



# ACE GROUP

A Creative Engine for a greener world

# RESS P20



HYBRID INVERTER FOR RESIDENTIAL ENERGY STORAGE SYSTEM (HIGH VOLTAGE)



## KEY FEATURES



### Hybrid Power Leverage

Supports PV, grid and battery power for home use. Power priority management to maximumly reduce electricity bills and backup critical loads.



### High-Level Integration

DC coupled system. Shortens power conversion flow to get low power loss.



### Highly Compatible With Self-designed Battery Energy Storage Systems

Deeply communicate and coordinate between inverter and battery, enhancing the system reliability considerably.



### Multi-communication Capabilities

Supports RS485, CAN2.0, WIFI, and 4G communication.



### Compatible With High Voltage Modular Battery System

The system will improve system efficiency and reduce the power loss.

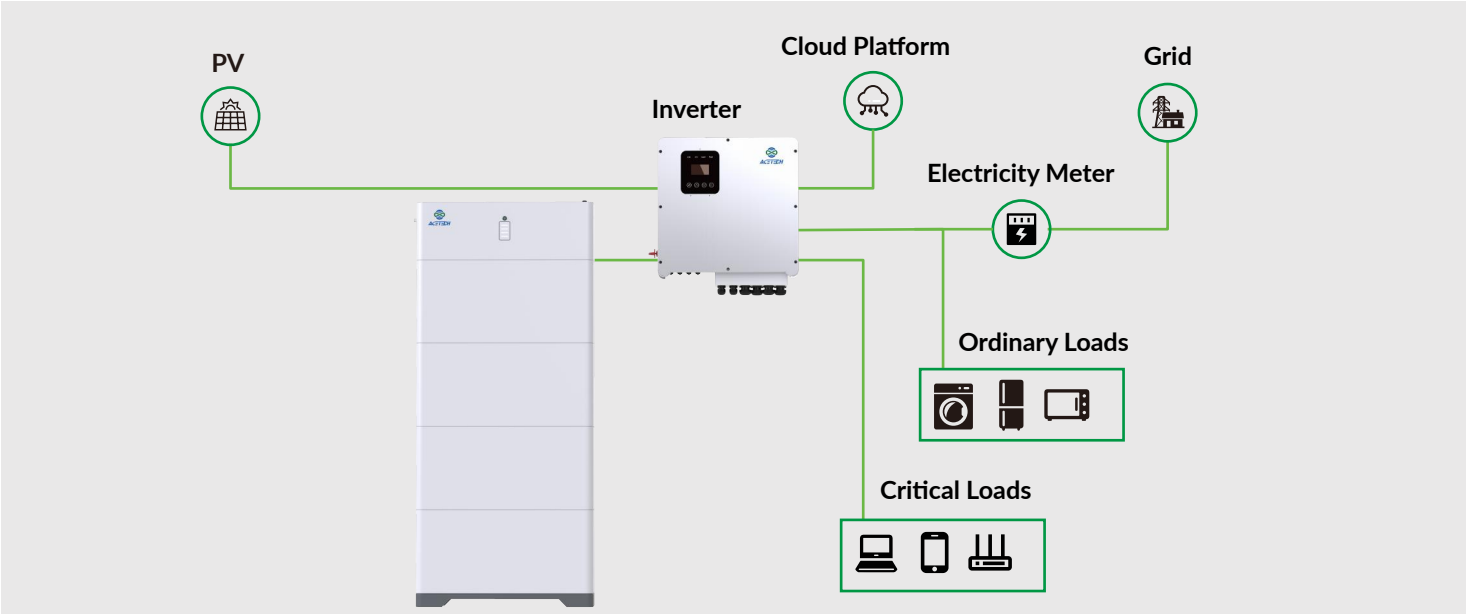


### Safe Design

Multiple protection and detection function provide a full safety guarantee.



# COMPATIBLE BATTERY SYSTEM



## TECHNICAL DATA

Hybrid Inverter Model	RESS-3P-6K-H00	RESS-3P-8K-H00	RESS-3P-10K-H00	RESS-3P-12K-H00	RESS-3P-15K-H00
Output (On Grid)					
Rated Output Active Power	6000W	8000W	10000W	12000W	150000W
Max. Output Apparent Power	6600VA	8800VA	11000VA	13200VA	165000VA
Rated AC Voltage	380 V / 400 V / 415 V				
AC Voltage Range	360~440V				
AC Frequency Range	50 / 60Hz±5Hz				
Wiring	L1/L2/L3-N-G				
Max. Output Current	9.5A	12.7A	15.9A	19.1A	23.8A
Max. Input Current	19A	25.5A	31.9A	38.2A	47.6A
Power Factor (cosΦ)	0.8 leading – 0.8 lagging				
THDI	<3%				
Output (Back up)					
Rated Output Apparent Power	6600VA	8800VA	11000VA	13200VA	165000VA
Rated Output Active Power	6000W	8000W	10000W	12000W	150000W
Rated Output Voltage	380 V / 400 V / 415 V				
Rated Output Frequency	50/60Hz				
Max. Output Current	9.5A	12.7A	15.9A	19.1A	23.8A
THDV (@Linear Load)	<2%				
Switch Time	<20ms				
PV String Input					
Recommended max. PV Input Power	9000W	12000W	15000W	18000W	22500W
Rated DC Voltage	700V				
Operating Voltage Range	125V~1000V				
Startup Voltage	125V				
MPPT Voltage Range	180V-850V				
Number of MPPTs	2				
Max. Number of PV Strings per MPPT	1				2
Max. Input Current per MPPT	16A				20A
Max. Short-Circuit Current per MPPT	25A				30A

