



COMP Power GmbH | Germany
we deliver smart and innovative solutions

WE POWER YOUR HOMES & BUSINESS

Anywhere, Anytime, and Always



with

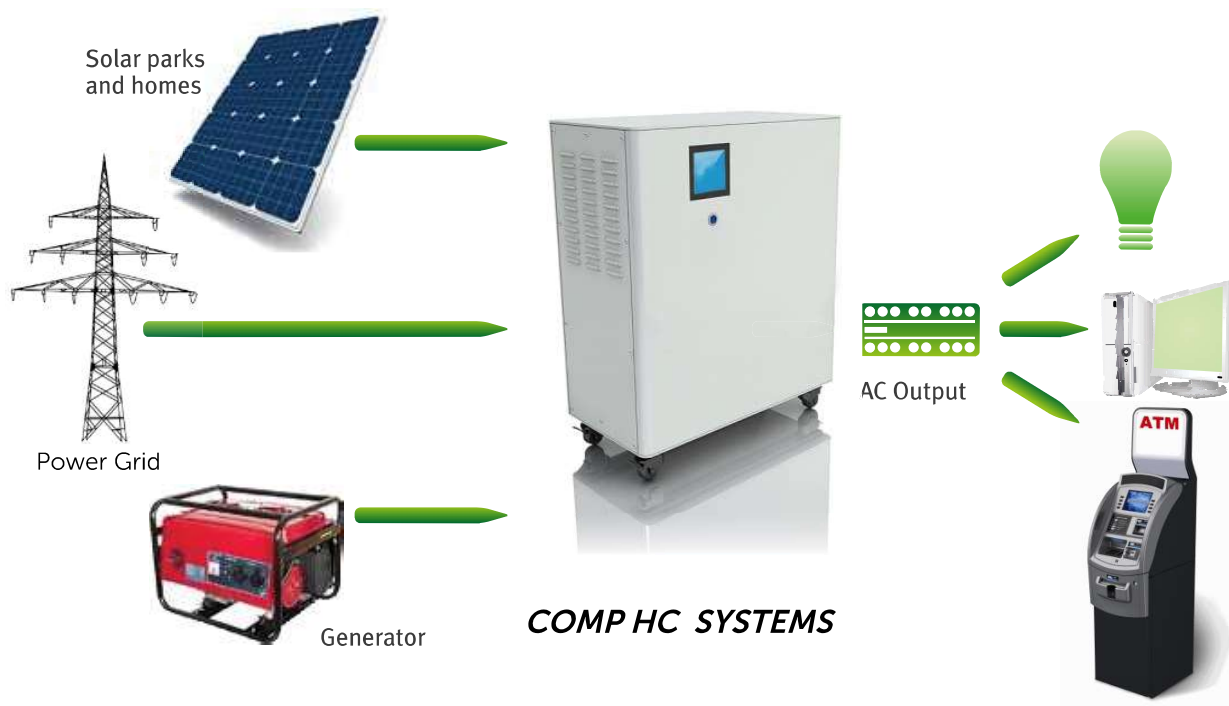
**COMP Innovative Lithium Battery
Energy Storage Systems (BESS)**



Storage System Function Diagram



All systems can be charged with solar, grid or generator.



COMP HC 1300 PORTABLE

ALL IN ONE LITHIUM BATTERY ENERGY STORAGE SYSTEMS

Reliable Power
Anywhere, Anytime, and Always.



- Single phased Lithium Battery Energy Storage System
- Inverter Output Power 500W
- AC/PV Charge Power 210W(4A) / 327W(6A)
- Chargeable with Grid, Generator or Solar
- 200W portable foldable solar
- 2 Years Warranty

