

Split Phase Hybrid Inverter

3-9.6 kW



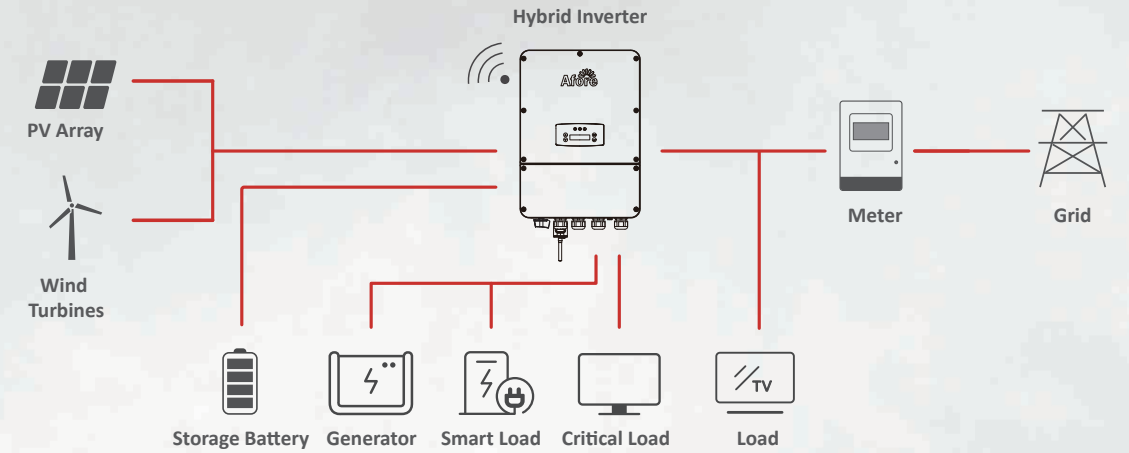
The Afore AF Series storage Inverters are designed to increase energy independence for homeowners. The power range is from 3.0kW to 9.6kW, compatible with high voltage (80-495V) batteries.

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

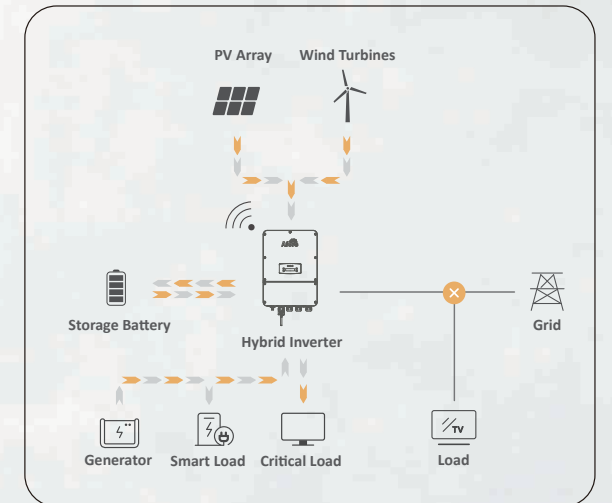
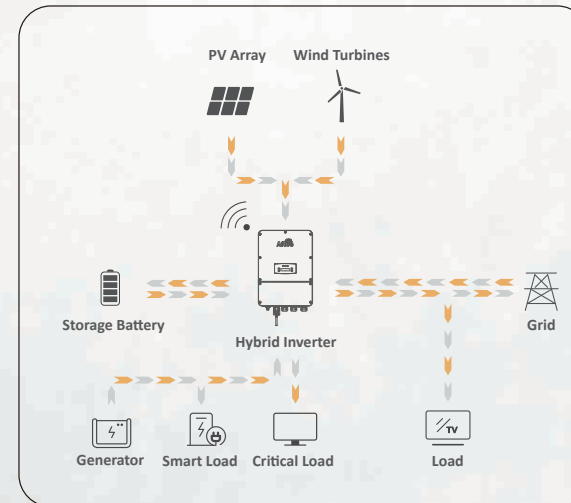
Thanks for the UPS function (switch time < 10ms), enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The AF Series storage inverters meet the US safety regulations, integrated with Arc Fault Circuit Interrupter (AFCI) and Rapid Shutdown.

For New Storage System:

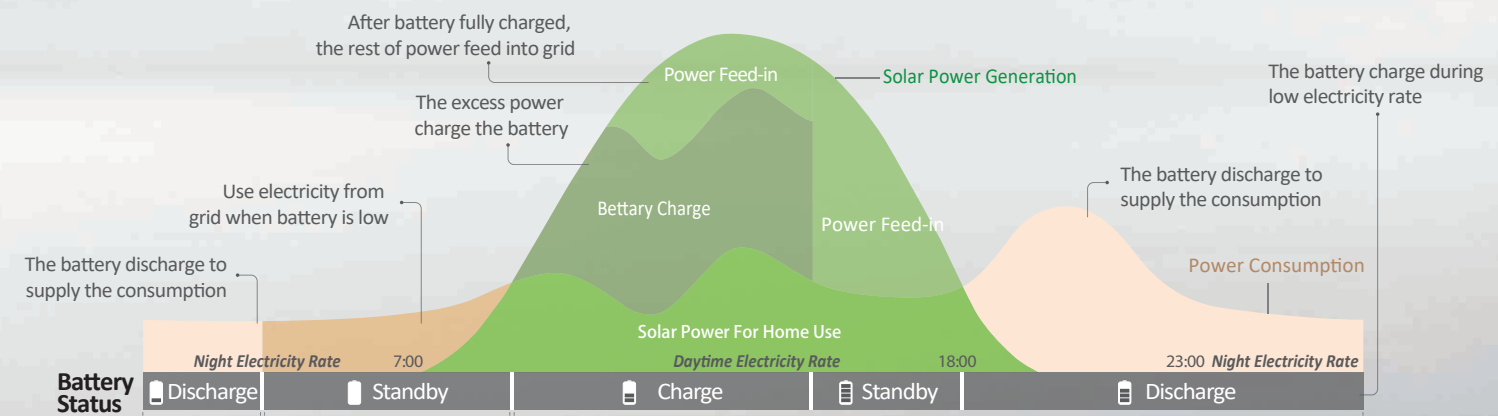


Optimizing Self-Consumption (on-grid) + Emergency Power Supply(off-grid)



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.



