AFRICOTECH SOLUTIONS SOLAIRES INDUSTRIELLES ET RÉSIDENTIELLES

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AfricoTech Solutions
Technology and Sustainability
Better Service for Better Living

DYNAMISEZ VOTRE ENTREPRISE GRÂCE À DES SOLUTIONS TECHNOLOGIQUES INNOVANTES

AfricoTech Solutions

MORE INFORMATION
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30kw-60kwh | 50kw-100kwh 100kw-215kwh

Application

Household/Bank/Hospital/School/Village/Factory/Super Market

Système de stockage d'énergie pour armoire extérieure

SmartBase NKB-30K/50K

TRÈS INTÉGRATION

TROIS BMS NIVEAU

LARGE PLAGE DE TENSION D'ENTRÉE

CONCEPTION MODULAIRE

APPLICATIONS MULTI-SCÉNARIOS

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Specification

Model	NKB768-107KWh-F	NKB576-80KWh-F	NKB384-54KWh-F
Schematic Diagram			
Module Parameters	NK96140		
Battery Type	$LiFePO_4$		
Nominal Battery Energy	13.44KWh		
Nominal Capacity	140Ah		
Weight	100kg		
Dimension(W*D*H)	440*210*950mm		
System Parameters			
Battery Module Type	VE96140		
Battery Module Quantity	8 modules	6 modules	4 modules
Nominal Battery Energy	107.52KWh	80.64KWh	53.76KWh
Nominal Capacity	140Ah	140Ah	140Ah
Nominal Voltage	768V	576V	384V
Operating Voltage Range	600-840V	450-630V	300-420V
Nominal OutputPower	50KW	50KW	30KW
Recommend Charging Current	140A		
Recommend Discharging Current	140A		
Charging Temp.Range	0-55℃		
Discharging Temp.Range	-30-55℃		
Communication	CAN,LAN,RS485,4G		
Cycle Life	6000 Cycles@80%DOD,25°℃		
IP	IP54		
Expansion	Up to 6 cabinets in parallel		
Compatible Inverters	Deye/Megarevo/Solis etc.		
Design Certification	UN38.3/CE-EMC/IEC62619/IEC 62477/IEC 63056		
Dimension(W*D*H)	700*1450*2300mm		
Weight	Approx.1300Kg	Approx.1100Kg	Approx.900Kg

·This document is for reference only,all n kindshall prevail

Système de stockage d'énergie pour armoire extérieure

All-in-one ESSSmartBase MINI-30K/60K

SCALABLE
Flexible et facilement extensible en fonction des besoins.

ALL IN ONE DESIGN
Intégrez tout et facile pour l'installation

GRID COMPATIBILITY
Prise en charge des opérations en réseau et hors réseau

INTELLIGENT MONITORING
Équipez-vous de capacités de surveillance basées sur le cloud

Specification

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Model	SmartBase MINI-30K	SmartBase MINI-60K
AC Parameters		
Nominal Power	30kW	60kW
AC Voltage(on-grid)	400V(±15%)/480V(±15%)	
AC Voltage(off-grid)	400V(±20%)/480V(±5%)	
AC Frequency	50Hz/60Hz(±2.5Hz)	
THDi	<3%	
Grid Type	3-Phase+PE	
PV Parameters		
PV InputPower	45kW/Max.135kW(Optional)	90kW/Max.135kW(Optional)
MPPTVoltage Range	200Vdc-810Vdc	
Number of MPPT	3	6
Number of Strings for Each MPPT	2	2
Battery Parameters		
Nominal Energy	51.2kWh	102.4kWh
VE51100I Battery Module Electrical Spec	51.2V/100AH/5.12kWh	
VE51100I Battery Module Physical Spec	482*155*560mm(W*H*D)/48kg	
Number of Battery Modules	10	20
Number of Battery Cabinet	1	2
Nominal Voltage	512Vdc	
Nominal Voltage Range	448Vdc~576Vdc	
Operating Temperature Range	Discharge -20℃~55℃/Charge 0℃~50℃	
Battery Certification	UN38.3,IEC62619,CE-EMC/UL1642 for cell	
General Specification		
On Grid and Off-grid Switching Time	30ms	
Relative Humidity	5%~95%RH	
Cooling Mode	Natural cooling	
IP Rating	IP20	
Altitude	2000m without derating	
System Dimension(W*H*D)	1200*2000*700 mm	1800*2000*700 mm
Display	Indicator light,web interface	
Communication	CAN/RS485/TCP/4G	
Certificates	IEC62109-1,UL1741	
Isolation Transformer		
UPS	(400/400Vac or 480/480Vac)100kVA	
Fire Fighting System	1kVA(backup for EMS,BMS,display,etc.)	
Generator Compability	N1230/Heptafluoropropane	
	DI access (same port for genrerator or grid)	