Specification COMP Portable 1300	
All-in-one Lithium Energy Storage System	
Item	Specification
Model	COMP portable HC-1300
Output energy	1.2 Kwh
N.W.	12.0Kg
Battery capacity	1300Wh
Housing color	Yellow, black, rose red
Dimension	L405*W215*H261
Input voltage	100~240VAC
Input frequency	50/60HZ
Charge power/current	327W/6A
MPPT Charge power/current	210W/4A
Nominal voltage of solar panel	Dc18/24/36/48V
Portable foldable solar panel	Yes
Output voltage	100/110/120/200/220/230/240±3%VAC
Output frequency	50/60HZ±0.5
Output power	500VA
Overload ability	120% 10S
Discharge time	5.5(250W)
Output wave form	Pure sine wave
Converter efficiency	≥ 92%
MPPT efficiency	≥ 98%
DC car cigarette plug output	DC12V/6A
Short-circuit protection	YES
Low circuit protection	YES
Over-circuit protection	YES
Over temperature protection	≥ 5°C
Weak electricity switch	To solve the problem of battery self-discharge
Battery recovery function	Charge battery by small current when battery voltage is low
Working temperature	-10-45°C
Environment humidness	10% - 90%



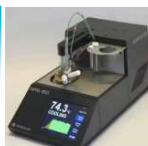
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Power Storage/Inverters



Turn Key Solutions

COMP HC 3200/ COMP HC 4000

ALL IN ONE LITHIUM BATTERY ENERGY STORAGE SYSTEMS

Reliable Power
Anywhere, Anytime, and Always.



- Single phased Lithium Battery Energy Storage System
- Inverter Output Power 1.5KW/2KW
- Uninterrupted Power Supply (UPS)
- AC Charge Power 600W/600W
- PV Charge Power 2000W/2000W
- Chargeable with Grid, Generator or Solar
- 5 Years Warranty

Specification for COMP HC 3200 and COMP HC 4000		
Model	COMP 3200	COMP HC 4000
Battery		
BATTERY CAPACITY	3200Wh	4000Wh
Battery Type	Lithium Battery	Lithium Battery
Rated Voltage	52V	52V
Output		
Rated output power	1500W	2000W
Peak output	2250W	3000W
Output Voltage	230V	230V
Output Frequency	50Hz	50Hz
Overload capacity	120%<load<130%@10min;130%<load<150%@10s	
UPS Function	Yes	Yes
Off Grid operation	Yes	Yes
Max. Efficiency	92%(>70%Load)	92%(>70%load)
AC Charge		
Input Voltage	88-264Vac	88-264Vac
Power Factor	>0.94(Fullload)	>0.94(Fullload)
Input Frequency	50Hz+/-5%	50Hz+/-5%
Max. Charge Power	600W	600W
Max. Efficiency	>92%	>92%
PV Charge		
Max. Input Power	2000W	2000W
Start-up Voltage	75Vdc	75Vdc
No. MPPT	2	2
MPPT Input Voltage	75-140Vdc	75-140Vdc
Max. Input Voltage	150Vdc	150Vdc
MPPT Efficiency	99.5%	99.5%
Max. Efficiency	>96%	>96%
Solar Charging Mode	MPPT	MPPT
General		
Working rel. Humidity	5-90%rH non condensing	5-90%rH non condensing
Working Temperature range	0°C-45°C	0°-45°C
Product Dimension DxWxH	580x300x600mm	580x300x600mm
Packing Dimension	657x375x645mm	657x375x645mm
Net Weight	47Kg	59Kg
Gross Weight	50Kg	62Kg



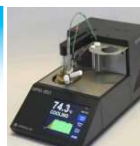
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Power Storage/Inverters



Turn Key Solutions

COMP HC 6500/ COMP HC 8000

ALL IN ONE LITHIUM BATTERY ENERGY STORAGE SYSTEMS

Reliable Power
Anywhere, Anytime, and Always.



