

ENERGY STORAGE SYSTEM SOLUTIONS PV SYSTEM SOLUTIONS





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| About Us

Afore is a leading PV inverter provider from China, with more than fifteen years dedicated experience in PV inverter R&D and manufacturing, Afore inverters have been installed in Europe, Australia, China, Sri Lanka, India, Japan, North America and South America, meeting the needs of global users.

We provide single and three-phase high-efficiency PV string inverters for a capacity of 1kW to 110kW, storage inverters (single phase 1-12kW, three phase 3-60kW, split phase 3-9.6kW, AC coupled), energy storage battery series (low voltage wall mounted series, high voltage stackable series) and all-in-one storage products. All of our inverters are integrated with smart monitoring system.

We offer not just good products, but also high-efficient local support to our partners and users throughout the inverter life span. Make sure the customers receive reliable returns by choosing Afore!

| Global Market



| Contents

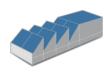


Single Phase PV String Inverter

Residential System

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Single Phase 1-3kW, Single Phase 3-6kW, Single Phase 7-10kW



Three Phase PV String Inverter

Residential & Small Commercial System

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Three Phase 3-25kW



Three Phase PV String Inverter

Commercial System and Power Plants

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Three Phase 30kW, Three Phase 36-60kW, Three Phase 70-110kW



Energy storage system

Residential and Commercial Storage System

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Single Phase Hybrid Inverter 1-6kW

Single Phase Hybrid Inverter 7-12kW

Single Phase Hybrid Inverter 8-12kW

Three Phase Hybrid Inverter 7-12kW

Three Phase Hybrid Inverter 3-15kW

Three Phase Hybrid Inverter 3-30kW Three Phase Hybrid Inverter 36-60kW

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Split Phase Hybrid Inverter 3-9.6kW

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Wall Mounted Energy Storage Battery (5/10kWh)

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High Voltage Stackable Energy Storage Battery (5.12-30.72kWh)

Single Phase PV String Inverter 1-3 kW



Single Phase PV String Inverter 3-6 kW



Single Phase PV String Inverter 7-10 kW



■ Technical Data	HNS1000TL-1	HNS1500TL-1	HNS2000TL-1	HNS2500TL-1	HNS3000TL-1	HNS3000TL	HNS3600TL	HNS4000TL	HNS5000TL	HNS6000TL	HNS7000TL	HNS8000TL	HNS9000TL	HNS10000TL
PV Input Data														
Max. DC Power (W)	1500	2250	3000	3750	4200	4500	5400	6000	7000	8400	9800	11200	12600	14000
Max. DC Voltage (V)	500	500	500	500	500	600	600	600	600	600	600	600	600	600
MPPT Voltage Range (V)	50-500	50-500	50-500	50-500	50-500	70-550	70-550	70-550	70-550	70-550	70-550	70-550	70-550	70-550
MPPT Full Power Voltage Range (V)	70 - 500	110-500	145-500	180-500	220-500	110-550	130-550	145-550	180-550	220-550	220-550	220-550	220-550	220-550
Rated Input Voltage (V)			360		1			360			1	36	0	
Start-up Voltage (V)			50		 			70			1	7(
Max. Input Current (A)			14					14 x 2			14			i+26
Max. Short Current (A)			18					18 x 2			18			+35
No. of MPP Tracker / No. of PV String			1/1					2/2				/3		2/4
Input Connector Type			MC4					MC4			-	M		<u></u>
AC Output Data			WC4		:			IVIC4				IVIC	,4	
Max. Output Power (VA)	1100	1650	2200	2750	3300	3300	3960	4400	5500	6600	7700	8800	9900	11000
Nominal Output Power (W)	1000	1500	2000	2500	3000	3000	3600	4000	5000	6000	7000	8000	9000	10000
		9	12	13	15	15	17.5	20	24	28.7	33.6	38.3	45	50
Max. Output Current (A)	0				13	13				20.7	33.0			
Nominal Output Voltage (V)			PE, 220Vac, 230Vac, 2		i			220Vac, 230Vac, 240Vac			<u>i</u>	L/N/PE, 220Vac,		-4)
Grid Voltage Range		180VaC-27	'6Vac (According to lo	cai standard)	i		180VaC-276VaC	(According to local sta	nuaru)			180Vac-276Vac (Accor		<u>a)</u>
Nominal Output Frequency (Hz)		45 5511-/54	50/60		 		45 55U-/54 66U	50/60	dd\		1	50/		(1)
Grid Frequency Range			I-66Hz (According to lo					Iz (According to local st			1	5-55Hz/54-66Hz (Acco		
Output Power Factor		1 default (adju	ustable from 0.8 leadin	ng to 0.8 lagging)	1 1		1 default (adjustab	le from 0.8 leading to 0	1.8 lagging)		1 default (adjustable from 0.8 leading to 0.8 lagging)			gging)
Output Current THD	<3%									1				
Efficiency											:			
Max. Efficiency	97.50%	97.80%	98.10%	98.10%	98.13%	98.20%	98.20%	98.20%	98.20%	98.20%	98.20%	98.20%	98.32%	98.40%
Euro Efficiency	96.60%	96.70%	96.80%	97.23%	97.56%	97.80%	97.82%	97.85%	97.90%	97.92%	97.95%	98.00%	98.00%	98.10%
Protection					1						ı		-	
PV Reverse Polarity Protection			YES		1			YES			1	YE		
PV Insulation Resistance Detection			YES			YES				YES				
AC Short Circuit Protection			YES					YES				YE		
AC Over Current Protection			YES					YES				YE		
AC Over Voltage Protection			YES			YES				YES				
Anti-Islanding Protection			YES		 			YES			1	YE	S	
Residual Current Detection			YES		1	YES				YES				
Over Temperature Protection			YES		1	YES					YES			
Integrated DC switch			YES		1	YES				YES				
Surge Protection			Integrated (Type III))		Integrated (Type III)				Integrated (Type III)				
Smart IV Curve Scaning			YES		į	YES				YES				
Quick Arc Fault Circuit interruption			Optional		1	Optional				Optional				
General Data														
Dimensions (W x H x D, mm)			280 x 260 x 116		1 1 1			360 x 358 x 142				370 x 53	5 x 192	
Weight (kg)			6					10			17	7	1	18
Protection Degree			IP65		1			IP66			!	IP6	66	,
Enclosure Material			Aluminum					Aluminum				Alumi	num	
Ambient Temperature Range (°C)			-25 -+ 60					-25 -+ 60			1	-25 -	+60	
Humidity Range			0-100%					0-100%			1	0-10	00%	
Topology			Transformerless			Transformerless				I I	Transfor			
Communication Interface		RS485 / WiF	i / Wire Ethernet / GF	PRS (optional)		RS485 / WiFi / Wire Ethernet / GPRS (optional)				l RS	S485 / WiFi / Wire Ethe		al)	
Cooling Concept		,	Convection				. ,	Convection	•		Conve	:		fan cooling
Night Power Consumption (W)	<0.2	<0.2	<1	<1	<1			<1				<		
Max. Operation Altitude (m)	\U. Z	\U. 2	4000	<u></u>				4000			1	40		
			4000					4000			:	40		
Certifications and Standards		EN //EC	C 6 1 0 0 0 C 2 FN // FC 6 4	000 C 2 ENC1000 2 2	FNC1000 2 2			:	EN /IEC (40	00.63.5N/56.64666	C 2 ENC1000 2 2 52	C1000 2 2 ENC1002 2	11 FNC1000 2 12	
EMC Standard		EN/IEC	61000-6-2, EN/IEC 61		, ENDIUUU-3-3			EN/IEC 61000-6-2, EN/IEC 61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12						
Safety Standard		22 ENECE 12 :		8, UL1741, EN62109	450 404 5 5	004 000 /=====			47 004 000 5::		IEC 60068, UL1741, EN		N NID /TORROS	-064707
Grid-connection	IEEE1547, CSA C22, EN50549, VDE4105, VDE0126, RD1699, ABNT NBR16149 & 16150, AS4777.2, NB/T3200					004, G98, IEC61727	T27 IEEE1547, CSA C22, EN50549, VDE4105, VDE0126, RD1699, ABNT NBR16149 & 16150, AS4777.2, NB/T32004, G99, IEC61727					.C61727		

Three Phase PV String Inverter

MOTA www

Afore

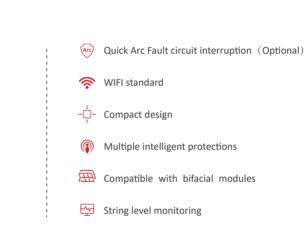
3-25 kW





The Afore BNT Series Three-phase string inverters are designed for residential and small commercial PV system applications, rating from 3kW to 25kW. All models have unibody housings with aluminum structure which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, the unibody housings can ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters.

Communication implements are via the Wi-Fi module (can be changed to Ethernet / GPRS). Check the system status anytime and anywhere via



















SMART Smart IV Curve Scanning



UPDATE Remote Firmware Update

Technical Data	BNT003KTL	BNT004KTL	BNT005KTL	BNT006KTL	BNT008KTL	BNT010KTL	
PV Input Data							
Max. DC Power (W)	5100	6000	7500	9000	12000	15000	
Max. DC Voltage (V)			1100				
MPPT Voltage Range (V)	150 -1000						
MPPT Full Power Voltage Range (V)		200 - 850		250 - 850	300 - 850	500 - 850	
Rated Input Voltage (V)			620		•	•	
Start-up Voltage (V)			150				
Max. Input Current (A)			15 x 2				
Max. Short Current (A)			25 x 2				
No. of MPP Tracker / No. of PV String			2/2				
Input Connector Type			MC4				
AC Output Data							
Max. Output Power (VA)	3300	4400	5500	6600	8800	11000	
Nominal Output Power (W)	3000	4000	5000	6000	8000	10000	
Max. Output Current (A)	5.3	7	8.5	10.5	13.5	17	
Nominal Output Voltage (V)			3P+N+PE /3P+P	E 230/400			
Grid Voltage Range		20	60Vac-519Vac (accordin		i)		
Nominal Output Frequency (Hz)			50/60				
Grid Frequency Range		45-	-55Hz/55-65Hz(accordir)		
Output Power Factor			ult (adjustable from 0.8		-		
Output Current THD			<3%		, <u> </u>		
Efficiency							
Max. Efficiency			98.30%			98.70%	
Euro Efficiency	97.61%	97.65%	98.00%	98.	05%	98.23%	
Protection						30.2370	
PV Reverse Polarity Protection			YES				
PV Insulation Resistance Detection			YES				
AC Short Circuit Protection			YES				
AC Over Current Protection			YES				
AC Over Voltage Protection			YES				
Anti-Islanding Protection			YES				
Residual Current Detection			YES				
Over Temperature Protection			YES				
Integrated DC switch			YES				
Surge Protection			Integrated (Tyne II)			
Smart IV Curve Scaning			YES	1,466 11,			
Quick Arc Fault Circuit Interruption			Option	al			
General Data			Option	aı			
Dimensions (W x H x D, mm)			370 x 535	x 192			
Weight (kg)			16	X 132			
Protection Degree			IP66				
Enclosure Material			Alumin				
Ambient Temperature Range (°C)			-25 to 6				
Humidity Range			0-1009				
Topology			Transform				
Communication Interface		DCVOE /	WiFi / Wire Ethernet /		Inspec		
Cooling Concept		N3403 /				fan cooling	
Night Power Consumption (W)			Convect	ioir	Intelligent	iaii cooiifig	
Max. Operation Altitude (m)				<u> </u>			
			≤4000	, 			
Certifications and Standards		ENI/IEC 61	000-6-2, EN/IEC 61000-	6-3 EN61000 2 2	EN61000-2-2		
EMC Standard		EIN/IEC 610			LINU1000-3-3		
Safety Standard		1555454	IEC 60068, UL17		BD1000		
Grid-connection			7, CSA C22, EN50549, \ 16149 & 16150, AS477				