Système de stockage d'énergie pour armoire extérieure

All-in-one ESS SmartBase 50K/100K

All-in-one
système de conception modulaire

System protection

Real-time cloud
Plate -forme Surveillance des données

Moins de temps de commutation sur le réseau et hors réseau

Diagnostic complet du système

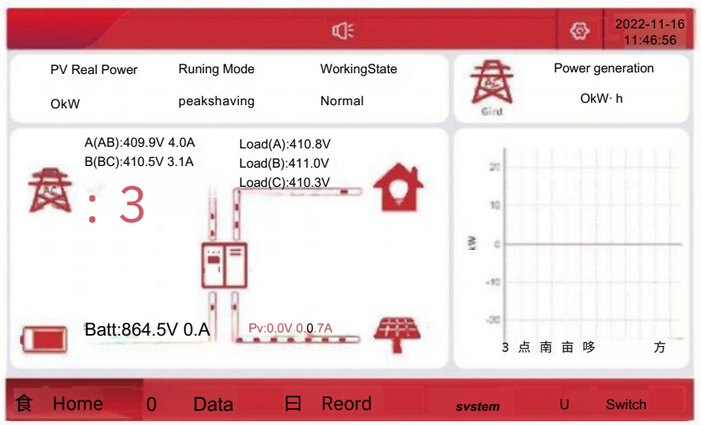
Système de contrôle environnemental

Le système de stockage d'énergie est doté d'unités de contrôle environnemental comprenant des détecteurs de fumée, des capteurs de détection d'eau, des capteurs magnétiques de porte et un système de protection incendie. Ces dispositifs permettent une surveillance complète et en temps réel de l'état de fonctionnement du système. Schéma du système de contrôle environnemental :

System Composition

Introduction à l'interface homme-machine

L'interface de la page d'accueil affiche la puissance en temps réel du système, la tension, le courant, la production d'énergie, le mode de fonctionnement, l'état de fonctionnement et d'autres informations.



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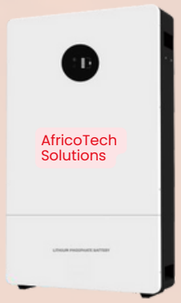
LiFePO4 Battery

NP Series

NK25.6 Series

NK51.2 Series

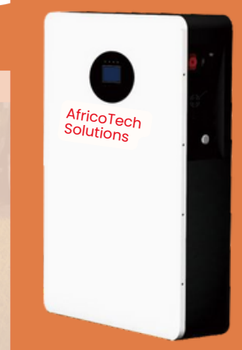


NK51.2-W Series

NK-ESS-3P-51.2

Solar Power Generator

Base Series



SmartBase-G Series

ESS-LV2 Series

Lead-acid Replacement Battery

N12&N24 Series

Long Lifespan
15 years design life

Multiple series and parallel
Support multiple series/parallel use

High Efficiency
Efficient battery management system

Multifunction
Active Equalizer, Bluetooth, and display (optional)

High Security
The safest lithium iron phosphate battery technology

AfricoTech

Model Parameters

Model	Voltage (V)	Capacity(Ah)	Dimension (W*L*H)	Weight(Kg)	Bluetooth	CAN	RS485	Heating	LCD	Active equalization
N6-8	6.4	8	151*50*93	0.54	N	N	N	N	N	N
N6-12	6.4	12	151*50*93	0.66	N	N	N	N	N	N
N12-6	12.8	6	90*70*101	0.66	N	N	N	N	N	N
N12-8	12.8	8	151*65*97	1.1	N	N	N	N	N	N
N12-12	12.8	12	151*65*97	1.3	N	N	N	N	N	N
N12-30	12.8	30	181*70*156	3	N	N	N	N	N	N
N12-40	12.8	40	174*165*125	4.5	N	N	N	N	N	N
N12-50	12.8	50	165*126*175	5.8	N	N	N	N	N	N
N12-60	12.8	60	198*166*170	6.8	N	N	N	N	N	N
N12-75	12.8	75	198*166*170	7.9	N	N	N	N	N	N
N12-100M	12.8	100	260*168*209	9.5	N	N	N	N	N	N
N12-100	12.8	100	260*168*209	9.5	N	N	N	N	N	N
N12-100B	12.8	100	395*110*293	10.5	N	N	N	N	N	N
N12-150	12.8	150	330*171*220	15.5	N	N	N	N	N	N
N12-200	12.8	200	483*170*240	18.5	N	N	N	N	N	N
N12-200B	12.8	200	552*110*288	20	N	N	N	N	N	N
N12-300	12.8	300	345*190*245	27	N	N	N	N	N	N
N12-400	12.8	400	522*238*223	37	N	N	N	N	N	N
N24-6	25.6	6	151*65*97	1.3	N	N	N	N	N	N
N24-50	25.6	50	260*168*209	9.5	N	N	N	N	N	N
N24-100	25.6	100	483*170*240	18.5	N	N	N	N	N	N
N24-200	25.6	200	522*238*223	37	N	N	N	N	N	N

