

## AMPIFARM | AF-C20-CY-1100-NCPB-1000

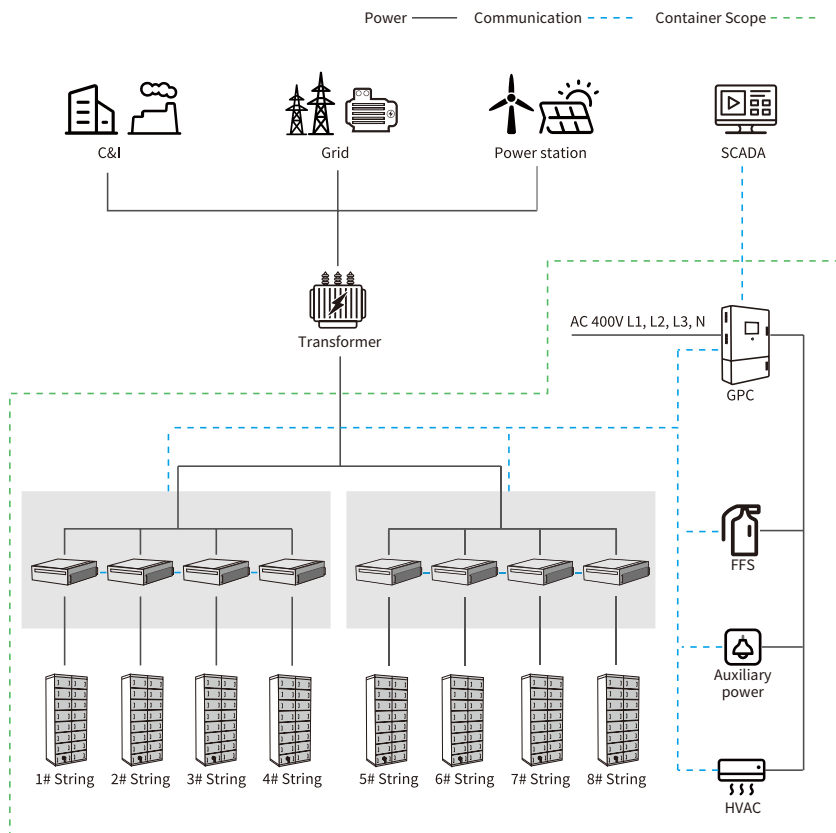
Battery Energy Storage System, 1100kWh Battery Capacity, 1000kW Power Conditioning System (PCS)

AmpiFARM Energy Storage Solution: Safety, Efficiency, and Profitability Combined. Our system is specifically designed to meet the unique needs of industrial and commercial customers. AmpiFARM seamlessly integrates cutting-edge technology, offering unmatched safety and reliability while maximizing financial returns.

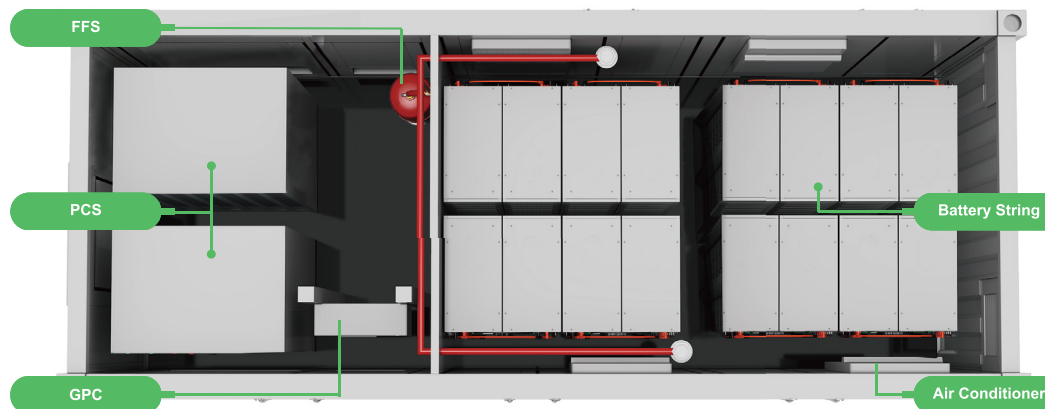
AmpiFARM systems utilize the most recent advancements in battery technology (Nano-Crystal™ Phosphate), ensuring fire safety, reliability, and longevity. AmpiFARM is an adaptable and scalable energy solution that can be expanded when needed. The System connects to Ampowr Cosmos™ (EMS): Our state-of-the-art EMS, which ensures the highest level of data safety while enabling efficient energy consumption monitoring and optimization.

