





American Standard V3.0 2025.04

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# About us

# We are committed to energizing the future with clean energy

Shenzhen ATESS Power Technology Co., Ltd. is a subsidiary of Growatt group, headquartered in GROWATT-ATESS Industrial Park, Shuitian 4th Industrial Zone, Bao'an District, Shenzhen. The park covers an area of 31,600 m<sup>2</sup> and the manufacturing center covers an area of 25,000 m<sup>2</sup>. It is a comprehensive smart industrial park integrating R&D, manufacturing, and sales of new energy products.



ESS & EV charging solutions supplier



31,600 m² industrial park



Thousands of tonnes of CO<sub>2</sub> emission reduced





12 years experience in ESS



Clean power delivered

to 100,000+ users







Top 3 EV charger supplier in the UK market

Top 3 supplier in the Thailand ESS market



Started EV charger business

Started EV part business

Started ESS business



# No.1 in the C&I ESS sector in South Africa

Approved as a specialized and sophisticated enterprise producing new and unique products





# Our R&D team

ATESS boasts an R&D team of over 100 highly experienced engineers. Our laboratory is fully equipped with advanced testing instruments to ensure top-notch product performance and quality, as well as customers' needs. We dedicate around 15% of our annual revenue to research and development each year to keep our products competitive.

**100+** 100+ R&D engineers

12 12 years experience

50%+ engineers with master's degree

**15%** of annual revenue as R&D investment



# Branches

# Our vision

Over the past years, ATESS has helped thousands of users and companies produce and consume green energy independently according to their individual needs, saving millions of tonnes of CO<sub>2</sub> emission. This motivates us to continually strive to create and innovate, on the universal carbon neutralization goal, and also a greener future energized by renewable energy technology.

HeadquarterOffice/warehouse

• Peru

Mexico

90+ Countries

Dubai

Holland
 Germany
 Croatia

Nigeria

South Africa













# HPS50/100/150-US-220Y(D)



# **Block Diagram**



	HPS50-US
AC(on-grid)	
Apparent power	50kVA
Rated power	50kW
Rated voltage	220V Wye
Rated current	131.3A
Voltage range	190-240V
Rated frequency	50/60Hz
Frequency range	45~55/55~65Hz
THDI	<3%
PF	0.8 lagging~0.8 leading
AC input connection	3/N/PE Wye / 3/N/PE Delta(Opt)
AC input	50kVA

AC(off-grid)	
Apparent power	50kVA
Rated power	50kW
Rated voltage	220V Wye
Rated current	131.3A
THDU	≤2% linear
Rated frequency	50/60Hz
Overload capability	110%-10 mins 120%-1 min

### DC (Battery and PV)

Max. PV open-circuit voltage	1000V DC
Max. PV power	55kWp
PV MPPT voltage range	480V-800V DC
PV max. input current	104.2A
PV lsc	130.2A
Battery voltage range	400V-600V
Full load battery voltage range	400V-600V
Max. charge power	50kW
Max. discharge power	50kW
Max. charge current	125A
Max. discharge current	125A

### **General Information**

Protection degree	Type 1
loise emission	<65dB(A)@1m
Operating temperature	-25 °C~+55 °C
Cooling method	Forced-air
Relative humidity	0-95% non-condensing
/lax. altitude	6000m (derate over 3000m)
Dimension (W/H/D)	950/1860/750mm
Veight	590kg
Build-in transformer	Yes
ightning protection	Туре II
ransfer between on/off grid	Automatic≤10ms
Standby consumption	<30W

Communication	
Display	Touch screen
Communication	RS485/CAN

# Certificate

UL1741, CSA-C22.2

* The MPPT voltage of PV strin	gs should be 50~200V higher than the Max battery volt
* Support voltage types: 190-2 There will be derating at diff	40V Wye & 190-240V High-leg Delta with split phase(Op erent voltage levels and standards, as shown below:
HPS50/100/150-US-220Y	Rated power of AC IN&OUT
190V Wye	86.50%
208V Wye	94.50%
220V Wye	100%
240V Wye	100%

### HPS100-US

### HPS150-US

150kVA

100kVA
100kW
220V Wye
262.7A
190-240V
50/60Hz
45~55/55~65Hz
<3%
0.8 lagging~0.8 leading
3/N/PE Wye / 3/N/PE Delta(Opt
100kVA

150kW 220V Wye 394.1A 190-240V 50/60Hz 45~55/55~65Hz <3% 0.8 lagging~0.8 leading 3/N/PE Wye / 3/N/PE Delta(Opt) 150kVA

100kVA	
100kW	
220V Wye	
262.7A	
≤2% linear	
50/60Hz	
110%-10 mins	120%-1 min

150kVA 150kW 220V Wye 394.1A ≤2% linear 50/60Hz 110%-10 mins 120%-1 min

1000V DC
110kWp
480V-800V DC
208.3A
260.4A
400V-600V
400V-600V
100kW
100kW
250A
250A

1000V DC 165kWp 480V-800V DC 312.5A 390.6A 400V-600V 470V-600V 150kW 150kW 319A 319A

Type 1 <65dB(A)@1m -25 °C~+55 °C Forced-air 0-95% non-condensing 6000m (derate over 3000m) 1200/1900/800mm 923kg Yes Type II Automatic≤10ms <30W

Type 1 <65dB(A)@1m -25 °C~+55 °C Forced-air 0-95% non-condensing 6000m (derate over 3000m) 1200/1900/800mm 1200kg Yes Type II Automatic≤10ms <30W

Touch screen RS485/CAN

Touch screen RS485/CAN

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> HPS50/100/150-US-220D 190V High-leg Delta 208V High-leg Delta 220V High-leg Delta 240V High-leg Delta

Rated power of AC IN&OUT 79.30% 86.80% 91 80% 100.00%

# ATS50/100/150-US-220

The ATS is an accessory of the American standard HPS. When both the grid and DG need to access the HPS, the ATS will be used to switch between the grid and DG automatically.



# Block Diagram



	ATS50-US-220			
Rated voltage	220V			
Rated current	131.3A			
Rated frequency	50/60Hz			
Max. power	75kVA			
Dutput breaker	250A			
Grid breaker	250A			
DG breaker	250A			
ightning protection	Type II			
Protection degree	Туре 1			
Relative humidity	0~95% non-condensing			
Operating temperature	-25°C~+55°C			
Dimension (W/H/D)	600/1500/430mm			
Weight	82kg			
Communication	RS485/CAN			

ATS100-US-220	ATS150-US-220		
220V	220V		
262.7A	394.1A		
50/60Hz	50/60Hz		
150kVA	225kVA		
400A	630A		
400A	630A		
400A	630A		
Туре II	Туре II		
Туре 1	Type 1		
0~95% non-condensing	0~95% non-condensing		
-25°C~+55°C	-25°C~+55°C		
700/1650/500mm	850/1650/550mm		
135kg	173kg		
RS485/CAN	RS485/CAN		

# HPS50/100/150-US-480

Large capacity all-in-one hybrid inverter for commercial application, supporting up to 600kW system capacity,



# **Block Diagram**



шı	DC	E	<b>n</b> _	110	- A	0	r
	- 3	0	0-	US	<b>5</b> -4	0	

(c(on-gha)	
pparent power	50kVA
ated power	50kW
ated voltage	480V Wye
ated current	60A
oltage range	432-528V
ated frequency	50/60Hz
requency range	45~55/55~65Hz
HDI	<3%
F	0.8 lagging~0.8 leading
C connection	3/N/PE Wye
C input	100kVA

AC(off-grid)	
Apparent power	50kVA
Rated power	50kW
Rated voltage	480V Wye
Rated current	60A
THDU	≤2% linear
Rated frequency	50/60Hz
Overload capability	110%-10 mins
	120%-1 min

DC (Battery and PV)	
Max. PV open-circuit voltage	1000V DC
Max. PV power	75kWp
PV MPPT voltage range	480V-800V DC
Battery voltage range	352V-600V
Max. charge power	75kW
Max. discharge power	55kW
Max. charge current	150A
Max, discharge current	138A

Comorel	Index where will a se
General	

Protection degree Noise emission	Type 1 <65dB(A)@1m
Operating temperature	-25 °C~+55 °C
Relative humidity	0-95% non-condensing
Max. altitude	6000m (derate over 3000m)
Dimension (W/H/D)	950/1860/750mm
Weight	590kg
Build-in transformer	Yes
Lightning protection	Type II
Transfer between on/off grid	Automatic≤10ms
Standby consumption	<30W

Certificate		
CSA-C22.2		

Communication	
Display	Touch screen
Communication	RS485/CAN

\* The MPPT voltage of PV strings should be 50~200V higher than the Max battery voltage.