- Single phased Lithium Battery Energy Storage System
- Inverter Output Power 3KW/3KW
- Uninterrupted Power Supply (UPS)
- AC/PV Charge Power 2.4KW/3.0KW
- Chargeable with Grid, Generator or Solar
- Remote and Mobile Monitoring
- 5 Years Warranty

Specification for COMP HC 6500 and COMP HC 8000

Model	COMP 6500	COMP HC 8000	COMP HC 12050
Battery			
Battery capacity	6500Wh	8000Wh	12000Wh
Battery Type	Lithium Battery	Lithium Battery	Lithium Battery
Rated Voltage	52V	52V	52V
Output			
Rated output power	3000W	3000W	5000W
Peak output	4000W	4000W	7500W
Output Voltage	230V	230V	230V
Output Frequency	50Hz	50Hz	50Hz
Overload capacity	120%<load<130%@10min;130%<load<150%@10s		
UPS Function	Yes	Yes	Yes
On or Off Grid operation	Yes	Yes	Yes
Max. Efficiency	92%(>70%Load)	92%(>70%load)	92%(>70%load)
AC Charge			
Input Voltage	88-264Vac	88-264Vac	203-253Vac
Power Factor	>0.94(Full load)	>0.94(Full load)	>0.95(Full load)
Input Frequency	50Hz+/-5%	50Hz (47.5-51.5Hz)	50Hz (47.5-51.5Hz)
Max. Charge Power	2400W	2400W	5000W
Max. Efficiency	>92%	>92%	>92%
PV Charge			
Max. Input Power	2400W	3000W	5400W
Start-up Voltage	75Vdc	75Vdc	75Vdc
No. MPPT	2	2	2
MPPT Input Voltage	75-140Vdc	75-140Vdc	75-140Vdc
Max. Input Voltage	150Vdc	150Vdc	150Vdc
MPPT Efficiency	99.5%	99.5%	99.5%
Max. Efficiency	>96%	>96%	>96%
Solar Charging Mode	MPPT	MPPT	MPPT
General			
Working rel. Humidity	5-90%rH non condensing	5-90%rH non condensing	5-90%rH non condensing
Working Temperature range	0°C-45°C	0°C-45°C	0°C-45°C
Product Dimension WxDxH	779x350x912mm	779x350x912mm	779x350x912mm
Packing Dimension	880x525x1080mm	880x525x1080mm	870x528x1210mm
Net Weight	135Kg	157Kg	207Kg
Gross Weight	160Kg	185Kg	240Kg



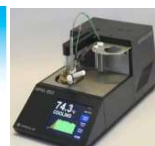
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COMP HC 20

ALL IN ONE LITHIUM BATTERY ENERGY STORAGE SYSTEMS

Reliable Power
Anywhere, Anytime, and Always.



- Single phased Lithium Battery Energy
- Expandable battery capacity according to requirement
- Max 8 battery modules of each 2,4KWh
- AC/PV Charge Power 5000KW/5400KW
- Uninterrupted Power Supply (UPS)
- Chargeable with Grid, Generator or Solar
- Remote and Mobile Monitoring
- 5 Years Warranty

Specification COMP HC 20	
All-in-one Lithium Energy Storage System	
Battery	
Battery Capacity	20KWh 8 x 2,5KWh battery modules
Battery Type	Lithium Battery
Rated Voltage	52V
Continuous Output Power	5000W
Peak Power output	7500W
Output Voltage	220/230/240
Output Frequency	50Hz +/- 0.1%
Overload ability	100 - 110% @10min, 110-150% @10s
UPS Function	Yes
On/Off Grid	On & Off Grid chooseable
Max. Efficiency	92% (>70% Load)
AC Charge	
Input Voltage range	184 - 264
Power Factor	0.95% (Full Load)
Input Frequency range	50Hz +/- 0.4%
Max. Charge Power	5000W
Max. Efficiency	> 0,95%
PV Charge	
Max. Input Power	5400W
MPPT	2
MPPT input Voltage	75 - 140V
MPPT Efficiency	99,50%
Max. Efficiency	> 96%
General	
Work rel.Humidity range	5% - 90%
Temperature working range	0°C - 45°C
Product Dimension	H1600 x W650 x D545
Net Weight	270Kg



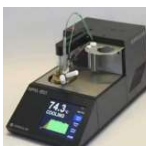
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COMP HC 30

