

Indoor C&I ESS Solutions

GB-W

SUN-30~125K Series Hybrid Inverter

SUN-125K PCS+MPPT+STS Series Module



User-friendly Structural Design

- Cable-free stackable design enables fast, tool-free installation.
- Millimeter-grade filtered airflow ensures efficient dust removal.
- Detachable maintenance cover allows direct on-cluster service.



High Power Output

- 1C continuous charge/discharge for high-load and fast-charge scenarios.



Intelligent Thermal Management

- Independent fan control at pack level.
- Optimized airflow design keeps cell temperature difference within 5 °C.



Flexible Expansion

- Modular design, scalable from 5-16 packs (58-188 kWh) per cluster.
- Up to 16 clusters in parallel, reaching 3MWh.



Wide Compatibility

- Advanced cluster-level, pack-level, and cell-level balancing algorithms ensure seamless battery replacement and parallel operation.
- Compatible with 30-125 kW power units.

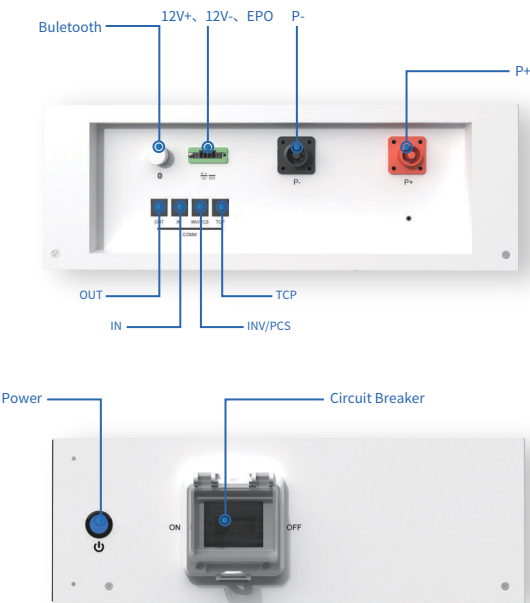
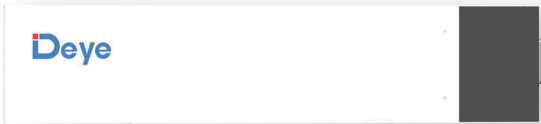


Robust Protection

- C4 anti-corrosion coating ensures superior environmental resistance.

System Accessories

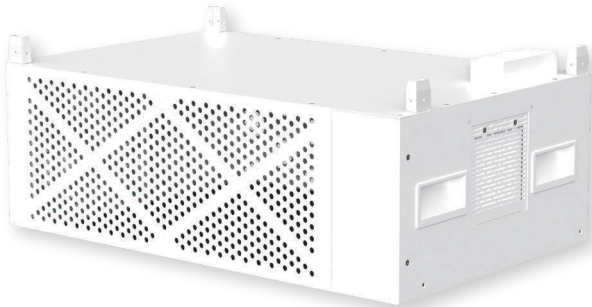
Model	GB-W-PDU-2
Operating Voltage	200~1000Vdc
Nominal Charge/DischargeCurrent	230A
Operating Temperature	-20~55°C
Ingress Protection	IP20
Details	690 x 436 x 151.2(W x D x H)， 20.8kg



- ◎ Buletooth: Quickly complete equipment commissioning, parameter configuration, real-time monitoring, fault diagnosis and local security control via mobile APP
- ◎ 12V+、 12V- : External 12V power supply ensures power supply to the mainboard when the system is powered off or under-voltage, maintaining the normal operation of control, protection and communication functions
- ◎ EPO: Emergency cut-off of the high-voltage and power circuits of the energy storage system to ensure system safety
- ◎ P- : PCS negative connection position (black)
- ◎ P+ : PCS positive connection position (orange)
- ◎ OUT: Connection position with next GB-W-PDU-2 communication IN
- ◎ IN: Connection position with previous GB-W-PDU-2 communication OUT
- ◎ INV/PCS: Real-time data exchange between the energy storage converter/inverter and the BMS
- ◎ TCP: Realize remote networking of the system, allowing real-time remote viewing of system status on the Web.