Technical Data	BNT012KTL	BNT013KTL	BNT015KTL	BNT017KTL	BNT020KTL	BNT025KTI
PV Input Data						
Max. DC Power (W)	18000	19500	22500	25500	30000	37500
Max. DC Voltage (V)			11	.00		
MPPT Voltage Range (V)			150 -	1000		
MPPT Full Power Voltage Range (V)			500	- 850		
Rated Input Voltage (V)				20		
Start-up Voltage (V)				50		
Max. Input Current (A)	15	x 2	20+32	:	32 x 2	
Max. Short Current (A)		x 2	30 + 48	 	48 x 2	
No. of MPP Tracker / No. of PV String		/2	2/3	 	2/4	
Input Connector Type	-	,		: C4	2/ 4	
AC Output Data			141			
Max. Output Power (VA)	13200	14300	16500	18700	22000	27500
Nominal Output Power (W)	12000	13000	15000	17000	20000	25000
Max. Output Current (A)	21.5	22	27	30	32	40
Nominal Output Voltage (V)	21.3				<u> </u>	
Grid Voltage Range		-		rding to local standar	d)	
Nominal Output Frequency (Hz)			600vac-519vac (acco 50/	rding to local standar	uj	
					n	
Grid Frequency Range				rding to local standard		
Output Power Factor		1 det		0.8 leading to 0.8 lag	ging)	
Output Current THD			<39	%		
Efficiency		00.700/		;	00.750/	
Max. Efficiency		98.70%		1 1 1	98.75%	
Euro Efficiency		98.23%			98.35%	
Protection						
PV Reverse Polarity Protection				ES		
PV Insulation Resistance Detection				ES		
AC Short Circuit Protection				ES		
AC Over Current Protection				ES		
AC Over Voltage Protection				ES		
Anti-Islanding Protection				ES		
Residual Current Detection			Y	ES		
Over Temperature Protection			Y	ES		
Integrated DC switch			Y	ES		
Surge Protection			Integrate	d (Type II)		
Smart IV Curve Scaning			Y	ES		
Quick Arc Fault Circuit Interruption			Opt	ional		
General Data						
Dimensions (W x H x D, mm)			370 x 5	35 x 192		
Weight (kg)	16	1	7		19	
Protection Degree			IP	166		
Enclosure Material			Alum	ninum		
Ambient Temperature Range (°C)			-25	to 60		
Humidity Range			0-1	00%		
Topology			Transfo	rmerless		
Communication Interface		RS485 /	WiFi / Wire Ethernet	/ GPRS (optional) / Su	unspec	
Cooling Concept			Intelligent	fan cooling		
Night Power Consumption (W)			<	:1		
Max. Operation Altitude (m)			≤4	000		
Certifications and Standards						
	EN	/IEC 61000-6-2, EN/IE	EC 61000-6-3, EN610	00-3-2, EN61000-3-3,	EN61000-3-11, EN61	000-3-12
EIVIC Standard						
EMC Standard Safety Standard			IEC 60068,	UL1741, EN62109		

Three Phase PV String Inverter

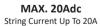
30-60 kW



The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 30kW to 60kW. All models with aluminum housing which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters.

The inverter menu is activated by sensor touch buttons. Communication implements are via the Wi-Fi module (which can be changed to Ethernet / GPRS). Check the system status anytime and anywhere via online portal or APP.







PV OVERSIZE Max. 1.5 Time PV Oversize Input



Multiple Intelligent Protections



PROTECTION



ANTI-FLOW Anti-Feed-in Function



Wi-Fi Wi-Fi Standard, Ethernet/GPRS Optional



CONFIGURATION Quick & Easy Config. via Wi-Fi



MODBUS MODBUS Communication Ready

MPPT efficiency > 99.9%



IP 68 Cooling Fan

Intelligent Temperature Control System



Type II DC & AC lightning protection

Active and reactive power compensation, adjust power factor



AC output 1.1x continuous operation

			BNT040KTL		
PV Input Data					
Max. DC Power (W)	45000	54000	60000	75000	90000
Max. DC Voltage (V)			1100		
MPPT Voltage Range (V)			200 - 1000		
MPPT Full Power Voltage Range (V)			500 - 850		
Rated Input Voltage (V)			620		
Start-up Voltage (V)			200		
Max. Input Current (A)	38x2	38	x3	40 x 3	38 x 4
Max. Short Current (A)	48x2	48	х3	48x3	48x4
No. of MPP Tracker / No. of PV String	2/5	3,	/6	3/7	4/8
Input Connector Type			MC4		
AC Output Data					
Max. Output Power (VA)	33000	39600	44000	55000	66000
Nominal Output Power (W)	30000	36000	40000	50000	60000
Max. Output Current (A)	48	60	65	80	96
Nominal Output Voltage (V)		31	P+N+PE /3P+PE 230/40	0	
Grid Voltage Range		260Vac-519	Wac (according to local	standard)	
Nominal Output Frequency (Hz)			50/60		
Grid Frequency Range		45-55Hz/55	-65Hz (according to loca	al standard)	
Output Power Factor		1 default (adju	stable from 0.8 leading	to 0.8 lagging)	
Output Current THD			<3%		
Efficiency					
Max. Efficiency	98.50%	98.65%	98.65%	98.80%	99.00%
Euro Efficiency	98.10%	98.20%	98.25%	98.45%	98.50%
Protection					
PV Reverse Polarity Protection			YES		
PV Insulation Resistance Detection			YES		
AC Short Circuit Protection			YES		
AC Over Current Protection			YES		
AC Over Voltage Protection			YES		
Anti-Islanding Protection			YES		
Residual Current Detection			YES		
Over Temperature Protection			YES		
Integrated DC switch			YES		
Surge Protection			Integrated (Type II)		
Smart IV Curve Scaning			YES		
Quick Arc Fault Circuit Interruption			Optional		
General Data					
Dimensions (W x H x D, mm)	450 x 485 x 210	i !	710 x 47	0 x 236	
Weight (kg)	26	 	44	 	51
Protection Degree			IP66		
Enclosure Material			Aluminum		
Ambient Temperature Range (°C)			-25 to 60		
Humidity Range			0-100%		
Topology			Transformerless		
Communication Interface		RS485 / WiFi / W	ire Ethernet / GPRS (op	tional) / Sunspec	
Cooling Concept			ntelligent Fan Cooling		
Night Power Consumption (W)			<1		
Max. Operation Altitude (m)			≤4000		
Certifications and Standards					
EMC Standard		EN/IEC 61000-6-2, E	N/IEC 61000-6-3, EN61	000-3-11, EN61000-3-12	
Safety Standard		IEC	60068, UL1741, EN621	109	
Grid-connection			2, EN50549, VDE4105, V 16150, AS4777.2, NB/T3		

Three Phase PV String Inverter

70-110 kW



The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 70kW to 110kW. All models with aluminum housing which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters.

The inverter menu is activated by sensor touch buttons. Communication implements are via the Wi-Fi module (which can be changed to Ethernet / GPRS). Check the system status anytime and anywhere via online portal or APP.



Intelligent string monitoring, Smart I-V curve scan



PROTECTION Type II DC & AC Lighting Protection





MAX. 38Adc String Current Up to 38A



PV OVERSIZE >1.5 Time PV Oversize Input



POWER FACTOR Active and Reactive Power Compensation



ANTI-FLOW

DES	Cooling	σFan
F U O	COOIIII	gian



Multiple Intelligent Protections

DC side supports "Y" connector

Compatible with 210 Solar Panel & bifacial module



Remote firmware upgrade with simple operation

Arc Fault Circuit Interrupter (AFCI) (Optional)







Supports aluminium wire access to reduce cost

PV Input Data							
Max. DC Power (kW)	105	112.5	120	135	150	165	
Max. DC Voltage (V)	1100						
MPPT Voltage Range (V)			200 -	1000			
MPPT Full Power Voltage Range (V)			500 -	850			
Rated Input Voltage (V)			62	20			
Start-up Voltage (V)			30	00			
Max. Input Current (A)			38>	¢ 6			
Max. Short Current (A)			483	x 6			
No. of MPP Tracker / No. of PV String			6/	12			
Input Connector Type			M	C4			
AC Output Data							
Max. Output Power (kVA)	77	82.5	88	99	110	110	
Nominal Output Power (kW)	70	75	80	90	100	110	
Max. Output Current (A)	111	120	127	143	158	159.5	
Nominal Output Voltage (V)			3P+N+PE /3P				
Grid Voltage Range		2		ding to local standar	d)		
Nominal Output Frequency (Hz)			50/6	50			
Grid Frequency Range				ding to local standard			
Output Power Factor		1 def	ault (adjustable from	0.8 leading to 0.8 lag	ging)		
Output Current THD			<3%	6			
Efficiency							
Max. Efficiency				00%			
Euro Efficiency		98.3	30%		98.4	10%	
Protection							
PV Reverse Polarity Protection			YE				
PV Insulation Resistance Detection			YE	ES			
AC Short Circuit Protection			YE				
AC Over Current Protection			YE				
AC Over Voltage Protection			YE				
Anti-Islanding Protection			YE	ES			
Residual Current Detection			YE	ES .			
Over Temperature Protection			YE	ES			
Integrated DC switch			YE				
Surge Protection				d (Type II)			
Smart IV Curve Scaning			YE				
Quick Arc Fault Circuit Interruption			Opti	ional			
General Data				10. 210			
Dimensions (W x H x D, mm)				10 x 318			
Weight (kg)				8			
Protection Degree			IP				
Enclosure Material			Alum				
Ambient Temperature Range (°C)			-25 t				
Humidity Range			0-10				
Topology			Transfor				
Communication Interface		RS485 /		t / GPRS (optional) / S	unspec		
Cooling Concept				fan cooling			
Night Power Consumption (W)			<				
Max. Operation Altitude (m)			≤40	000			
Certifications and Standards							
EMC Standard		EN/IEC 610	000-6-2, EN/IEC 61000	0-6-4, EN61000-3-11,	EN61000-3-12		
Safety Standard			IEC 60068, L	JL1741, EN62109			
Grid-connection				49, VDE4105, VDE012 777.2, NB/T32004, G			

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1-3.6 kW



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 1kW to 3.6kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased from the public grid

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS
Electricity Pricing
& Automation



PV OVERSIZE

1.5 Times PV Oversize



MPPT CHANNELS
Up to 2 MPPT Channels



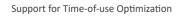
UPS FUNCTION



PARALLEL Max.6 Parallel Stacking



INPUT
Support Generator



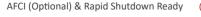


Build in Anti-feed-in Function





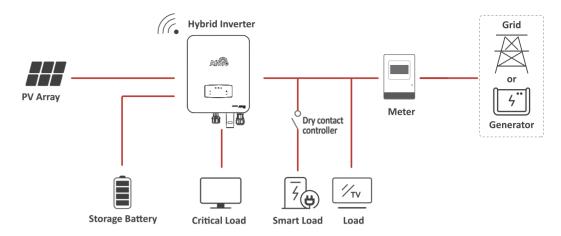
Compact Size and Easy Installation





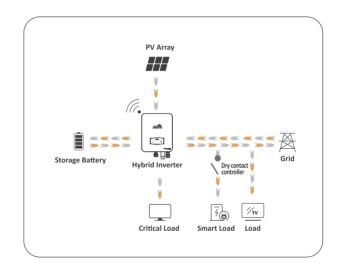
Smart Monitoring & Remote Firmware Upgrade

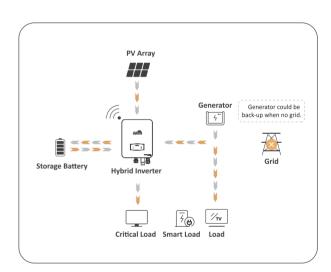
For New Storage System:



Optimizing Self-Consumption (on-grid)

+ Emergency Power Supply (off-grid)