3 PHASE MICRO-GRID SYSTEM



- 3-phased Lithium Battery Energy
- Rugged heavy duty Storage System
- Battery capacity 32KWh
- Uninterrupted Power Supply (UPS)
- AC/PV Charge Power 7.5KW/16KW
- Chargeable with Grid, Generator or Solar
- Remote and Mobile Monitoring
- 5 Years Warranty

Specification COMP HC 30 on/Offgrid Micro Grid System	
Battery	
Battery storage capacity	32 Kwh
Dept of Discharge (DOD)	80%
Battery type	Lithium Battery
Rated Voltage	52V
AC Output	
Rated output Power	15000W
Peak output	22500W
Output voltage	230/400V 3-Phase/N/PE
Output Frequency	50 Hz
Total Harmonic distortion	Grid current <4%; Inverter Voltage 2%
Output Wave	Pure Sine Wave
Overload ability	110% - 150%, 10s; > 150%, 5s
UPS Function	Yes Standby
On/off Grid capability	Yes.
Max. Inverter Efficiency	93,80%
On/Off Grid Switching Time	< 20ms
Referenced Certification Standards	EMC 2014/30/EU, VDE 0216-1-1; UN 38.3,
AC Charge	
Input Voltage Grid	230Vac (184 - 264V)
Power Factor	0,95 (Full Load)
Input Frequency	50Hz (47.5 - 51.5Hz)
Maximal Charge Power	7500W
Maximal Efficiency	>92%
DC Parameters	
PV Input Lines	4
Maximum Input per Line	4000W
Each PV Line Panels start up max. Voltage	145 VDC (Under definite lowest Temperature)
Minimum solar power to run system	200W
Start up voltage	70V
MPPT Voltage Range	70 - 120VDC
PV Maximum Output Current	320A
Charge Power /Charge time	16KW
Charger Maximum Efficiency	97,30%
Battery Voltage	Rated Value 52V; Working Range: 48 - 57 VDC
System Parameters	
Working Temperature Range	0°C - 45°C
Working Humidity Range	10% - 95% rH (Non Condensing)
External Communication	RS 485 (RS232/USB optional).
Remote Monitoring	Remote and mobile monitoring in the works
Altitude	< 2000m
IP Protection	IP 54
Protections	Input reverse polarity, under voltage, over voltage short circuit, over heating, etc
Battery Dimensions (HxWxD)	1306mmx800mmx645mm
Weight	240Kg
Inverter Dimensions	1306mmx800mmx645mm
Weight	210Kg



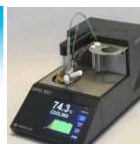
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Comparison between Lead Acid and Lithium Systems



	Lithium battery	Lead acid battery
Life cycle	5000: Life expectancy up to 10yrs	500: Life expectancy up to 2 yrs
Useable capacity (DOD)	> 80% 100Ah battery will deliver 80Ah	max. 50% 100Ah battery will deliver 50Ah
Charging	Fast full charging in a few hrs!!! Big cost and time advantage when charging with Solar, Wind, Gen or unstable Grid.	Full charging can takes between 8 - 12hr. Partial charging leads to battery ageing.
Discharging	Can power all grid powered loads	Limited powering and discharge capacity
Operational Temperatures	Can operate up to 45°C without cooling	Degradation starts at Temp. above 25°C
Space requirements	Very compact and light. Fits in small available spaces	Very heavy and voluminous. Require lots of space
Battery warranty	5yr	6mt - 1 yr
Maintenance requirements	Little maintenance required. Very Robust	Constant maintenance care required
Total cost of ownership	Very good. Has up to 5 - 8x life expectancy than lead acid.	Very expensive due to constant battery renewals especially in tropical temperatures
Environmental compatibility	Very friendly.	Unfriendly and poisonous

Customer Advantages

- Enjoy reliable and stable electricity Anywhere, Anytime and Always at an affordable cost. Superior to any lead acid system in all performance features and cost efficiency.
- Say good bye to dark ages or constant grid outage.
- Power your home & business economically with a fast charging system.
- **SAVE LOTS OF MONEY NO MATTER YOUR SOURCE OF ELECTRICITY.**
- **Solar:** Save up to 100% on electricity bill
- **Grid:** System is charged in about 3hours (Power loads incase of grid outage)
- **Generator:** Save up to 70% on fuel and maintenance
- COMP HC systems come equipped with Lithium Ion batteries, battery management systems (BMS), charge controllers, inverter, U PS, protective modules and solar panels (optional)
- It has a true UPS for a seamless power transfer during grid outage and thereby ensuring a blinkless server and data stability while working.
- It is environmentally friendly. No pollution, no noise and long service life.
- 5 years warranty on all systems. COMP HC 1500 portable with 2 years warranty.