- ◎ Power: Control system startup and shutdown
- ◎ Circuit Breaker: Provides circuit overload and short-circuit protection, supports manual switching on and off, quickly cuts off fault current, and safeguards the safety of energy storage system equipment and lines.

Model	GB-W-Pack11.7-2-A3
Nominal Capacity	230Ah
Nominal Energy	11.7kWh
Nominal Voltage	51.2Vdc
Max Charge/Discharge Current	230A
Ingress Protection	IP20
Operating Temperature (Charge)	0~55°C
Operating Temperature (Discharge)	-20~55°C
StorageTemperature	-30~60°C
Details	690 x 436 x 270.5(W x D x H)， 92.2kg



Model		GB-W											
Battery System Data													
Cell Chemistry		LiFePO ₄											
Module Energy (kWh)		11.7											
Module Capacity (Ah)		230											
Nominal Voltage (V)		51.2											
Battery Module Qty in series (Optional)		5	6	7	8	9	10	11	12	13	14	15	16
System Nominal Voltage (Vdc)		256	307.2	358.4	409.6	460.8	512	563.2	614.4	665.6	716.8	768	819.2
System Operating Voltage (Vdc)		208-292	249.6-350.4	291.2-408.8	332.8-467.2	374.4-525.6	416-584	457.6-642.4	499.2-700.8	540.8-759.2	582.4-817.6	624-876	665.6-934.4
System Energy (kWh)		58.8	70.6	82.4	94	105.9	117.7	129.5	141.3	153	164.8	176.6	188.4
System Usable Energy (kWh)		53	63.5	74.1	84.6	95.3	105.9	116.5	127.1	137.7	148.3	158.9	169.5
System Nomianal Charge/Discharge Power (kW)		58.8	70.6	82.4	94.2	105.9	117.7	129.5	141.3	153	164.8	176.6	188.4
Charge / Discharge	Max.Continuous	230											
Current	Peak	322 (1s)											
Working Temperature (°C)		Charge:0~55 / Discharge:-20~55											
Communication Port		CAN / RS485											
Thermal Management		Natural air cooling											
Recommend Depth of Discharge		90%											
Cycle Life		25±2°C,0.5C/0.5C,70%EOL≥6000											
Warranty		10 years											
Other Data													
Humidity		0~85%											
Altitude (m)		≤3000											
IP Rating of Enclosure		IP20											
Noise (dB)		≤50											
Storage Temperature (°C)		-30~60											
Dimension (W × D × H, mm)		690 x 436 x 1610.7	690 x 436 x 1881.2	690 x 436 x 1340.2 +690 x 436 x 1008.5	690 x 436 x 1340.2 +690 x 436 x 1279	690 x 436 x 1610.7 +690 x 436 x 1279	690 x 436 x 1610.7 +690 x 436 x 1549.5	690 x 436 x 1881.2 +690 x 436 x 1549.5	690 x 436 x 1881.2 +690 x 436 x 1820	690 x 436 x 1610.7 +690 x 436 x 1279*2	690 x 436 x 1881.2 +690 x 436 x 1279*2	690 x 436 x 1610.7 +690 x 436 x 1549.5*2	690 x 436 x 1881.2 +690 x 436 x 1549.5*2
Weight Approximate (kg)		500	593	706	799	892	985	1078	1171	1284	1377	1470	1563
Installation Location		Floor Mount											



Hybrid Inverter

Model

SUN-60K-
SG02HP3-EU-EM6

SUN-70K-
SG02HP3-EU-EM6

SUN-80K-
SG02HP3-EU-EM6

SUN-100K-
SG02HP3-EU-GM10

SUN-125K-
SG02HP3-EU-GM10

Battery Input Data

Battery Type

Lithium-ion

Battery Voltage Range (V)