Max. 1.5

PV OVERSIZE
1.5 Times PV Oversize

3 MPPT

MPPT CHANNELS
Up to 3 MPPT Channels

<10 ms

UPS FUNCTION
Switch Time < 10ms



PARALLEL
Max.6 Parallel Stacking



MULTIPLE INPUTS
Support Generator & Wind Turbines



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

Support for Time-of-use Optimization

Configurable Operation Modes

AFCI & Rapid Shutdown Ready

Build in Anti-feed-in Function

Compact Size and Easy Installation

Smart Monitoring & Remote Firmware Upgrade

PV Input	AF3K-DH	AF3.6K-DH	AF4K-DH	AF4.6K-DH	AF5K-DH	AF5.5K-DH
Max. Input Power (kW)	4.5	5.4	6.0	6.9	7.5	8.3
Max. PV Voltage (V)	600					
MPPT Range (V)	80 - 550					
Normal Voltage (V)	360					
Startup Voltage (V)	100					
Max. Input Current (A)	15.5 x 2					
Max. Short Current (A)	26.0 x 2					
No. of MPP Tracker / No. of PV String	2 / 2					
Battery						
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)	50					
Battery Normal Voltage (V)	230					
Battery Voltage Range (V)	80 - 495					
Battery Type	Li-ion / Lead-acid					
AC Grid						
Max. Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5
Max. Continuous Current (A)	12.5 / 14.5	15.0 / 17.5	17.0 / 19.5	19.5 / 22.5	21.0 / 24	23.0 / 26.5
Nominal Grid Voltage (V)	211 to 264 @ 240 / 183 to 229 @ 208					
Nominal Grid Frequency (Hz)	60					
Output Power Factor	1 default (adjustable from 0.8 leading to 0.8 lagging)					
Current THD (%)	< 3					
Gen Input&AC Back-up	AF3K-DH	AF3.6K-DH	AF4K-DH	AF4.6K-DH	AF5K-DH	AF5.5K-DH
Max. Continuous Current (A)	12.5 / 14.5	15.0 / 17.5	17.0 / 19.5	19.5 / 22.5	21.0 / 24.0	23.0 / 26.5
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-O (V)	120 / 104					
Nominal AC Frequency L-O (Hz)	60					
Switching Time (ms)	< 10					
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	AF3K-DH	AF3.6K-DH	AF4K-DH	AF4.6K-DH	AF5K-DH	AF5.5K-DH
PV Reverse Polarity Protection	Yes					
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					
Insulation Resister Detection	Yes					
PV Arc Detection	Yes					
Rapid Shut Down	Yes					
Protection Degree	IP65 / NEMA4X					
General Data	AF3K-DH	AF3.6K-DH	AF4K-DH	AF4.6K-DH	AF5K-DH	AF5.5K-DH
Dimensions (H x W x D)	560 x 400 x 229 mm / 22.0 x 15.7 x 9.0 in					
Weight	25 kgs / 55 lbs					
Topology	Transformerless					
Cooling	Natural Convection					
Relatively Humidity	0 - 100 %					
Operating Temperature Range	- 25 to 60 °C / - 77 to 140 °F					
Operating Altitude	< 4000 m / < 13123 ft					
Noise Emission (dB)	< 25					
Standby Consumption (W)	< 10					
Mounting	Wall Bracket					
Communication with RSD	SUNSPEC					
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, 4G					
Certification & Approvals	UL 1741 SA, UL 1741, UL1699B, UL 1998, IEEEE1547, IEEEE1547A, IEEEE1547.1, CSA 22.2 No.107, Rule21, HECO Rule 14					
EMC	FCC part15 CLASS B					

PV Input	AF6K-DH	AF7K-DH	AF7.6K-DH	AF8K-DH	AF8.6K-DH	AF9.6K-DH
Max. Input Power (kW)	9.0	10.5	11.4	12.0	12.9	15.0
Max. PV Voltage (V)	600					
MPPT Range (V)	80 - 550					
Normal Voltage (V)	360					
Startup Voltage (V)	100					
Max. Input Current (A)	15.5 x 2	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	3 / 3				
Battery						
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 / 10.3
Max. Charge/Discharge Current (A)	50					
Battery Normal Voltage (V)	230					
Battery Voltage Range (V)	80 - 495					
Battery Type	Li-ion / Lead-acid					
AC Grid						
Max. Continuous Power (kVA)	6.0	7.0	7.6	8.0	8.6	9.6
Max. Continuous Current (A)	25.0 / 29.0	29.5 / 34.0	32.0 / 36.5	33.5 / 38.5	36.0 / 41.5	40.0 / 46.5
Nominal Grid Voltage (V)	211 to 264 @ 240 / 183 to 229 @ 208					
Nominal Grid Frequency (Hz)	60					
Output Power Factor	1 default (adjustable from 0.8 leading to 0.8 lagging)					
Current THD (%)	< 3					
Gen Input&AC Back-up	AF6K-DH	AF7K-DH	AF7.6K-DH	AF8K-DH	AF8.6K-DH	AF9.6K-DH
Max. Continuous Current (A)	25.0 / 29.0	29.5 / 34.0	32.0 / 36.5	33.5 / 38.5	36.0 / 41.5	40.0 / 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 / 49.5
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 / 10.3
Nominal AC Voltage L-L (V)	240 / 208					
Nominal AC Voltage L-O (V)	120 / 104					
Nominal AC Frequency L-O (Hz)	60					
Switching Time (ms)	< 10					
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	AF6K-DH	AF7K-DH	AF7.6K-DH	AF8K-DH	AF8.6K-DH	AF9.6K-DH
PV Reverse Polarity Protection	Yes					
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					
Insulation Resister Detection	Yes					
PV Arc Detection	Yes					
Rapid Shut Down	Yes					
Protection Degree	IP65 / NEMA4X					
General Data	AF6K-DH	AF7K-DH	AF7.6K-DH	AF8K-DH	AF8.6K-DH	AF9.6K-DH
Dimensions (H x W x D)	560 x 400 x 229 mm / 22.0 x 15.7 x 9.0 in					
Weight	25 kgs / 55 lbs					
Topology	Transformerless					
Cooling	Natural Convection	Intelligent Fan				
Relatively Humidity	0 - 100 %					
Operating Temperature Range	- 25 to 60 °C / - 77 to 140 °F					
Operating Altitude	< 4000 m / < 13123 ft					
Noise Emission (dB)	< 25	< 40				
Standby Consumption (W)	< 10					
Mounting	Wall Bracket					
Communication with RSD	SUNSPEC					
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, 4G					
Certification & Approvals	UL 1741 SA, UL 1741, UL1699B, UL 1998, IEEEE1547, IEEEE1547A, IEEEE1547.1, CSA 22.2 No.107, Rule21, HECO Rule 14					
EMC	FCC part15 CLASS B					

Single Phase Hybrid Inverter

1 - 6 kW for Low Voltage Battery



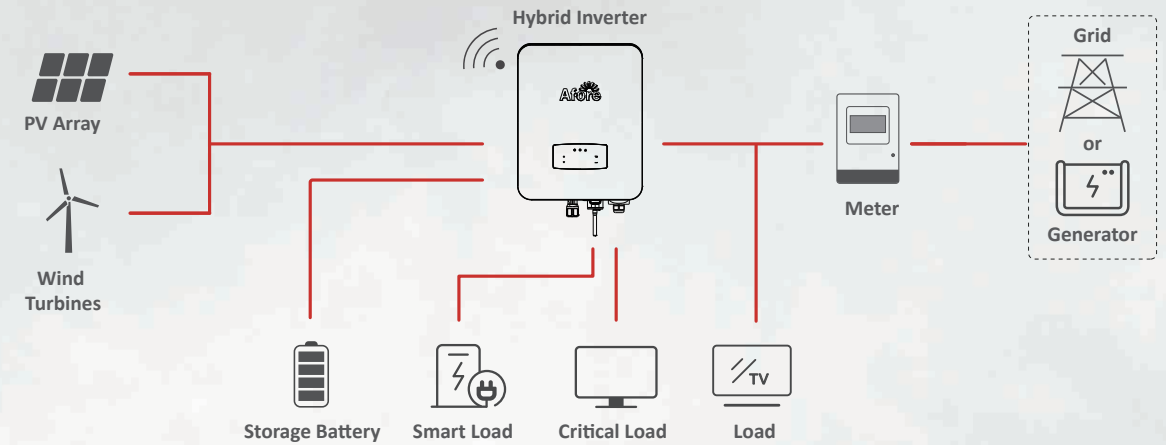
The Afore AF low voltage Series storage Inverters are designed to increase energy independence for homeowners. The power range is from 1kW to 6kW, compatible with low voltage (40-60V) batteries.