# DATASHEET

## SYSTEM TOPOLOGY



## PRODUCT LAYOUT

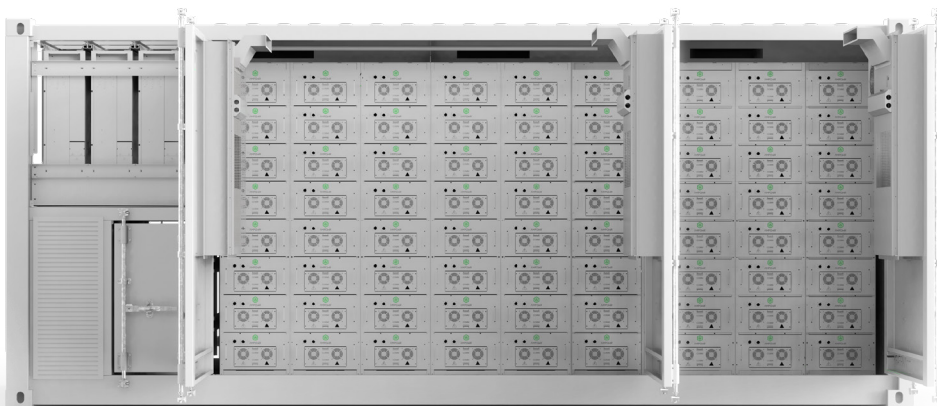


## SYSTEM CONFIGURATION

Product Model	Battery string type	Nominal Capacity	AC Connection	Isolation	Grid-connected voltage	Dimensions (WxDxH)
AF-C20-CY-1100-NCPB-1000	S138-15P9	1,100kWh	3-Phase+PE	Non-isolation	400V	6,058 x 2,438 x 2,591mm

More Energy	All-in-one Design	Simple O&M	Safe & Reliable
Pack-level Optimization	AC/DC All-in-one Design Reducing Initial Investment	No periodic balancing No experts site visit	Modular Design High Availability

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## DC DATA

BATTERY CHEMISTRY	Lithium Iron Phosphate (LFP)
CELL LIFE CYCLE	80% Retention with 5,000 Cycles @ 1C 25 °C
CELL SPEC	3.2V/90Ah
STRING CONFIGURATION	2P240S
NUMBER OF STRINGS	8
RATED ENERGY CAPACITY	1,100kWh
DC RATED ENERGY CAPACITY	1,105.92kWh
RATED VOLTAGE	768V
VOLTAGE RANGE	672V~852V
BMS COMMUNICATION INTERFACE	RS485, Ethernet
BMS COMMUNICATION PROTOCOL	Modbus RTU, Modbus TCP

## AC DATA

SYSTEM	AF-C20-CY-1100-NCPB-1000-N	AF-C20-CY-1100-NCPB-1000-E
RATED AC POWER	1000kW	
MAXIMUM AC POWER	1100kW	
RATED VOLTAGE	400V	
GRID VOLTAGE RANGE	360~440V (Configurable)	342~418V (Configurable)
AC RATE OF CURRENT	2 * 721.7A	
OUTPUT THDI	< 3%	
AC PF	0.1-1 leading or lagging (Controllable)	
AC OUTPUT	3-Phase+PE	

## GENERAL DATA

DIMENSION W/D CLEARANCES (L*W*H)	6,058 x 2,438 x 2,591mm
WEIGHT OF THE WHOLE SYSTEM	20t
DEGREE OF PROTECTION	IP54
OPERATING TEMPERATURE RANGE	-20~40 °C
RELATIVE HUMIDITY	0-95% (non-condensing)
MAX WORKING ALTITUDE	3,000m / 10,000feet (> 2000m/6500feet derating)
COOLING CONCEPT OF DC HATCH	HVAC
FIRE FIGHTING SYSTEM	NOVEC1230 / FM-200
COMMUNICATION INTERFACES	RS485, Ethernet, GPRS
CERTIFICATES	UL9540, IEC62933, UN3536

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- 1C Charge/Discharge;
- Power supply can be single battery string or parallel battery strings;
- Easy configuration and maintenance.

## Battery String - S138

BATTERY MODULE	S138-15P9
PACK QTY	15
NOMINAL CAPACITY	138.24kWh
RATED VOLTAGE	768V
DC VOLTAGE RANGE	672V~852V
PACK	25.6V/180Ah@2P16S
COMMUNICATION	Ethernet, CAN, RS485
LIFESPAN	>5,000 cycles @1C, 25 °C
DIMENSIONS (W×D×H)	800 × 750 × 2,050mm
WEIGHT	1,467kg
CERTIFICATIONS	UL1973, UL9540A, IEC62619, CE , UN38.3



- Single-stage three-level modularization;
- Multi-branch input to reduce battery series and parallels connection;

## Power Conversion System

	AP-AN-LTK005-1SWP	AP-XE-LTK005-1SWP
BATTERY VOLTAGE RANGE	630~900V	600~900V
DC MAX CURRENT	873A	
RATED AC POWER	500kW	
MAXIMUM AC POWER	550kW	
RATED VOLTAGE	400V	
GRID VOLTAGE RANGE	360~440V	342V~418V
AC RATE OF CURRENT	721.7A	
OUTPUT THDI	≤3%	
ADJUSTABLE PF	1(leading)~1(lagging)	
GRID FREQUENCY RANGE	60Hz (59.5~60.5Hz)	50/60±2.5Hz
ISOLATION METHOD	Non-isolation	
DIMENSIONS (W×D×H)	1,100 × 800 × 2,160mm	
WEIGHT	600kg	