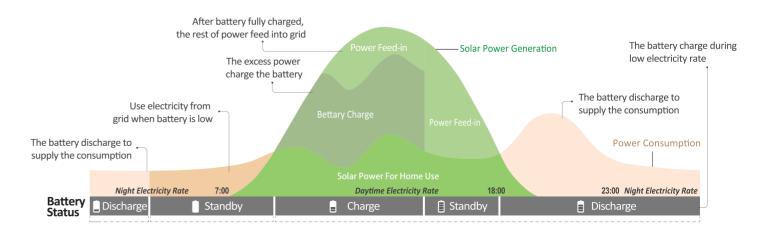




14

Optimizing Self-Consumption Mode

With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



Technical Data	AF1K-SL-1	AF1.5K-SL-1	AF2K-SL-1	AF2.5K-SL-1
PV Input				
Max. Input Power (kW)	1.5	2.3	3.0	3.8
Max. PV Voltage (V)			550	
MPPT Range (V)	00 500		- 500	450 500
full MPPT Range (V)	80 - 500	90 - 500	120 - 500	150 - 500
Normal Voltage (V)			360	
Startup Voltage (V)			100	
Max. Input Current (A)			.5 x 1	
Max. Short Current (A)			5 x 1	
No. of MPP Tracker / No. of PV String		1	/1	
Battery Port Max. Charge/Discharge Power (kW)	1.0	1.5	2.0	2.5
Max. Charge/Discharge Current (A)	25	40	50	63
	23		1.2	
Battery Normal Voltage (V) Battery Voltage Range (V)			- 60	
Battery Type				
AC Grid		LI-IOII / LE	ad-acid etc.	
Max Continuous Current (A)	5.0	7.0	10.0	12.0
Max Continuous Power (kVA)	1.0	1.5	2.0	2.5
Nominal Grid Current (A)	4.6 / 4.4	6.9 / 6.6	9.1 / 8.7	11.4 / 10.9
Nominal Grid Voltage (V)	7.0 / 7.7		/ 207 to 253 @ 230	11.7/ 10.3
Nominal Grid Frequency (Hz)			/ 60	
Power Factor			n 0.8 leading to 0.8 lagging)
Current THD (%)		· -	< 3	,
AC Load Output				
Max Continuous Current (A)	5.0	7.0	10.0	12.0
Max Continuous Power (kVA)	1.0	1.5	2.0	2.5
Max Peak Current (A) (10min)	6.9 / 6.6	10.5 / 10.0	13.7 / 13.1	17.3 / 16.6
Max Peak Power (kVA) (10min)	1.5	2.3	3.0	3.8
Nominal AC Voltage L-N (V)			/ 230	
Nominal AC Frequency (Hz)		50	/ 60	
Switching Time (ms)		Sea	mless	
Voltage THD (%)			< 3	
Efficiency				
CEC Efficiency (%)		9	7.0	
Max. Efficiency (%)		9	7.6	
PV to Bat. Efficiency (%)		9	8.1	
Bat. between AC Efficiency (%)		9	6.8	
Protection				
PV Reverse Polarity Protection		•	/es	
Over Current/Voltage Protection			/es	
Anti-Islanding Protection		•	/es	
AC Short Circuit Protection			/es	
Residual Current Detection		,	/es	
Ground Fault Monitoring			/es	
nsulation Resister Detection			/es	
V Arc Detection			/es	
Enclosure Protect Level			NEMA4X	
AC/DC surge protection		Ту	rpe II	
General Data		270	25 v 102	
Dimensions (W x H x D, mm)			535 x 192	
Veight (kg)			17	
opology			ormerless Convection	
Cooling			Convection	
Populative Humidity			100 %	
Operating Temperature Range (°C)			to 60	
Operating Altitude (m)			1000	
Standby Consumption (W)			: 10	
Mounting Communication with RSD			Bracket	
Display & Communication Interfaces			NSPEC	
Tertification & Approvals	NDCOO7 COO ENECES		Wi-Fi, GPRS, 4G, Sunspec	0.1 (EC62100.2 (EC6217)
LI GII CULTUTI OL CIUDI UVAIS	NKSU9/, G98, EN50549	9-1, C10/C11, AS4777.2, VDE-AI	1-1141UD, VDEU126, IEC62109	9-1, IEC021U9-2, IEC624//

Technical Data	AF3K-SL-1	AF3.6K-SL-1	AF3K-SL	AF3.6K-SL
V Input	4 E	E /	ΛE	ΕΛ
Nax. Input Power (kW) Nax. PV Voltage (V)	4.5	5.4	4.5	5.4
• ,			50	
MPPT Range (V)	170 500		500	110 500
Full MPPT Range (V)	170 - 500	210 - 500	90 - 500	110 - 500
Normal Voltage (V)				
Startup Voltage (V)	4.0	10		2
Max. Input Current (A)		.5 x 1		5 x 2
Max. Short Current (A)		6 x 1		x 2
No. of MPP Tracker / No. of PV String	1	1/1	2,	/ 2
Battery Port				
Max. Charge/Discharge Power (kW)	3.0	3.6	3.0	3.6
Max. Charge/Discharge Current (A)		80		
Battery Normal Voltage (V)		51	.2	
Battery Voltage Range (V)		40 -		
Battery Type		Li-ion / Lea	d-acid etc.	
AC Grid				
Max Continuous Current (A)	14.0	17.0	14.0	17.0
Max Continuous Power (kVA)	3.0	3.6	3.0	3.6
Nominal Grid Current (A)	13.7 / 13.1	16.4 / 15.7	13.7 / 13.1	16.4 / 15.7
Nominal Grid Voltage (V)		198 to 242 @ 220 /	207 to 253 @ 230	
Nominal Grid Frequency (Hz)		50 /	60	
Power Factor		1 default (adjustable from	0.8 leading to 0.8 lagging)	
Current THD (%)		<	3	
AC Load Output				
Max Continuous Current (A)	14.0	17.0	14.0	17.0
Max Continuous Power (kVA)	3.0	3.6	3.0	3.6
Max Peak Current (A) (10min)	20.5 / 19.6	24.6 / 23.5	20.5 / 19.6	24.6 / 23.5
Max Peak Power (kVA) (10min)	4.5	5.4	4.5	5.4
Nominal AC Voltage L-N (V)	7.5	220 /		J. T
Nominal AC Frequency (Hz)		50 /		
Switching Time (ms)		Seam		
Voltage THD (%)		Seati		
Efficiency			J	
•		07	0	
CEC Efficiency (%)		97		
Max. Efficiency (%)		97		
PV to Bat. Efficiency (%)		98		
Bat. between AC Efficiency (%)		96	.δ	
Protection				
PV Reverse Polarity Protection		Ye		
Over Current/Voltage Protection		Ye		
Anti-Islanding Protection		Ye		
AC Short Circuit Protection		Ye		
Residual Current Detection		Ye		
Ground Fault Monitoring		Ye		
Insulation Resister Detection		Ye	es es	
PV Arc Detection		Ye	es es	
Enclosure Protect Level		IP65 / N	EMA4X	
AC/DC surge protection		Тур	e II	
General Data				
Dimensions (W x H x D, mm)		370 x 53	5 x 192	
Weight (kg)		1	7	
Topology		Transfor	merless	
Cooling		Natural Co	onvection	
Relative Humidity		0 - 10	00 %	
Operating Temperature Range (°C)		- 25 t	o 60	
Operating Altitude (m)		< 40	000	
Standby Consumption (W)		<1	10	
Mounting		Wall B		
Communication with RSD		SUNS		
Display & Communication Interfaces		LCD, LED, RS485, CAN, W		
Certification & Approvals	NRS097 G98 FN505/10_1	, C10/C11, AS4777.2, VDE-AR-		-1. IFC62109-2 IFC62477-1
	14113037, 030, LINSUS43-1,	, 010, 011, 707///.2, VDL*AN	, +510120, 11002103	-, 12002100 2, 120024//-I

4-6 kW Plus Series



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 4kW to 6kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased from the public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS Electricity Pricing & Automation



MAX. 120A Max. Charge/ Discharge Current 120A





PV OVERSIZE 1.5 Times PV Oversize



MPPT CHANNELS Up to 2 MPPT Channels



UPS FUNCTION



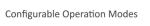
PARALLEL

Support for Time-of-use Optimization



Build in Anti-feed-in Function

→ Compact Size and Easy Installation







AFCI (Optional) & Rapid Shutdown Ready





The charging and discharging power of the battery is greater



Off-grid mode, with a larger load capacity, the maximum load can be 6KVA

Smart Monitoring & Remote Firmware Upgrade

Technical Data PV Input	AF4K-SLP	AF4.6K-SLP	AF5K-SLP	AF5.5K-SLP	AF6K-SLP
Max. Input Power (kW)	6	6.9	7.5	8.3	9
Max. PV Voltage (V)		0.3	550	0.5	
MPPT Range (V)			80 - 500		
Full MPPT Range (V)	120 - 500	130 - 500	150 - 500	160 - 500	170 - 500
Normal Voltage (V)	120 300	230 300	360	100 000	270 300
Startup Voltage (V)			100		
Max. Input Current (A)			18.5 x 2		
Max. Short Current (A)			26 x 2		
No. of MPP Tracker / No. of PV String			2/2		
Battery Port					
Max. Charge/Discharge Power (kW)	4.0	4.6	5.0	5.5	6.0
Max. Charge/Discharge Current (A)			120		
Battery Normal Voltage (V)			51.2		
Battery Voltage Range (V)			40 - 60		
Battery Type			Li-ion / Lead-acid etc.		
AC Grid			,		
Max Continuous Current (A)	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	4.0	4.6	5.0	5.5	6.0
Nominal Grid Current (A)	18.2 / 17.4	21.0 / 20.0	22.8 / 21.8	25.0 / 24.0	27.3 / 26.1
Nominal Grid Voltage (V)	- ,		42 @ 220 / 207 to 25		
Nominal Grid Frequency (Hz)			50 / 60		
Power Factor		1 default (adius	stable from 0.8 leading	to 0.8 lagging)	
Current THD (%)			< 3		
AC Load Output					
Max Continuous Current (A)	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	4.0	4.6	5.0	5.5	6.0
Max Peak Current (A) (10min)	27.3 / 26.1	31.4 / 30	34.1 / 32.7	37.8 / 36.1	41.0 / 39.2
Max Peak Power (kVA) (10min)	6.0	6.9	7.5	8.3	9.0
Nominal AC Voltage L-N (V)			220 / 230		
Nominal AC Frequency (Hz)			50 / 60		
Switching Time (ms)			Seamless		
Voltage THD (%)			< 3		
Efficiency					
CEC Efficiency (%)			97.0		
Max. Efficiency (%)			97.6		
PV to Bat. Efficiency (%)			98.1		
Bat. between AC Efficiency (%)			96.8		
Protection					
PV Reverse Polarity Protection			Yes		
Over Current/Voltage Protection			Yes		
Anti-Islanding Protection			Yes		
AC Short Circuit Protection			Yes		
Residual Current Detection			Yes		
Ground Fault Monitoring			Yes		
Insulation Resister Detection			Yes		
PV Arc Detection			Yes		
Enclosure Protect Level			IP65 / NEMA4X		
AC/DC surge protection			Type II		
General Data					
Dimensions (W x H x D, mm)			370 x 535 x 192		
Weight (kg)			20.5		
Topology			Transformerless		
Cooling			Intelligent Fan		
Relative Humidity			0 - 100 %		
Operating Temperature Range (°C)			- 25 to 60		
Operating Altitude (m)			< 4000		
Standby Consumption (W)			< 10		
Mounting			Wall Bracket		
Communication with RSD			SUNSPEC		
Display & Communication Interfaces			185, CAN, Wi-Fi, GPRS,	•	
Certification & Approvals	NRS097, G99, ENS	50549-1, C10/C11, AS4777	.2, VDE-AR-N4105, VDE	0126, IEC62109-1, IEC621	L09-2, IEC62477-1

7-12 kW



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 7kW to 12kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased from the public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS Electricity Pricing



MAX. 370A Max. Charge/ Discharge Current 370A





1.5 Times PV Oversize



MPPT CHANNELS Up to 2 MPPT Channels



UPS FUNCTION Switch Time < 10ms



PARALLEL Max.6 Parallel Stacking



INPUT

	Higher Yields
Ø	Support for Time-of-use Optimization
o:	Configurable Operation Modes
	AFCI (Optional) & Rapid Shutdown Ready