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

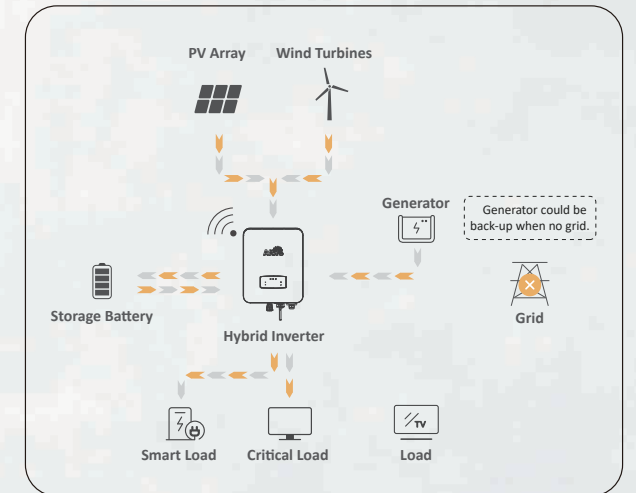
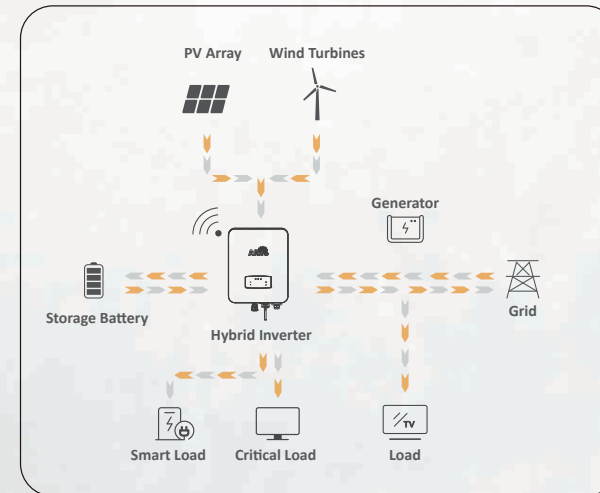
Thanks for the UPS function (switch time < 10ms), enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The AF low voltage Series storage inverters integrated with Arc Fault Circuit Interrupter (AFCI) and Rapid Shutdown.

For New Storage System:

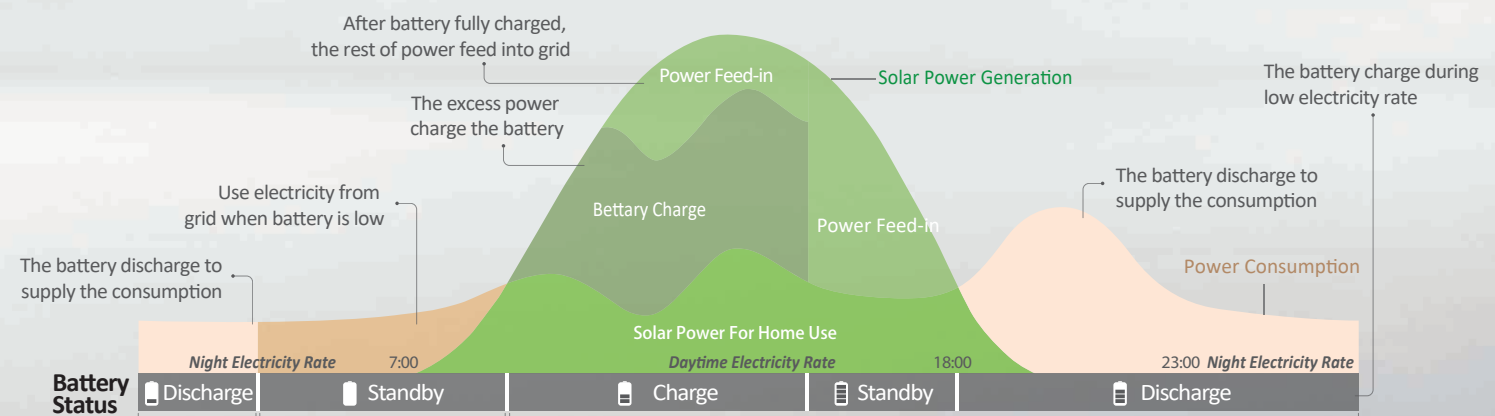


Optimizing Self-Consumption (on-grid) + Emergency Power Supply(off-grid)



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.



Max. 1.5

PV OVERSIZE
1.5 Times PV Oversize

2 MPPT

MPPT CHANNELS
Up to 2 MPPT Channels

<10 ms

UPS FUNCTION
Switch Time < 10ms

PARALLEL

PARALLEL
Max.6 Parallel Stacking

MULTIPLE INPUTS

MULTIPLE INPUTS
Support Generator & Wind Turbines

Support for Time-of-use Optimization

Configurable Operation Modes

Arc Fault Circuit Interrupter (AFCI)

Build in Anti-feed-in Function

Compact Size and Easy Installation

Smart Monitoring & Remote Firmware Upgrade

PV Input	AF1K-SL-1	AF1.5K-SL-1	AF2K-SL-1	AF2.5K-SL-1	AF3K-SL-1	AF3.6K-SL-1
Max. Input Power (kW)	1.5	2.3	3.0	3.8	4.5	5.4
Max. PV Voltage (V)	550					
MPPT Range (V)	80 - 500					
Full MPPT Range (V)	80 - 500	90 - 500	120 - 500	150 - 500	170 - 500	210 - 500
Normal Voltage (V)	360					
Startup Voltage (V)	100					
Max. Input Current (A)	18.5 x 1					
Max. Short Current (A)	26 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	3.0	3.6
Max. Charge/Discharge Current (A)	25	40	50	63	80	80
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)	5.0	7.0	10.0	12.0	14.0	17.0
Max Continuous Power (kVA)	1.0	1.5	2.0	2.5	3.0	3.6
Nominal Grid Current(A)	4.6 / 4.4	6.9 / 6.6	9.1 / 8.7	11.4 / 10.9	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	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)					
Current THD (%)	< 3					
AC Load Output	AF1K-SL-1	AF1.5K-SL-1	AF2K-SL-1	AF2.5K-SL-1	AF3K-SL-1	AF3.6K-SL-1
Max Continuous Current (A)	5.0	7.0	10.0	12.0	14.0	17.0
Max Continuous Power (kVA)	1.0	1.5	2.0	2.5	3.0	3.6
Max Peak Current (A) (10min)	6.9 / 6.6	10.5 / 10.0	13.7 / 13.1	17.3 / 16.6	20.5 / 19.6	24.6 / 23.5
Max Peak Power (kVA) (10min)	1.5	2.3	3.0	3.8	4.5	5.4
Nominal AC Current (A)	4.6 / 4.4	6.9 / 6.6	9.1 / 8.7	11.4 / 10.9	13.7 / 13.1	16.4 / 15.7
Nominal AC Voltage L-N (V)	220 / 230					
Nominal AC Frequency (Hz)	50 / 60					
Switching Time (s)	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	AF1K-SL-1	AF1.5K-SL-1	AF2K-SL-1	AF2.5K-SL-1	AF3K-SL-1	AF3.6K-SL-1
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					
General Data	AF1K-SL-1	AF1.5K-SL-1	AF2K-SL-1	AF2.5K-SL-1	AF3K-SL-1	AF3.6K-SL-1
Dimensions (L x W x H, mm)	513 x 370 x 192					
Weight (kg)	17					
Topology	Transformerless					
Cooling	Intelligent Fan					
Relatively Humidity	0 - 100 %					
Operating Temperature Range (°C)	- 25 to 60					
Operating Altitude (m)	< 4000					
Noise Emission (dB)	< 25					
Standby Consumption (W)	< 10					
Mounting	Wall Bracket					
Communication with RSD	SUNSPEC					
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G					
Certification & Approvals	NRS97, G98/G99, EN50549-1, C10/C11, AS 4777, VDE-AR-N4105, VDE0126, IEC62040, IEC62109-1, IEC62109-2					
EMC	EN61000-6-2, EN61000-6-3					