### HPS100-US-480

100kVA 100kW 480V Wye 120A 432-528V 50/60Hz 45~55/55~65Hz <3% 0.8 lagging~0.8 leading 3/N/PE Wye 200kVA

### HPS150-US-480

150kVA 150kW 480V Wye 180A 432-528V 50/60Hz 45~55/55~65Hz <3% 0.8 lagging~0.8 leading 3/N/PE Wye 240kVA

100kVA 100kW 480V Wye 120A ≤2% linear 50/60Hz 110%-10 mins 120%-1 min

150kVA 150kW 480V Wye 180A ≤2% linear 50/60Hz 110%-10 mins 120%-1 min

1000V DC 150kWp 480V-800V DC 352V-600V 150kW 110kW 300A 275A

1000V DC 225kWp 480V-800V DC 352V-600V 225kW 165kW 450A 413A

Type 1 <65dB(A)@1m -25 °C~+55 °C Forced-air 0-95% non-condensing 6000m (derate over 3000m) 1200/1900/800mm 923kg Yes Type II Automatic≤10ms <30W

Type 1 <65dB(A)@1m -25 °C~+55 °C Forced-air 0-95% non-condensing 6000m (derate over 3000m) 1200/1900/800mm 1200kg Yes Type II Automatic≤10ms <30W

Touch screen RS485/CAN

Touch screen RS485/CAN

# ATS50/100/150-US-480



# **Block Diagram**



	ATS50-US-480
Rated voltage	480V
Rated current	120A
Rated frequency	50/60Hz
Rated power	100kVA
Output breaker	250A
Grid breaker	250A
DG breaker	250A
Lightning protection	Туре II
Protection degree	Туре 1
Relative humidity	0~95% non-condensing
Operating temperature	-25°C~+55°C
Dimension (W/H/D)	600/1500/450mm
Weight	77kg
Communication	RS485/CAN

ATS100-US-480	ATS150-US-480
480V	480V
240A	288A
50/60Hz	50/60Hz
200kVA	240kVA
400A	630A
400A	630A
400A	630A
Туре II	Туре II
Type 1	Туре 1
0~95% non-condensing	0~95% non-condensing
-25°C~+55°C	-25°C~+55°C
700/1650/500mm	700/1650/500mm
125kg	125kg
RS485/CAN	RS485/CAN

# HPS30000TL-US-208

30kW three phase all-in-one hybrid inverter for small commercial use.



# Features

- $(\bigcirc)$ All-in-one hybrid inverter
- Touchscreen LCD Compact design
- Seamless on/off grid transfer within 10 ms 0
- Support remote control of DG
- Programmable working mode
- Multiple MPPT inputs
- 酚 Max. 10 units in parallel for on&off grid operation

# **Block Diagram**



ATESS

### HPS30000TL-US-208

AC(on-grid)	
Apparent power Rated power Rated voltage Rated current Voltage range Rated frequency Frequency range THDI PF	30kVA 30kW 208V 83A 190-240V Wye/ł 50/60Hz 47~53/57~63Hz <3% 0.8 lagging~0.8
AC connection	3/N/PE

AC(off-grid)	
Apparent power	30kVA
Rated power	30kW
Rated voltage	208V
Rated current	83A
Voltage range	190-240V Wye/H
THDU	≤2% linear
Rated frequency	50/60Hz
Overload capability	110%-10 mins 12

# DC (Battery and PV)

Max. PV Open-circuit voltage	800V
Max. PV power	36kWp
PV MPPT voltage range	125V-620V
Number of MPPT	3
PV input/MPPT	2/3/3
PV input current/MPPT	40/60/60A
Max. PV input current	160A
Max. PV Isc/MPPT	60/90/90A
Battery voltage range	260-620V
Full load battery voltage range	300-600V
Max. charge/discharge power	30kW
Max. charge/discharge current	85A

General Information	
Protection devices	PV DC switch, battery breake
Protection degree	Type 3R
Noise emission	<65dB(A)@1m
Operating temperature	-30 °C~+50 °C
Cooling method	Forced-air
Relative humidity	0-95% non-con
Max. altitude	3000m (derate
Dimension (W/H/D)	600/1000/315m
Weight	90kg
Тороlоду	Transformerles
Lightning protection	Type II
Transfer between on/off grid	Automatic≤10
Standby consumption	<20W

Communication	
Display	Touch screen
Communication	RS485/CAN
Monitoring	WiFi or 4G modu

(High-leg delta with split phase (Opt) (Derate below 208V 3P)

3 leading

(High-leg delta with split phase (Opt) (Derate below 208V 3P)

120%-1 min

, PV fuse, ker and fuse

ndensing e over 2000m) nm

ms

lule available

# **PBD250**

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1000V level DC to DC solar charge controller, used together with ATESS PCS and Bypass for large scale solar projects.

# Features Image: Imag

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### Input (PV)

Max. PV power MPPT voltage range Full load MPPT voltage range Max. input current Number of MPPT

### Output (Battery and PCS)

Ouput voltage Max. charge power Max. charge current Max. charge efficiency

### Protection

Input & output OV/UV protection Input & output OC protection Short circuit protection Over temperature protection Lightning protection DC breaker Emergency stop

### **General Information**

-

Protection degree Noise emission Operating temperature Cooling method Relative humidity Max. altitude Dimension (W/H/D) Weight Topology Standby power

### Communication

Display Communication

### Certificate

CE

2

## PBD250

250kW 350V-850V 480V-850V			
4800-8300 575A(115A*5) 5			

600V-900V
250kW
416A
99%

Yes
Yes
Yes
Yes
Type II
Yes
Yes

IP20
<65dB(A)@1m
-25 °C~+55 °C
Forced-air
0-95% non-condensing
6000m (derate over 3000m)
800/1900/700mm
289kg
Transformerless
<100W

Touch	screen
RS485	/CAN

# **SMC200**

Smart MPPT controller, used together with ATESS PCS and Bypass for large scale solar projects.



# **Block Diagram**



Note: The final configuration depends on the actual PV module parameters or project plan.

# Input(PV)

Max. PV power MPPT voltage range Max. input current Number of MPPT

# Output (Battery and PCS)

Ouput voltage Max. charge power Max. charge current Max. charge efficiency Battery type

### Protection

Input & output OV/UV protection Input & output OC protection Short circuit protection Over temperature protection Lightning protection DC breaker Emergency stop

### **General Information**

Protection degree Noise emission Operating temperature Cooling method Relative humidity Max. altitude Dimension (W/H/D) Weight Topology Standby power

### Communication

Communication

### SMC200

200kW			
900V-1300V			
160A(20A*8)			
8			

600V-900V(700V-900Vfull load) 200kW 280A 99% Lead-acid or lithium-ion

Yes		
Yes		
Yes		
Yes		
Type II		
Yes		
Yes		

IP65		
<65dB(A)@1m		
-25 °C~+55 °C		
Intelligent fan cooling		
0-95% non-condensing		
6000m (derate over 3000m)		
780/770/210 mm		
65kg		
Transformerless		
<100W		

RS485/CAN

# PCS100/250/500-US-480 PCS630/1000-US-480

Bidirectional battery inverter from 100kW to 1000kW, can be used alone or with solar charge controllers and other accessories for different application scenarios.