# TECHNICAL DATA

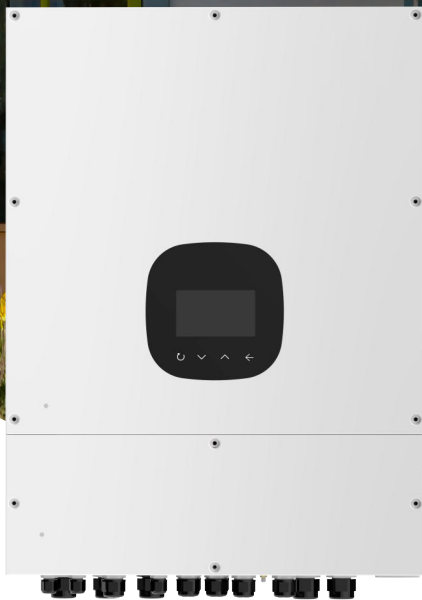
Hybrid Inverter Model	RESS-3P-6K-H00	RESS-3P-8K-H00	RESS-3P-10K-H00	RESS-3P-12K-H00	RESS-3P-15K-H00
Battery					
Battery Type	LFP (LiFePO4)				
Rated Battery Voltage	204.8V/307.2V/409.6V/512V				
Battery Voltage Range	125-600V				
Max. Charging Current	50A				
Max. Discharging Current	50A				
Efficiency					
Max. PV Efficiency	97.9%		98.2%		98.5%
Euro. PV Efficiency	97.2%		97.5%		97.6%
Protection					
PV Over Voltage Protection	Yes				
String Fault Detection	Yes				
Residual Current Detection	Yes				
Insulation Detection	Yes				
Anti-islanding Protection	Yes				
DC Switch (Battery)	Yes				
DC Reverse Polarity Protection	Yes				
AC/DC Surge Protection	DC Type II/AC Type III				
AC Over Voltage Protection	Yes				
AC Over Current Protection	Yes				
AC Short Circuit Protection	Yes				
Leakage Current Detection	Yes				
Ground Connection Detection	Yes				
Function					
Battery Charging from Grid	Yes				
Remote On/Off	Yes				
OTA	Yes				
General					
Dimensions W*H*D	530*560*220mm				
Net Weight	30kg	31kg		33kg	34kg
Installation	Wall-mounted				
Operating Temperature Range	-25°C~+60°C, (derating above 40°C)				
Storage Temperature Range	-25°C~70°C				
Max. Operating Altitude	2000m (no derating)				
Relative Humidity Range	0~95% (No Condensation)				
Ingress Protection Rating	IP65				
Cooling	Natural convection				
Noise	<35dB				
Communication	RS485/CAN2.0/(WIFI/4G option)				
Display	LCD/APP				
Warranty	5years (expand to 10 years)				
Certification					
Certification	IEC/EN62109-1:2010, IEC/EN62109-2:2011,IEC/EN 61000-6-1/2/3/4:2019,IEC/EN 61000-3-2:2019/A1:2021, EN 61000-3-3:2013/A2:2021, IEC/EN 61000-3-11:2019, EN 61000-3-12:2011,EN 50549-1:2019/AC:2019, EN50549-1:2019/Rfg:2016/NC Rfg:2018/PTPiREE:2021, VDE-AR-N 4105:2018/DIN VDE V 0124-100(VDE V 0124-100):2020, NRS 097-2-1:2017 Edition 2.1, G98/G99/1-6:2022,UNE217001:2020 /UNE217002:2020/ NTS V2.1:2021-07, IEC61727:2004/IEC62116:2014/IEC61683:1999, EN50549-1:2019/RFG:2016				
Compatible Battery System					
Compatible Battery System	RESS-BS-7.6-H1; RESS-BS-11.4-H1; RESS-BS-15.2-H1; RESS-BS-19-H1				



# RESS P20



HYBRID INVERTER FOR RESIDENTIAL ENERGY STORAGE SYSTEM (LOW VOLTAGE)



## KEY FEATURES



### Hybrid Power Leverage

Supports PV, grid and battery power for home use. Power priority management to maximumly reduce electricity bills and backup critical loads.



### High-Level Integration

DC coupled system. Shortens power conversion flow to get low power loss.



### Highly Compatible With Self-designed Battery Energy Storage Systems

Deeply communicate and coordinate between inverter and battery, enhancing the system reliability considerably.



### Multi-communication Capabilities

Supports RS485, CAN2.0, WIFI, and 4G communication.



### Concise Human-machine Interface

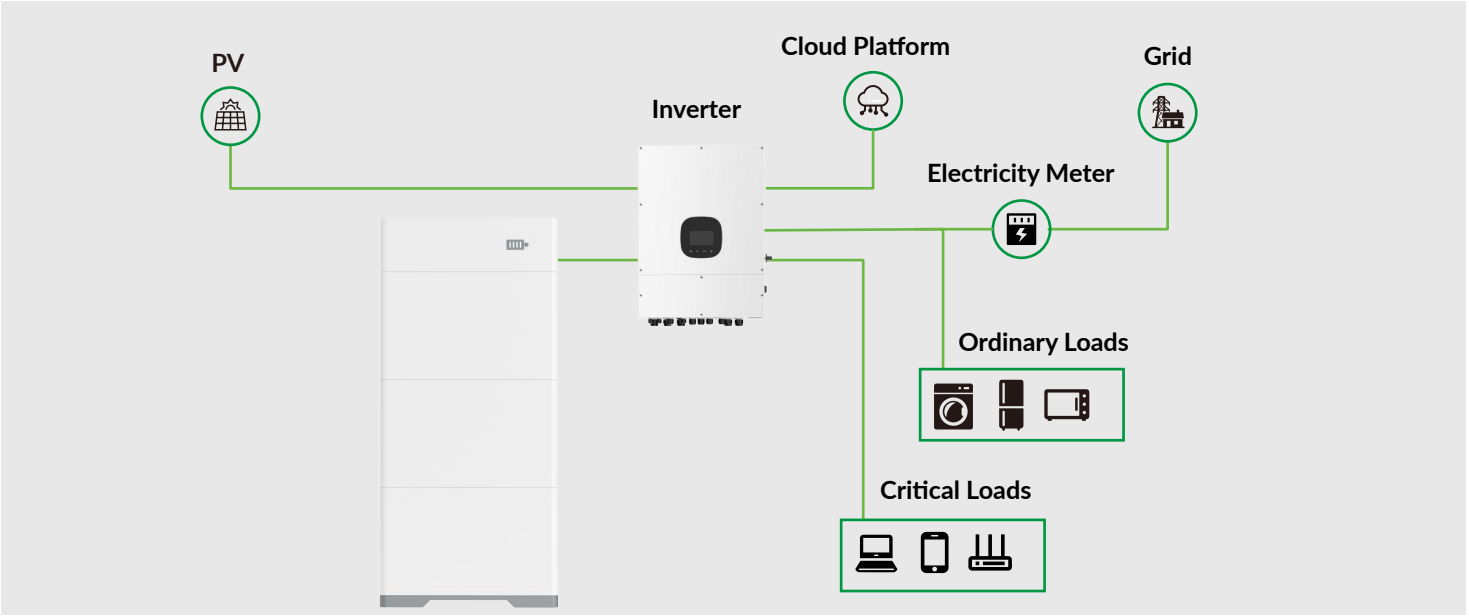
Easily operated local LCD display and app. Quick status indicators.



