



BlueArk X1

3~8kW Single Phase | 5~16kW Three Phase



All-in-One Design

- Integrates hybrid inverter, batteries, UPS, and EMS into one system—sleek design, easy installation.
- A reserved port for generator connection is provided;



High Adaptability, Ultimate safety

- IP66 protection degree, indoor and outdoor installation;
- Integrated with heating module, can operate at temperatures below 0°C ;
- Type II SPD is equipped on both AC and DC sides.



Full Power Range Coverage

- Single-phase/three-phase inverters with a rated power of 3~8kW/5~16kW;
- Battery capacity ranges from 8kWh to 128kWh
- Supports up to 4 inverters in parallel (both on-grid/off-grid).



Excellent Performance

- 3 MPPTs, ideal for complex rooftop scenarios;
- The string current is up to 20A, and the DC/AC ratio is up to 2.0;
- 10ms on/off-grid switching time.

Datasheet	3K-SP	3.6K-SP	4K-SP	4.6K-SP	5K-SP	6K-SP	7K-SP	8K-SP
PV Input Data								
Max. Recommended PV Power (Wp)	6000	7200	8000	9200	10000	12000	14000	16000
Max. PV Input Voltage (V)	600V							
Nominal DC input voltage	360V							
Start-up Input Voltage (V)	100							
MPPT Voltage Range (V)	90 ~ 550							
No. of MPPTs/ Strings per MPPT	3/1+1+1						3/2+1+1	
Max. Input Current per MPPT	20+20+20						32+20+20	
Max. Short-circuit Current per MPPT	30+30+30						50+30+30	
Battery Data								
Compatible Battery	BlueArk X1 8.0 Battery, 8-128kWh							
Max.Charging/Discharging Current (A)	157							
Battery Voltage Range (V)	20-60							
Max.Charging/Discharging Power (W)	6000	6000	6000	6000	6000	6000	8000	8000
Grid Data								
Max.AC Input Power From Grid (VA)	4200	5000	5600	6500	7000	8500	10000	11500
Rated AC Output Power (W)	3000	3680	4000	4600	5000	6000	7000	8000
Max. AC Output Apparent Power(VA)	3300	3600	4400	5000	5500	6000	7700	8000
Rated AC Output Current (A)(@220V)	13.6	16	18.2	20.9	22.7	27.3	31.8	36.4
Rated AC Output Current (A)(@230V)	13	15.6	17.4	20	21.7	26.1	30.4	34.8
Rated AC Output Current (A)	15	16	20	22.7	25	27.3	35	36.4
Rated AC Voltage Range (V)	220 / 230 / 240							
Rated Grid Frequency (Hz)	50 / 60							
Power Factor	0.8 leading ~ 0.8 lagging							
THDi	< 3%							
Backup Data								
Rated Output Active Power (W)	6000	6000	6000	6000	6000	6000	8000	8000
Rated Output Apparent Power(VA)	6000	6000	6000	6000	6000	6000	8000	8000
Peak Output Power (VA, 10s)	12000	12000	12000	12000	12000	12000	16000	16000
Nominal Output Voltage	220 / 230 / 240							
Nominal Output Frequency	50 / 60							
THDv	< 3%							
Switch Time to Emergency Mode (ms)	10							
Generator(Smart Load) Data								
Grid Type	L+N+PE							
Max. AC input Power(W)	4200	5000	5600	6500	7000	8500	10000	11500
Max. AC input Current(A)	18.2	21.7	24.4	28.2	30.4	37	43.5	50
Efficiency								
Max.Efficiency	97.60%	97.60%	97.80%	97.80%	98.00%	98.00%	98.10%	98.10%
Protection								
PV Reverse Polarity Protection	Yes							
PV Switch	Yes							
AC/PV Surge Protection	Type II / Type II							
Insulation Resistance Monitoring	Yes							
AC Short-circuit Protection	Yes							
Ground Fault Monitoring	Yes							
Grid Monitoring	Yes							
Anti-islanding Protection	Yes							
Residual-current Monitoring Unit	Yes							
String Monitoring	Yes							
LVRT	Opt							
AFCI	Opt							
General Data								
Dimensions (W / H / D)(mm)	780*400*260							
Weight(kg)	25							
Operating Temperature Range(°C)	-30 ~ 60(Derating above 45°C)							
Relative Humidity Range	0% ~ 95%							
Max. Operating Altitude(m)	3000 (Derating above 2000m)							
Cooling	Intelligent air cooling							
Protection Degree	IP66							
Communication(WLAN/Ethernet/RS485/4G)	Opt							
Warranty(5years/10years)	Yes/Opt							
Standard Compliance								
Standard	IEC/EN 62109-1/2, EN50549-10, AS4777.1, IEC 61727, IEC62116,C10/C11,N4105, IEC 61000, CEI 0-21, IEC61683							