# **Block Diagram**



	PCS100-US-480	PCS250-US-480	PCS500-US-480	PCS630-US-480	PCS1000-US-480
AC(on-grid)					
Apparent power	100kVA	250kVA	500kVA	630kVA	1000kVA
Rated power	100kW	250kW	500kW	630kW	1000kW
Rated voltage	480V	480V	480V	480V	480V
Rated current	120A	301A	601A	758A	1203A
Voltage range	432V-528V	432V-528V	432V-528V	432V-528V	432V-528V
Rated frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Frequency range	45~55/55~65Hz	45~55/55~65Hz	45~55/55~65Hz	45~55/55~65Hz	47-51.5/57-61.5Hz
THDI	<3%	<3%	<3%	<3%	<3%
PF	0.8 lagging~0.8 leading	0.8 lagging~0.8 leading	0.8 lagging~0.8 leading	0.8 lagging~0.8 leading	0.8 lagging~0.8 leadir
AC connection	3/N/PE	3/N/PE	3/PE	3/PE	3/PE

AC(off-grid)		
Apparent power Rated power Rated voltage Rated current THDU Rated frequency Overload canability	100kVA 100kW 480V 120A ≤2% linear 50/60Hz 110%-10 mins	250kVA 250kW 480V 301A ≤2% linear 50/60Hz 110%-10 mins
,	120%-1 min	120%-1 min

DC (Battery and PV)	)	
Rated power	100kW	250kW
Current regulation	±1%	±1%
Voltage regulatoin	±1%	±1%
Voltage ripple	<3%	<3%
Current ripple	<2%	<2%
Voltage range	500V-820V	500V-820V
Max. charge/	220A	550A
discharge current		

General Information					
Max. efficiency	97.10%	97.30%	98.50%	98.50%	99.0%
Protection degree	Туре 1	Туре 1	Type 1	Туре 1	Туре 1
Noise emission	<65dB(A)@1m	<65dB(A)@1m	<65dB(A)@1m	<65dB(A)@1m	<65dB(A)@Im
Operating temperature	-25°C~+55°C	-25°C~+55°C	-25°C~+55°C	-25°C~+55°C	-25°C~+55°C
Cooling method	Forced-air	Forced-air	Forced-air	Forced-air	Forced-air
Relative humidity	0-95% non-condensing				
Max. altitude	6000m	6000m	6000m	6000m	6000m
	(derate above 3000m)	(derate above 3000m)	(derate above 3000m)	(derate above 3000m)	(derate over 3000m)
Dimension(W/H/D)	1100/1890/850mm	1600/2080/850mm	1200/1900/800mm	1200/1900/800mm	1510/1900/850mm
Weight	820kg	1465kg	870kg	900kg	1500kg
Build-in transformer	Yes	Yes	No	No	No
Lightning protection	Type II	Type II	Type II	Туре II	Type II
Transfer between on/off grid	Manual(default) Automatic(optional) ≤10ms	Manual(default) Automatic(optional) ≤10ms	Manual(default) Automatic(optional) ≤10ms	Manual(default) Automatic(optional) ≤10ms	Manual(default) Automatic(optional) ≤10ms

Communication		
Display	Touch screen	Touch screen
Communication	RS485/CAN	RS485/CAN

Certificate			
UL1741, CSA-0	222.2		

500kVA	630kVA
500kW	630kW
480V	480V
601A	758A
≤2% linear	≤2% linear
50/60Hz	50/60Hz
110%-10 mins	110%-10 mins
120%-1 min	120%-1 min

1000kVA 1000kW 480V 1203A ≤2% linear 50/60Hz 110%-10 mins 120%-1 min

500kW	630
±1%	±1%
±1%	±1%
<3%	<3%
<2%	<2%
600V-900V	650
917A	1155

0kW 0V-900V 5A

1000kW ±1% ±1% <3% <2% 700V-900V 1430A

Touch screen Touch screen Touch screen RS485/CAN RS485/CAN RS485/CAN

# Bypass100/250/500-US-480 Bypass630/1000-US-480

ATESS bypass cabinet is designed to be used together with the bidirectional battery inverter to realize seamless transfer between on-grid and off-grid modes automatically.

# Features Image: construction supported Image: construction supported

# **Block Diagram**



	Bypass100-US-480	Bypass250-US-480	Bypass500-US-480	Bypass630-US-480	Bypass1000-US-480
Rated voltage	480V	480V	480V	480V	480V
Rated current	120A	301A	601A	758A	1202A
Rated frequency	50Hz	50Hz	50Hz	50Hz	50Hz
Rated power	100KVA	250KVA	500KVA	630KVA	1000KVA
Max. current	175A	435A	866A	1091A	1443A
Transfer between on/off grid	Automatic≤10ms	Automatic≤10ms	Automatic≤10ms	Automatic≤10ms	Automatic≤10ms
Zero export function	Opt	Opt	Opt	Opt	Opt
Power limit(grid)	Opt	Opt	Opt	Opt	Opt
PV inverter breaker	250A	630A	1250A	1250A	2000A/3P
PCS breaker	250A	630A	1250A	1250A	2000A/3P
Grid breaker	250A	630A	1250A	1250A	2000A/3P
Load breaker	250A	630A	1250A	1250A	2000A/3P
Bypass breaker	250A	630A	1250A	1250A	1600A/3P
DG breaker	Opt	Opt	Opt	Opt	Opt
Lightning protection	Type II	Туре II	Туре II	Type II	Туре II
Protection degree	Туре 1				
Relative humidity	0-95% non-condensing	0-95% non-condensing	0-95% non-condensing	0-95% non-condensing	0-95% non-condensing
Operating temperature	-25 °C~+55 °C				
Dimension (W/H/D)	700/1630/500mm	700/1800/500mm	1600/1900/800mm	1600/1900/800mm	2850/2100/800mm
Weight	135kg	205kg	900kg	1040kg	1500kg
Communication	RS485/CAN	RS485/CAN	RS485/CAN	RS485/CAN	RS485/CAN

# RTF300/600

Modular rectifier cabinet, 300KW and 600KW optional, can be combined with ATESS PCS to form a DC coupling solution, suitable for large industrial scenarios.

# Features



AC-DC converter only



Flexible configuration



Touchscreen LCD



Paralleling multiple units



# AC(on-grid)

Rated power	280kW
Rated voltage	400V
Rated current	404A
Voltage range	360V-440V
Rated frequency	50±10%
PF	≥0.98
THDI	≤5%
Efficiency	≥95%

RTF300

DC(output)		
Voltage range	200Vdc-950Vdc	200Vdc-950Vdc
	(full above 500V derate below 500V)	(full above 500V derate below 500V)
Max. output current	560A	1200A
Output current ripple	≤1%	≤1%
Voltage accuracy	≤0.5%	≤0.5%
Current accuracy	≤1%	≤1%

### **General Information** Nosie emission ≤68Db(A)@1m -40 °C~+45 °C, 1 45 °C~55 °C, ha Operating temperature -40 °C~85 °C Storage temperature Relative humidity 0~95% non-cor Max. altitude < 2000m Cooling method Forced-air Dimension (W/H/D) 1204/1958/853r 245kg Weight

Communication	
Display	Touch screen
Communication	RS485/CAN

### Certificate

CE

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### RTF600

600kW
400V
866A
360V-440V
50±10%
≥0.98
≤5%
≥95%

	≤68Db(A)@1m
full load; alf load	-40 °C~+45 °C, full load; 45 °C~55 °C, half load
	-40 °C~85 °C
ndensing	0~95% non-condensing
	< 2000m
	Forced-air
mm	1204/1958/853mm
	350kg

Touch screen RS485/CAN

# PCS250S/350S-US-480

Bidirectional battery inverter from 250kW to 350kW with built-in STS function, can be used alone or with solar charge controllers and other accessories for different application scenarios. No need for extra bypass cabinet for grid/off-grid switch.