Build in Anti-feed-in Function



Compact Size and Easy Installation



Smart Monitoring & Remote Firmware Upgrade

Technical Data	AF7K-SL	AF8K-SL	AF9K-SL	AF10K-SL	AF11K-SL	AF12K-SL	
PV Input							
Max. Input Power (kW)	10.5	12	13.5	15	16.5	18	
Max. PV Voltage (V)			9!	50			
MPPT Range (V)			80 -	900			
Full MPPT Range (V)	180 - 850	200 - 850	225 - 850	250 - 850	275 - 850	300 - 850	
Normal Voltage (V)			65	50			
Startup Voltage (V)			10	00			
Max. Input Current (A)			26 +	18.5			
Max. Short Current (A)			32	+ 25			
No. of MPP Tracker / No. of PV String			2 ,	/ 2			
Battery Port							
Max. Charge/Discharge Power (kW)	10.5	12	13.5	15	16.5	18	
Max. Charge/Discharge Current (A)	220	250	280	310	340	370	
Normal Charge/Discharge Current(A)	180	200	230	250	275	300	
Battery Normal Voltage (V)			51	1.2			
Battery Voltage Range (V)			40	- 60			
Battery Type			Li-ion / Lea	id-acid etc.			
AC Grid							
Max Continuous Current (A)	32	37	41	46	50	55	
Max Continuous Power (kVA)	7	8	9	10	11	12	
Nominal Grid Current (A)	32 / 31	37 / 35	41/39	46 / 44	50 / 48	55 / 52	
Nominal Grid Voltage (V)		- ,		/ 230		,	
Nominal Grid Frequency (Hz)				/ 60			
Power Factor		1 defa		0.8 leading to 0.8 la	gging)		
Current THD (%)		2 00.0		3	566/		
AC Load Output				<u> </u>			
Max Continuous Current (A)	32	37	41	46	50	55	
Max Continuous Power (kVA)	7	8	9	10	11	12	
Max Peak Current (A) (60s)	48 / 46	55.5 / 52.5	61.5 / 58.5	68 / 66	75 / 72	82 / 78	
Max Peak Power (kVA) (60s)	-			· · · · · · · · · · · · · · · · · · ·	-	-	
Nominal AC Voltage L-N (V)	10.5	12	13.5	15 / 230	16.5	18	
Nominal AC Frequency (Hz)				/ 60			
Switching Time (ms)				nless			
Voltage THD (%)				3			
Efficiency				3			
-			96	5.8			
CEC Efficiency (%)							
Max. Efficiency (%) Protection			96	3.1			
			V	95			
PV Reverse Polarity Protection Bat. Reverse Polarity Protection				es es			
Over Current/Voltage Protection							
Anti-Islanding Protection				es es			
AC Short Circuit Protection				es es			
Residual Current Detection				es es			
Ground Fault Monitoring				es			
PV Arc Detection				es			
Enclosure Protect Level				66			
AC/DC surge protection				oe II			
General Data			1 91	.с. II			
Dimensions (W x H x D, mm)			600 x 41	00 x 250			
Weight (kg)				0			
Topology				rmerless			
Cooling				ent Fan			
Relative Humidity				00 %			
Operating Temperature Range (°C)				- 60			
Operating Altitude (m)				000			
Standby Consumption (W)				10			
Mounting Communication with RSD				racket			
COMMUNICATION WITH PS 1	SUNSPEC						

8-12 kW



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 8kW to 12kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased from the public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



Electricity Pricing & Automation



MAX. 240A Max. Charge/ Discharge Current 240A



1.5 Times PV Oversize



MPPT CHANNELS Up to 3 MPPT Channels



UPS FUNCTION Switch Time < 10ms



PARALLEL Max.6 Parallel Stacking



Higher Yields		Colorful touch LCD, User-friendly
Support for Time-of-use Optimization	Ø	∌ Build in Anti-feed-in Function
Configurable Operation Modes	0	Compact Size and Easy Installation
AFCI (Optional) & Rapid Shutdown Ready		Smart Monitoring & Remote Firmware Upgrade

Technical Data	AF8K-SLP	AF9K-SLP	AF10K-SLP	AF11K-SLP	AF12K-SLP
PV Input May Input Power (kW)	12	13.5	15	16.5	18
Max. Input Power (kW)	12	15.5	550	10.5	10
Max. PV Voltage (V) MPPT Range (V)			80 - 500		
Full MPPT Range (V)	150 - 500	170 - 500	190 - 500	210 - 500	230 - 500
Normal Voltage (V)	130 - 300	170 - 300	360	210 - 300	230 - 300
Startup Voltage (V)			100		
Max. Input Current (A)			18.5 x 3		
Max. Short Current (A)			26 x 3		
No. of MPP Tracker / No. of PV String			3 / 1+1+2		
Battery Port			3/11112		
Max. Charge/Discharge Power (kW)	8.0	9.0	10	11	12
Max. Charge/Discharge Current (A)	200	240	240	240	240
Battery Normal Voltage (V)	200	240	51.2	240	2-10
Battery Voltage Range (V)			40 - 60		
				-	
Battery Type AC Grid & Diesel Gen (Optional)			Li-ion / Lead-acid et		
Max Continuous Current (A)	37	41	46	50	55
Max Continuous Power (kVA)	8.0	9.0	10	11	12
Nominal Grid Current (A)	36.4 / 34.8	41 / 39.2	45.5 / 43.5	50 / 47.9	54.6 / 52.2
Nominal Grid Voltage (V)	30.4 / 34.6	-	2 @ 220 / 207 to 2		34.0 / 32.2
Nominal Grid Frequency (Hz)		196 (0 24	50 / 60	55 @ 250	
Power Factor		1 4 2 5 2 1 4 / 2 4 2 1 2 2	•	- to 0.0 locaina)	
Current THD (%)		I derauit (adjust	able from 0.8 leadin	ig to 0.8 lagging)	
AC Load Output			\ 3		
Max Continuous Current (A)	37	41	46	50	55
Max Continuous Power (kVA)	8	9	10	11	12
Max Peak Current (A) (10min)	55.5	61.5	69	75	82.5
Max Peak Power (kVA) (10min)	12	13.5	15	16.5	18
Nominal AC Voltage L-N (V)	12	15.5	220 / 230	10.5	10
Nominal AC Frequency (Hz)			50 / 60		
Switching Time (ms)			Seamless		
Voltage THD (%)			< 3		
Efficiency			<u> </u>		
European Efficiency (%)			96.8		
Max. Efficiency (%)			98.1		
Protection			96.1		
			Voc		
PV Reverse Polarity Protection Bat. Reverse Polarity Protection			Yes		
Over Current/Voltage Protection			Yes		
Anti-Islanding Protection			Yes		
AC Short Circuit Protection			Yes		
Residual Current Detection			Yes		
Ground Fault Monitoring			Yes		
PV Arc Detection			Yes		
Enclosure Protect Level			IP66		
General Data			11 00		
Dimensions (W x H x D, mm)			785 x 614 x 258		
Weight (kg)			51		
Topology			Transformerless		
Cooling			Intelligent Fan		
Relative Humidity			0 - 100 %		
Operating Temperature Range (°C)			- 25 to 60 (Derating	45)	
Operating Altitude (m)			< 4000	1	
Standby Consumption (W)			< 30		
Mounting			Wall Bracket		
Communication with RSD			SUNSPEC		
Display & Communication Interfaces		ICD IED DC		PS AG Sunanca	
Certification & Approvals			485, CAN, Wi-Fi, GP 16, IEC61727, IEC616		
Jacion a rippi orani		CE, IECOZI	10, ILCU1/2/, IEC010	, ILCUUUU0	

Wall Mounted Energy Storage Battery



A sleek and space-saving solution for your energy storage needs. With its compact design and easy installation, it seamlessly blends into any environment. Whether in your home, office, or commercial space, our wall-mounted unit provides reliable and efficient energy storage, empowering you to optimize energy usage and reduce waste.













Performance











Intelligent BMS



Cost Effective Fire Suppression

Model

Peak Current(A)

Cycle Life

Parallel Connection

_		
Parameter		
Nominal Voltage(Vdc)	51.2	51.2
Nominal Capacity(Wh)	5120	10240
Working Voltage Range(Vdc)	44.8-56.16	44.8-56.16
Charge Voltage(Vdc)	58.4	58.4
Nominal Charge/Discharge Current(A)	50	100
Max.Charge/Discharge Current(A)	100	200

200@3sec

AF5000W-LF

Structure		
Dimension(mm)	520*470*142	800*590*142
Weight(kg)	47.2	93.5
IP Rating	II	P65
Installation	Wall mounte	ed/Floor stand

Working Environment	
Charge Working Temperature(°C)	0-55
Discharge Working Temperature(°C)	-20~60
Altitude(M)	<2500
Humidity(RH)	5-95% (w/o condensing)

Communication	
Communication Port	RS485, CAN
Display	SOC status indicator, LED indicator

Certification

CB, IEC62619, UL1973, UKCA, CE-EMC, CE-GPSD, EN62619; UN38.3, MSDS



AF10000W-LG

400@3sec

≤ 16 pcs

6000 @ 80% DOD, 25°C / 0.5C





Three Phase Hybrid Storage Inverter

7-12 kW (LV Battery Supported)



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 7kW to 12kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS Electricity Pricing



MAX. 370A Max. Charge/ Discharge Current 370A







100% UNBALANCE MPPT CHANNELS Support Unbalance Load Up to 2 MPPT Channels



Switch Time < 10ms

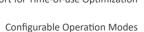


PARALLEL Max.6 Parallel Stacking



INPUT

	Higher Yields
Support for Time-of-us	se Optimization

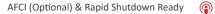








Build in Anti-feed-in Function





Smart Monitoring & Remote Firmware Upgrade

48V low voltage battery, transformer isolation design

Technical Data	AF7K-TL	AF8K-TL	AF9K-TL	AF10K-TL	AF11K-TL	AF12K-TL				
PV Input										
Max. Input Power (kW)	10.5	12	13.5	15	16.5	18				
Max. PV Voltage (V)			95	50						
MPPT Range (V)			80 -	900						
Full MPPT Range (V)	180 - 850	200 - 850	225 - 850	250 - 850	275 - 850	300 - 850				
Normal Voltage (V)	650									
Startup Voltage (V)		100								
Max. Input Current (A)				18.5						
Max. Short Current (A)				+ 25						
No. of MPP Tracker / No. of PV String			2 /	/ 2						
Battery Port										
Max. Charge/Discharge Power (kW)	10.5	12	13.5	15	16.5	18				
Max. Charge/Discharge Current (A)	220	250	280	310	340	370				
Normal Charge/Discharge Current(A)	180	200	230	250	275	300				
Battery Normal Voltage (V)			51	.2						
Battery Voltage Range (V)			40 -	- 60						
Battery Type			Li-ion / Lea	d-acid etc.						
AC Grid										
Max Continuous Current (A)	11	12	14	15	17	18				
Max Continuous Power (kVA)	7	8	9	10	11	12				
Nominal Grid Current (A)	11 / 10.5	12 / 11.5	14 / 13	15 / 14.5	17 / 16	18 / 17.5				
Nominal Grid Voltage (V)			380 /	400						
Nominal Grid Frequency (Hz)	50 / 60									
Power Factor	1 default (adjustable from 0.8 leading to 0.8 lagging)									
Current THD (%)			<	3						
AC Load Output										
Max Continuous Current (A)	11	12	14	15	17	18				
Max Continuous Power (kVA)	7	8	9	10	11	12				
Max Peak Current (A) (60s)	22 / 21	24 / 23	28 / 26	30 / 29	34 / 32	36 / 35				
Max Peak Power (kVA) (60s)	10.5	12	13.5	15	16.5	18				
Nominal AC Voltage L-N (V)			380 /	400						
Nominal AC Frequency (Hz)			50 /	60						
Switching Time (ms)			Sean	nless						
Voltage THD (%)			<	3						
Efficiency										
CEC Efficiency (%)			96	.8						
Max. Efficiency (%)			98	.1						
Protection										
PV Reverse Polarity Protection			Ye	es						
Bat. Reverse Polarity Protection			Ye							
Over Current/Voltage Protection			Ye							
Anti-Islanding Protection			Ye	es						
AC Short Circuit Protection			Ye	es						
Residual Current Detection			Ye	es						
Ground Fault Monitoring			Ye	es						
PV Arc Detection			Ye							
Enclosure Protect Level			IP							
AC/DC surge protection			Тур	e II						
General Data			500 44	252						
Dimensions (W x H x D, mm)			600 x 40							
Weight (kg)			3							
Topology			Transfor							
Cooling			Intellig							
Relative Humidity			0 - 1							
Operating Temperature Range (°C)			-25							
Operating Altitude (m)			< 30							
Standby Consumption (W)			< :							
Mounting				racket						
Communication with RSD			SUN:	SPEC						