Datasheet	5K-TP	6K-TP	8K-TP	10K-TP	12K-TP	15K-TP	16K-TP
PV Input Data							
Max. Recommended PV Power (Wp)	10000	12000	16000	20000	24000	30000	30000
Max. PV Input Voltage (V)	1000						
Nominal DC input voltage	700						
Start-up Input Voltage (V)	144						
MPPT Voltage Range (V)	160-1000						
No. of MPPTs/ Strings per MPPT	2/1+1			3/1+1+1		3/2+1+1	
Max. Input Current per MPPT(A)	20+20			20+20+20		32+20+20	
Max. Short-circuit Current per MPPT(A)	30+30			30+30+30		50+30+30	
Battery Data							
Compatible Battery	BlueArk X1 8.0 Battery, 8-128kWh						
Max.Charging/Discharging Current (A)	314						
Battery Voltage Range (V)	20-60						
Max.Charging/Discharging Power (W)	5000	6000	8000	10000	12000	15000	16000
Grid Data							
Max.AC Input Power From Grid (VA)	22000	22000	22000	22000	22000	22000	22000
Rated AC Output Power (W)	5000	6000	8000	10000	12000	15000	16000
Rated AC Output Current(A)	7.3	8.7	11.5	14.4	17.3	21.7	23.2
Rated AC Voltage Range (V)	380 / 400						
Rated Grid Frequency (Hz)	50 / 60						
Power Factor	0.8 leading ~ 0.8 lagging						
THDi	< 3%						
Switch Time to Emergency Mode (ms)	10						
Backup Data							
Rated Output Active Power (W)	5000	6000	8000	10000	12000	15000	16000
Rated Output Apparent Power(VA)	5000	6000	8000	10000	12000	15000	16000
Peak Output Power (VA, 10s)	10000	12000	16000	20000	24000	30000	30000
Nominal output voltage(V)	380 / 400						
Nominal output Frequency(Hz)	50 / 60						
THDv	< 3%						
Switch Time to Emergency Mode (ms)	10						
Generator(Smart Load) Data							
Grid Type	3W+N+PE						
Max. AC input Power(W)	22000						
Max. AC input Current(A)	32						
Efficiency							
Max.Efficiency	97.80%	97.80%	98.00%	98.00%	98.20%	98.20%	98.20%
Protection							
PV Reverse Polarity Protection	Yes						
PV Switch	Yes						
AC/PV Surge Protection	Type II/ Type II						
Insulation Resistance Monitoring	Yes						
AC Short-circuit Protection	Yes						
Ground Fault Monitoring	Yes						
Grid Monitoring	Yes						
Anti-islanding Protection	Yes						
Residual-current Monitoring Unit	Yes						
String Monitoring	Yes						
LVRT	Opt						
AFCI	Opt						
General Data							
Dimensions (W / H / D)(mm)	780*400*260						
Weight(kg)	30						
Operating Temperature Range(°C)	-30 ~ 60(Derating above 45°C)						
Relative Humidity Range	0% - 95%						
Max. Operating Altitude(m)	3000 (Derating above 2000m)						
Cooling	Intelligent air cooling						
Protection Degree	IP66						
Communication(WLAN/Ethernet/RS485/4G)	Opt						
Warranty(5years/10years)	Yes/Opt						
Standard Compliance							
Standard	IEC/EN 62109-1/2, EN50549-10, AS4777.1, IEC 61727, IEC 62116,C10/C11,N4105, IEC 61000, CEI 0-21, IEC61683						