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.

# Features



# **Block Diagram**



### PCS250S-US-480

AC(on-grid)

Apparent power	250KVA
Rated power	250KW
Max.AC input	375KW
Rated voltage	480Vac
Rated current	301A
Voltage range	432V-528V
Rated frequency	50/60Hz
Frequency range	45~55/55~65Hz
THDI	<3%(@Pac,r)
PF	0.8 lagging~0.8 leading
AC connection	3/N/PE
Max. rectified power	250KW

AC(off-grid)	
Apparent power	250KVA
Rated power	250KW
Rated voltage	480Vac
Rated current	301A
THDU	≤2% linear
Rated frequency	50/60Hz
Overload capability	110%-10 mins 120%-1 min
Max. rectified power	250KW

### DC (Battery and PV) 250KW Rated power ±1% Current regulation Voltage regulatoin ±1% Voltage ripple <3% <2% Current ripple Voltage range 600V-900V(Actual configur Max. charge/discharge power 275KW Max. charge/discharge current 458A

### General Information

Max. efficiency	97.30%	97.50%
Protection degree	IP20	IP20
Noise emission	<65dB(A)@1m	<65dB(A)@1m
Operating temperature	-25°C~+55°C	-25°C~+55°C
Cooling method	Forced-air	Forced-air
Standby consumption	<100W	<100W
Relative humidity	0-95% non-condensing	0-95% non-condensing
Max. altitude	6000m(derate above 3000m)	6000m(derate above 3000m)
Dimension(W/H/D)	1400/1900/850mm	1400/1900/850mm
Weight	1460kg	1524kg
Build-in transformer	Yes	Yes
Build-in STS	Yes	Yes
Lightning protection	Type II	Туре II
Transfer between on/off grid	Manual(default), Automatic(optional) ≤10ms	Manual(default), Automatic(optional) ≤10ms

Communication	
Display	Touch screen
Communication	RS485/CAN

### PCS350S-US-480

350KVA
350KW
525KW
480Vac
421A
432V-528V
50/60Hz
45~55/55~65Hz
<3%(@Pac,r)
0.8 lagging~0.8 leading
3/N/PE
350KW

350KVA
350KW
480Vac
421A
≤2% linear
50/60Hz
110%-10 mins 120%-1 min
350KW

ration from 650V)	350KW ±1% ±1% <3% <2% 600V-900V(Actual configuration from 650V) 358KW
	64IA

Touch screen RS485/CAN

# **DC Cabinet**

The DC cabinet is mainly to aggregate and share the current distribution of each battery rack to achieve the charge and discharge management function of each battery rack. The DC cabinet consists of DC circuit breakers, copper bars, MBMS and LCD.



	ATESS Batt-Master Cabinet 9R	ATESS Batt-Master Cabinet 15R	
Range of battery racks connected in parallel	9	15	
Rated battery rack current	100A	100A	
Max. battery rack current	200A(Opt)	200A(Opt)	
Rated charge and discharge current	900A	1500A	
Max. charge and discharge current	1800A	3000A	
Max. battery voltage	1000V	1000V	
MBMS	Inbuilt	Inbuilt	
Protection degree	Туре 1	Type 1	
Dimensions (W/H/D)	600/1760/600mm	800/2000/550mm	
Veight	177kg	256kg	
Display	7 inch touch screen	7 inch touch screen	

# PV-CB8M PV-CB16M-P

The PV combiner box is an accessory for multiple PV strings connections, and it is with a smart controller inbuilt for monitoring, along with comprehensive protections including the fuse and SPD.

# Features



Lightning protection



IP65 environment compatibility

- RS485 communication interface
- Aa Monitoring function



Flexible design with 8 or 16 optional inputs

Input fuse for over current protection

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PV-CB16M-P PV COMBINER BOX

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# PV-CB8M

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put DC		
ax. input voltage	1000V	1000V
ax. string lsc	20A	20A
umber of input string	8	16
put fuse	1 on negative and positive pole of each string, 25A, 10*38mm	1 on negative and positive pole of each string, 30A, 10*38mm
put cable gland	4mm-8mm cable diameter	4mm-8mm cable diameter
put cable terminal	4mm <sup>2</sup> –6mm <sup>2</sup>	4mm <sup>2</sup> –6mm <sup>2</sup>

Output DC		
Number of output	1	1
Max. output current	144A	320A
Output breaker	200A	400A
Output cable terminal	50mm <sup>2</sup>	120mm <sup>2</sup>
Output cable gland	13mm-18mm cable diameter	18mm-25mm cable diameter

General Information		
Dimension (W/H/D)	600/500/172mm	600/500/202mm
Veight	22.5kg	29kg
Enclosure material	Galvanized steel	Galvanized steel
Protection degree	IP65	IP65
Dperating temperature	-25°C~55°C	-25°C~55°C
lumidity	0~99%	0~99%
Altitude	2000m without derating	2000m without derating
ightning protection	Туре II	Туре II
Cooling method	Natural convection	Natural convection
Nounting	Wall-mount	Wall-mount
Monitoring	String current, bus voltage, breaker status, surge arrestor status, internal temperature	String current, bus voltage, breaker status, surge arrestor status, internal temperature
Power supply	DC300V~1000V	DC300V~1000V
Power consumption	14W	14W
Communication	RS485	RS485

### PV-CB16M-P

# BC55RPB

Outdoor battery cabinet with an IP54 protection level, inbuilt lithium-ion batteries, and the BMS.

# Features

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Flexible modular design

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Self-developed 3-level BMS



Remote monitoring and upgrade

Long cycle Life, 6000 cycles Note: At specific test condition.

Cell balancing method optional

Max 1C discharge

### Battery module specification

Configuration Rated capacity Rated energy Rated voltage Voltage range Rated charge/discharge Max. charge/discharge AC internal resistance Dimension (W/H/D) Weight

# Battery rack specification

Configuration	6 battery modules +1 BPU	7 battery modules +1 BPU	8 battery modules +1 BPU	9 battery modules +1 BPU	10 battery modules +1 BPU	11 battery modules +1 BPU
Rated capacity	100Ah	100Ah	100Ah	100Ah	100Ah	100Ah
Rated energy	30.72kWh	35.84kWh	40.96kWh	46.8kWh	51.2kWh	56.3kWh
Rated voltage	307.2V	358.4V	409.6V	468V	512V	563V
Voltage range	268.8V-345.6V	313.6V-403.2V	358.4V-460.8V	403.2V-518.4V	448V-576V	492.8V-642.4V
Rated charge/discharge	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C
Max. charge/discharge	1C	1C	1C	1C	1C	1C
AC internal resistance	≤80mΩ	≤56mΩ	≤64mΩ	≤72mΩ	≤80mΩ	≤88mΩ
Display	7"Touch screen	7"Touch screen				
BMS	Included	Included	Included	Included	Included	Included
Communication	CAN	CAN	CAN	CAN	CAN	CAN
Monitoring	RS485	RS485	RS485	RS485	RS485	RS485
Max. altitude	3000m	3000m	3000m	3000m	3000m	3000m
Dimension (W/H/D) mm	1052/1627/850mm	1052/1627/850mm	1052/1627/850mm	1052/1627/850mm	1052/1627/850mm	1052/1627/850mm
Weight	474kg	518kg	562kg	606kg	650kg	694kg
Protection degree	IP54	IP54	IP54	IP54	IP54	IP54

### **Balancing methods**

Passive cell balancing Active cell balancing

### BMS parameters on LCD

Cell voltag Cell high voltage Battery SOC Cell temperature Charge and discharge current Cell low voltage Total battery voltage Fault warning

### Protection

Short circuit protection Over current protection Over charge protection Over temperature protection Cell over voltage protection Cell under voltage protection Over discharge protection

# Certificate

CE, UL, UN38.3, IEC62619, MSDS, ROHS, CB

\*Note: Acticve balancing is under development.