Product Introduction

Africotech Power utilise des cellules conservant l'apparence des batteries plomb-acide standard pour développer des batteries lithium-ion intelligentes à haute densité énergétique et haute sécurité, couvrant deux tensions de 12 V et 24 V. Nos produits prennent en charge quatre unités en série et quatre unités en parallèle.

NP Series

Long Lifespan
Easy to maintain, with a design lifespan of 15years

Modular
Modular design is simple and fast

Multi Equilibrium
Active current sharing, mixed use of old and new products. Intelligent balancing technology to improve consistency

Multiple series and parallel
Flexible configuration, supporting series andparallel connections

Model	Voltage (V)	Capacity(Ah)	Dimension(W*L*H)	Terminal	Discharge	CAN	RS485	Dry Contact	APP	LCD
NP24-100	25.6	100	442(465)*480*60(1.5U)	M8	100	P	P	P	P	Y
NP24-200	25.6	200	442(465)*480*130(3U)	M8	150	P	P	P	P	Y
NP48-100	51.2	100	442(465)*480*130(3U)	M8	100	P	P	P	P	Y
NP48-200	51.2	200	442(465)*480*222(5U)	M8	150	P	P	P	P	Y
NP48-300	51.2	300	442(465)*680*222(5U)	M8	150	P	P	P	P	Y

Product Introduction

La série NP est conçue pour les applications de stockage d'énergie traditionnelles, utilisant des batteries ferroviaires hautes performances et un module standard de 19 pouces. Ce produit présente un faible encombrement, un poids léger, une installation simple et prend en charge plusieurs communications.

Application Introduction

Stockage d'énergie domestique, stockage d'énergie industriel et commercial

SCENE

- Solar energy system
- Household electricity
- Factory electricity

NK-ESS Series

Long Lifespan
15 years of design service life

Modular
Modular design is simple and fast

Intelligentize
Efficient operation and maintenance
Automatic and intelligent management

Multifunction
Support R3485/R3232/can communication

AfricoTech
Model Parameters

Model	NK-ESS-3P-51.2
Battery	
Rated Discharge Cut-off Voltage	44.8V
Normal Voltage(VDC)	51.2V
Capacity(Ah)	100/Pack
Energy(wh)	5120/Pack
Short Circuit Current	Approx.4000A
Overcharge Protection(VDC)	58.4V
Battery type	LFP
Balancing Voltage	>54.4V
IP Grade	IP21
Self Discharge	<=2%/Month
Cycle Life	4000 times(80%DOD)
Rated Charge Current	50A
Max. Charge Current	100A
Rated Charge Voltage	57.6V
Rated DisCharge Current	100A
Dimensions	620*420*394 mm/Pack
Weight	45kg/Pack
Discharge Temp	-20°C to 60°C
Storage Temp	-5°C to 35°C
Charge Temp	0°C to 55°C
Compliance	
Certifications	CE/UN38.3/IEC62619
Transport Appraisal	UN3480,CLASS 9

Product Introduction

La batterie lithium de la série NK-ESS est conçue sur mesure pour les applications résidentielles de grande envergure. Nos produits bénéficient des technologies LiFePO4 avancées, d'une conception modulaire et d'un support parallèle. Leur étanchéité élevée et leur dissipateur thermique performant en font une solution polyvalente répondant à diverses exigences de capacité.