### Safe Design

Multiple protection and detection function provide a full safety guarantee.

# COMPATIBLE BATTERY SYSTEM



## TECHNICAL DATA

Hybrid Inverter Model	RESS-3P-6K-L00-LV	RESS-3P-10K-L00-LV
Output (On Grid)		
Rated Output Active Power	6000W	10000W
Max. Output Apparent Power	6000VA	10000VA
Rated AC Voltage	120 VAC (P-N), 208 VAC (P-P), 240 VAC (P-P)	
AC Voltage Range	105.5 VAC - 132 VAC (P-N)	
AC Frequency Range	50 / 60Hz±5Hz	
Wiring	L1/L2-N-G	
Max. Output Current	25A	41.5A
Max. Input Current	40A	
Power Factor (cosΦ)	0.9 leading – 0.9 lagging	
THDI	<3%	
Output (Back Up)		
Rated Output Apparent Power	6000VA	10000VA
Rated Output Active Power	6000W	10000W
Rated Output Voltage	120 VAC (P-N), 208 VAC (P-P), 240 VAC (P-P)	
Rated Output Frequency	50/60Hz	
Max. Output Current	25A	41.5A
THDV(@Linear Load)	<3%	
Switch Time	<15ms	
PV String Input		
Recommended Max. PV Input Power	7500W	12000W
Rated DC Voltage	360V	
Operating Voltage Range	120V-550V	
Startup Voltage	125V	
MPPT Voltage Range	120V-550V	
Number Of MPPTs	2	
Max. Number Of PV Strings per MPPT	2	
Max. input Current per MPPT	15A	18A

# TECHNICAL DATA

Hybrid Inverter Model	RESS-3P-6K-L00-LV	RESS-3P-10K-L00-LV
Battery		
Battery Type	LFP (LiFePO4)	
Rated Battery Voltage	48V	
Battery Voltage Range	40-62V	
Max. Charging Current	120A	200A
Max. Discharging Current	150A	300A
Efficiency		
Max. PV Efficiency	96.5%	
Euro. PV Efficiency	95.5%	
Protection		
PV Over Voltage Protection	Yes	
String Fault Detection	Yes	
Residual Current Detection	Yes	
Insulation Detection	Yes	
Anti-Islanding Protection	Yes	
DC Switch (Battery)	Yes	
DC Reverse Polarity Protection (Both PV and battery)	Yes	
AC/DC Surge Protection	DC Type II;AC Type III	
AC Over Voltage Protection	Yes	
AC Over Current Protection	Yes	
AC Short Circuit Protection	Yes	
Leakage Current Detection	Yes	
Ground Connection Detection	Yes	
Function		
Battery Charging from Grid	Yes	
General		
Dimensions W*H*D	515*700*215.5mm	515*715*215.5mm
Net Weight	41kg	45kg
Installation	Wall-mounted	
Operating Temperature Range	-25°C~+60°C, (derating above 45°C)	
Storage Temperature Range	-15°C~60°C	
Max. Operating Altitude	1000m (no derating, over 1000m the power derating is 1 % every 100m)	
Relative Humidity Range	0~95% (No Condensation)	
Ingress Protection Rating	IP65	
Cooling	Force air cooling	
Noise	<50dB	
Communication	RS 485, RS232, USB, Dry contact, WIFI	
Display	LCD/APP	
Warranty	2 years	
Certification		
Certification	UL1741, IEEE1547, EN 61000-6-2, EN 61000-6-4	
Compatible Battery System		
Compatible Battery System	RESS-BS-6.6-L0; RESS-BS-13.2-L0; RESS-BS-19.8-L0	

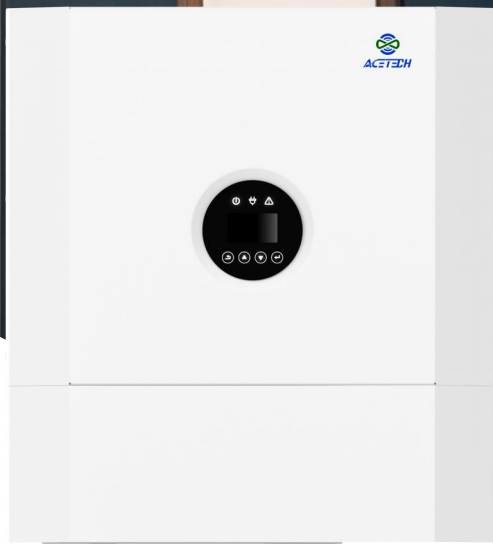




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# RESS P20

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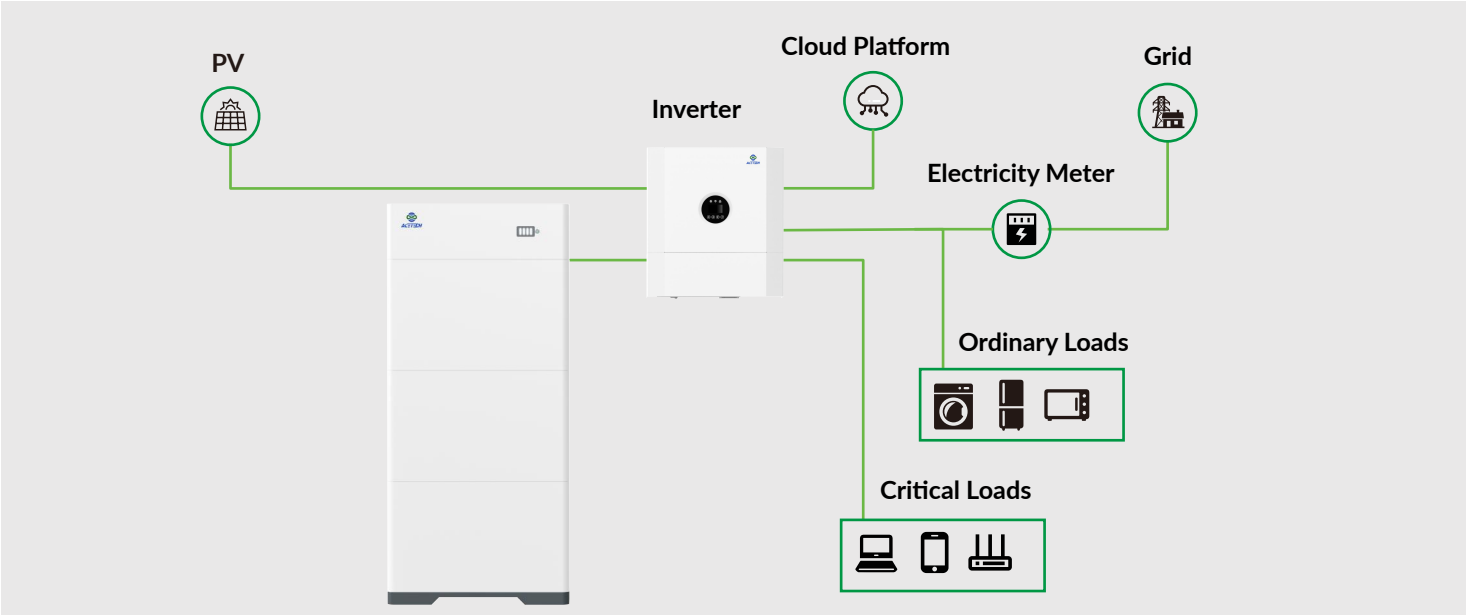
Easily operated local LCD display and app. Quick status indicators.