160~1000

Max. Charging Current (A)

80+80

100+100

Max. Discharging Current (A)

80+80

100+100

Charging Strategy for Li-ion Battery

Self-adaption to BMS

Number of Battery Input

2

PV String Input Data

Max. PV Access Power (W)

120000

140000

160000

200000

250000

Max. PV Input Power (W)

96000

112000

128000

160000

200000

Max. PV Input Voltage (V)

1000

Start-up Voltage (V)

180

MPPT Voltage Range (V)

150~850

Rated PV Input Voltage (V)

650

Max. Operating PV Input Current (A)

36+36+36+36+36+36

42+42+42+42+42+42+42+42+42+42

Max. Input Short-Circuit Current (A)

54+54+54+54+54+54

63+63+63+63+63+63+63+63+63+63

No. of MPP Trackers/

No. of Strings MPP Tracker

6/2+2+2+2+2+2

10/2+2+2+2+2+2+2+2+2+2

AC Input/Output Data

Rated AC Input/Output Active Power (W)

60000

70000

80000

100000

125000

Max. AC Input/Output Apparent Power (VA)

66000

77000

88000

110000

135000

Rated AC Input/Output Current (A)

91/87

106.1/101.5

121.3/116

151.6/145.0

189.4/181.2

Max. AC Input/Output Current (A)

100/95.7

116.7/111.6

133.4/127.6

166.7/159.5

204.6/195.7

Max. Continuous AC Passthrough (grid to load)(A)

200

250

Peak Power (off-grid) (W)

1.5 Times Of Rated Power,10s

Power Factor Adjustment Range

0.8 Leading to 0.8 Lagging

Rated Input/Output Voltage/Range (V)

220/380V, 230/400V 0.85Un~1.1Un

Rated Input/Output Grid Frequency/Range(Hz)

50/45~55, 60/55~65

Grid Connection Form

3L+N+PE

Total Current Harmonic Distortion THDi

<3% (Of Rated Power)

DC Injection Current

<0.5% In

Efficiency

Max. Efficiency

98.7%

Euro Efficiency

98.10%

MPPT Efficiency

> 99%

Equipment Protection

Integrated

DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (AFCI) (Optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection

Surge Protection Level

TYPE II(DC),TYPE II(AC)

Interface

LCD/LED Display

LCD+LED

Communication Interface

RS485,RS232,CAN

Monitor Mode

GPRS/WIFI/Bluetooth/4G/LAN(optional)

General Data

Operating Temperature Range (°C)

-40 to +60, >45 Derating

Permissible Ambient Humidity

0~100%

Permissible Altitude

3000m

Noise (dB)

≤ 65

Ingress Protection(IP) Rating

IP65

Inverter Topology

Non-Isolated

Over Voltage Category

OVC II(DC), OVC III(AC)

Cabinet Size (WxHxD mm)

606×927×314 (Excluding Connectors and Brackets)

734×1091×344 (Excluding Connectors and Brackets)

Weight (kg)

105

161.7

Type of Cooling

Intelligent Air Cooling

Intelligent Air Cooling

Warranty

5 Years/10 Years
the Warranty Period Depends the Final Installation Site of Inverter,
More Info Please Refer to Warranty Policy

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Grid Regulation

IEC 61727,IEC 62116,CEI 0-21,EN 50549, NRS 097,RD 140,UNE 217002,OVE-Richtlinie R25,G99,VDE-AR-N 4105