### BC55RPB

16S1P 100Ah 5.12kWh 51.2V 44.8-58.4V 0.5C 1C ≤8mΩ 446.5/165/655mm 44kg

Yes

Opt

Yes			
Yes			

Vee			
res			
Yes			

# BC45T/50T/60T BR45T/50T/60T

Outdoor battery cabinet with an IP54 protection level, and indoor battery rack with an IP20 protection level, inbuilt lithium-ion batteries, and the BMS.

# Features



# Flexible modular design

Self-developed 3-level BMS



Remote monitoring and upgrade

ATESS



Cell balancing method optional

0.5C&1C discharge optional Note: At specific test condition.

### BC45T BR45T

# Battery module specification Configuration

Configuration	24S1P
Rated capacity	100Ah
Rated energy	7.68kWh
Rated voltage	76.8V
Voltage range	67.2-87.6V
Rated charge/discharge	0.5C
Rated charge/discharge	1C(Opt)
AC internal resistance	≤15mΩ
Dimension (W/H/D)	360/285/692mm
Weight	≤74kg

# Battery rack specification

Configuration	6 battery modules +1 BPU
Rated capacity	100Ah
Rated energy	46.08kWh
Rated voltage	460.8V
Voltage range	403.2V-525.6V
Rated charge/discharge	0.5C
Rated charge/discharge	1C(Opt)
AC internal resistance	≤90mΩ
Display	7″Touch screen
BMS	Included
Communication	CAN
Monitoring	RS485
Max. altitude	3000m
Dimension (W/H/D) mm	950/2150/1025 752/1760/660
Weight	≤716kg ≤539kg
Protection degree	IP54 IP20

# **Balancing methods**

Passive cell balancingYesActive cell balancingOpt

### BMS parameters on LCD

Cell voltag	Yes	
Cell high voltage	Yes	
Battery SOC	Yes	
Cell temperature	Yes	
Charge and discharge current	Yes	
Cell low voltage	Yes	
Total battery voltage	Yes	
Fault warning	Yes	

### Protection

Short circuit protection	Yes
Over current protection	Yes
Over charge protection	Yes
Over temperature protection	Yes
Cell over voltage protection	Yes
Cell under voltage protection	Yes
Over discharge protection	Yes

### Certificate

CE, UL, UN38.3, IEC62619, MSDS, ROHS, CB

BC50T BR50T	BC60T BR60T
24S1P 100Ah 7.68kWh 76.8V 67.2-87.6V 0.5C 1C(Opt) ≤15mΩ 360/285/692mm ≤74kg	24S1P 100Ah 7.68kWh 76.8V 67.2-87.6V 0.5C 1C(Opt) ≤15mΩ 360/285/692mm ≤74kg
7  battery modules +1 BPU 100Ah 53.76kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤105mΩ 7"Touch screen Included CAN RS485 3000m 950/2150/1025 752/1760/660 ≤792kg ≤615kg IP54 IP20	8 battery modules +1 BPU 100Ah 61.44kWh 614.4V 537.6V-700.8V 0.5C 1C(Opt) ≤120mΩ 7"Touch screen Included CAN RS485 3000m 950/2150/1025 752/1760/660 ≤868kg IP54 IP20
Yes Opt	Yes Opt

Yes	Yes	
Yes	Yes	

Yes	Yes	
Yes	Yes	

# BC75T/100T BR75T/100T/138T/145T

Outdoor battery cabinet with an IP54 protection level, and indoor battery rack with an IP20 protection level, inbuilt lithium-ion batteries, and the BMS.

# Features



Flexible modular design



Self-developed 3-level BMS



Remote monitoring and upgrade



Long cycle Life, 6000 cycles

Cell balancing method optional

0.5C&1C discharge optional

Note: At specific test condition.



## BC75T BR75T

Configuration	12S2P
Rated capacity	200Ah
Rated energy	7.68kWh
Rated voltage	38.4V
Voltage range	33.6~43.8V
Rated charge/discharge	0.5C
Rated charge/discharge	1C(Opt)
AC internal resistance	≤5mΩ
Dimension (W/H/D)	360/285/692mm
Weight	≤74.5kg

Battery module specification

### Battery rack specification

Configuration	10 battery modules +1 BPU
Rated capacity	200Ah
Rated energy	76.8kWh
Rated voltage	384V
Voltage range	336V-438V
Rated charge/discharge	0.5C
Rated charge/discharge	1C(Opt)
AC internal resistance	≤50mΩ
Display	7"Touch screen
BMS	Included
Communication	CAN
Monitoring	RS485
Max. altitude	3000m
Dimension (W/H/D) mm	1310/2150/1025 1119/2150/660
Weight	<mark>≤1130kg</mark> ≤877kg
Protection degree	IP54 IP20

# **Balancing methods**

Passive cell balancing Yes Active cell balancing Opt

# BMS parameters on LCD

Cell voltag	Yes
Cell high voltage	Yes
Battery SOC	Yes
Cell temperature	Yes
Charge and discharge current	Yes
Cell low voltage	Yes
Total battery voltage	Yes
Fault warning	Yes

# Protection

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S
S
S
S
S
S

### Certificate

CE, UL, UN38.3, IEC62619, MSDS, ROHS, CB

BC100T BR1	100T	BR138T	BR145T
12S2P		12S2P	12S2P
200Ah		200Ah	200Ah
7.68kWh		7.68kWh	7.68kWh
38.4V		38.4V	38.4V
33.6~43.8V		33.6~43.8V	33.6~43.8V
0.5C		0.5C	0.5C
1C(Opt)		1C(Opt)	1C(Opt)
≤5mΩ		≤5mΩ	≤5mΩ
360/285/692mr	n	360/285/692mm	360/285/692mm
≤74.5kg		≤74.5kg	≤74.5kg
14 battery modu	iles +1 BPU	18 battery modules +1 BPU	19 battery modules +1 BPU
14 battery modu 200Ah	ules +1 BPU	18 battery modules +1 BPU 200Ah	19 battery modules +1 BPU 200Ah
14 battery modu 200Ah 107.52kWh	ules +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh	19 battery modules +1 BPU 200Ah 145.92kWh
14 battery modu 200Ah 107.52kWh 537.6V	ules +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V	ules +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C	ules +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt)	ules +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt)	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt)
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ	ules +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ 7″Touch screen	ules +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ 7″Touch screen	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ 7″Touch screen
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ 7″Touch screen Included	Jles +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ 7″Touch screen Included	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ 7″Touch screen Included
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ 7"Touch screen Included CAN	Jles +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ 7″Touch screen Included CAN	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ 7″Touch screen Included CAN
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ 7"Touch screen Included CAN RS485	Jles +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ 7″Touch screen Included CAN RS485	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ 7″Touch screen Included CAN RS485
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ 7″Touch screen Included CAN RS485 3000m	Jles +1 BPU	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ 7"Touch screen Included CAN RS485 3000m	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ 7″Touch screen Included CAN RS485 3000m
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ 7″Touch screen Included CAN RS485 3000m 1310/2150/1025	ules +1 BPU 1119/2150/660	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ 7"Touch screen Included CAN RS485 3000m 1504/1760/660	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ 7″Touch screen Included CAN RS485 3000m 1504/1760/660
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ 7"Touch screen Included CAN RS485 3000m 1310/2150/1025 ≤1436kg	ules +1 BPU 1119/2150/660 ≤1183kg	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ 7"Touch screen Included CAN RS485 3000m 1504/1760/660 ≤1547kg	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ 7″Touch screen Included CAN RS485 3000m 1504/1760/660 ≤1624kg
14 battery mode 200Ah 107.52kWh 537.6V 470.4V-613.2V 0.5C 1C(Opt) ≤70mΩ 7"Touch screen Included CAN RS485 3000m 1310/2150/1025 ≤1436kg IP54	1119/2150/660 ≤1183kg IP20	18 battery modules +1 BPU 200Ah 138.24kWh 691.2V 604.8V~766.8V 0.5C 1C(Opt) ≤90mΩ 7"Touch screen Included CAN RS485 3000m 1504/1760/660 ≤1547kg IP20	19 battery modules +1 BPU 200Ah 145.92kWh 729.6V 638.4V~832.2V 0.5C 1C(Opt) ≤95mΩ 7"Touch screen Included CAN RS485 3000m 1504/1760/660 ≤1624kg IP20