### Safe Design

Multiple protection and detection function provide a full safety guarantee.

# COMPATIBLE BATTERY SYSTEM



## TECHNICAL DATA

Hybrid Inverter Model	RESS-1P-3.6K-L00	RESS-1P-5K-L00	RESS-1P-6K-L00	RESS-3P-8K-L00	RESS-3P-10K-L00
Output (On Grid)					
Rated Output Active Power	3680W	5000W <sup>1</sup>	6000W	8000W	10000W
Max. Output Apparent Power	7360VA	7360VA	7360VA	8800VA	11000VA
Rated AC Voltage		230V		400V	
AC Voltage Range		150~280V		320~480V	
AC Frequency Range			50 / 60Hz±5Hz		
Wiring		L-N-G		L1/L2/L3-N-G	
Max. Output Current	16A	22A <sup>2</sup>	25A	12.8A	16A
Max. Input Current		32A		25A	
Power Factor (cosΦ)			0.8 leading – 0.8 lagging		
THDI			<3%		
Output (Back up)					
Rated Output Apparent Power	4000VA	5000VA	5000VA	8000VA	10000VA
Rated Output Active Power	3680W	4600W	4600W	7360W	9200W
Rated Output Voltage		230V		400V	
Rated Output Frequency			50/60Hz		
Max. Output Current	16A	20A	20A	11.6A	14.5A
THDV (@Linear Load)		<3%		<2%	
Switch Time			<20ms		
PV String Input					
Recommended Max. PV Input Power	4800W	6500W	7500W	16000W	20000W
Rated DC Voltage		400V		720V	
Max. Voltage Range		80V~580V		140V~1100V	
Startup Voltage		150V		200V	
MPPT Voltage Range		80V-560V		140V~1000V	
Number of MPPTs			2		
Max. Number of PV Strings per MPPT			1		
Max. Input Current per MPPT			15A		
Max. Short-Circuit Current per MPPT		18A		20A	

\*1. Australia 4999W, Germany and South Africa 4600W.

\*2. Australia 21.7A, Germany and South Africa 20A.

# TECHNICAL DATA

Hybrid Inverter Model	RESS-1P-3.6K-L00	RESS-1P-5K-L00	RESS-1P-6K-L00	RESS-3P-8K-L00	RESS-3P-10K-L00
Battery					
Battery Type	LFP (LiFePO4)				
Rated Battery Voltage	48V		51.2V		
Battery Voltage Range	40-60V		44-58V		
Max. Charging Current	50A	100A	100A	160A	
Max. Discharging Current	80A	100A	100A	200A	
Efficiency					
Max. PV Efficiency	97.6%				
Euro. PV Efficiency	97.0%				
Protection					
PV Over Voltage Protection	Yes				
String Fault Detection	Yes				
Residual Current Detection	Yes				
Insulation Detection	Yes				
Anti-Islanding Protection	Yes				
DC Switch (Battery)	Yes				
DC Reverse Polarity Protection (Both PV and Battery)	Yes				
AC/DC Surge Protection	DC Type II / AC Type III				
AC Over Voltage Protection	Yes				
AC Over Current Protection	Yes				
AC Short Circuit Protection	Yes				
Leakage Current Detection	Yes				
Ground Connection Detection	Yes				
Function					
Battery Charging from Grid	Yes				
Remote On/Off	Yes				
OTA	Yes				
General					
Dimensions W*H*D	540*590*240mm		540*980*240mm		
Net Weight	32kg		49kg		
Installation	Wall-mounted				
Operating Temperature Range	-25°C~+60°C, (derating above 40°C)				
Storage Temperature Range	-40°C~70°C				
Max. Operating Altitude	2000m (no derating)				
Relative Humidity Range	0~95% (No Condensation)				
Ingress Protection Rating	IP65				
Cooling	Natural convection				
Noise	<35dB		<55dB		
Communication	RS485/CAN2.0/WIFI/(4G option)				
Display	LCD/APP				
Warranty	5 years (expand to 10 years)				
Certification					
Certification	CE; IEC/EN 62109-1&2; IEC/EN61000-6-1/2/3/4; IEC/EN61000-3-11/12; IEC60529; IEC 60068; IEC61683;IEC62116; IEC61727; EN50549-1; VDE-AR-N-4105; C10/C11; G98, G99;CEI0-21;UNE 217001,UNE 217002 NTS V2.1; VDE 0126; EN50549+NC;RfG+PTPIREE;AS 4777.2;NRS 097			CE; IEC/EN 62109-1&2; IEC/EN61000-6-1/2/3/4; IEC/EN61000-3-11/12; IEC60529; IEC 60068; IEC61683;IEC62116; IEC61727; EN50549-1; VDE-AR-N-4105;G98; CEI0-21;VDE 0126; EN50549+RfG+EIFS;EN50549+NC RfG+PTPIREE;	
Compatible Battery System					
Compatible Battery System	RESS-BS-6.6-L0; RESS-BS-13.2-L0; RESS-BS-19.8-L0				



# RESS E20

## RESIDENTIAL ENERGY STORAGE SYSTEM (HIGH VOLTAGE)



### Scalable Configuration



Modular design: one storage system can support 2 to 5 battery units. Systems can be connected in parallel to expand capacity to a maximum of 57kWh.