Safety / EMC Standard

IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

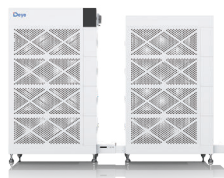
Model	SUN-30K-SG02HP3 -EU-BM3(-P)	SUN-40K-SG02HP3 -EU-BM4(-P)	SUN-50K-SG02HP3 -EU-BM4(-P)
Battery Input Data			
Battery Type	Lithium-ion		
Battery Voltage Range (V)	160-800		
Max. Charging Current (A)	100(160)	100(160)	100(160)
Max. Discharging Current (A)	100(160)	100(160)	100(160)
Charging Strategy for Li-ion Battery	Self-adaption to BMS		
Number of Battery Input	1		
PV String Input Data			
Max. PV Access Power (W)	60000	80000	100000
Max. PV Input Power (W)	48000	64000	80000
Max. PV Input Voltage (V)	1000		
Start-up Voltage (V)	180		
MPPT Voltage Range (V)	150-850		
Rated PV Input Voltage (V)	600		
Max. Operating PV Input Current (A)	36+36+36	36+36+36+36	
Max. Input Short-Circuit Current (A)	55+55+55	55+55+55+55	
No. of MPP Trackers/ No. of Strings MPP Tracker	3/2+2+2	4/2+2+2+2	
AC Input/Output Data			
Rated AC Input/Output Active Power (W)	30000	40000	50000
Max. AC Input/Output Apparent Power (VA)	33000	44000	55000
Rated AC Input/Output Current (A)	45.5/43.5	60.7/58	75.8/72.5
Max. AC Input/Output Current (A)	50/47.9	66.7/63.8	83.4/79.8
Max. Continuous AC Passthrough (grid to load)(A)	200		
Peak Power (off-grid) (W)	1.5 times of rated power, 10s		
Power Factor Adjustment Range	0.8 leading to 0.8 lagging		
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V, 0.85Un-1.1Un		
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65		
Grid Connection Form	3L+N+PE		
Total Current Harmonic Distortion THDi	<3% (of nominal power)		
DC Injection Current	<0.5% In		
Efficiency			
Max. Efficiency	97.60%		
Euro Efficiency	97.0%		
MPPT Efficiency	>99%		
Equipment Protection			
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection		
Surge Protection Level	TYPE II(DC), TYPE II(AC)		
Interface			
LCD/LED Display	LCD		
Communication Interface	WIFI/RS485 /CAN		
Monitor Mode	GPRS/WIFI/Bluetooth/4G		
General Data			
Operating Temperature Range (°C)	-40 to +60, >45 Derating		
Permissible Ambient Humidity	0-100%		
Permissible Altitude	3000m		
Noise (dB)	≤ 65		
Ingress Protection(IP) Rating	IP 65		
Inverter Topology	Non-Isolated		
Over Voltage Category	OVC II(DC), OVC III(AC)		
Cabinet Size (WxHxD mm)	528×793×278 (Excluding Connectors and Brackets)		
Weight (kg)	65		
Type of Cooling	Intelligent Air Cooling		
Warranty	Standard 5 years, extended warranty		
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105		
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		