Yes	Yes	Yes
Opt	Opt	Opt

Voc	Vec	Voc	
Voc	Voc	Voc	
Vec	Vec	Vec	
Yee	Yee	Yes	
Yee	Tes	Tes	
res	Yes	Yes	
Yes	Yes	Yes	
Yes	Yes	Yes	
Yes	Yes	Yes	

		N.	
Yes	Yes	Yes	

# BR114R/129R/143R/157R

Indoor battery rack with IP20 protection level, inbuilt lithium-ion battery and BMS.

# Features



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# Flexible modular design

Self-developed 3-level BMS



Easy connection method for A&B Module



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Remote monitoring and upgrade

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Long cycle Life, 6000 cycles

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Note: At specific test condition.

High density, 166wh/kg

	BR114R	BR129R	BR143R	BR157R	BR114R for conta
Battery module specificat	ion				
Configuration	16S1P	16S1P	16S1P	16S1P	16S1P
Rated capacity	280Ah	280Ah	280Ah	280Ah	280Ah
Rated energy	14.336kWh	14.336kWh	14.336kWh	14.336kWh	14.336kWh
Rated voltage	51.2V	51.2V	51.2V	51.2V	51.2V
/oltage range	44.8~57.6V	44.8~57.6V	44.8~57.6V	44.8~57.6V	44.8~57.6V
Rated charge/discharge	0.5C	0.5C	0.5C	0.5C	0.5C
Rated charge/discharge	1C(Opt)	1C(Opt)	1C(Opt)	1C(Opt)	1C(Opt)
AC internal resistance	≤8mΩ	≤8mΩ	≤8mΩ	≤8mΩ	≤8mΩ
Dimension(W/H/D)	523/231/805mm	523/231/805mm	523/231/805mm	523/231/805mm	523/231/805mm
Veight	113kg	113kg	113kg	113kg	113kg
attery rack specification					
Configuration	8 modules + 1 BPU	9 modules + 1 BPU	10 modules + 1 BPU	11 modules + 1 BPU	8 modules + 1 BPU
Rated capacity	280Ah	280Ah	280Ah	280Ah	280Ah
Rated energy	114.688kWh	129.024kWh	143.36kWh	157.696kWh	114.688kWh
Rated voltage	409.6V	460.8V	512V	563.2V	409.6V
/oltage range	358.4~460.8V	403.2~518.4V	448~576V	492.8~633.6V	358.4~460.8V
Rated charge/discharge	0.5C	0.5C	0.5C	0.5C	0.5C
Rated charge/discharge	1C(Opt)	1C(Opt)	1C(Opt)	1C(Opt)	1C(Opt)
C internal resistance	≤64mΩ	≤72mΩ	≤80mΩ	≤88mΩ	≤64mΩ
Display	7" Touch screen	7" Touch screen	7" Touch screen	7" Touch screen	7" Touch screen
BMS	Included	Included	Included	Included	Included
Communication	CAN	CAN	CAN	CAN	CAN
Ionitoring	RS485	RS485	RS485	RS485	RS485
/lax. altitude	3000m	3000m	3000m	3000m	3000m
Dimension(W/H/D)mm	1055/1615/755(0.5C)	1055/1615/755(0.5C)	1055/1615/755(0.5C)	1055/1615/755(0.5C)	528/2380/755(0.50
	1090/1615/755(1C)	1090/1615/755(1C)	1090/1615/755(1C)	1090/1615/755(1C)	528/2380/755(1C)
Veight	1064kg	1157kg	1270kg	1383kg	999kg
	-	-	-	-	-

	BR114R	BR129R	BR143R	BR157R	BR114R for containe
Battery module specificat	ion				
Configuration	16S1P	16S1P	16S1P	16S1P	16S1P
Rated capacity	280Ah	280Ah	280Ah	280Ah	280Ah
Rated energy	14.336kWh	14.336kWh	14.336kWh	14.336kWh	14.336kWh
Rated voltage	51.2V	51.2V	51.2V	51.2V	51.2V
/oltage range	44.8~57.6V	44.8~57.6V	44.8~57.6V	44.8~57.6V	44.8~57.6V
Rated charge/discharge	0.5C	0.5C	0.5C	0.5C	0.5C
Rated charge/discharge	1C(Opt)	1C(Opt)	1C(Opt)	1C(Opt)	1C(Opt)
AC internal resistance	≤8mΩ	≤8mΩ	≤8mΩ	≤8mΩ	≤8mΩ
Dimension(W/H/D)	523/231/805mm	523/231/805mm	523/231/805mm	523/231/805mm	523/231/805mm
Veight	113kg	113kg	113kg	113kg	113kg
attery rack specification					
Configuration	8 modules + 1 BPU	9 modules + 1 BPU	10 modules + 1 BPU	11 modules + 1 BPU	8 modules + 1 BPU
Rated capacity	280Ah	280Ah	280Ah	280Ah	280Ah
Rated energy	114.688kWh	129.024kWh	143.36kWh	157.696kWh	114.688kWh
Rated voltage	409.6V	460.8V	512V	563.2V	409.6V
/oltage range	358.4~460.8V	403.2~518.4V	448~576V	492.8~633.6V	358.4~460.8V
Rated charge/discharge	0.5C	0.5C	0.5C	0.5C	0.5C
Rated charge/discharge	1C(Opt)	1C(Opt)	1C(Opt)	1C(Opt)	1C(Opt)
C internal resistance	≤64mΩ	≤72mΩ	≤80mΩ	≤88mΩ	≤64mΩ
Display	7" Touch screen				
BMS	Included	Included	Included	Included	Included
Communication	CAN	CAN	CAN	CAN	CAN
Nonitoring	RS485	RS485	RS485	RS485	RS485
/lax. altitude	3000m	3000m	3000m	3000m	3000m
Dimension(W/H/D)mm	1055/1615/755(0.5C)	1055/1615/755(0.5C)	1055/1615/755(0.5C)	1055/1615/755(0.5C)	528/2380/755(0.5C)
	1090/1615/755(1C)	1090/1615/755(1C)	1090/1615/755(1C)	1090/1615/755(1C)	528/2380/755(1C)
Veight	1064kg	1157kg	1270kg	1383kg	999kg
Protection degree	IP20	IP20	IP20	IP20	IP20