### High Safety



System design based on LFP batteries, which have greater thermal stability.



### Quick Installation



Quick insert design to save installation time and cost.



### Long Service Life



More than 6000 cycles at 100% charging and discharging.



### IP65 Rating



IP65 water- and dust-proof, supports both indoor and outdoor installation.



### High Usage



The battery has high usage with usable energy up to 100%.

# TECHNICAL DATA

Model Number	RESS-BS-7.6-H1	RESS-BS-11.4-H1	RESS-BS-15.2-H1	RESS-BS-19-H1
System				
Battery System Capacity (kWh)	7.6	11.4	15.2	19
Usable Capacity (kWh)	7.6	11.4	15.2	19
Numbers of Battery Modules	2	3	4	5
Rated Battery Voltage (V)	204.8	307.2	409.6	512
Operating Battery Voltage Range (V)	160~230	240~345	320~460	400~576
Rated Power (kW)	5	7.5	10	12.5
Rated Discharging Current (A)	25.9	25.9	25.9	25.9
Max Discharging Current (A)	37	37	37	37
Rated Charging Current (A)	18.5	18.5	18.5	18.5
Max Charging Current (A)	25.9	25.9	25.9	25.9
Peak Discharging/Charging Current (A)	148/55.5@5S	148/55.5@5S	148/55.5@5S	148/55.5@5S
System Dimensions (W*H*D) (mm)	625*830*250	625*1145*250	625*1460*250	625*1775*250
System Net Weight (kg)	113	161	209	257
Communication		RJ45 (RS485, CAN, Dry contact)		
Module				
Battery Module Number		RESS-BM-10237-H1		
Battery Module Capacity (kWh)		3.8		
Rated Battery Module Voltage (V)		102.4		
Battery Module Dimensions (W*H*D) (mm)		625*315*250		
Battery Module Net Weight (kg)		48		
Battery Control Box		RESS-BC-51237-H1		
Rated Voltage (V)		512		
Control Box Dimensions (W*H*D) (mm)		625*150*250		
Control Box Net Weight (kg)		12		
Environment				
Operating Temperature		(-10°C~50°C)		
Operating Humidity		0~95%RH		
Operating Altitude		<=3000m		
Installation		Wall-mounted or Floor type		
Enclosure Protection Rating		IP65		
Warranty		10years		
Cycle File		>=6000 cycles @ 75% EOL,25°C,100% DoD		
Certification				
Certification		IEC62619/UN38.3		

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# RESS E20

## RESIDENTIAL ENERGY STORAGE SYSTEM (LOW VOLTAGE)



### Scalable Configuration

Modular design: one storage system can support 1 to 3 battery units.



### High Safety

System design based on LFP batteries, which have greater thermal stability.



### Quick Installation

Quick insert design to save installation time and cost.



### Long Service Life

More than 6000 cycles at 100% charging and discharging.



### IP65 Rating

IP65 water- and dust-proof, supports both indoor and outdoor installation.



### High Usage

The battery has high usage with usable energy up to 100%.



# TECHNICAL DATA

Model Number	RESS-BS-6.6-L0	RESS-BS-13.2-L0	RESS-BS-19.8-L0
System			
Battery System Capacity (kWh)	6.6	13.2	19.8
Usable Capacity (kWh)	6.6	13.2	19.8
Numbers of Battery Modules	1	2	3
Rated Battery Voltage (V)	51.2	51.2	51.2
Operating Battery Voltage Range (V)	40~57.6	40~57.6	40~57.6
Rated Power (kW)	5	8	10
Rated Discharging Current (A)	91	182	273
Max Discharging Current (A)	125	200	300
Rated Charging Current (A)	65	130	195
Max Charging Current (A)	100	200	300
System Dimensions (W*H*D) (mm)	725*620*170	725*1060*170	725*1500*170
System Net Weight (kg)	65	125	185
Communication	RJ45 (RS485, CAN, Dry contact)		
Module			
Battery Module Number	RESS-BM-051130-L0		
Battery Module Capacity (kWh)	6.6		
Rated Battery Module Voltage (V)	51.2		
Battery Module Dimensions (W*H*D) (mm)	725*440*170		
Battery Module Net Weight (kg)	60		
Battery Power Distribution Box	RESS-PD-051130-L0		
Rated Voltage (V)	51.2		
Control Box Dimensions (W*H*D) (mm)	725*130*170		
Control Box Net Weight (kg)	12		
Environment			
Operating Temperature	(-10°C~50°C)		
Operating Humidity	0~95%RH		
Operating Altitude	<=3000m		
Installation	Wall-mounted or Floor type		
Enclosure Protection Rating	IP65		
Warranty	10years		
Cycle File	>=6000 cycles @ 75% EOL,25°C,100% DoD		
Certification			
Certification	IEC62619/UL1973/UL9540A/UN38.3		

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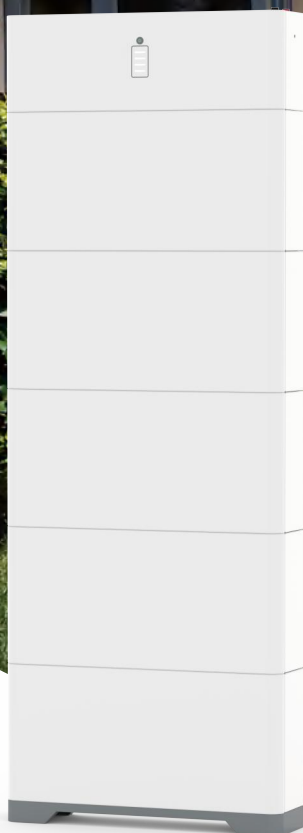
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# RESS E20

## RESIDENTIAL ENERGY STORAGE SYSTEM (HIGH VOLTAGE)



### Scalable Configuration



Modular design: one storage system can support 2 to 5 battery units. Systems can be connected in parallel to expand capacity to a maximum of 57kWh.



### High Safety



System design based on LFP batteries, which have greater thermal stability.



### Quick Installation



Quick insert design to save installation time and cost.



### Long Service Life



More than 6000 cycles at 100% charging and discharging.