Model	SUN-30K-SG01HP3 -EU-BM3	SUN-35K-SG01HP3 -EU-BM3	SUN-40K-SG01HP3 -EU-BM4	SUN-50K-SG01HP3 -EU-BM4
Battery Input Data				
Battery Type	Lithium-ion			
Battery Voltage Range (V)	160-800			
Max. Charging Current (A)	50+50			
Max. Discharging Current (A)	50+50			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Input	2			
PV String Input Data				
Max. PV Access Power (W)	60000	70000	80000	100000
Max. PV Input Power (W)	48000	56000	64000	80000
Max. PV Input Voltage (V)	1000			
Start-up Voltage (V)	180			
MPPT Voltage Range (V)	150-850			
Rated PV Input Voltage (V)	600			
Max. Operating PV Input Current (A)	36+36+36		36+36+36+36	
Max. Input Short-Circuit Current (A)	55+55+55		55+55+55+55	
No. of MPP Trackers/ No. of Strings MPP Tracker	3/2+2+2		4/2+2+2+2	
AC Input/Output Data				
Rated AC Input/Output Active Power(W)	30000	35000	40000	50000
Max. AC Input/Output Apparent Power(VA)	33000	38500	44000	55000
Rated AC Input/Output Current(A)	45.5/43.5	53.1/50.8	60.7/58	75.8/72.5
Max. AC Input/Output Current(A)	50/47.9	58.4/55.8	66.7/63.8	83.4/79.8
Max. Continuous AC Passthrough (grid to load) (A)	200			
Peak Power (off-grid)(W)	1.5 times of rated power, 10s			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un			
Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65			
Grid Connection Form	3L+N+PE			
Total Current Harmonic Distortion THDi	<3% (of nominal power)			
DC Injection Current	<0.5% In			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	97.0%			
MPPT Efficiency	>99%			
Equipment Protection				
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Arc Fault Circuit Interrupter (optional), Anti-islanding Protection, DC Switch, Insulation Impedance Detection, Residual Current Detection			
Surge Protection Level	TYPE II(DC), TYPE II(AC)			
Interface				
LCD/LED Display	LCD+LED			
Communication Interface	RS485/RS232/CAN			
Monitor Mode	GPRS/WIFI/Bluetooth/4G/LAN(optional)			
General Data				
Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating			
Permissible Ambient Humidity	0-100%			
Permissible Altitude	2000m			
Noise(dB)	≤65			
Ingress Protection(IP) Rating	IP 65			
Inverter Topology	Non-Isolated			
Over Voltage Category	OVC II(DC), OVC III(AC)			
Cabinet Size (WxHxD mm)	527×894×294 (Excluding Connectors and Brackets)			
Weight (kg)	80			
Type of Cooling	Intelligent Air Cooling			
Warranty	Standard 5 years, extended warranty			
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105			
Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			

PCS Model	SUN-100K-PCS01HP3	SUN-125K-PCS01HP3
Battery Data		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	630-1000	
Max. Charging Current (A)	175	200
Max. Discharging Current (A)	175	200
Charging Strategy for Li-ion Battery	Self-adaption to BMS	
Number of Battery Input	1	
DC Input Data		
DC Input Voltage Range(V)	630-1000	630-1000
Max. DC Input Current(A)	200	200
AC Input/Output Data		
Rated AC Input/Output Active Power (kW)	100	125
Max. AC Input/Output Apparent Power (kVA)	110	125
Rated AC Input/Output Current (A)	151.6/145	189.4/181.2
Max. AC Input/Output Current (A)	166.7/159.5	189.4/181.2
Rated Input/Output Voltage/Range(V)	220/380, 230/400 0.85Un-1.1Un	
Grid Connection Form	3L+N+PE	
Rated Input/Output Grid Frequency/Range	50Hz/45Hz-55Hz 60Hz/55Hz-65Hz	
Power Factor Adjustment Range	-1~1	
Total Current Harmonic Distortion THDi	<3% (of nominal power)	
DC Injection Current	<0.5% In	
Efficiency		
Max. Efficiency	98.5%	
Euro Efficiency	97.8%	
Equipment Protection		
Integrated	AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection,Anti-islanding Protection, Insulation Impedance Detection, Residual Current Detection	
Surge Protection Level	TYPE II(DC), TYPE II(AC)	
Interface		
LCD/LED display	LCD	
Communication Interface	WIFI, RS485, CAN, Meter	
General Data		
Operating Temperature Range(°C)	-40°C-60°C,>45°C Derating	
Permissible Ambient Humidity	0-95%	
Permissible Altitude	4000m	
Noise	<75dB	
Ingress Protection(IP) Rating	IP 65(PCS Module)	
Cabinet Size[W×H×D] (mm)	543x310x775 (Excluding connectors and brackets)	
Weight (kg)	81.86	
Inverter Topology	Non-Isolated	
Over Voltage Category	OVC II(DC), OVC III(AC)	
Type of Cooling	Intelligent Air Cooling	
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy	
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105	
Safety/EMC Standard	IEC/EN 62477-1	

