling Way	Natu	ral cooling
Ground Wire Size	>	6mm2
MC4 Connector	Fc	or option
Degree of Protection		IP65
Fixing System	Wall r	mount lugs
Net Weight / Gross	7.5kg / 8.5kg	10.8kg / 12.9kg
Dimensions	406 x 360 x 145 mm	406 x 360 x 145 mm
Package Size	470 x 435 x 250 mm	470 x 435 x 250 mm

P30 P29

### Energy storage LiFePO4 Battery





Cycle Life



Full Protection



Better Managerment



Safe



Expansion in parallel



Easy

Solar energy is a fantastic way to get power anywhere the sun shines. It works great but only when the sun is out, so it's critical to have the best battery possible for storing solar energy. LiFePO4 battery chemistry is one of the best options. It can lower utility bills, generate new revenues, and provide resilience with backup power. When paired with solar PV and other distributed energy resources, battery storage gives your business tremendous flexibility and control over managing energy use and costs.

The battery management systems is used to ensure the optimal use of the residual energy present, protect the batteries from deep discharge, from over-voltage, which are results of extreme fast charge and extreme high discharge current, and provides for cell balancing function, to manage that different battery cells have the same charging and discharging requirements.

#### **Technical Specification**

Technical Specification	HBM16S100	HBM16S150	HBM16S200	
		BATTERY		
Battery Type		LiFePO4		
Voltage	51.2V 100Ah	51.2V 100Ah x 2	51.2V 100Ah x 4	
Energy Capacity	5KWh	7.5KWh	10KWh	
Charging Voltage		58.4V		
Charging Current		Max 100A		
Cycle Life		>6000times @80% DOD		
		DISPLAY		
Method		LCD+LED		
		GENERAL DATA		
Standard Charging Current(A)	20	30	40	
Max.Continuous Charging Current (A)		100	I	
Max.Continuous Discharging Current (A)		100		
Humidity		15~95%		
Operating Temperature		Charging: 0~65°C, Charging: -20~65°	C	
Ambient Temperature		-15~60°C		
Altitude		<3000m		
Cooling Method	Intelligent redundant fan cooling			
Degree of Protection	IP21			
Communication Mode	RS485/CAN			
Net Weight / Gross	85kg / 66.5kg	115.5kg/94kg	135.5kg/111.5kg	
Dimensions	500*142*745mm	535*211*775mm	535*211*775mm	
Package Size	856*626*343mm	870*710*415mm	870*710*415mm	

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### Energy storage LiFePO4 Battery





Cycle Life



Full Protection



Better Managerment



Safe



Expansion in parallel



Easy

Solar energy is a fantastic way to get power anywhere the sun shines. It works great but only when the sun is out, so it's critical to have the best battery possible for storing solar energy. LiFePO4 battery chemistry is one of the best options. It can lower utility bills, generate new revenues, and provide resilience with backup power. When paired with solar PV and other distributed energy resources, battery storage gives your business tremendous flexibility and control over managing energy use and costs.

The battery management systems is used to ensure the optimal use of the residual energy present, protect the batteries from deep discharge, from over-voltage, which are results of extreme fast charge and extreme high discharge current, and provides for cell balancing function, to manage that different battery cells have the same charging and discharging requirements.

#### **Technical Specification**

Technical Specification	HRBB-LF510100AA-S	HRBB-LF510150AA-S	HRBB-LF510200AA-S				
		BATTERY					
Battery Type		LiFePO4					
Voltage	51.2V 100Ah	51.2V 100Ah x 2	51.2V 100Ah x 4				
Energy Capacity	5KWh	7.5KWh	10KWh				
Charging Voltage		58.4V					
Charging Current		Max 100A					
Cycle Life		>6000times @80% DOD					
		DISPLAY					
Method	LCD+LED						
		GENERAL DATA					
Standard Charging Current(A)	20	30	40				
Max.Continuous Charging Current (A)		100	1				
Max.Continuous Discharging Current (A)		100					
Humidity		15~95%					
Operating Temperature		Charging: 0~65°C, Charging: -20~65	°C				
Ambient Temperature		-15~60°C					
Altitude		<3000m					
Cooling Method		Intelligent redundant fan cooling					
Degree of Protection	IP21						
Communication Mode		RS485/CAN					
Net Weight / Gross	76kg / 61kg	118kg/93kg	118kg/93kg				
Dimensions	560*480*170mm	830*480*170mm	830*480*170mm				
Package Size	700*120*330mm	970*620*330mm	970*620*330mm				

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### **Energy System With Back Up Battery**





**MPPT** 









Pure Sine Wave

Better Managerment

Expansion in parallel

High

Efficiency

100% Full Protection

Safe

Easy

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As a full integrated energy storage system with built-in inverter, LiFePo4 battery, MPPT controller, charger, and management software ready for connection, it is very easy to install, use and maintain.