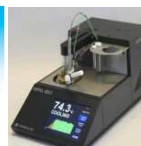
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COMP CSGAAAS2-72

HIGH EFFICIENCY MONO

CRYSTALLINE SOLAR MODULE

Reliable Power Anywhere, Anytime, and Always.

COMP CSGAAAS2-72-335W	Mono crystalline 156 x156 72 pcs
Max. power	335W
Voltage at Pmax. (Vmp)	38,2V
Current at Pmax (Ipm)	8,77A
Open Circuit Voltage	46,5V
Short Circuit Current (Isc)	9,49A
Max. System Voltage (VDC)	1000V (IEC), 600UL
Cell Efficiency	19.7
No. Of Bypass Diodes (pcs)	3
Max. Series Fuse (A)	15A
Temperature Coefficient of Pmax	-0,45%/°C
Temperature Coefficient of Voc	-0,34%/°C
Temperature Coefficient of Isc	0,05%/°C
Nominal operating cell Temperature	45°C +/- 2°C
STC conditions	1000W/m ² ; 1.5 AM and 25°C Cell Temperature
Mechanical Characteristics	
Cable type: Diameter and lenght	4mm ² , L = 1000 +/- 5mm
Type of connector	MC4
Dimension: A x B x C	1956 x 992 x 50/45 mm
Weight	1954 x 992 x 50/45 mm
No of draing holes in Frame	16
Construction	Glass: High Transmission, low Iron, Tempered Glass 3.2mm Encapsulation: EVA, Back side: White
Junction Box	IP 67 rated
Frame	Clear anodized aluminium alloy type 6063T5 frame
Qualification Test Parameters	
Dielectric Insulation Voltage	6000VDC max
Operating Temperatue	40°C / 85°
Max. Load	5400Pa
Fire rating	Class C
Certifications	
TUV Rheinland	IEC 61215; IEC 61730
Warranty	25 yrs Performance warranty: 90%/10y; 80%/25y



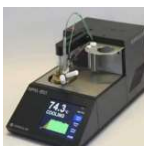
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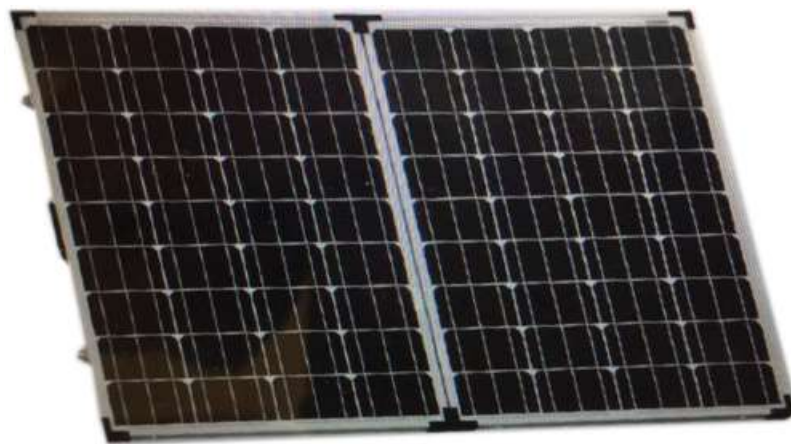


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COMP SGM-F-2X100W FOLDABLE MONO SOLAR PANELS

Reliable Power
Anywhere, Anytime, and Always.