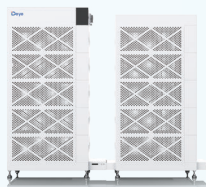
HESS Solution (Recommend)

GB-W94



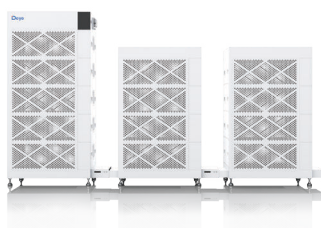
SUN-30/35/40/50K-SG01HP3-EU-BM3/BM4
SUN-30/35/40/50K-SG02HP3-EU-BM3/4
SUN-30/35/40/50K-SG02HP3-EU-BM3/4-P

GB-W117



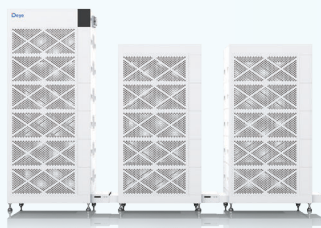
SUN-60/70/75/80K-SG02HP3-EU-EM6

GB-W153



SUN-100/125K-SG02HP3-EU-GM10

GB-W188



SUN-100K/125K-PCS01HP3+
SUNMPPT-L01-EU-AM8+
SUN-STS500L

Power Unit

Battery Model

Specification

≈1h ESS Solution

SUN-100K-SG02HP3-EU-GM10	GB-W117	100kW/117.7kWh
SUN-125K-SG02HP3-EU-GM10	GB-W153	125kW/153kWh

1.5~2h ESS Solution

SUN-30/35/40K-SG02HP3-EU-BM3-P	GB-W58	30&35&40kW/58.8kWh
SUN-50K-SG02HP3-EU-BM4-P	GB-W82	50kW/82.4kWh
SUN-60K-SG02HP3-EU-EM4	GB-W94	60kW/94.2kWh
SUN-70K-SG02HP3-EU-EM6	GB-W105	70kW/105.9kWh
SUN-80K-SG02HP3-EU-EM6	GB-W117	80kW/117.7kWh
SUN-100K-PCS01HP3+MPPT	GB-W188	100&125kW/188.4kWh
SUN-125K-PCS01HP3+MPPT		