SCENE

- Car charging
- Solar energy system
- Household electricity
- Factory electricity

Wall Mount Battery

NK Series

Long Lifespan
0.5C Charge and discharge, 80%DOD 5000+ times
15 years design life,5 years warranty

Fast charge high magnification
Fast charge and discharge
High rate discharge

High Efficiency
Efficient operation and maintenance
automatic and intelligent management

Multiple series and parallel
Support multiple series/parallel use

High Security
The safest lithium iron phosphate
battery technology

Multifunction
Active Equalizer, and display (optional)

AfricoTech
Model Parameters

Model	NK25.6-100	NK51.2-100
Battery		
Nominal Voltage(VDC)	25.6	51.2
Capacity(Ah)	100	
Rated Energy(kWh)	2.56	5.12
Overcharge Protection(VDC)	29.2	58.4
Battery Type	LFP	
Rated Charge Current	50A	
Max Charge Current	100A	
Rated Charge Voltage	57.6A	
Balancing Voltage	>54.4V	
Max Discharge Current	100A	150A
Rated Discharge Cut-off Voltage	44.8V	
Short Circuit Current	Approx.4000A	
IP Grade	IP21	
Weight	25±1kg	45±1kg
Dimensions	442X330X125mm	442X550X136mm
Storage Temp	-5℃ to 35℃	
Discharge Temp	-20℃ to 60℃	
Charge Temp	0℃ to 55℃	
Compliance		
Certifications	CE/UN38.3/IEC62619	
Transport Appraisal	UN3480,CLASS 9	

Product Introduction

La série NK propose des batteries lithium-ion ultra-fines et hautes performances, spécialement conçues pour une installation murale. Conçues pour les espaces restreints, ces batteries sont compactes et faciles à installer. Elles offrent un débit de sortie élevé et permettent une utilisation multiple en série et en parallèle.

Ground Mounted Battery

NK-G Series

Long Lifespan
0.5C Charge and discharge, 80%DOD 5000+ times
15 years design life,5 years warranty

Fast charge high magnification
Fast charge and discharge
High rate discharge

High Efficiency
Efficient operation and maintenance
automatic and intelligent management

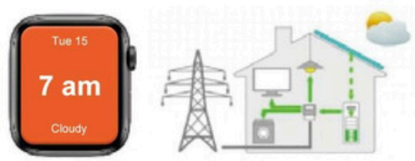
Multiple series and parallel
Support multiple series/parallel use

High Security
The safest lithium iron phosphate
battery technology

Multifunction
Active Equalizer, and display (optional)

AfricoTech
Model Parameters

Model	NK51.2-200-G	NK51.2-300-G
Battery		
Nominal Voltage(VDC)	51.2	51.2
Capacity(Ah)	200	300
Rated Energy(kWh)	10.24	15.36
Overcharge Protection(VDC)	58.4	
Battery Type	LFP	
Rated Charge Current	100A	150A
Max Charge Current	150A	200A
Rated Charge Voltage	57.6A	
Balancing Voltage	>54.4V	
Max Discharge Current	150A	200A
Rated Discharge Cut-off Voltage	44.8V	
Short Circuit Current	Approx.4000A	
IP Grade	IP21	
Weight	95±2kg	110±2kg
Dimensions	442X650X230mm	442X860X240mm
Storage Temp	-5℃ to 35℃	
Discharge Temp	-20℃ to 60℃	
Charge Temp	0℃ to 55℃	
Compliance		
Certifications	CE/UN38.3/IEC62619	
Transport Appraisal	UN3480, CLASS 9	



Solar energy preferably used by domestic appliances, and additional Energy is stored in battery.

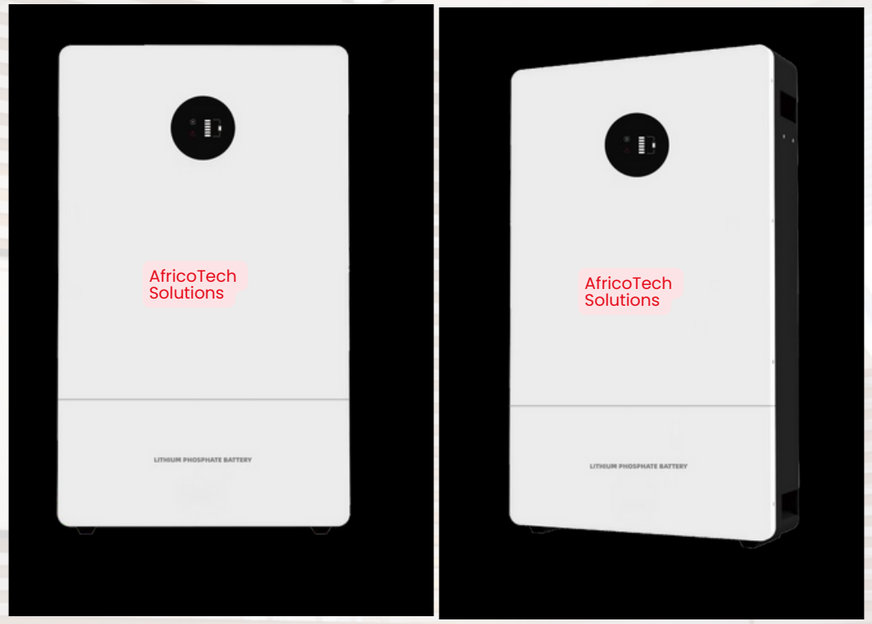
During the day, when battery is fully charged, the additional energy produced by solar can be sold and fed into the public.