### IP65 Rating



IP65 water- and dust-proof, supports both indoor and outdoor installation.



### High Usage



The battery has high usage with usable energy up to 100%.

# TECHNICAL DATA

Model Number	RESS-BS-7.6-H0	RESS-BS-11.4-H0	RESS-BS-15.2-H0	RESS-BS-19-H0
System				
Battery System Capacity (kWh)	7.6	11.4	15.2	19
Usable Capacity (kWh)	7.6	11.4	15.2	19
Numbers of Battery Modules	2	3	4	5
Rated Battery Voltage (V)	204.8	307.2	409.6	512
Operating Battery Voltage Range (V)	160~230	240~345	320~460	400~576
Rated Power (kW)	5	7.5	10	12.5
Rated Discharging Current (A)	25.9	25.9	25.9	25.9
Max Discharging Current (A)	37	37	37	37
Rated Charging Current (A)	18.5	18.5	18.5	18.5
Max Charging Current (A)	25.9	25.9	25.9	25.9
Peak Discharging/Charging Current (A)	148/55.5@5S	148/55.5@5S	148/55.5@5S	148/55.5@5S
System Dimensions (W*H*D) (mm)	670*900*170	670*1215*170	670*1530*170	670*1845*170
System Net Weight (kg)	105	149	193	237
Communication	RJ45 (RS485, CAN, Dry contact)			
Module				
Battery Module Number	RESS-BM-10237-H0			
Battery Module Capacity (kWh)	3.8			
Rated Battery Module Voltage (V)	102.4			
Battery Module Dimensions (W*H*D) (mm)	670*315*170			
Battery Module Net Weight (kg)	44			
Battery Control Box	RESS-BC-51237-H0			
Rated Voltage(V)	512			
Control Box Dimensions (W*H*D) (mm)	670*220*170			
Control Box Net Weight (kg)	12			
Environment				
Operating Temperature	(-10°C~50°C)			
Operating Humidity	0~95%RH			
Operating Altitude	<=3000m			
Installation	Wall-mounted or Floor type			
Enclosure Protection Rating	IP65			
Warranty	10years			
Cycle File	>=6000 cycles @ 75% EOL,25°C,100% DoD			
Certification				
Certification	IEC62619/UN38.3			

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# RESS PE20



ALL-IN-ONE RESIDENTIAL ENERGY STORAGE SYSTEM (HIGH VOLTAGE)



## Hybrid Power Leverage

Supports PV, grid and battery power for home use. Power priority management to maximumly reduce electricity bills and backup critical loads.



## High-level Integration

DC coupled system. Shortens power conversion flow to get low power loss.



## All In One Design

Improve installation convenience, enhancing aesthetics.



## Battery Modular Design

Modular design: one storage system can support 2 to 5 battery units.



## Quick Installation

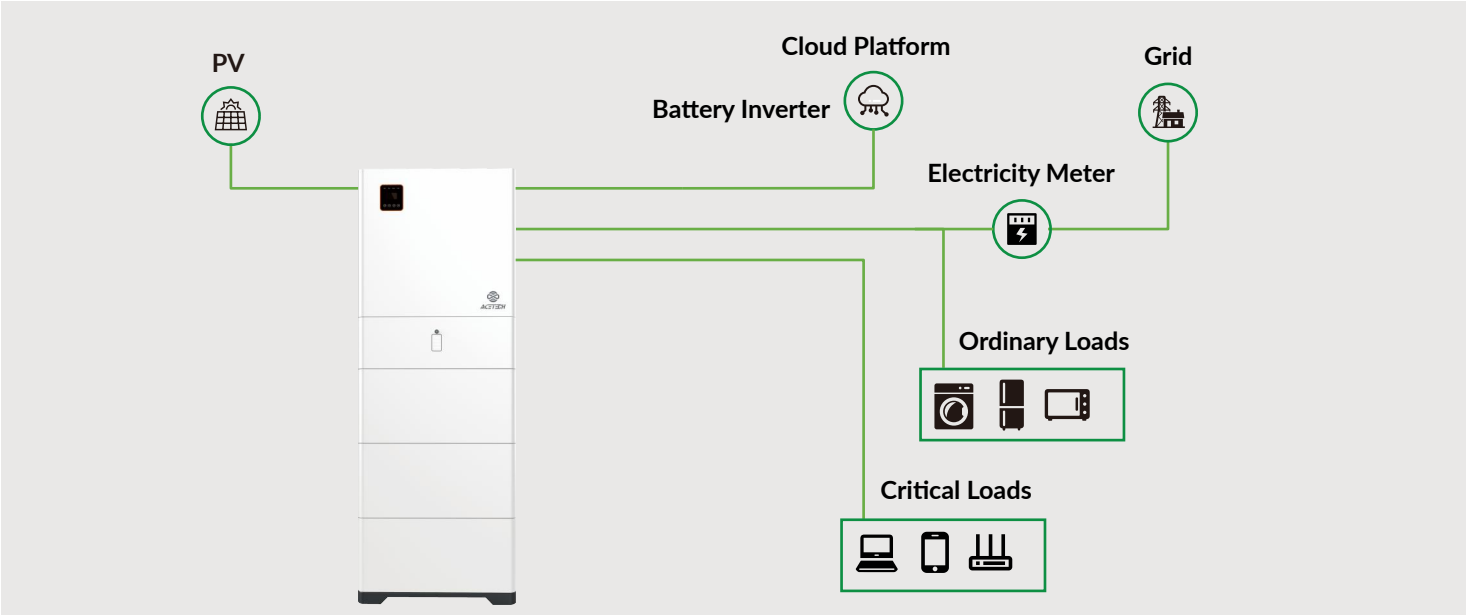
Quick insert design to save installation time and cost.



## IP65 Rating

IP65 water- and dust-proof, supports both indoor and outdoor installation.