### BMS parameters on LCI

Cell voltage	Yes	Yes	Yes	Yes	Yes	
Cell hight voltage	Yes	Yes	Yes	Yes	Yes	
Cell low voltage	Yes	Yes	Yes	Yes	Yes	
Cell temperature	Yes	Yes	Yes	Yes	Yes	
Charge and dicharge current	Yes	Yes	Yes	Yes	Yes	
Total battery voltage	Yes	Yes	Yes	Yes	Yes	
Battery SOC	Yes	Yes	Yes	Yes	Yes	
Fault warning	Yes	Yes	Yes	Yes	Yes	

Protection						
Short circuit protection	Yes	Yes	Yes	Yes	Yes	
Over current protection	Yes	Yes	Yes	Yes	Yes	
Over charge protection	Yes	Yes	Yes	Yes	Yes	
Over discharge protection	Yes	Yes	Yes	Yes	Yes	
Cell over voltage protection	Yes	Yes	Yes	Yes	Yes	
Cell under voltage protection	Yes	Yes	Yes	Yes	Yes	
Over temperature protection	Yes	Yes	Yes	Yes	Yes	

### Certificate

CE, CB, UL, UN38.3, IEC62619, MSDS, ROHS

# BR172R/186R/200R/215R

Indoor battery rack with IP20 protection level, inbuilt lithium-ion battery and BMS.



# Features



Flexible modular design



Self-developed 3-level BMS



Easy connection method for A&B Module

Remote monitoring and upgrade

Long cycle Life, 6000 cycles



High density, 166wh/kg

Note: At specific test condition.



	BR172R
Battery module specification	
Configuration	16S1P
Rated capacity	280Ah
Rated energy	14.336kWh
Rated voltage	51.2V
Voltage range	44.8~57.6V
Rated charge/discharge	0.5C
Rated charge/discharge	1C(Opt)
AC internal resistance	≤8mΩ
Dimension(W/H/D)	523/231/805mm

113kg

# Battery rack specification

-

Weight

Configuration	12 modules + 1 BPU
Rated capacity	280Ah
Rated energy	172.032kWh
Rated voltage	614.4V
Voltage range	537.6~691.2V
Rated charge/discharge	0.5C
Rated charge/discharge	1C(Opt)
AC internal resistance	≤96mΩ
Display	7" Touch screen
BMS	Included
Communication	CAN
Monitoring	RS485
Max. altitude	3000m
Dimension(W/H/D)mm	1055/2125/755(0.5C)
	1090/2125/755(1C)
Weight	1511kg
Protection degree	IP20

### BMS parameters on LCD

Cell voltage	Yes
Cell hight voltage	Yes
Cell low voltage	Yes
Cell temperature	Yes
Charge and dicharge current	Yes
Total battery voltage	Yes
Battery SOC	Yes
Fault warning	Yes

### Protection Short circuit protection Yes Yes Over current protection Over charge protection Yes Over discharge protection Yes Cell over voltage protection Yes Cell under voltage protection Yes Over temperature protection Yes

# Certificate

CE, CB, UL, UN38.3, IEC62619, MSDS, ROHS

16S1P	16S1P	16S1P
280Ah	280Ah	280Ah
14.336kWh	14.336kWh	14.336kWh
51.2V	51.2V	51.2V
44.8~57.6V	44.8~57.6V	44.8~57.6V
0.5C	0.5C	0.5C
1C(Opt)	1C(Opt)	1C(Opt)
≤8mΩ	≤8mΩ	≤8mΩ
523/231/805mm	523/231/805mm	523/231/805mm
113kg	113kg	113kg
13 modules + 1 BPU	14 modules + 1 BPU	15 modules + 1 BPU
280Ah	280Ah	280Ah
186.386kWh	200.704kWh	215.04kWh
665.6V	716.8V	768V
582.4~748.8V	627.2~806.4V	672~864V
0.5C	0.5C	0.5C
1C(Opt)	1C(Opt)	1C(Opt)
≤104mΩ	≤112mΩ	≤120mΩ
7" Touch screen	7" Touch screen	7" Touch screen
Included	Included	Included
CAN	CAN	CAN
RS485	RS485	RS485
3000m	3000m	3000m
1055/2125/755(0.5C)	1055/2125/755(0.5C)	1055/2125/755(0.5C)
1090/2125/755(1C)	1090/2125/755(1C)	1090/2125/755(1C)
1624kg	1737kg	1850kg
IP20	IP20	IP20

Yes	Yes	Yes	
Yes	Yes	Yes	

1			
Yes	Yes	Yes	

# EnerLog

Data logger for overall system monitoring collects operation data from different units via Modbus RS485 and communicates with the ATESS server via Ethernet.

### Hardware Parameters

Power consumption

Power adapter

### **Application Parameters**

Max. communication range Communication with inverters Communication with server Support network Data transfer interval

### **General Information**

Default server URL

Dimension(W/H/D) Weight Language Mounting Operating temperature Degree of protection Warranty Certificate

# Features



Up to 32 devices connection



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品

Support external sensors to realize the zero-export function



Local web server for easy configuration



### EnerLog

Input: 100-240V, 50/60Hz AC Output 12V(+/-15%), 1A DC

2.5W

500m

RS485

TCP(Modbus TCP protocol)

Ethernet

5 Minutes

ess-server.atesspower.com

175/105/31mm 320g Chinese, English Wall-mounted -30°C~+60°C IP30 1 year CE

# **EnerClo**

ATESS monitoring cloud platform for different applications including residential, commercial, and utility grade on/off grid solar storage systems.

# Features



Quick and easy overview

- Professional analysis
- PC and mobile phone accessible 50
- $\odot$ Real-time monitoring
- Detail report downloadable

Online control and maintenance



# Languages

Available languages

### System Requirments

Supported operating systems	
Recommended browsers	Interi
Supported data logger	

### Access

Website

### **Plant Information**

Plant overview	
Specified plant	All important data a
Plant installation data	Summary of all plant inform
Device overview	Display of all important
Time period	

Plant Management	
Account	User cou
Monitoring	
Inverter status	All inverter running status are r

Status Reporting	
Event reports	Timel

Background Operating	
Plant management	Ac
Device management	
Inverter setting	Simple parame

### EnerClo

Chinese, English, French, Greek, German, Nederlands, Italian, Japanese, Polish, Portuguese, Spanish, Turkish, Vietnamese, Korean

> All net explore 8, Firefox 5, Google chrome 14, Safari 5, Opera 11 EnerLog

> > www.enerclo-atesspower.com

Quick yield overview of all your PV plants

at a glance including energy output, yield gains, environment status

nation which contains installation data, location data and other key devices

nt data about data logger, environment monitor and other key devices

5 mins

uld manage all PV plants with one same account

recorded automatically, the warning of fault is highlighted immediately

ely e-mail reports on system fault and plant error

dd new plant, edit and delete existing plant Intuitive operation to manage all devices

eters setting for inverters including power management

# **EnerView**

Mobile phone app available on both IOS and Android to access EnerClo for online monitoring and maintenance

# Features



Quick and easy overview



Professional analysis

56

PC and mobile phone accessible





Online control and maintenance

-			
9:41	PCS Plant ~		
	SN: PC\$000001 P	ratel Setch to	
2 F	E	96°C Load priority	
1110	25.5kw Solar	₹1	
in i al	Bew Lost 2 - 2	20.6kw Ont	
Charging Soc 26.5%		20.6kw Ord Sker	
Charging Soc 26.5% Energy	Exer Constant	20 Give Onit Show Shart >	

# General Data

- Available languages
- Supported operating systems
- Recommended browsers
- Source of data
- Supported data logger

Plant Information	
Plant overview	
Specified plant	All important data at a
Device overview	Display of all important dat
Plant event log	D

Device Information	
Inverter status	All inverters' running status is re
Event reports	Timel
Plant management	Add
Device management	
Inverter setting	Simple param

### EnerView

English, Chinese

Android/iOS

All

ess-server.atesspower.com

EnerLog

Quick yield overview of all your PV plants

a glance including energy output, yield gains, environment status

ta about the data logger, environment monitor, and other key devices

Display of all the warning events of the plant

ecorded automatically, and the warning of fault is highlighted immediately

ely e-mail reports on system fault and plant error

a new plant, edit and delete the existing plant

intuitive operation to manage all devices

neters setting for inverters including power management

# **NOVO EVA-07/09/12S-PU**

Single-phase AC home electric vehicle charging station, Type 1 plug, single output, US standard.