At evening, the energy stored in the battery supplies electric ity to the domestic appliances.

At night, when the energy stored in the battery is depleted, the public grid supplies energy to the domestic appliances.

Wall Mount Battery

NK51.2-W Series



Flexible capacity
Max.I5pcs in Parallel to extend capacity

Safe &Reliable
Lithium Iron Phosphate (LFP) Cell

LED Display
SOC, Battery status

Easy Installation
Quick plug in +/- and parallel connection

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Model Parameters

Model	NK51.2V-100-W	NK51.2V-200-W	NK51.2V-300-W
Nominal Voltage		51.2V	
Rated Capacity	100Ah	200Ah	300Ah
Energy	5120Wh	10240Wh	15360Wh
Charging Cut-off Voltage		56.16V	
Discharge Cut-off Voltage		45.6V	
Recommend charge/discharge current	50A	100A	100A
Maximum continuous charge /discharge current	100A	200A	200A
Instantaneous discharge current	200A/3s	400A/3S	400A/3S
Charge temperature		0~55℃	
Discharge temperature		-20~60℃	
Storage Environment (50% state of charge)		20°C~45°C in three months;25±3°C over three months; Humidity:65+20%RH	
Environment		Indoor	
Installation		Wall mounted	
Cell Technology		Lithium iron phosphate (LiFePO4)	
Cooling		Natural convection	
Protection Rating		IP21	
Dimension and Weight			
Dimension	442*500*142mm	442*820*142mm	660*820*140mm
Weight	41.8 8KG	78.85KG	120.77KG
Communication Instruction			
Communication		RS232,CAN,RS485	

Product Introduction

La série NK51.2-W est une batterie solaire lithium murale idéale pour un usage résidentiel. Elle est équipée de cellules LiFePo4 haute capacité de haute qualité, garantissant une longue durée de vie. Le BMS est compatible avec différentes marques d'onduleurs, qu'ils soient hybrides, sur réseau ou hors réseau.

Solar Power Generator

SmartBase Series

All-in-One(Battery & Inverter)

Support AC charge and PV charge

High integration and easy instalation

Support UPS function

AfricoTech
Model Parameters

	1.02KWh+1KW	2.56KWh+3KW	5.12KWh+5KW	10.24KWh+10KW
Model	**SmartBase-001**	**SmartBase-003**	**SmartBase-005**	**SmartBase-010**
Battery				
Battery Type	LiFePO4 Battery			
Battery Energy	1.02KWh	2.56KWh	5.12KWh	10.24KWh
Nominal Voltage	25.6V	25.6V	51.2V	51.2V
Rated Capacity	40Ah	100Ah	100Ah	200Ah
Voltage Range	11.0~14.0V	22.0~28.0V	42.0~57.0V	42.0~57.0V
PV				
Max. Power	500W	3000W	6000W	10.4KW(5200W*2)
Max. PV Voltage	160Vdc	450Vdc	500Vdc	500Vdc
MPPT Voltage Range	35~100Vdc	30~400Vdc	60~450Vdc	60~450Vdc
Max. PV Charge Current	40A	80A	80A	80A*2
AC Output				
Rated Power	1000W	3000W	5000W	10000W
AC Voltage	230Vac±5%			
AC Frequency	50Hz/60Hz			
Efficiency	≤93%	≤94%	≤94%	≤94%
Transfer time	10ms (for PC) 20ms (for Appliance)			
Waveform	Pure sine wave			
AC Input				
Rated AC Voltage	230Vac			
AC Voltage Range	170~280Vac(for PC) 90~280Vac(for Applis)			
Frequency Range	50Hz/60Hz(Auto sensing)			
General Parameters				
Altidude	≤2000m			
Humidity	5%~95%			
Work Temperature	-10℃~50℃			
Size (mm)	430*240*320	450*140*570	500*150*730	620*150*1300
Weight (kg)	25	32	58	95