PV Input	AF3K-SL	AF3.6K-SL	AF4K-SL	AF4.6K-SL	AF5K-SL	AF5.5K-SL	AF6K-SL
Max. Input Power (kW)	4.5	5.4	6.0	6.9	7.5	8.3	9.0
Max. PV Voltage (V)	550						
MPPT Range (V)	80 - 500						
Full MPPT Range (V)	90 - 500	110 - 500	120 - 500	130 - 500	150 - 500	160 - 500	170 - 500
Normal Voltage (V)	360						
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)	3.0	3.6	4.0	4.6	4.8	4.8	4.8
Max. Charge/Discharge Current (A)	80						
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)	14.0	17.0	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5	6.0
Nominal Grid Current(A)	13.7 / 13.1	16.4 / 15.7	18.2 / 17.4	21.0 / 20.0	22.8 / 21.8	25.0 / 24.0	27.3 / 26.1
Nominal Grid Voltage (V)	198 to 242 @ 220 / 207 to 253 @ 230						
Nominal Grid Frequency (Hz)	50 / 60						
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)						
Current THD (%)	< 3						
AC Load Output	AF3K-SL	AF3.6K-SL	AF4K-SL	AF4.6K-SL	AF5K-SL	AF5.5K-SL	AF6K-SL
Max Continuous Current (A)	14.0	17.0	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5	6.0
Max Peak Current (A) (10min)	20.5 / 19.6	24.6 / 23.5	27.3 / 26.1	31.4 / 30	34.1 / 32.7	37.8 / 36.1	41.0 / 39.2
Max Peak Power (kVA) (10min)	4.5	5.4	6.0	6.9	7.5	8.3	9.0
Nominal AC Current (A)	13.7 / 13.1	16.4 / 15.7	18.2 / 17.4	21.0 / 20.0	22.8 / 21.8	25.0 / 24.0	27.3 / 26.1
Nominal AC Voltage L-N (V)	220 / 230						
Nominal AC Frequency (Hz)	50 / 60						
Switching Time (s)	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	AF3K-SL	AF3.6K-SL	AF4K-SL	AF4.6K-SL	AF5K-SL	AF6K-SL	AF6K-SL
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						
General Data	AF3K-SL	AF3.6K-SL	AF4K-SL	AF4.6K-SL	AF5K-SL	AF6K-SL	AF6K-SL
Dimensions (L x W x H, mm)	513 x 370 x 192						
Weight (kg)	17						
Topology	Transformerless						
Cooling	Intelligent Fan						
Relatively Humidity	0 - 100 %						
Operating Temperature Range (°C)	- 25 to 60						
Operating Altitude (m)	< 4000						
Noise Emission (dB)	< 25						
Standby Consumption (W)	< 10						
Mounting	Wall Bracket						
Communication with RSD	SUNSPEC						
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G						
Certification & Approvals	NRS97, G98/G99, EN50549-1, C10/C11, AS 4777, VDE-AR-N4105, VDE0126, IEC62040, IEC62109-1, IEC62109-2						
EMC	EN61000-6-2, EN61000-6-3						

Three phase Hybrid Inverter

3-20kW

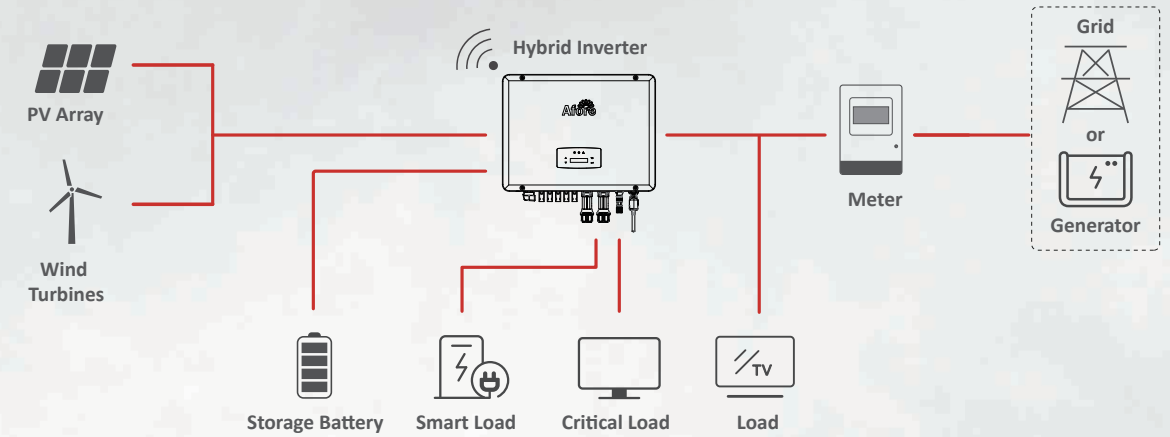


The Afore AF Series three phase storage inverters are designed to increase energy independence for homeowners and commercial users. The power range is from 3.0kW to 20kW, compatible with high voltage (150-800V) batteries.

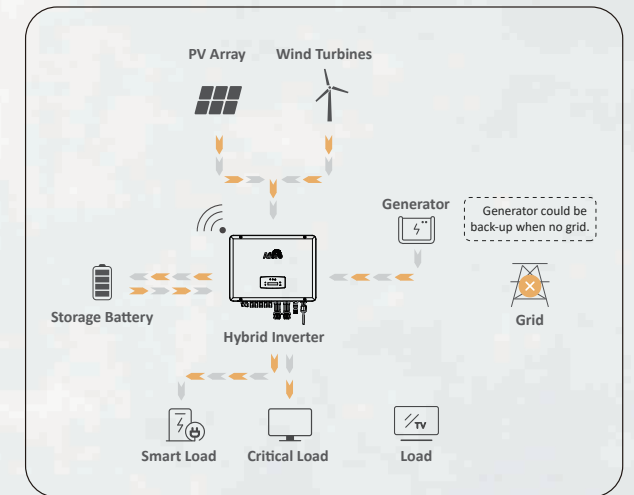
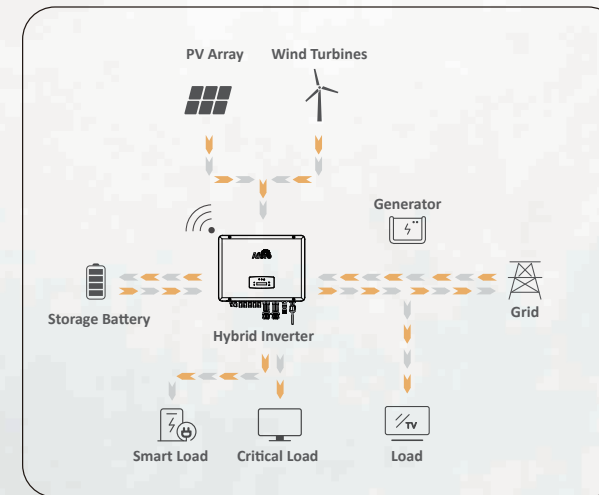
Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.