# COMPATIBLE BATTERY SYSTEM



# TECHNICAL DATA



Hybrid Inverter Model	RESS-3A-11.4-H1-6K	RESS-3A-15.2-H1-8K	RESS-3A-19-H1-10K
Output (On Grid)			
Rated Output Active Power	6000W	8000W	10000W
Max. Output Apparent Power	6600VA	8800VA	11000VA
Rated AC Voltage	380 V / 400 V / 415 V		
AC Frequency Range	50 / 60Hz±5Hz		
Wiring	L1/L2/L3-N-G		
Power Factor (cosΦ)	0.8 leading – 0.8 lagging		
THDI	<3%		
Output(Back Up)			
Rated Output Apparent Power	6600VA	8800VA	11000VA
Rated Output Active Power	6000W	8000W	10000W
Rated Output Voltage	380 V / 400 V / 415 V		
Rated Output Frequency	50/60Hz		
THDV(@Linear Load)	<2%		
Switch Time	<20ms		

# TECHNICAL DATA

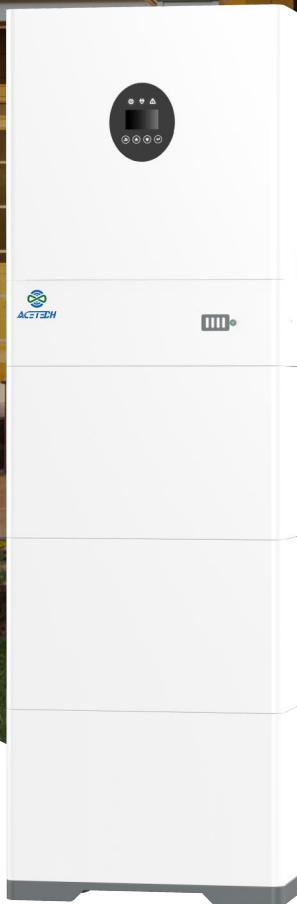
Hybrid Inverter Model	RESS-3A-11.4-H1-6K	RESS-3A-15.2-H1-8K	RESS-3A-19-H1-10K
PV String Input			
Recommended Max. PV input Power	9000W	12000W	15000W
Rated DC Voltage		700V	
Operating Voltage Range		125V~1000V	
Startup Voltage		125V	
MPPT Voltage Range		180V-850V	
Number of MPPTs		2	
Max. Number of PV Strings per MPPT		1	
Max. Input Current per MPPT		16A	
Max. Short-Circuit Current per MPPT		25A	
Battery			
Battery Type		LFP (LiFePO4)	
Battery System Capacity	11.4KWH	15.2KWH	19KWH
Rated Battery Voltage	307.2V	409.6V	512V
Numbers of Battery Modules	3	4	5
Rated Discharging Current		25.9A	
Rated Charging Current		18.5A	
Cycle Life	>=6000 cycles @ 75% EOL,25°C,100% DoD		
Efficiency			
Max. PV Efficiency	97.9%		98.2%
Euro. PV Efficiency	97.2%		97.5%
Protection			
PV Over Voltage Protection		Yes	
String Fault Detection		Yes	
Residual Current Detection		Yes	
Insulation Detection		Yes	
Anti-islanding Protection		Yes	
DC Switch (Battery)		Yes	
DC Reverse Polarity Protection		Yes	
AC/DC Surge Protection		DC Type II;AC Type III	
AC Over Voltage Protection		Yes	
AC Over Current Protection		Yes	
AC Short Circuit Protection		Yes	
Leakage Current Detection		Yes	
Ground Connection Detection		Yes	
Function			
Battery Charging From Grid		Yes	
Remote On/Off		Yes	
OTA		Yes	
General			
Dimensions W*H*D	625*1855*250mm	625* 2170* 250mm	625* 2485* 250mm
Net Weight	194kg	242kg	290kg
Installation		Wall-mounted or Floor type	
Operating Temperature Range		-10°C~+50°C, (derating above 40°C)	
Max. Operating Altitude		2000m (no derating)	
Relative Humidity Range		0~95% (No Condensation)	
Ingress Protection Rating		IP65	
Cooling		Natural convection	
Noise		<35dB	
Communication		RS485/CAN2.0/(WIFI/4G option)	
Display		LCD/APP	
Warranty	PCS: 5 years (expand to 10 years); BAT:10 years		
Certification			
Certification		IEC62619/UN38.3 (Battery) IEC/EN 62109-1&-2 (PCS)	



# RESS PE20



ALL-IN-ONE RESIDENTIAL ENERGY STORAGE SYSTEM (LOW VOLTAGE)



## Hybrid Power Leverage

Supports PV, grid and battery power for home use. Power priority management to maximum reduce electricity bill and backup critical loads.



## High Level Integration

DC coupled system. shortens power conversion flow to get low power loss.



## All In One Design

Improve installation convenience, enhancing aesthetics.



## Battery Modular Design

Modular design: one storage system can support 1 to 3 battery units.



## Quick Installation

Quick insert design to save installation time and cost.