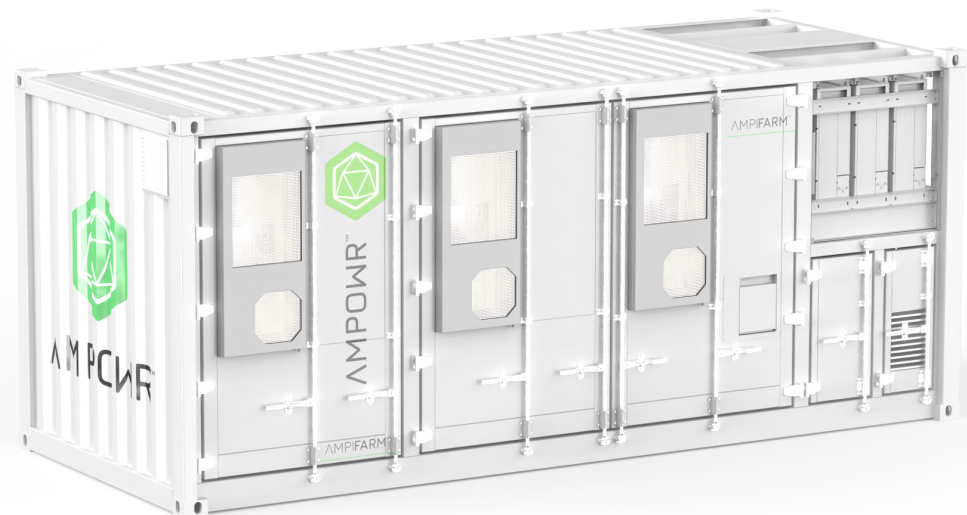
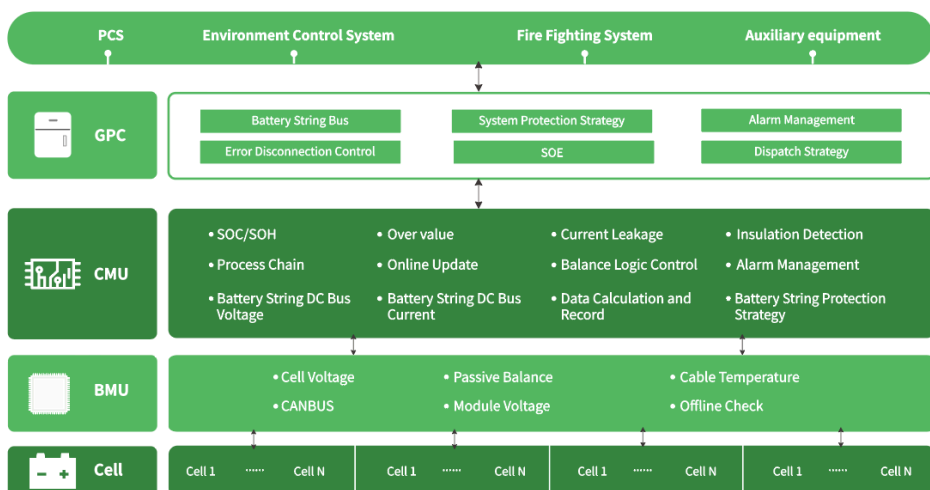
- All-round signal collection;
- Comprehensive logical control;
- Multilevel electric & control protection;
- Intelligentize Communication management;
- Simple Configuration.

## GridPoint Controller (GPC)

POWER INTERFACE	AC220V / DC24V
COMMUNICATION	Modbus RTU, Modbus TCP
RELAY	24 stem node input / output
NETWORK CONTROL APPLICATION	Peak shifting and valley filling, peak cutting, smooth renewable energy output curve
OFFLINE CONTROL APPLICATION	Backup power supply, PV/DG/EV/ESS integrated micro-grid control

# DATASHEET

## BMS with Real-time Passive Balance



BMU		CMU	
Cell Voltage Measurement Accuracy	±5 mV	Battery String Voltage Measurement Range	100~1,000Vv
Cell Voltage Monitoring Interval	≤200ms	Battery String Voltage Measurement Accuracy	±1%
Cell Temperature Measurement Accuracy	±2 °C	Battery String Voltage Monitoring Interval	≤100ms
Cell Temperature Measurement Interval	≤3s	Battery String Current Measurement Range	±300A
Cell Current Balance	Passive Balance, 150mA MAX	Battery String Current Measurement Accuracy	≤1%
Cell Voltage Measurement Range	1~5 V	Battery String Current Monitoring Interval	≤50ms
Over-current Protection	250A/1s	SOC Calculation Accuracy	≤8%
Short-Circuit Protection	500A/10ms	Input Insulation Resistance	≥10MΩ, 1,000VDC

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