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

For New Storage System:

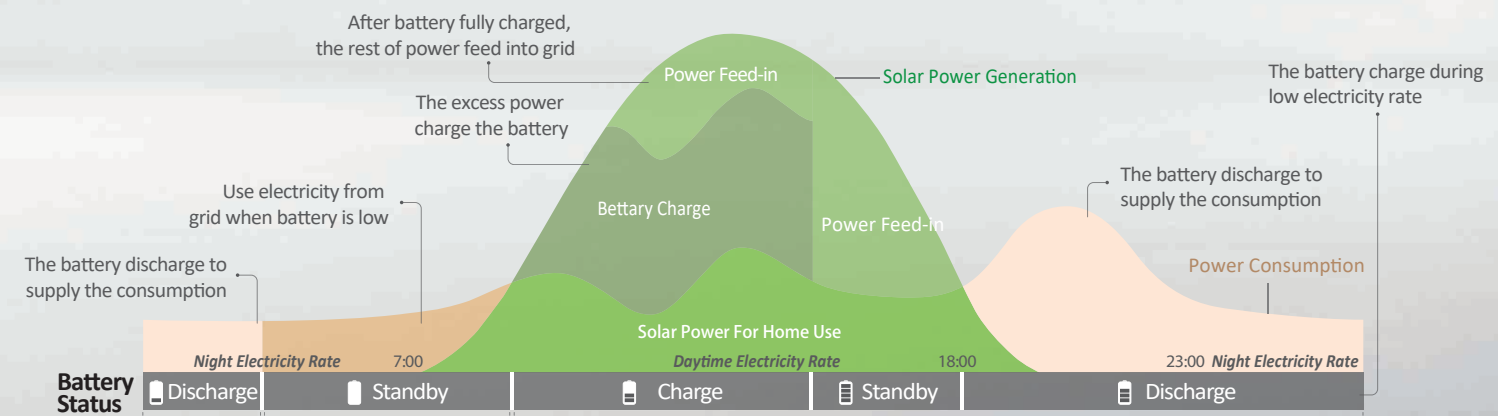


Optimizing Self-Consumption (on-grid) + Emergency Power Supply(off-grid)



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.



WIDE RANGE
Voltage Range
(150-800V)



UNBALANCE
Support Unbalance Load

Max. 1.5

PV OVERSIZE
1.5 Times PV Oversize

Max. 32A

MAX. 32A_{dc}
String Current Up To 32A

<10 ms

UPS FUNCTION
Switch Time < 10ms



MULTIPLE INPUTS
Support Generator &
Wind Turbines

Support for Time-of-use Optimization

Configurable Operation Modes

AFCI & Rapid Shutdown Ready

Build in Anti-feed-in Function

Compact Size and Easy Installation

Smart Monitoring & Remote Firmware Upgrade

PV Input	AF3K-T	AF4K-T	AF5K-T	AF6K-T	AF8K-T
Max. DC Input Power (kW)	5	6	7.5	9	12
Rated DC Input Voltage (V)	620				
DC Input Voltage Range (V)	150-1000				
MPPT Voltage Range (V)	150-850				
Start-up Voltage (V)	160				
Max. DC Input Current (A)	20x2				
No. of MPPT Tracker	2				
Battery Port					
Battery Nominal Voltage (V)	200	200	200	250	300
Battery Voltage Range (V)	150-800				
Max. Charge/Discharge Current (A)	30				
Max. Charge/Discharge Power (W)	3.3K/3K	4.4K/4K	5.5K/5K	6.6K/6K	8.8K/8K
Charging Curve	3 Stages				
Compatible Battery Type	Li-ion / Lead-acid				
AC Grid Output					
Nominal AC Output Power (VA)	3000	4000	5000	6000	8000
Max. AC Input Power	4500	6000	7500	9000	12000
Max. AC Output Current (A)	5.3	7	8.5	10.5	13.5
Nominal AC Voltage (V)	230/400				
Nominal AC Frequency (Hz)	50/60				
Power Factor	1 (-0.8-0.8)				
Current THD (%)	<3%				
AC Load Output (Back-up)	AF3K-T	AF4K-T	AF5K-T	AF6K-T	AF8K-T
Nominal Output Power (VA)	3000	4000	5000	6000	8000
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
Peak Output Power	3300VA, 60s	4400VA, 60s	5500VA, 60s	6600VA, 60s	8800VA, 60s
THDV (with linear load)	<3%				
Switching Time (s)	<0.01S				
Efficiency	AF3K-T	AF4K-T	AF5K-T	AF6K-T	AF8K-T
Europe Efficiency	97.5%				
Max. Efficiency	98.0%				98.2%
Battery Charge/Discharge Efficiency	98%				
Protection					
Reverse Polarity Protection	Yes				
Over Current / Voltage Protection	Yes				
Anti-islanding Protection	Yes				
AC Short-circuit Protection	Yes				
Leakage Current Detection	Yes				
Ground Fault Monitoring	Yes				
Grid Monitoring	Yes				
Enclosure Protect Level	IP65/NEMA4X	IP65/NEMA5X	IP65/NEMA6X	IP65/NEMA7X	IP65/NEMA8X
General Data	AF3K-T	AF4K-T	AF5K-T	AF6K-T	AF8K-T
Dimensions (H x W x D) (mm)	558 x 426 x 250 mm				
Weight (kg)	28.5kg				
Topology	Transformerless				
Cooling Concept	Natural Convection				Intelligent Fan
Relatively Humidity	0-100%				
Operating Temperature Range (°C)	-25 to 60 °C				
Operating Altitude (m)	<4000				
Noise Emission (dB)	<30				
Standby Consumption (W)	<5				
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G				
Certification & Approvals	NRS97, G98/G99, EN50549-1, C10/C11, AS 4777, VDE-AR-N4105, VDE0126, IEC62040, IEC62109-1, IEC62109-2				
EMC	EN61000-6-2, EN61000-6-3				