Three Phase Hybrid Storage Inverter

3-15 kW



The Afore AF series three phase storage inverters are designed to increase energy independence for homeowners and commercial users. The power range is from 3.0kW to 15kW, compatible with high voltage (80-600V) batteries.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



Electricity Pricing & Automation



WIDE RANGE Voltage Range (80-600V)



PV OVERSIZE 1.5 Times PV Oversize



MAX. 18.5Adc String Current Up To 18.5A



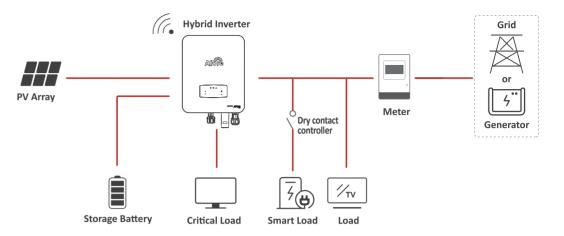
COMPACT **UPS FUNCTION**



GENERATOR Generator Backup Support

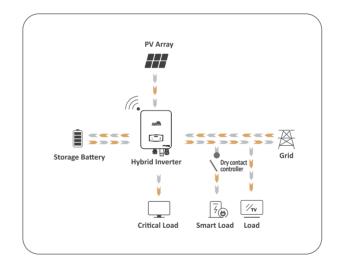


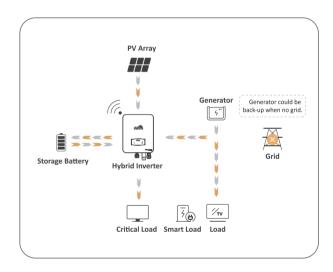
For New Storage System:



Optimizing Self-Consumption (on-grid)

+ Emergency Power Supply (off-grid)

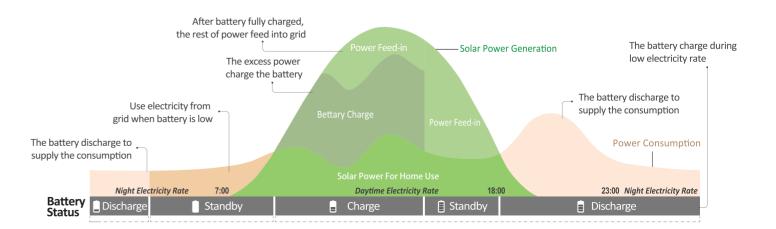




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Optimizing Self-Consumption Mode

With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



Technical Data	AF3K-MTH	AF4K-MTH	AF5K-MTH	AF6K-MTH				
PV Input								
Max. DC Input Power (kW)	5	6	7.5	9				
Max. PV Voltage (V)		10						
Rated DC Input Voltage (V)		62						
DC Input Voltage Range (V)		150-1000						
MPPT Voltage Range (V)		150-	850	:				
Full MPPT Range(V)		200-850		250-850				
Start-up Voltage (V)		16						
Max. DC Input Current (A)		18.5						
Max. Short Current(A)		25						
No. of MPPT Tracker / Strings		2/	/2					
Battery Port	250	250	250	250				
Battery Nominal Voltage (V)	350	350	350	350				
Battery Voltage Range (V)		80-						
Max. Charge/Discharge Current (A)		30						
Max. Charge/Discharge Power (kW)	3	4	5	6				
Charging Curve			ages					
Compatible Battery Type		Li-ion / Lead-acid / Sodiu	m metal chloride battery					
AC Grid	•		-					
Nominal AC Output Power (kW)	3	6 / 4 4	5	6				
Max. AC Input/Output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6				
Max. AC Output Current (A)	5.3	7	8.5	10.5				
Nominal AC Voltage (V)		3P+N+PE/3P-						
Nominal AC Frenquency (Hz)		50/						
Power Factor		1 (-0.8-0.8						
Current THD (%)		<3	1%					
AC Load Output (Back-up)	2		-					
Nominal Output Power (kVA)	3	4	5	6				
Nominal Output Voltage (V)		3P+N+PE/3P-						
Nominal Output Frequency (Hz)		50/						
Nominal Output Current (A)	4.4	5.8	7.3	8.7				
Peak Output Power	3.3kVA, 60s	4.4kVA, 60s	5.5kVA, 60s	6.6kVA, 60s				
THDV (with linear load)		<3						
Switching Time (ms)		<1	10					
Efficiency								
Europe Efficiency			201					
Max. Efficiency		98.00	1%					
Battery Charge/Discharge Efficiency								
Protection Poverse Polarity Protection			ne.					
Reverse Polarity Protection Over Current / Voltage Protection		Ye						
Over Current / Voltage Protection Anti-islanding Protection		Ye Ye						
AC Short-ciruit Protection		Ye						
Leakage Current Detection		Ye						
Ground Fault Monitoring		Ye						
Grid Monitoring		Ye						
Enclosure Protect Level		IPE						
AC/DC surge protection		Тур						
General Data		- 76						
Dimensions (W x H x D, mm)		370 x 598.5	5 x 192mm					
Weight (kg)		22						
Topology		Transfor						
Cooling Concept		Natural Co						
Relatively Humidity		0-10						
Operating Temperature Range (°C)		-25 to						
Operating Altitude (m)		<40						
Standby Consumption (W)		<						
Display & Communication Interfaces			Vi-Fi, GPRS, 4G, Sunspec					
Certification & Approvals	NRS097, G98/G99. EN505	49-1, C10/C11, AS4777.2, VD		2109-1, IEC62109-2. IEC62				
PP - 1 - 7	,,,,	, , , , , , , , , , , , , , , , , , , ,	EN61000-6-3	,, .,				

Technical Data	AF8K-MTH	AF10K-MTH	AF12K-MTH	AF15K-MTH
PV Input				
Max. DC Input Power (kW)	12	15	18	22.5
Max. PV Voltage (V)		1	000	
Rated DC Input Voltage (V)		6	520	
DC Input Voltage Range (V)		150	-1000	
MPPT Voltage Range (V)		150)-850	
Full MPPT Range(V)	300-850		500-850	
Start-up Voltage (V)		1	160	
Max. DC Input Current (A)		18	.5x2	
Max. Short Current(A)		2!	5 x 2	
No. of MPPT Tracker / Strings		2	2/2	
Battery Port				
Battery Nominal Voltage (V)	350	350	450	500
Battery Voltage Range (V)		80	-600	
Max. Charge/Discharge Current (A)			30	
Max. Charge/Discharge Power (kW)	8	10	12	15
Charging Curve	-	3 \$	tages	
Compatible Battery Type			um metal chloride battery	
AC Grid				
Nominal AC Output Power (kW)	8	10	12	15
Max. AC Input/Output Power (kVA)	12 / 8.8	15 / 11	18 / 13.2	22.5 / 16.5
Max. AC Output Current (A)	13.5	17	21.5	27
Nominal AC Voltage (V)			P+PE 230/400	
Nominal AC Frenquency (Hz))/60	
Power Factor			B adjustable)	
Current THD (%)			3%	
AC Load Output (Back-up)				
Nominal Output Power (kVA)	8	10	12	15
Nominal Output Voltage (V)			P+PE 230/400	
Nominal Output Frequency (Hz)			0/60	
Nominal Output Current (A)	11.6	14.5	17.4	21.8
Peak Output Power	8.8kVA, 60s	11kVA, 60s	13.2kVA, 60s	16.5kVA, 60s
THDV (with linear load)	0.0877, 003		3%	10.5kVA, 003
Switching Time (ms)			:10	
Efficiency				
Europe Efficiency			;	
Max. Efficiency	98.	20%	98.	30%
Battery Charge/Discharge Efficiency				
Protection				
Reverse Polarity Protection			/es	
Over Current / Voltage Protection			/es	
Anti-islanding Protection			/es	
AC Short-ciruit Protection			/es	
Leakage Current Detection			/es	
Ground Fault Monitoring			/es	
Grid Monitoring			/es	
Enclosure Protect Level			P66	
AC/DC surge protection		Ту	pe II	
General Data				
Dimensions (W x H x D, mm)			.5 x 192mm	
Weight (kg)			2kg	
Topology			ormerless	
Cooling Concept			gent Fan	
Relatively Humidity			100%	
Operating Temperature Range (°C)			:0 60 °C	
Operating Altitude (m)			1000	
Standby Consumption (W)			<5	
Display & Communication Interfaces		LCD, LED, RS485, CAN,	Wi-Fi, GPRS, 4G, Sunspec	
Certification & Approvals			AR-N4105, VDE0126, IEC621	

Three Phase Hybrid Storage Inverter

3-30 kW



The Afore AF series three phase storage inverters are designed to increase energy independence for homeowners and commercial users. The power range is from 3.0kW to 30kW, compatible with high voltage (150-800V) batteries.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS
Electricity Pricing
& Automation Sodi



BATTERY
Support
Sodium metal chloride battery



WIDE RANGE Voltage Range (150-800V)



100% UNBALANCE



MAX. 40Adc

Build in Anti-feed-in Function

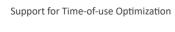
String Current Up To 40A



UPS FUNCTION Switch Time < 10ms



INPUT Support Generator







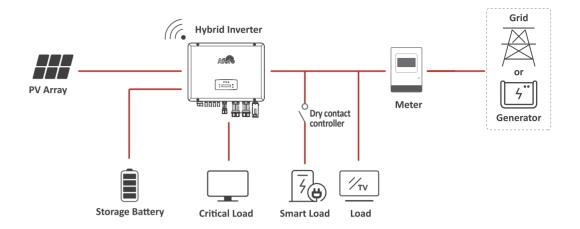
100% unbalanced output, each phase; 200% unbalanced output, each phase (≤ 10kW)

AFCI (Optional) & Rapid Shutdown Ready



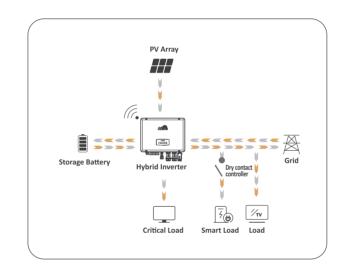
Smart Monitoring & Remote Firmware Upgrade

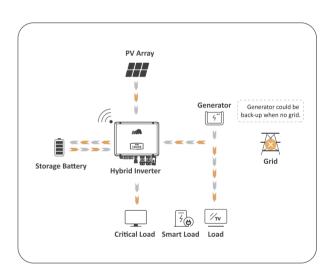
For New Storage System:



Optimizing Self-Consumption (on-grid)

- Emergency Power Supply (off-grid)

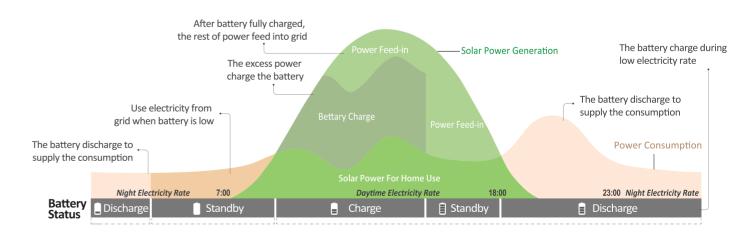




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Optimizing Self-Consumption Mode

With energy storage system installed, users may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