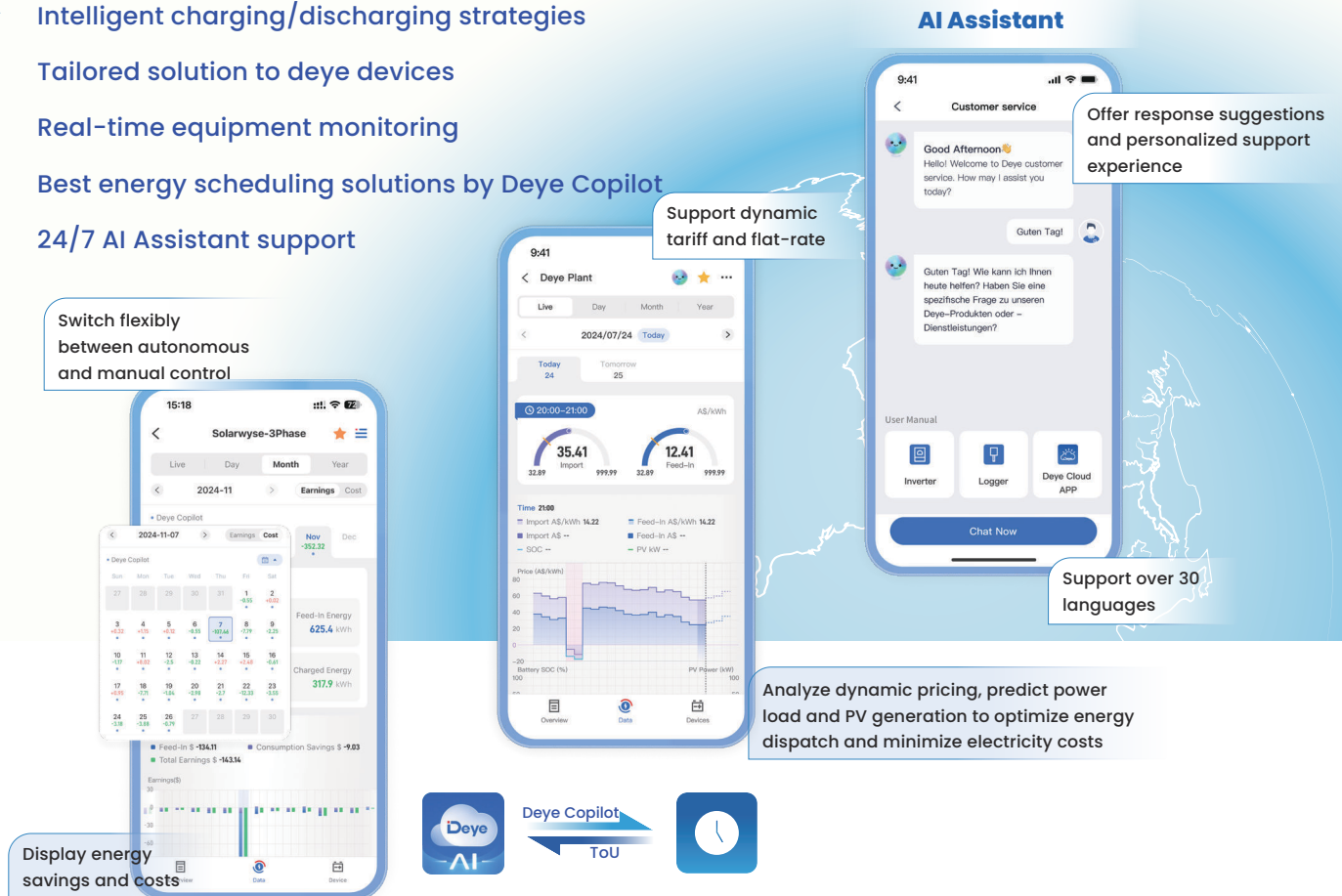
2h+ ESS Solution

SUN-30K-SG02HP3-EU-BM3	GB-W70	30kW/70.6kWh
SUN-30K-SG01HP3-EU-BM3		
SUN-35K-SG02HP3-EU-BM3	GB-W82	35kW/82.4kWh
SUN-35K-SG01HP3-EU-BM3		
SUN-40K-SG02HP3-EU-BM4	GB-W94	40kW/94.2kWh
SUN-40K-SG01HP3-EU-BM4		
SUN-50K-SG02HP3-EU-BM4	GB-W117	50kW/117.7kWh
SUN-50K-SG01HP3-EU-BM4		

Deye Cloud

All-in-one Energy & Device Management Platform

- Unlock significant savings
- Individual Add-on for dynamic tariff
- Intelligent charging/discharging strategies
- Tailored solution to deye devices
- Real-time equipment monitoring
- Best energy scheduling solutions by Deye Copilot
- 24/7 AI Assistant support



Smarten Up Your Hybrid Energy Storage System

Download Deye Cloud APP to join us!

Embrace a seamless, effortless energy experience that's both eco-friendly and budget-friendly with our intelligent assistant



APP & Web Manage your energy effortlessly	Cloud-edge Collaboration Faster and more efficient	Accelerated Connection Optimized for speed and performance	Localized Data Centers Ensure data sovereignty and compliance in EU & US	Deye Copilot AI-powered energy analysis and control	AI Assistant 24/7 support, fast, efficient, in your language
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