COMP SGM-F-2X100W	Mono crystalline cells
Max. Power	200W
Nominal Voltage (Vmp)	17,6V
Nominal current (Imp)	11,36A
NOCT	45°C +/- 2°C
Open Circuit Voltage (VOC)	21,6V
Short Circuit Current (Isc)	12,27A
Conversion Efficiency	17.90%
Voltage Temperature Coefficient	-0,33% / °C
Current Temperature Coefficient	0,05% / °C
Power Temperature Coefficient	-0,23% / °C
Max. System Voltage	1000 VDC
Dimension	505 x 1005 x 70mm



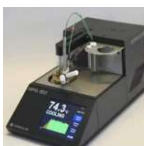
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COMP HC 400 PORTABLE

ALL IN ONE LITHIUM BATTERY ENERGY STORAGE SYSTEMS

Reliable Power
Anywhere, Anytime, and Always.



Product Specifications

	Item		Specification
Approx. Charge Times	AC	Wall Charger (70W)	6-8 hrs
	DC	Car Charger (48W)	10-20 hrs
	Solar	Solar Charger(120W)	4-6 hrs
	DC Charge Voltage		14V ~ 45V
Output	AC	Output Voltage	100/110/120V AC±3% 220/230/240V AC±3%
		Output Frequency	50/60Hz±0.5Hz
		Output Power	300W (Pure Sine Wave)
		Peak Output Power	600W
	DC	4×USB Port	2×5V2.1A &2×5V1A
		1×12.6V Car Port	120W
		2×DC 6mm Port	2×12V3A
Jump Starter	Starting Current		200A-400A @ 12V
Battery	Battery Type		Lithium ion
	Battery Cell		ICR18650
	Battery Capacity		400Wh
	Battery Voltage		9V~12.6V
General	Dimension		L230×W140×H235(mm)
	N.W.		5.6Kg
	Warranty		1 Year
	Operation Environment	Charge	0~45℃
		Discharge	-10℃ ~60℃
Humidness		10%~90%	



**Customized according to
Customer requirements**



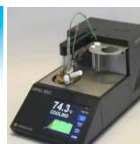
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Specification COMPHC30/10On/Offgrid Micro Grid system

Battery

Battery storage capacity	32KWh
Depth of Discharge (DOD)	80%
Battery type	Lithium Battery NMC

AC Output

Rated output Power	10000W
Peak output	15000W
Output voltage	230/400V3-Phase/N/PE
Output Frequency	50Hz
Total Harmonic distortion	Grid current <4%; Inverter Voltage 2%
Output Wave	Pure Sine Wave
Overloadability	110%-150%, 10s; >150%, 5s
UPS Function	Yes Standby
On/off Grid capability	Yes.
Max. Inverter Efficiency	93,80%
On/Off Grid Switching Time	<20ms
Reference Certification Standards	CE, VDE0216-1-1; UN38.3,

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Input Voltage Grid	230Vac (184-264V)
Power Factor	0,95 (Full Load)
Input Frequency	50Hz (47.5-51.5Hz)
Maximal Charge Power	7500W
Maximal Efficiency	>92%

DC Parameters

PV Input Lines	3
Maximum Input per Line	4000W
Each PV Line Panels start up max. Voltage	150VDC (Under definite lowest Temperature)
Minimum solar power to run system	200W
Startup voltage	70V
MPPT Voltage Range	70-140VDC
PV Maximum Output Current	240A
Charge Power	12KW
Charger Maximum Efficiency	97,30%
Battery Voltage	Rated Value 52V; Working Range: 48-57VDC

System Parameters

Working Temperature Range	0°C-45°C
Working Humidity Range	10%-95%rH (Non Condensing)
External Communication	RS485 (RS232/USB optional), WIFI
Altitude	<2000m
IP Protection	IP54
Protections	Input reverse polarity, undervoltage, overvoltage, short circuit, overheating, etc
Battery Dimensions (HxWxD)	1306mm×800mm×645mm
Weight	380Kg
Inverter Dimensions	1306mm×800mm×645mm
Weight	320Kg



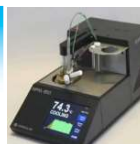
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