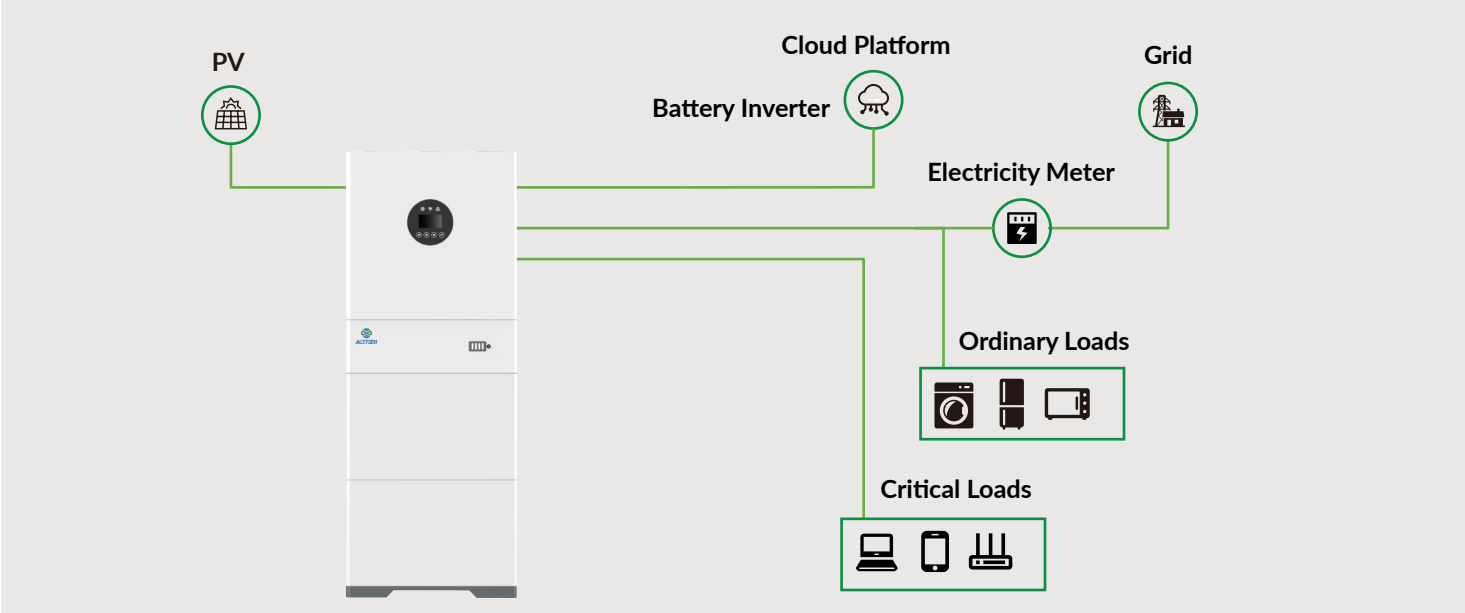


## IP65 Rating


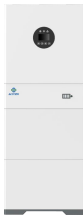

IP65 water- and dust-proof, supports both indoor and outdoor installation.



# COMPATIBLE BATTERY SYSTEM



## TECHNICAL DATA

			
Hybrid Inverter Model	RESS-1P-3.6K-L00	RESS-1P-6K-L00	RESS-3P-10K-L00
Output (On Grid)			
Rated Output Active Power	3680W	6000W	10000W
Max. Output Apparent Power	7360VA	7360VA	11000VA
Rated AC Voltage	230V		
AC Voltage Range	150~280V		
AC Frequency Range	50 / 60Hz ± 5Hz		
Wiring	L-N-G		
Power Factor (CosΦ)	0.8 leading – 0.8 lagging		
THDI	<3%		
Output(Back Up)			
Rated Output Apparent Power	4000VA	5000VA	10000VA
Rated Output Active Power	3680W	4600W	9200W
Rated Output Voltage	230V		
Rated Output Frequency	50/60Hz		
THDV(@Linear Load)	<3%		
Switch Time	<20ms		

# TECHNICAL DATA

Hybrid Inverter Model	RESS-1P-3.6K-L00	RESS-1P-6K-L00	RESS-3P-10K-L00
PV String Input			
Recommended Max. PV input Power	4800W	7500W	20000W
Rated DC Voltage		400V	
Max. Voltage Range		80V~580V	
Startup Voltage		150V	
MPPT Voltage Range		80V-560V	
Number of MPPTs		2	
Max. Number of PV strings per MPPT		1	
Max. Input Current per MPPT		15A	
Max. Short-Circuit Current per MPPT	18A		20A
Battery			
Battery Type		LFP (LiFePO4)	
Battery System Capacity	6.6KWH	13.2KWH	19.8KWH
Rated Battery Voltage		51.2V	
Numbers of Battery Modules	1	2	3
Rated Discharging Current	91A	182A	273A
Rated Charging Current	65A	130A	195A
Cycle Life	>=6000 cycles @ 75% EOL,25°C,100% DoD		
Efficiency			
Max. PV Efficiency		97.6%	
Euro. PV Efficiency		97.0%	
Protection			
PV Over Voltage Protection		Yes	
String Fault Detection		Yes	
Residual Current Detection		Yes	
Insulation Detection		Yes	
Anti-Islanding Protection		Yes	
DC Switch (Battery)		Yes	
DC Reverse Polarity Protection (Both PV and Battery)		Yes	
AC/DC Surge Protection		DC Type II;AC Type III	
AC Over Voltage Protection		Yes	
AC Over Current Protection		Yes	
AC Short Circuit Protection		Yes	
Leakage Current Detection		Yes	
Ground Connection Detection		Yes	
Function			
Battery Charging From Grid		Yes	
Remote On/Off		Yes	
OTA		Yes	
General			
Dimensions W*H*D	725*1179*250mm	725*1619*250mm	725*2449*250mm
Net Weight	99kg	159kg	237kg
Installation		Wall-mounted or Floor type	
Operating Temperature Range		-10°C~+50°C, (derating above 40°C)	
Max. Operating Altitude		2000m (no derating)	
Relative Humidity Range		0~95% (No Condensation)	
Ingress Protection Rating		IP65	
Cooling		Natural convection	
Noise		<35dB	<55dB
Communication		RS485/CAN2.0/WIFI/(4G option)	
Display		LCD/APP	
Warranty		PCS: 5 years (expand to 10 years); BAT:10 years	
Certification			
Certification		IEC62619/UN38.3 (Battery) IEC/EN 62109-1&-2(PCS )	

# RESS E20

## RESIDENTIAL ENERGY STORAGE BATTERY (MODULE)



### High Energy Density

The RESS battery module (51.2V/65Ah) is specifically designed for energy storage systems, delivering a total energy of 3.3 kWh per module. With its compact design, this module offers a high energy density of 196 Wh/L, making it easily integrable into various storage systems.



### Flexible Design

The module is designed with flexibility in mind to accommodate both high and low battery voltage systems. When connected in parallel, it can create a low-voltage battery platform, expanding energy capacity. Conversely, when connected in series, it can build a high-voltage battery platform, offering even more energy capacity.



### Long Service Life

This module uses high-performance LFP battery cells, ensuring safety and providing excellent lifetime performance. The cycle life exceeds 6000 cycles @ 100% DOD (75% EOL), offering a long-lasting solution for your energy storage needs.



### High Reliability

This battery module meets UN38.3 and UL9540A certifications, ensuring the safe and reliable operation of your energy storage system.





# TECHNICAL DATA

Module	
Battery Block Number	RESS-BB-05165
Battery Block Capacity (kWh)	3.3
Rated Battery Module Voltage (V)	51.2
Rated Discharging Current (A)	32.5
Max Discharging Current (A)	65
Rated Charging Current (A)	32.5
Max Charging Current (A)	48.7
Battery Module Dimensions (W *H *D) (mm)	323*409*128
Battery Module Net Weight (kg)	29
Environment	
Operating Temperature	-10℃~50℃*
Operating Humidity	0~95%RH
Operating Altitude	<=3000m
Enclosure Protection Rating	IP20
Warranty	10years
Cycle File	>=6000 cycles @ 75% EOL,25°C,100% DoD
Certification	
Certification	UN38.3/UL9540A

\* Charge derating will occur between -10 °C and +5 °C

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