PV Input	AF10K-T	AF12K-T	AF15K-T	AF17K-T	AF20K-T
Max. DC Input Power (kW)	15	18	22.5	25.5	30
Rated DC Input Voltage (V)	620				
DC Input Voltage Range (V)	150-1000				
MPPT Voltage Range (V)	150-850				
Start-up Voltage (V)	160				
Max. DC Input Current (A)	20x2		20+32	32x2	
No. of MPPT Tracker	2				
Battery Port					
Battery Nominal Voltage (V)	400	450	500	600	700
Battery Voltage Range (V)	150-800				
Max. Charge/Discharge Current (A)	30				
Max. Charge/Discharge Power (W)	11K/10K	13.2K/12K	16.5K/15K	18.7K/17K	22K/20K
Charging Curve	3 Stages				
Compatible Battery Type	Li-ion / Lead-acid				
AC Grid Output					
Nominal AC Output Power (VA)	10000	12000	15000	17000	20000
Max. AC Input Power	15000	18000	22500	25500	30000
Max. AC Output Current (A)	17	21.5	27	30	32
Nominal AC Voltage (V)	230/400				
Nominal AC Frequency (Hz)	50/60				
Power Factor	1 (-0.8-0.8)				
Current THD (%)	<3%				
AC Load Output (Back-up)	AF10K-T	AF12K-T	AF15K-T	AF17K-T	AF20K-T
Nominal Output Power (VA)	10000	12000	15000	17000	20000
Nominal Output Voltage (V)	230/400				
Nominal Output Frequency (Hz)	50/60				
Nominal Output Current (A)	14.5	17.4	21.8	24.8	29
Peak Output Power	11000VA, 60s	13200VA, 60s	16500VA, 60s	18700VA, 60s	22000VA, 60s
THDV (with linear load)	<3%				
Switching Time (s)	<0.01S				
Efficiency	AF10K-T	AF12K-T	AF15K-T	AF17K-T	AF20K-T
Europe Efficiency	97.5%				
Max. Efficiency	98.2%	98.3%			
Battery Charge/Discharge Efficiency	98%				
Protection					
Reverse Polarity Protection	Yes				
Over Current / Voltage Protection	Yes				
Anti-islanding Protection	Yes				
AC Short-circuit Protection	Yes				
Leakage Current Detection	Yes				
Ground Fault Monitoring	Yes				
Grid Monitoring	Yes				
Enclosure Protect Level	IP65/NEMA9X	IP65/NEMA10X	IP65/NEMA11X	IP65/NEMA12X	IP65/NEMA13X
General Data	AF10K-T	AF12K-T	AF15K-T	AF17K-T	AF20K-T
Dimensions (H x W x D) (mm)	558 x 426 x 250 mm				
Weight (kg)	28.5kg				
Topology	Transformerless				
Cooling Concept	Natural Convection				Intelligent Fan
Relatively Humidity	0-100%				
Operating Temperature Range (°C)	-25 to 60 °C				
Operating Altitude (m)	<4000				
Noise Emission (dB)	<30		<40		
Standby Consumption (W)	<5				
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G				
Certification & Approvals	NRS97, G98/G99, EN50549-1, C10/C11, AS 4777, VDE-AR-N4105, VDE0126, IEC62040, IEC62109-1, IEC62109-2				
EMC	EN61000-6-2, EN61000-6-3				

AC Coupled Inverter

1-4.6 kW



Afore AC Coupled Inverter (1kW-4.6kW) suitable for both single-phase & three-phase systems. It can be fitted alongside string inverter, enabling you to upgrade to solar battery storage system without changing your current installation.

- 

SEAMLESSLY SWITCH
Seamlessly Switch Time between EPS with Grid
- 


SMART
Smart EMS/BMS
- 


UNIBODY
One-piece Aluminum Housing
- 


SAFETY
Proven Safety
- 


Max. 80A
Max. 80A Battery Charge and Discharge Current
- 

SUPPORT
Island support

- 

97.6% High Frequency Isolation Charge and Discharge Efficiency
- 

Integrated WIFI Monitoring & Remote Parameter Setting
- 

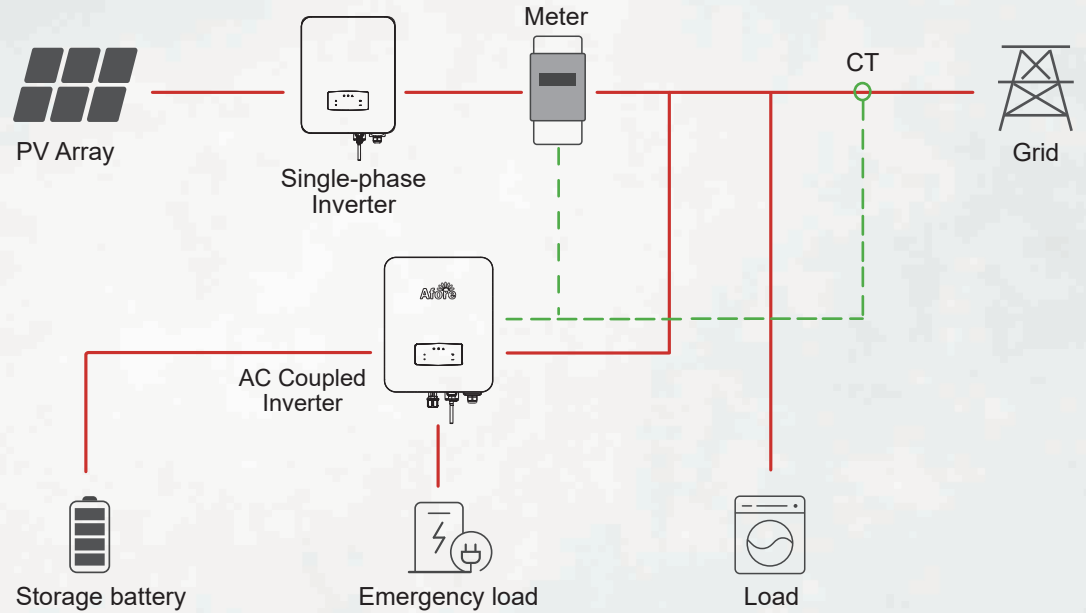
Plug & Play, Easy Maintenance
- 

IP 65 Water-resistant & Dustproof

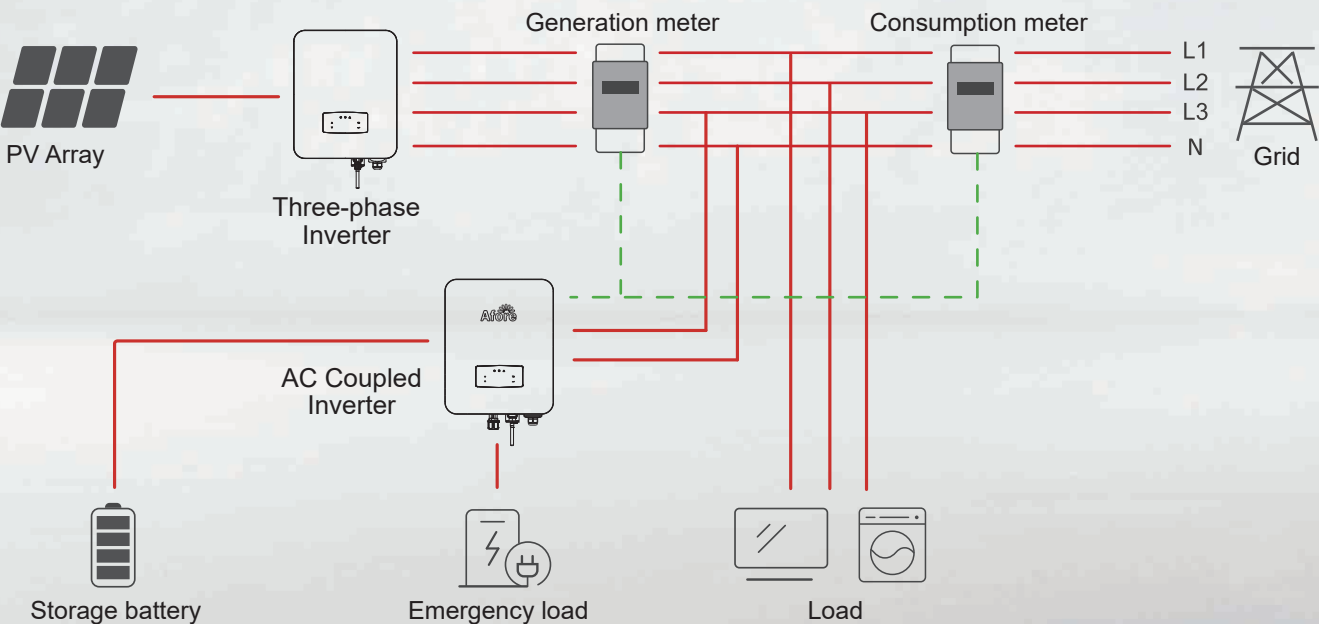
Retrofitting Storage Solution on Existing Solar System:

Adding battery storage to an existing solar system enables home owners to store their solar PV generated electricity instead of exporting it to the grid. More savings on your electricity bill.

Single Phase AC Coupled (Retro Fit)



Three Phase AC Coupled (Retro Fit)



Battery	AF1K-SL-0	AF1.5K-SL-0	AF2K-SL-0	AF2.5K-SL-0
Max. Charge/Discharge Power (kW)	1	1.5	2.0	2.5
Max. Charge/Discharge Current (A)	25	40	50	63
Battery Normal Voltage (V)	51.2			
Battery Voltage Range (V)	40 - 60			
Battery Type	Li-ion/lead-acid etc.			

AC Grid	AF1K-SL-0	AF1.5K-SL-0	AF2K-SL-0	AF2.5K-SL-0
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)	198 to 242 @ 220 / 207 to 253 @ 230			
Nominal Grid Frequency (Hz)	50 / 60			
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)			
Current THD (%)	< 3			

AC Load Output	AF1K-SL-0	AF1.5K-SL-0	AF2K-SL-0	AF2.5K-SL-0
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	17.1 / 16.4
Max Peak Power (kVA) (10min)	1.5	2.3	3.0	3.75
Nominal AC Current (A)	4.6 / 4.4	6.9 / 6.6	9.1 / 8.7	11.4 / 10.9
Nominal AC Voltage L-N (V)	220 / 230			
Nominal AC Frequency (Hz)	50 / 60			
Switching Time (s)	Seamless			
Voltage THD (%)	< 3			

Efficiency	AF1K-SL-0	AF1.5K-SL-0	AF2K-SL-0	AF2.5K-SL-0
Max. Efficiency (%)	97.6			
Bat. between AC Efficiency (%)	96.8			

Protection	AF1K-SL-0	AF1.5K-SL-0	AF2K-SL-0	AF2.5K-SL-0
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			
Enclosure Protect Level	IP65 / NEMA4X			

General Data	AF1K-SL-0	AF1.5K-SL-0	AF2K-SL-0	AF2.5K-SL-0
Dimensions (L x W x H, mm)	513 x 370 x 192			
Weight	17			
Topology	Transformer			
Cooling	Intelligent Fan			
Relatively Humidity	0 - 100 %			
Operating Temperature Range (°C)	- 25 to 60			
Operating Altitude (m)	< 4000			
Noise Emission (dB)	< 25			
Standby Consumption (W)	< 10			
Mounting	Wall Bracket			
Communication with RSD	SUNSPEC			
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G			
Certification & Approvals	NRS97, G98/G99, EN50549-1, C10/C11, AS 4777, VDE-AR-N4105, VDE0126, IEC62040, IEC62109-1, IEC62109-2			
EMC	EN61000-6-2, EN61000-6-3			

Battery	AF3K-SL-0	AF3.6K-SL-0	AF4K-SL-0	AF4.6K-SL-0
Max. Charge/Discharge Power (kW)	3.0	3.6	4.0	4.6
Max. Charge/Discharge Current (A)	80	80	80	80
Battery Normal Voltage (V)	51.2			
Battery Voltage Range (V)	40 - 60			
Battery Type	Li-ion/lead-acid etc.			

AC Grid	AF3K-SL-0	AF3.6K-SL-0	AF4K-SL-0	AF4.6K-SL-0
Max Continuous Current (A)	14.0	17.0	19.0	22.0
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6
Nominal Grid Current(A)	13.7 / 13.1	16.4 / 15.7	18.2 / 17.4	21.0 / 20.0
Nominal Grid Voltage (V)	198 to 242 @ 220 / 207 to 253 @ 230			
Nominal Grid Frequency (Hz)	50 / 60			
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)			
Current THD (%)	< 3			

AC Load Output	AF3K-SL-0	AF3.6K-SL-0	AF4K-SL-0	AF4.6K-SL-0
Max Continuous Current (A)	14.0	17.0	19.0	22.0
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6
Max Peak Current (A) (10min)	20.5 / 19.6	24.6 / 23.5	27.3 / 26.1	31.4 / 30.0
Max Peak Power (kVA) (10min)	4.5	5.4	6.0	6.9
Nominal AC Current (A)	13.7 / 13.1	16.4 / 15.7	18.2 / 17.4	21.0 / 20.0
Nominal AC Voltage L-N (V)	220 / 230			
Nominal AC Frequency (Hz)	50 / 60			
Switching Time (s)	Seamless			
Voltage THD (%)	< 3			

Efficiency	AF3K-SL-0	AF3.6K-SL-0	AF4K-SL-0	AF4.6K-SL-0
Max. Efficiency (%)	97.6			
Bat. between AC Efficiency (%)	96.8			

Protection	AF3K-SL-0	AF3.6K-SL-0	AF4K-SL-0	AF4.6K-SL-0
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			
Enclosure Protect Level	IP65 / NEMA4X			

General Data	AF3K-SL-0	AF3.6K-SL-0	AF4K-SL-0	AF4.6K-SL-0
Dimensions (L x W x H, mm)	513 x 370 x 192			
Weight	17			
Topology	Transformer			
Cooling	Intelligent Fan			
Relatively Humidity	0 - 100 %			
Operating Temperature Range (°C)	- 25 to 60			
Operating Altitude (m)	< 4000			
Noise Emission (dB)	< 25			
Standby Consumption (W)	< 10			
Mounting	Wall Bracket			
Communication with RSD	SUNSPEC			
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G			
Certification & Approvals	NRS97, G98/G99, EN50549-1, C10/C11, AS 4777, VDE-AR-N4105, VDE0126, IEC62040, IEC62109-1, IEC62109-2			
EMC	EN61000-6-2, EN61000-6-3			