- •LiFePo4 Battery, safest and more professional
- •With Built In MPPT controller and inverter
- •Modularized Design & Expandable
- •Easy Installation
- •Easy maintenance
- •Design lifetime 10 Years

#### **Technical Specification**

Technical Specification	HSP48V100AH	HSP48V200AH	HSP48V300AH	HSP48V400AH				
	AC CHARGING							
Input Voltage		110Vac	/ 220Vac					
Charging Current		60A	max					
	PV CHARGING							
PV Input Voltage	120-450V	120-450V	120-450V	120-450V				
PV Input Power		500	0Wp					
Charging Current	80A							
Charge Type	MPPT							
	BATTERY							
Voltage		51	.2V					
Charging Current	Max 100A							
	LiFePO4							
Battery Type	51.2V 100Ah	51.2V 100Ah x 2	51.2V 100Ah x 3	51.2V 100Ah x 4				
	5KWh	10KWh	15KWh	20KWh				
		OU <sup>-</sup>	ГРИТ					
Rated Power	5KW							
Output Voltage	110V/220AC							
Frequency Range	50/60Hz							
Wave Form		Pure Sine Wave						
		DISPLAY						
Method		LCD+LED						
		GENER	AL DATA					
Humidity	15~95%							
Operating Temperature	Charging:0~45°C, Discharging:-10~45°C							
Ambient Temperature	-15~60°C							
Altitude	<3000m							
Cooling Method	Intelligent redundant fan cooling							
Degree of Protection	IP21							
Noise [dBA]	<60 dBA							
Net Weight / Gross	90kg	135kg	180kg	225kg				
Dimensions	710*450*192mm x2	710*450*192mm x3	710*450*192mm x4	710*450*192mm x5				
Package Size	758*508*255mm x2	758*508*255mm x3	758*508*255mm x4	758*508*255mm x5				



# **Energy System With Back Up Battery**





Build-in MPPT





Pure Sine Wave



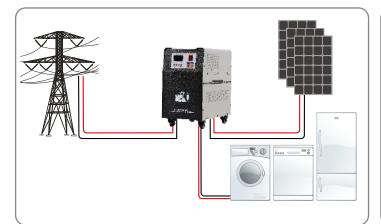
Safe



Three Phase



Easy



What do you if you're at home and suddenly there's a power outage that lasts anywhere from 3 hours to 3 days? Or when you're out camping but flashlights and conventional power banks go out of power just as you're settling in? Now, with our this all-in-one portable power station, you can enjoy the convenience whenever you need it, wherever you are!

#### **Technical Specification**

	Teerimeal epecineation						
Technical Specification	HSA500E12	HSA500E24	HSA1K0E12	HSA1K0E24	HSA1K5E24		
	AC CHARGING						
Input Voltage	220~240Vac						
Charging Current	10A max						
	PV CHARGING						
PV Input Voltage	10-25V	20-50V	10-25V	20-50V	20-50V		
PV Input Power	240Wp	360Wp	360Wp	720Wp	720Wp		
Charging Current	80A						
Charge Type	MPPT						
	BATTERY						
Voltage	12V	24V	12V	24V	24V		
Charging Current	20A 30A						
Battery Type	Gel battery						
	12V 55Ah x 1	12V 55Ah x 2	12V 100Ah x 2	12V 55Ah x 2	12V 55Ah x 2		
	0.66KWh	1.32KWh	2.4KWh	1.32KWh	1.32KWh		
	OUTPUT						
Rated Power	500W	500W	1000W	1000W	1500W		
Output Voltage	220~240Vac						
Frequency Range	50/60Hz						
Wave Form	Pure Sine Wave						
	DC OUTPUT						
Over Voltage Protection	16V	32V	16V	32V	32V		
Low Voltage Protection	11V	22V	11V	22V	22V		
5Vdc USB Port	2 ports (2A max)						
12Vdc Output Port	2 ports (2A max)						
	DISPLAY						
Method	LCD+LED						
	GENERAL DATA						
Humidity	15~95%						
Operating Temperature	-10~40°C						
Ambient Temperature	-15~60°C						
Altitude	<3000m						
Cooling Method	Intelligent redundant fan cooling						
Degree of Protection	IP21						
Noise [dBA]	<60 dBA						
Gross / Net Weight	26kg / 29kg	39kg / 42kg	40kg/43kg	46kg/49kg	52kg/54kg		
Dimensions	360*223*407mm 450*263*476mm						
Package Size	435*305*480mm 530*350*530mm						

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