# ATESS Features Compact and exquisite Programmable charging mode ((•)) Ě Comprehensive protection US standard 4 Multiple communication modes Flexible installation **(**∏)

Model	NOVO EVA-07S-PU	NOVO EVA-09S-PU	NOVO EVA-12S-PU
Input & Output			
Input voltage	240V AC	240V AC	240V AC
Input frequency		60Hz	
Output voltage	240V AC	240V AC	240V AC
Max.output power	7.6kW	9.6kW	12kW
Max.output current	32A	40A	50A
Charging interface type		Туре1	
Connection		Plug	
Cable Length	25ft(7.6m)		
Number of connection	1		
Protection			
Over voltage protection		Yes	
Under voltage protection		Yes	
Over load protection		Yes	
Earth leakage protection		20mA CCID	
Over-temp protection		Yes	
Lightning protection		Yes	
Function & Accessory			
Ethernet/WIFI/4G		Yes/Yes/Opt	
LCD		Opt	
Charging Mode		APP / RFID(Opt) / Plug and charge	
LED Indicator Light		Yes	
Intelligent power adjustment		Yes	
PV linkage		Yes	
Installation		Floor/wall-mounting	
Appearance colour	Black/Silver		
OCPP		1.6JSON	
Working Environment			
Ingress Protection		NEMA 3R	
Operating temperature		-22°F ~+122°F	
Relative humidity		5-95% non-condensing	
Maximum altitude		6500ft(2000m)	
Cooling		Natural cooling	
Standby power consumption		<8W	
Mechanical			
Dimension (W/H/D)		246/382/162mm	
Weight	<5kg	<6kg	<7kg
Certificate & Standard			
Certificate		UL, CSA	
Standard	UL2594, CSA-C22.2, UL2231-1, UL2231-2, UL1998, FCC part15		

# EVD-40SU EVD-40DU

Large capacity fast DC EV charging stationfor public use, CCS Type 1 plug, US standard.

# Features



Programmable charging mode



Comprehensive protection



Multiple communication modes



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Flexible installation

7 inch touch screen

US standard

ATESS

Model	EVD-40SU
Input & Output	
Rated input voltage	
Rated input current	
AC input connection	
Rated frequency	
DC connector type	
Output voltage Range	
Max.output power	
Max.output current	100A
Voltage accuracy	
Current accuracy	
Voltage-regulating accuracy	
Current-regulating accuracy	
Ripple coefficient	
Metering accuracy	
Efficiency	
Power factor	
Cable length	
Protection	
Over voltage protection	
Under voltage protection	
Over load protection	
Over-temp protection	
Lightning protection	
Emergency Protection	
Function & Accessory	
Display	
Ethernet/WIFI/4G	
Charging mode	
Indicator	
OCPP	
Working Environment	
Ingress Protection	
Operating temperature	
Relative humidity	
Maximum altitude	
Cooling	
Standby power consumption	
Noise emission	
Mechanical	
Dimension (W/H/D)	
Weight	80ka
Certificate	ooky
00.000	

# EVD-40DU

208/240/480 VAC		
110/102/51A		
L1/L2/L3/PE(Three phase, No Neu	itral)	
60Hz		
SAE J1772 CCS1		
150-1000V		
37.6-40KW		
	Single output: 100A	Double output: 100A
≤±0.5%		
≤±1% (at 20%-100% of rated pow	ver)	
≤±0.5%		
≤±1%		
Peak≤±1%		
0.50%		
>95%		
98%		
16ft(5m)		
Yes		
7 inch touch screen		
Yes/Yes/Opt		
APP/ RFID(Opt) /plug and charg	ge	
Yes		
1.6JSON		
NEMA 3R		
-22°F ~+122°F		
5-95% non-condensing		
6500ft(2000m)		
Forced air		
<40W		
≤65db		
632/858/300mm		
	92	kg
UL CSA		

# EneRace

ATESS charging system includes operational platform and App. Through App, operational platform and charging equipment connection, it provides the best use experience for users with different roles.

Charging system	The char Through App, it provides
Operational platform	Operational pl RFID cc
Mobile APP	Mobile A charging in ac

# Features



















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Online control and maintenance

Detail report downloadable

Real-time monitoring

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### EneRace

rging system includes operational platform and App. operational platform and charging equipment connection, s the best use experience for users with different roles.

latform mainly for operators to provide user management, monitoring and fault early warning, ard charger management functions such as service.

App for end users to provide remote monitoring, idvance, peak valley charging function such as service.











Model	NOVO EVA-07/09/12S-PU	
Mounting pole		
Dimension (W/H/D)	255/1500/154mm	
Weight	11kg	



Model       Contactless IC card     Sup that card       Standard     RF inter       Working frequency     Image: Card supplementation of the second supplementation of
Contactless IC card     Sup that card       Standard     RF inter       Working frequency     Image: Contact in the second s
Standard RF inter Working frequency
Working frequency
Perating temperature
Storage temperature
Relative humidity
Protection Type/



Model	EVD-40SU	EVD-40DU
Mounting pole		
Dimension (W/H/D)	500/1652/300mm	
Weight	31kg	



### CARD WRITER

ports Mifare 1 cards, TypeA CPU cards, and TypeB CPU cards omply with the ISO14443 standard widely applied in the market.

face that complies with ISO/IEC14443 TypeA and TypeB standard

13.56 MHz

-20°C ~ 65°C;

-20°C ~ 70°C;

20-90%

A CPU cards and TypeB CPU cards (embedded with CPU chips) for better encryption and security

# Racecourse storage power station

Location: Jamaica Capacity: 1.7MW / 5MWh Product: HPS100/PCS500, BR100/145





# Peruvian Amazon Basin

Location: Perú Capacity: ESS 540kW/ 1666.56kWh Product: HPS150\*2, HPS120\*2, BR217



# 3 off-grid power plants in Jujuy

Location: Argentina Capacity: ESS 540kW/ 1945.2kWh Product: HPS120\*2, HPS100\*2, HPS50\*2





# Auaris

Location: Brazil Capacity: ESS100kW/ 248.4kWh Product: HPS50\*2





# Brazilian military hybrid Project

Location: Jamaica Capacity: 100kW/200kWh Product: HPS100

# Asparagus processing factory

Location: Germany Capacity: 450kW / 464kWh Product: HPS150



RECENTION SE ALCOLOGICA











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# Micro grid system for remote village

Location: Suriname Capacity: 250kW / 1MWh Product: PCS250

# Hybrid power plant

Location: Poland Capacity: 250kW / 500kWh Product: HPS50, BR100T

# Load-shedding application

Location: South Africa Capacity: 750kW / 1.5MWh Product: PCS250

# Hybrid power station for factory

Location: South Africa Capacity: 1MW / 1.3MWh Product: PCS500





# Charging station for business district

Location: UK Product: EVA-22D-SE



# Public charging station

Location: France Product: REVO EVD-180D



# Sideway charging station

Location: Italy Product: EVD-40S



# Fast charging station for 4S store

Location: Hungary Product: EVC-AC22D/DC150D