Technical Data	AF3K-TH	AF4K-TH	AF5K-TH	AF6K-TH	AF8K-TH	AF10K-TH			
PV Input	-	_		_					
Max. DC Input Power (kW)	5	6	7.5	9	12	15			
Max. PV Voltage (V)			10						
Rated DC Input Voltage (V)		620							
DC Input Voltage Range (V)		150-1000							
MPPT Voltage Range (V)		150-850 200-850 250-850 300-850 500-85							
Full MPPT Range(V) Start-up Voltage (V)		200-850	10		300-830	500-850			
Max. DC Input Current (A)			20:						
Max. Short Current(A)			30:						
No. of MPPT Tracker / Strings			2/						
Battery Port			-,	_					
Battery Nominal Voltage (V)	200	200	200	250	300	400			
Battery Voltage Range (V)			150-	-800					
Max. Charge/Discharge Current (A)			3	0					
Max. Charge/Discharge Power (kW)	3	4	5	6	8	10			
Charging Curve			3 Sta	ages					
Compatible Battery Type		Li-ion	/ Lead-acid / Sodiu	m metal chloride b	attery				
AC Grid									
Nominal AC Output Power (kW)	3	4	5	6	8	10			
Max. AC Input/Output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6	12 / 8.8	15 / 11			
Max. AC Output Current (A)	5.3	7	8.5	10.5	13.5	17			
Nominal AC Voltage (V)			230/						
Nominal AC Frenquency (Hz)		50/60							
Power Factor	1 (-0.8-0.8 adjustable)								
Current THD (%)			<3	3%					
AC Load Output (Back-up)	_		_	-	_				
Nominal Output Power (kVA)	3	4	5	6	8	10			
Nominal Output Voltage (V)			230/						
Nominal Output Frequency (Hz)			50/						
Nominal Output Current (A)	4.4	5.8	7.3	8.7	11.6	14.5			
Peak Output Power	3.3kVA, 60s	4.4kVA, 60s	5.5kVA, 60s	6.6kVA, 60s	8.8kVA, 60s	11kVA, 60s			
THDV (with linear load) Switching Time (ms)			<3						
Efficiency			<u> </u>	10					
•			07.5	-00/					
Europe Efficiency		00 (97.5 00%	50%	0.0	20%			
Max. Efficiency Battery Charge/Discharge Efficiency			98.0	nn %	. 36	20%			
Protection			36.0	JO 76					
Reverse Polarity Protection			Ye						
Over Current / Voltage Protection			Ye						
Anti-islanding Protection			Ye						
AC Short-ciruit Protection			Ye						
Leakage Current Detection			Υe	es					
Ground Fault Monitoring			Ye	es					
Grid Monitoring			Ye	es					
Enclosure Protect Level			IPe	65					
AC/DC surge protection			Туре	e II					
General Data									
Dimensions (W x H x D, mm)			558 x 535	x 260 mm					
Weight (kg)			29						
Topology		A	Transfor	merless					
Cooling Concept		Natural C	onvection	2001	Intellig	ent Fan			
Relatively Humidity			0-10						
Operating Temperature Range (°C)			-25 to						
Operating Altitude (m)			<40						
Standby Consumption (W) Display & Communication Interfaces		100	LED D\$49E CAN \(\)		ncnoc				
		LCD,	, LED, RS485, CAN, \	wi-ri, GPRS, 4G, Su	rispec				
Certification & Approvals	NIDCOOT COO TO	150540 4 640/641	AS4777.2, VDE-AR-	NATOR VIDEOTOS	IECC2100 4 15000	100 2 150034-			

Technical Data	AF12K-TH	AF15K-TH	AF17K-TH	AF20K-TH	AF25K-TH	AF30K-TH	
PV Input							
Max. DC Input Power (kW)	18	22.5	25.5	30	37.5	45	
Max. PV Voltage (V)				000			
Rated DC Input Voltage (V)				20			
DC Input Voltage Range (V)				1000			
MPPT Voltage Range (V)				-850			
Full MPPT Range(V)				-850			
Start-up Voltage (V)	202			60	100	- 2	
Max. DC Input Current (A)	20x2	20+32	1	x2	40:		
Max. Short Current(A)	30x2	30+48	1	x 2	60:		
No. of MPPT Tracker / Strings	2/2	2/3	2)	/4	2/	4	
Battery Port	450	500	400	500	500	550	
Battery Nominal Voltage (V)	450	500	400	500	500	550	
Battery Voltage Range (V)				-800			
Max. Charge/Discharge Current (A)	30	50	50	50	60	60	
Max. Charge/Discharge Power (kW)	12	15	17	20	25	30	
Charging Curve				ages			
Compatible Battery Type		Li-ion ,	/ Lead-acid / Sodiu	m metal chloride b	attery		
AC Grid							
Nominal AC Output Power (kW)	12	15	17	20	25	30	
Max. AC Input/Output Power (kVA)	18 / 13.2	22.5 / 16.5	25.5 / 18.7	30 / 22	37.5 / 27.5	45 / 33	
Max. AC Output Current (A)	21.5	27	30	32	40	48	
Nominal AC Voltage (V)			230,	/400			
Nominal AC Frenquency (Hz)	50/60						
Power Factor			1 (-0.8-0.8	adjustable)			
Current THD (%)			<3	3 %			
AC Load Output (Back-up)							
Nominal Output Power (kVA)	12	15	17	20	25	30	
Nominal Output Voltage (V)			230,	/400			
Nominal Output Frequency (Hz)			50,	/60			
Nominal Output Current (A)	17.4	21.8	24.7	29	36.3	43.5	
Peak Output Power	13.2kVA, 60s	16.5kVA, 60s	18.7kVA, 60s	22kVA, 60s	27.5kVA, 60s	33kVA, 60s	
THDV (with linear load)			<3	3%			
Switching Time (ms)			<:	10			
Efficiency							
Europe Efficiency	9	7.50%	97.8	30%	98.00%	98.10%	
Max. Efficiency		98.3	30%		98.	50%	
Battery Charge/Discharge Efficiency				00%	•		
Protection							
Reverse Polarity Protection			Ye	es			
Over Current / Voltage Protection			Ye	es			
Anti-islanding Protection			Ye	es			
AC Short-ciruit Protection			Ye	es			
Leakage Current Detection			Ye	es			
Ground Fault Monitoring				es			
Grid Monitoring				es			
Enclosure Protect Level			IP				
AC/DC surge protection			Тур				
General Data			. , , ,				
Dimensions (W x H x D, mm)			558 x 535	x 260 mm			
Weight (kg)			29kg		36	kg	
Topology				rmerless	:		
				ent Fan			
			intenig				
Cooling Concept			0 - 1	00%			
Cooling Concept Relatively Humidity			0-1 -25 to				
Cooling Concept Relatively Humidity Operating Temperature Range (°C)			-25 to	o 60 ℃			
Cooling Concept Relatively Humidity Operating Temperature Range (°C) Operating Altitude (m)			-25 tc	0 60 °C			
Cooling Concept Relatively Humidity Operating Temperature Range (°C) Operating Altitude (m) Standby Consumption (W)		100	-25 tc <4!	0 60 °C 000	nsner		
Cooling Concept Relatively Humidity Operating Temperature Range (°C) Operating Altitude (m)	NRSO07 GOO	LCD, I EN50549-1, C10/C11, <i>i</i>	-25 tc <41 < LED, RS485, CAN, V	o 60 °C 000 5 Vi-Fi, GPRS, 4G, Sur	-	19-2 IFC62477	

Three Phase Hybrid Storage Inverter

3-12 kW Plus Series



The Afore three phase storage inverters plus series are designed to increase energy independence for homeowners and commercial users. The power range is from 3.0kW to 12kW, compatible with high voltage (80-600V and 120-650V) batteries.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



Electricity Pricing & Automation



BATTERY Support Sodium metal chloride battery



Battery Voltage Minimum 80V





MAX. 50A Max. Charge/ Discharge Current 50A





MAX. 20Adc Support Unbalance Load String Current Up To 20A



UPS FUNCTION

Support for Time-of-use Optimization

AFCI (Optional) & Rapid Shutdown Ready





Build in Anti-feed-in Function

100% unbalanced output, each phase; 200% unbalanced output, each phase (≤ 10kW)

Smart Monitoring & Remote Firmware Upgrade

Technical Data	AF3K-THP	AF4K-THP	AF5K-THP	AF6K-THP	AF8K-THP	AF10K-THP	AF12K-THP
PV Input							
Max. DC Input Power (kW)	5	6	7.5	9	12	15	18
Max. PV Voltage (V)				1000			
Rated DC Input Voltage (V)				620			
DC Input Voltage Range (V)				150-1000			
MPPT Voltage Range (V)				150-850			
Full MPPT Range(V)		200-850		250-850	300-850	500	-850
Start-up Voltage (V)				160			
Max. DC Input Current (A)				20x2			
Max. Short Current(A)				30 x 2			
No. of MPPT Tracker / Strings				2/2			
Battery Port							
Battery Nominal Voltage (V)	100	100	100	150	200	250	300
Battery Voltage Range (V)			80-600			120	-650
Max. Charge/Discharge Current (A)				50			
Max. Charge/Discharge Power (kW)	3	4	5	6	8	10	12
Charging Curve				3 Stages			
Compatible Battery Type			Li-ion / Lead-aci	d / Sodium metal ch	nloride battery		
AC Grid							
Nominal AC Output Power (kW)	3	4	5	6	8	10	12
Max. AC Input/Output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6	12 / 8.8	15 / 11	18 / 13.2
Max. AC Output Current (A)	5.3	7	8.5	10.5	13.5	17	21.5
Nominal AC Voltage (V)				230/400			
Nominal AC Frenquency (Hz)				50/60			
Power Factor			1 (-0.8-0.8 adjustable	!)		
Current THD (%)				<3%			
AC Load Output (Back-up)							
Nominal Output Power (kVA)	3	4	5	6	8	10	12
Nominal Output Voltage (V)				230/400			
Nominal Output Frequency (Hz)				50/60			
Nominal Output Current (A)	4.4	5.8	7.3	8.7	11.6	14.5	17.4
Peak Output Power	3.3kVA, 60s	4.4kVA, 60s	5.5kVA, 60s	6.6kVA, 60s	8.8VA, 60s	11VA, 60s	13.2kVA, 60s
THDV (with linear load)				<3%		<u> </u>	· · · · · · · · · · · · · · · · · · ·
Switching Time (ms)				<10			
Efficiency							
Europe Efficiency				97.50%			
Max. Efficiency		98.0	00%		98.3	20%	98.30%
Battery Charge/Discharge Efficiency				98.00%			
Protection							
Reverse Polarity Protection				Yes			
Over Current / Voltage Protection				Yes			
Anti-islanding Protection				Yes			
AC Short-ciruit Protection				Yes			
Leakage Current Detection				Yes			
Ground Fault Monitoring				Yes			
Grid Monitoring				Yes			
Enclosure Protect Level				IP65			
AC/DC surge protection				Type II			
General Data							
Dimensions (W x H x D, mm)				558 x 535 x 260 mm	1		
Weight (kg)				29kg			
Topology				Transformerless			
Cooling Concept		Natural C	Convection			Intelligent Fan	
Relative Humidity				0-100%		-	
Operating Temperature Range (°C)				-25 to 60 °C			
Operating Altitude (m)				<4000			
Standby Consumption (W)				<5			
Display & Communication Interfaces			LCD, LED, RS48	85, CAN, Wi-Fi, GPR	S, 4G, Sunspec		
Certification & Approvals	NRS097. G98	8/G99, EN50549-		77.2, VDE-AR-N4105		62109-1. IEC6210	9-2, IEC62477-1
EMC	, 35			51000-6-2, EN61000		,	
			_,,,,	,			

Three Phase Hybrid Storage Inverter

36-60 kW



The Afore AF series three phase storage inverters are designed to increase energy independence for homeowners and commercial users. The power range is from 36kW to 60kW, compatible with high voltage (150-800V) batteries.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.