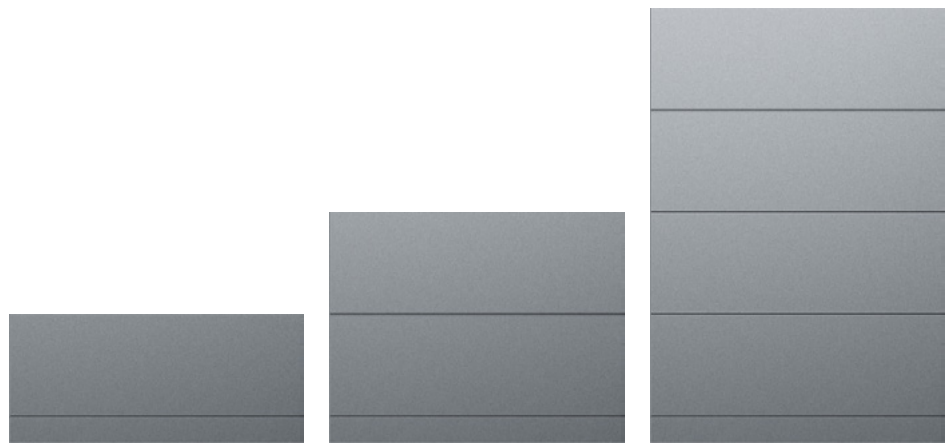
TCL

BlueArk X1 8.0 Battery



Datasheet	BlueArk X1 8.0 BMH	BlueArk X1 8.0 BSH*
Performance Specification		
Battery Type	LiFePO4	
Cell Capacity(Ah)	314	
Cycle Life	8000	
Tota Energy Capacity(kWh)	8	
Usable Energy Capacity(kWh)	7.2	
Voltage Range (Single Phase System) (V)	20-60	
Voltage Range (Three Phase System) (V)	20-60	
Max. Charging / Discharging Power(W)	4000	
General Data		
Weight	65	
Dimensions (W / H / D)(mm)	780*270*260	
Operating Temperature Range(°C)	Charging: -20 ~ 55 Discharging: -20-55	
Relative Humidity Range	5% ~ 95%	
Max. Operating Altitude(m)	3000	
Cooling	Natural Convection	
System ingress protection rating	IP66	
Installation method	Floor standing / Wall-mounted	
Standard Compliance		
Standard	UN38.3, IEC 62619, IEC 62040, EMC	

BlueArk X1 8.0 BSH cannot be used independently, it must be used in conjunction with the BlueArk X1 8.0 BMH;



Datasheet	BlueArk X1 8.0 Battery	BlueArk X1 16.0 Battery	BlueArk X1 32.0 Battery
Number of Battery Modules	1	2	4
System Consists	1*BlueArk X1 8.0 BMH	1*BlueArk X1 8.0 BMH+1*BlueArk X1 8.0 BSH	2*(1*BlueArk X1 8.0 BMH+1*BlueArk X1 8.0 BSH)
Total Energy Capacity(kWh)	8	16	32
Max. Charging / Discharging Current(A)	157	157	314
Max. Charging / Discharging Power(W)*	4000	8000	16000
Weight(kg)*	70	135	265
Dimensions (W / H / D)*	780*368.5*260	780*638.5*260	780*1178.5*260

*((Include the Battery Base))