Monitoring Device & Solution



Failure alarm



PV sytem
information push



Multiple systems
in one account



Cloud data
synchronization



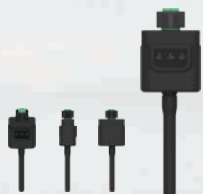
PC browser
Android and IOS



Real-time/ Historical
data monitoring and
analysis



System Income
Calculation



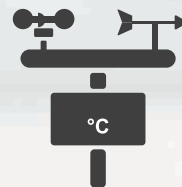
Wi-Fi / Ethernet / GPRS Data Sticker



Power Plant Data Logger



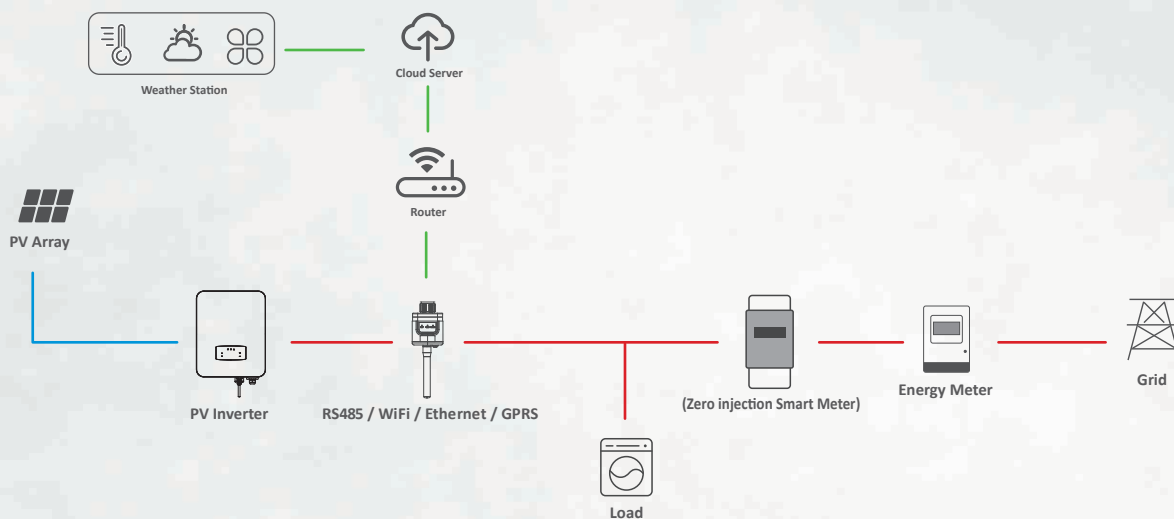
Zero injection Smart Meter(optional)



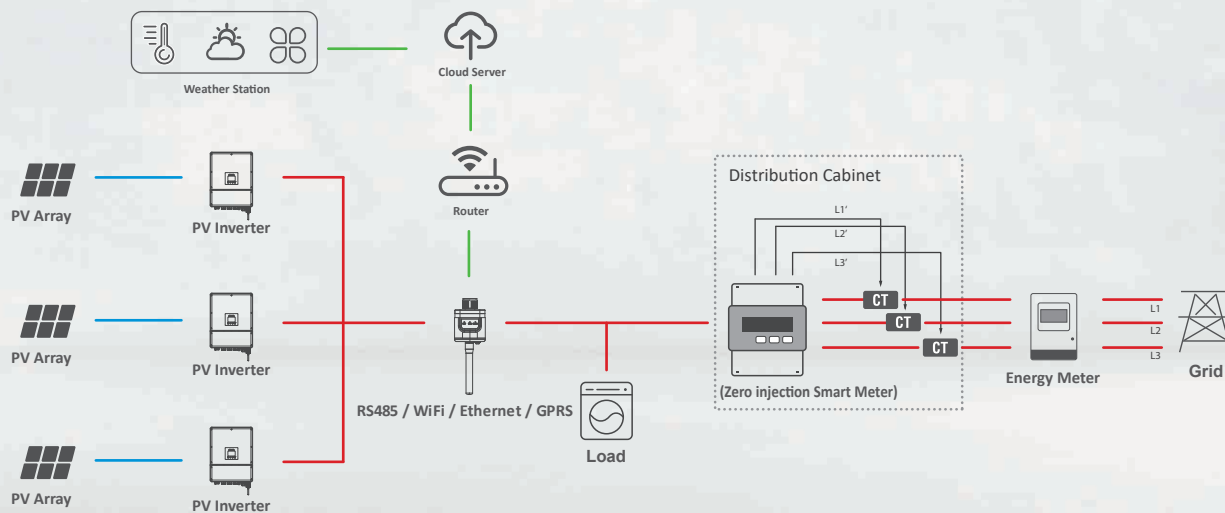
Weather Station

PV System Monitoring Solution

Single Inverter Monitoring Solution



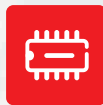
Multiply Inverters Monitoring Solution



Wall-mounted Battery Pack



Maximum 8 Battery



BMS Build-in



Modular Expansion



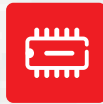
LiFePO₄

	Technical Parameter
Capacity Energy (Wh)	5120Wh
Capacity (Ah)	100Ah
Suggested SOC	5%-95%
Nominal Voltage (V)	51.2V
Operation Voltage (V)	43.2V-58.4V
Maximum Charging/ Discharging Current (A)	100A/100A Per Pack
Operation Temperature (°C)	Charge: 0-55°C ; Discharge: -10-55°C
Storage Temperature (°C)	-20-45°C
Weight (kg)	52kg
Dimensions (mm)	542x468x197mm
Certifications	MSDS, UN38.3, RoHS, CE
IP Grade	IP65
Communication	RS485, CAN

Low Voltage Battery Pack



Maximum 8 Battery



BMS Build-in



Modular Expansion



LiFePO4



1



2



3



4



5



6



7



8

Module

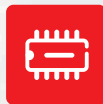
Technical Parameter

Capacity Energy (Wh)	2816Wh	5632Wh	8448Wh	11264Wh	14080Wh	16896Wh	19712Wh	22528Wh
Capacity (Ah)	55Ah							
Suggested SOC	5%-95%							
Nominal Voltage (V)	51.2V							
Operation Voltage (V)	43.2V-58.4V							
Maximum Charging/Discharging Current (A)	35A/35A Per Pack							
Operation Temperature (°C)	Charge: 0-55°C; Discharge: -10-55°C							
Storage Temperature (°C)	0-45°C							
Weight (kg)	29kg	58kg	87kg	116kg	145kg	174kg	203kg	232kg
Dimensions (mm)	480x280x210	480x280x420	480x280x630	480x280x840	480x280x1050	480x280x1260	480x280x1470	480x280x1680
Certifications	MSDS, UN38.3, RoHS, CE							
IP Grade	IP21							
Communication	RS485, CAN							

High Voltage Battery Pack



Maximum 6 Battery



BMS Build-in



Modular Expansion



LiFePO₄



3



4



5



6

Module

	Technical Parameter			
Capacity Energy (Wh)	8448Wh	11264Wh	14080Wh	16896Wh
Capacity (Ah)	55Ah			
Suggested SOC	5% - 95%			
Nominal Voltage (V)	153.6V	204.8V	256V	307.2V
Operation Voltage (V)	134.4V - 170.4V	179.2V - 227.2V	224V - 284V	268.8V - 340.8V
Maximum Charging/Discharging Current (A)	35A			
Operation Temperature (°C)	Charge: 0-55°C; Discharge: -10-55°C			
Storage Temperature (°C)	0-45°C			
Weight (kg)	98kg	128kg	158kg	188kg
Dimensions (mm)	280x480x840mm	280x480x1050mm	280x480x1260mm	280x480x1480mm
Certifications	MSDS, UN38.3, RoHS, CE			
IP Grade	IP21			
Communication	RS485, CAN			