Support Sodium metal chloride battery





WIDE RANGE Voltage Range (150-800V)



100% UNBALANCE Support Unbalance Load



String Current Up To 40A



Switch Time < 10ms





Support 280AH, 315AH battery system



2 times AC Oversize

Support for Time-of-use Optimization Configurable Operation Modes



100% unbalanced output, each phase

Build in Anti-feed-in Function

AFCI (Optional) & Rapid Shutdown Ready



Smart Monitoring & Remote Firmware Upgrade

echnical Data	AF36K-TH	AF40K-TH	AF45K-TH	AF50K-TH	AF60K-TH
V Input			67.5	75	22
Max. DC Input Power (kW)	54	60	67.5	75	90
Max. PV Voltage (V)			1000		
lated DC Input Voltage (V)			620		
OC Input Voltage Range (V)			150-1000		
MPPT Voltage Range (V)			150-850		
Full MPPT Range(V)			500-850		
Start-up Voltage (V)			160		
Max. DC Input Current (A)			40×4		
Max. Short Current(A)			48x4		
No. of MPPT Tracker / Strings			4/8		
Battery Port					
Battery Nominal Voltage (V)			500		
Battery Voltage Range (V)			150-800		
Max. Charge/Discharge Current (A)			120		
Max. Charge/Discharge Power (kW)	36	40	45	50	60
Charging Curve			3 Stages		
Compatible Battery Type		Li-ion / Lead-	acid / Sodium metal ch	loride battery	
AC Grid					
Nominal AC Output Power (kW)	36	40	45	50	60
Max. AC Input/Output Power (kVA)	54 / 39.6	60 / 44	67.5 / 49.5	75 / 55	90 / 66
Max. AC Output Current (A)	60.5	67	75.5	83.5	96
Nominal AC Voltage (V)			230/400		
Nominal AC Frenquency (Hz)			50/60		
Power Factor		1	(-0.8-0.8 adjustable)	1	
Current THD (%)			<3%		
AC Load Output (Back-up)					
Nominal Output Power (kVA)	36	40	45	50	60
Nominal Output Voltage (V)			230/400		
Nominal Output Frequency (Hz)			50/60		
Max. AC Output Current (A)	60.5	67	75.5	83.5	96
Peak Output Power	39.6kVA, 60s	44kVA, 60s	49.5kVA, 60s	55kVA, 60s	66kVA, 60s
THDV (with linear load)			3%		
Switching Time (ms)			<10		
Efficiency					
Europe Efficiency	98.20%	98.30%	98.30%	98.30%	98.30%
Max. Efficiency			98.60%		
Battery Charge/Discharge Efficiency			99.00%		
Protection					
Reverse Polarity Protection			Yes		
Over Current / Voltage Protection			Yes		
Anti-islanding Protection			Yes		
AC Short-ciruit Protection			Yes		
Leakage Current Detection			Yes		
Ground Fault Monitoring			Yes		
Grid Monitoring			Yes		
Enclosure Protect Level			IP66		
AC/DC surge protection			Type II		
General Data			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Dimensions (W x H x D, mm)			867 x 715 x 306 mm		
Weight (kg)			81kg		
Topology			Transformerless		
Cooling Concept			Intelligent Fan		
Relative Humidity			0-100%		
Operating Temperature Range (°C)			-25 to 60 °C		
Operating Altitude (m)			<4000		
Standby Consumption (W)					
Display & Communication Interfaces		ICD IED DC	<100	AG Sunches	
Certification & Approvals	NDCOOT COO ENG		485, CAN, Wi-Fi, GPRS,	· · · · · · · · · · · · · · · · · · ·	1 IECC3100 3
	NR 3097 (399 FN5)	0049-1. CIU/CII. AS4	1777.2, VDE-AR-N4105,	V N E O I Z O . I E C O Z I O 9	- I. IEU0Z1U9-Z

High Voltage Stackable Energy Storage Battery





High capacity







Scalable

Efficient Performance









Monitoring

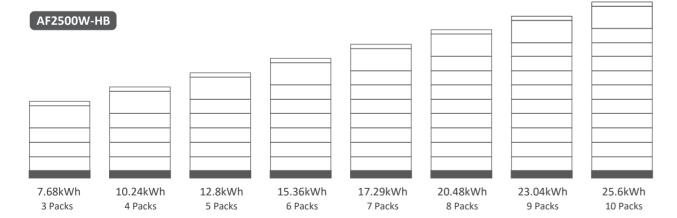
High Voltage

Integration Suppression

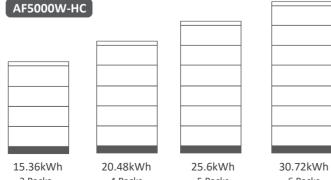
Power up your energy storage game with compact size, lightweight design, and effortless installation of standardized modules, leveraging the advantages of high voltage. Effortlessly customize battery combinations to meet your energy storage needs.

Thermal Aerosol Fire Suppression Device

The energy storage system is equipped with a breakthrough aerosol fire suppression device, boasting ultra-high efficiency and reliability. Its compact size, rapid response, and eco-friendly features make it ideal for enclosed spaces like battery compartments. Invest in our ESS today for top-of-the-line fire protection technology to ensure the safety of personnel and property.



- Higher Conversion Efficiency
- Increased Independence from the Grid
- Better Suitable for Peaking Applications
- Greater Flexibility
- · Lower Cost, Larger System
- Faster Charging and Discharging
- Energy Savings



Parameter Nominal Voltage(Vdc) 51.2 51.2 Nominal Capacity(Wh) 2560 5120 Working Voltage Range(Vdc) 129.6-516.6 129.6-350.4 Charge Voltage(Vdc) 56.16 56.16 Nominal Charge/Discharge Current(A) 25 50 Max.Charge/Discharge Current(A) 100 100@3sec 200@3sec Peak Current(A)

AF2500W-HB

3-10 pcs

AF5000W-HC

3-6 pcs

6000 @ 80% DOD, 25°C / 0.5C

Structure		
Power Module Dimensions(mm)/Weight(kg)	600*210*250 /14	610*225*250 /15
Battery Module Dimensions(mm)/Weight(kg)	600*210*160 /27	610*225*250 /52
Lampstand Module Dimensions(mm)/Weight(kg)	600*210*90 /5	610*225*90 /5.5
Top Cap Module Dimensions(mm)/Weight(kg)	600*210*50 /2.5	610*225*50/3
IP Rating	I	P65
Installation	Sta	acked

Working Environment	
Charge Working Temperature(°C)	0-55
Discharge Working Temperature(°C)	-20~60
Altitude(M)	<2500
Humidity(RH)	5-95% (w/o condensing)

Communication	
Communication Port	RS485, CAN
Display	SOC status indicator, LED indicator

Certification

■ Model

Series Connection

Cycle Life

CB, IEC62619, CE-EMC, CE-GPSD, UKCA, UL1973, UL9540A, EN62040, IEC62040; UN38.3, MSDS









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3 Packs 4 Packs 5 Packs

High Voltage Stackable Energy Storage Battery



The AF2500W-HQ is a household solar lithium battery. Its intelligent Battery Management System (BMS) can monitor and optimize the battery performance in real-time, extend the battery's service life, and support remote control through a mobile app, which makes it convenient for you to keep track of the energy situation at home at any time. It is easy to install, and the stackable design saves space. In case of an emergency, it can serve as a mobile power source to supply electricity to household appliances, and it is capable of adapting to various scenarios.



Stackable products



Longer Life and Safer



Remote upgrade



Flexible and Expandable



Real-time Monitoring



Intelligent BMS



Cost Effective



Fire Suppression

Model

AF2500W-HQ

Number oflayers	2	3	4	5	6	7	8	9	10
Picture	0	0	0	0	0	0	0	0	0
Energy	5.12kWh	7.68kWh	10.24kWh	12.8kWh	15.36kWh	17.29kWh	20.48kWh	23.04kWh	25.6kWh
Nominal voltage	102.4V	153.6V	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V
Dimension (L*W*H)mm	650*210*700	650*210*880	650*210*1060	650*210*1240	650*210*142	650*210*1600	650*210*1780	650*210*1960	650*210*214
Weight(KG)	69	93	117	141	165	189	213	237	261

Module	51.2V 50Ah,2.56kWh
Dimension(L*W*H)	High-voltage box: 650*210*250mm, battery: 650*210*180mm, base: 650*210*90mm
Weight	High - voltage box: 14 kg, battery: 24 kg, base: 7 kg.
Rated voltage	51.2V
Rated capacity	50Ah
Electric quantity	2.56kWh
Recommended charging current	25A
Maximum continuous charging/dischar	gingcurrent 50A
Display method	LED display
Communication	RS485/RS232/CAN
Charging temperature	0°C~45°C
Discharge temperature	-20°C~55'°C
Environment	Indoors/under the outdoor eaves
Relative humidity	5%~95%
Cooling	Natural convection
Cell technology	Lithium-iron phosphate (LiFePO4)
Life cycle	6000 times @80%DOD,25°C/0.5C
IP Rating	IP65
Certificates	UN38.3, MSDS, MSR, CB, CE-EMC, UKCA, CE-GPSD, UL1973, UL9540A

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High Voltage Stackable Energy Storage Battery



The AF5000W-HR has a more compact and lightweight single module, plug-in stacking method, only simple and easy installation steps, easy to customize the battery module to meet the energy storage needs. It is equipped with an intelligent BMS, which not only monitors in real time, optimizes battery performance and prolongs life, but also supports remote control via mobile phone APP, so that you can always know the dynamics of home energy. Ensure worry-free power consumption of home appliances and easily cope with various scenarios. There are also multiple protections such as overcharge, over-discharge, short circuit, high and low temperature, which protect the safety of battery operation in all directions and build a safety line for the whole family's power consumption. It is a reliable energy choice for your home.



Stackable products



Longer Life and Safer



Remote upgrade



Flexible and Expandable



Real-time Monitoring



Intelligent BMS



Cost Effective



Fire Suppression

Model			AF5000W	-HR	
TechnicalSpecificati	on				
Number oflayers	1	2	3	4	5
Picture	0	0	0	0	0
Energy	5.12KWh	10.24KWh	15.36KWh	20.48KWh	25.6KWh
Nominal voltage	89.6-116.8V	179.2-233.6V	268.8-350.4V	358.4-467.2V	448-584V
Dimension (L*W*H)mm	575*275*696	575*275*986	575*275*1276	575*275*1566	575*275*1856
Weight(KG)	59.5	94.5	129.5k	164.5	199.5
Single module Tech	nical Specificati	on			
Module			102.4V 50Ah, 5.	12kWh	
Dimension(L*W*H)	High	-voltage box: 575*275	5*258mm, battery: 575	5*275*290mm, base: 5	575*275*148mm
Weight		High - vo	ltage box: 16 kg, batte	ry: 35 kg, base: 8.5 kg.	

Weight(KG)	59.5	94.5	129.5k	164.5	199.5				
Single module Techn	ical Specifica	tion							
Module	102.4V 50Ah, 5.12kWh								
Dimension(L*W*H)	High-voltage box: 575*275*258mm, battery: 575*275*290mm, base: 575*275*148mm								
Weight		High - vo	ltage box: 16 kg, batter	ry: 35 kg, base: 8.5 kg.					
Rated voltage			102.4V						
Rated capacity			50Ah						
Electric quantity			5.12KWh						
Recommended charging curr	ent		25A						
Maximum continuous chargir	ng/dischargingcurr	rent	50A						
Charging temperature			0°C~45°C						
Discharge temperature			-20°C~55'°(С					
Environment	Indoors/under the outdoor eaves								
Altitude			3000m						
Relative humidity			5%~95%						
Cooling			Natural conve	ction					
Cell technology			Lithium-iron phosphat	te (LiFePO4)					
Life cycle			6000 times @80%D	OD(25°C)					
IP Rating			IP65						
Communication			CAN/RS485	5					
Extended functions	Sin	gle-pack hot aerosol fir	e extinguishing device	(standard) / heating fu	ınction (optional)				
Certificates		IEG	C/EN 62619, IEC61000,	UN 38.3, MSDS					

3-9.6 kW



The Afore AF series storage inverters are designed to increase energy independence for homeowners. The power range is from 3.0kW to 9.6kW, compatible with high voltage (80-495V) batteries.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.