Solar Power Generator

SmartBase-G Series

All-in-One(Battery & Inverter)

Support AC charge and PV charge

High integration and easy instalation

Support UPS function

AfricoTech

	1.28KWh+1KW	2.56KWh+3KW	5.12KWh+5KW	10.24KWh+10KW
Model	**Smartbase-001-G**	**Smartbase-003-G**	**Smartbase-005-G**	**Smartbase-010-G**
Battery				
Battery Type	LiFePO4 Battery			
Battery Energy	1.28KWh	2.56KWh	5.12KWh	10.24KWh
Nominal Voltage	12.8V	25.6V	51.2V	51.2V
Rated Capacity	100Ah	100Ah	100Ah	200Ah
Voltage Range	11.0~14.0V	22.0~28.0V	42.0~57.0V	42.0~57.0V
PV				
Max. Power	1000W	3600W	5500W	10.4KW(5200W*2)
Max. PV Voltage	105Vdc	500Vdc	500Vdc	500Vdc
MPPT Voltage Range	20~100Vdc	40~450Vdc	120~450Vdc	90~450Vdc
Max. PV Charge Current	50A	60A	80A	80A*2
AC Output				
Rated Power	1000W	3000W	5000W	10000W
AC Voltage	230Vac±5%			
AC Frequency	50Hz/60Hz			
Efficiency	≤91%	≤94%	≤94%	≤94%
Transfer time	10ms (for PC) 20ms (for Appliance)			
Waveform	Pure sine wave			
AC Input				
Rated AC Voltage	230Vac			
AC Voltage Range	170~280Vac(for PC) 90~280Vac(for Applis)			
Frequency Range	50Hz/60Hz(Auto sensing)			
General Parameters				
Altidude	≤2000m			
Humidity	5%~95%			
Work Temperature	-10℃~50℃			
Size (mm)	310*220*460	370*225*510	450*270*610	485*270*770
Weight (kg)	25	32	58	105

Solar Power Generator

ESS-LV2 Series

- Support inverter parallel
- All-in-one energy storage with inverter
- High energy density, reduging the overall volume by 40%
- Good deep discharge performance
- Supports off & on grid system charging

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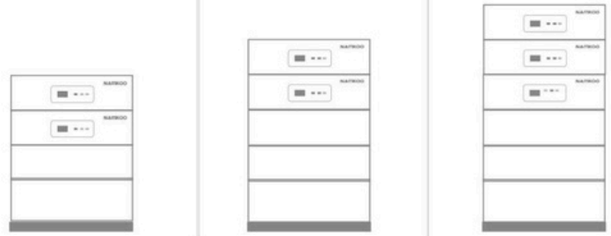
Model Parameters

Type/Parameter	ESS 10kW/10kWh	ESS 10kW/15kWh	ESS 15kW/15kWh
System Schematic			
Battery Module Type	LiFePO4		
Module Number	2 Inverters+2 Batteries	2 Inverters+3 Batteries	3 Inverters+3 Batteries
Rated Voltage (V)	51.2		
Rated Capacity(Ah)	100		
Voltage Range (V)	44.8-57.6		
Rated Energy (Wh)	10240	15360	15360
Maximum discharge current (A)	150		
Single-phase hybrid inverter			
Rated power (W)	11000W	11000W	16500W
AC output voltag (V)	220–240		
PVMax. power (W)	12000W	12000W	18000W
MPPT voltage range (V	160~450		
Output frequency (Hz)	50Hz/60Hz		
Display	LCD		
Physical Parameter			
Dimension:(L*W *H)	580X478X730mm	580X478X890mm	580X478X1054mm
Weight (kg)	144	192	211
IP	IP55		
Charge Temperature Range(℃)	0~45		
Discharge Temperature Range (℃)	-20–60		
Installation Method	Floor–mount		
Service Life			
Cycle Life	> 6000 （0.5C @25℃ , 80% DOD)		
Certification			
Safety & Certification	CE, ROHS		
Transportation	UN38.3		

AfricoTech Solutions Cases

12.1kWp + 30KWH Hybrid Solar System in Djibouti

- *12.kWp (20 pcs 605v solar panels).*
- *15kw hybrid inverter*
- *30kwh lifepo4 battery in outdoor cabinet.*