Thanks for the UPS function (switch time < 10ms), that it enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS
Electricity Pricing
& Automation



PV OVERSIZE

1.5 Times PV Oversize



MPPT CHANNELS
Up to 3 MPPT Channels



UPS FUNCTIONSwitch Time < 10ms



PARALLEL Max.6 Parallel Stacking



INPUT Support Generator

SPLIT-PHASE Support Split-phase (120/240Vac) Grid

Support for Time-of-use Optimization









Build in Anti-feed-in Function

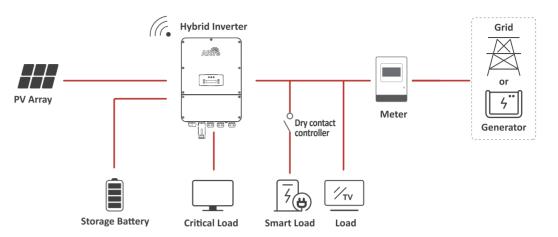


Compact Size and Easy Installation



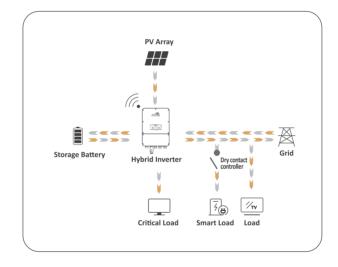
Smart Monitoring & Remote Firmware Upgrade

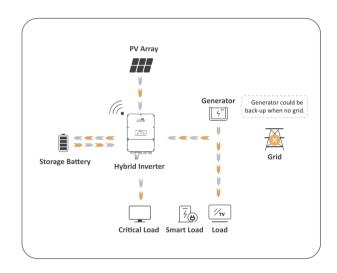
For New Storage System:



Optimizing Self-Consumption (on-grid)

+ Emergency Power Supply (off-grid)

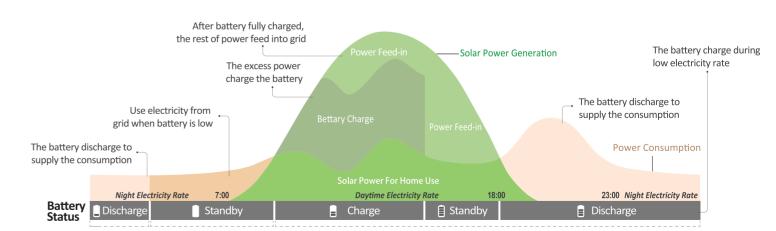




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Optimizing Self-Consumption Mode

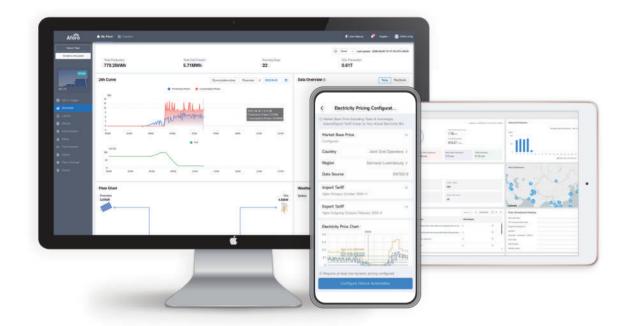
With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



Technical Data	AF3K-DH	AF3.6K-DH	AF4K-DH	AF4.6K-DH	AF5K-DH	AF5.5K-DF					
PV Input Max Input Power (kW)	4 F	E /	6.0	6.0	7.5	0.7					
Max. Input Power (kW)	4.5	5.4	6.0	6.9	7.5	8.3					
Max. PV Voltage (V)				00							
MPPT Range (V)	440 550	425 553		550	405 553	202					
Full MPPT Range (V)	110 - 550	135 - 550	150 - 550	170 - 550	185 - 550	200 - 550					
Normal Voltage (V)		360 100									
Startup Voltage (V)		100 15.5 x 2									
Max. Input Current (A)											
Max. Short Current (A)) x 2							
No. of MPP Tracker / No. of PV String			2 ,	/ 2							
Battery Port											
Max. Charge/Discharge Power (kW)	4.5 / 4.5	5.4 / 5.4	6.0 / 6.0	6.9 / 6.9	7.5 / 7.5	8.3 / 8.3					
Max. Charge/Discharge Current (A)			5								
Battery Normal Voltage (V)				30							
Battery Voltage Range (V)				495							
Battery Type			Li-ion / Lea	d-acid etc.							
AC Grid											
Max Continuous Current (A)	15	17.5	19.5	22.5	24.5	27					
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5					
Nominal Grid Current (A)	12.5 / 14.5	15.0 / 17.4	17.0 /19.3	19.5 / 22.2	20.9 / 24.1	23.0 / 26.5					
Nominal Grid Voltage (V)			211 to 264 @ 240 /	/ 183 to 229 @ 208							
Nominal Grid Frequency (Hz)			6	0							
Power Factor		1 defau	ılt (adjustable from	0.8 leading to 0.8 lag	gging)						
Current THD (%)			<	3							
Gen Input & AC Load Output											
Max. Continuous Current (A)	15	17.5	19.5	22.5	24.5	27					
Max. Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5					
Max. Peak Current (A) (10min)	18.8 / 21.7	22.5 / 26.0	25 / 28.9	28.8 / 33.2	31.3 / 36.1	34.6 / 39.9					
Max. Peak Power (kVA) (10min)	4.5 / 4.5	5.4 / 5.4	6.0 / 6.0	6.9 / 6.9	7.5 / 7.5	8.3 / 8.3					
Nominal AC Voltage L-L (V)			240	/ 208							
Nominal AC Voltage L-N (V)			120	/ 104							
Nominal AC Frequency (Hz)			6	0							
Switching Time (ms)			<	10							
Voltage THD (%)			<	3							
Efficiency											
CEC Efficiency (%)			97	7.0							
Max. Efficiency (%)			97	'.6							
PV to Bat. Efficiency (%)			98	3.1							
Bat. between AC Efficiency (%)			96	5.8							
Protection											
PV Reverse Polarity Protection			Y	es							
Bat. Reverse Polarity Protection			Y	es							
Over Current/Voltage Protection			Y	es							
Anti-Islanding Protection			Y	es							
AC Short Circuit Protection			Y	es							
Residual Current Detection			Y	es							
Ground Fault Monitoring			Y	es							
Insulation Resister Detection			Y	es							
PV Arc Detection			Y	es							
Rapid Shut Down			Y								
Protection Degree			NEM	1A4X							
AC/DC surge protection			Тур	e II							
General Data											
Dimensions (W x H x D)			400 x 600 x 229 mn	n / 15.7 x 23.6 x 9.0 in							
Weight			25 kg /								
Topology			Tranfor								
Cooling				ent Fan							
Relative Humidity				00 %							
Operating Temperature Range				C / - 77 to 140 °F							
Operating Altitude				< 13123 ft							
Standby Consumption (W)				10							
Mounting				racket							
Communication with RSD											
Display & Communication Interfaces		ICD		SPEC /i-Fi, GPRS, 4G, Sunsp	nec						
Certification & Approvals	III 1741 CA III 1					21 UECO Pollo 1					
	UL 1/41 SA, UL 1	741, UL1699B, UL 199	98, IEEE154/, IEEE15	547A, IEEE1547.1, CSA	ZZ.Z NO.1U/, Rule	21. HECO Rule 14					

Technical Data PV Input	AF6K-DH	AF7K-DH	AF7.6K-DH	AF8K-DH	AF8.6K-DH	AF9.6K-D
Max. Input Power (kW)	9.0	10.5	11.4	12.0	12.9	15.0
Max. PV Voltage (V)			60			
MPPT Range (V)			80 -	550		
Full MPPT Range (V)	220 - 550	170 - 550	185 - 550	195 - 550	210 - 550	235 - 550
Normal Voltage (V)			36	50		
Startup Voltage (V)			10	00		
Max. Input Current (A)	15.5 x 2	1		15.5 x 3		
Max. Short Current (A)	26.0 x 2			26.0 x 3		
No. of MPP Tracker / No. of PV String	2 / 2	İ		3 / 3		
Battery Port						
Max. Charge/Discharge Power (kW)	9.0 / 9.0	10.5 / 10.3	11.4 / 10.3	11.5 / 10.3	11.5 / 10.3	11.5 / 10.
Max. Charge/Discharge Current (A)			23			
Battery Normal Voltage (V)			80 -			
Battery Voltage Range (V) Battery Type			Li-ion / Lea			
AC Grid			LI-IOII / Lea	u-aciu etc.		
Max Continuous Current (A)	29.0	34.0	37	39	41.5	46.5
Max Continuous Power (kVA)	6.0	7.0	7.6	8.0	8.6	9.6
Nominal Grid Current (A)	25.0 /28.9	29.2 / 33.7	31.7 / 36.6	33.4 /38.5	35.9 / 41.4	40.0 / 46.
Nominal Grid Voltage (V)	25.0 / 20.3	23.2 33.1	211 to 264 @ 240 /			40.0 / 40.
Nominal Grid Frequency (Hz)			6			
Power Factor		1 def	ault (adjustable from	0.8 leading to 0.8 l	lagging)	
Current THD (%)			<			
Gen Input & AC Load Output						
Max. Continuous Current (A)	29.0	34.0	37	39	41.5	46.5
Max. Continuous Power (kVA)	6.0	7.0	7.6	8.0	8.6	9.6
Max. Peak Current (A) (10min)	37.5 / 43.3	43.8 / 49.5	47.5 / 49.5	47.9 / 49.5	47.9 / 49.5	47.9 / 49.
Max. Peak Power (kVA) (10min)	9.0 / 9.0	10.5 / 10.3	11.4 / 10.3	11.5 / 10.3	11.5 / 10.3	11.5 / 10.
Nominal AC Voltage L-L (V)			240 /			
Nominal AC Voltage L-N (V)			120 /			
Nominal AC Frequency (Hz)			6			
Switching Time (ms) Voltage THD (%)			<:			
Efficiency			<	5		
CEC Efficiency (%)			97	7.0		
Max. Efficiency (%)			97			
PV to Bat. Efficiency (%)			98			
Bat. between AC Efficiency (%)			96			
Protection						
PV Reverse Polarity Protection			Ye	es		
Bat. Reverse Polarity Protection			Ye			
Over Current/Voltage Protection			Ye	es		
Anti-Islanding Protection			Ye	es		
AC Short Circuit Protection			Ye	es		
Residual Current Detection			Ye			
Ground Fault Monitoring			Ye			
Insulation Resister Detection			Ye			
PV Arc Detection			Ye			
Rapid Shut Down Protection Degree			Ye NEM	IA4X		
AC/DC surge protection			Typ			
General Data			тур	- n		
Dimensions (W x H x D)			400 x 600 x 229 mm	1/157 x 23 6 v 0 0 in		
Weight			25 kg/			
Topology				merless		
Cooling			Intellige			
Relative Humidity			0 - 10			
Operating Temperature Range				/ - 77 to 140 °F		
Operating Altitude				< 13123 ft		
Standby Consumption (W)			< :			
Mounting			Wall B			
Communication with RSD			SUNS			
Display & Communication Interfaces		LCD	, LED, RS485, CAN, W		spec	
Certification & Approvals	UL 1741 SA. UI 1		1998, IEEE1547, IEEE15		-	21, HECO Rule
EMC			FCC part1		,	

Monitoring AI—Electricity Pricing & Automation



Electricity Pricing & Automation is an energy management tool based on real-time electricity price strategy. It monitors electricity price fluctuations in real time and dynamically adjusts the operating status of equipment.

It runs automatically 24 hours a day, 7 days a week without manual intervention. It helps users optimize electricity usage and reduce electricity costs.











Multiple Systems









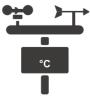
Wi-Fi / Ethernet / GPRS Data Sticker



Power Plant Data Logger



Zero injection Smart Meter(optional)



Weather Station

| Global Projects

