

Clenergy ALL IN ONE BESS Datasheet

System Model	CGS S3.6 6Hy*		CGS S4.6 6Hy*		CGS S5.0 6Hy*		CGS S6.0 6Hy*	
System Parameters								
Inverter Model	CGH S3.6H		CGH S4.6H		CGH S5.0H		CGH S6.0H	
Number of hybrid inverter	1		1		1		1	
Battery Model	CGI E6.0H							
Number of battery modules	1~8 Units							
Number of Battery Distribution Unit	A BDU is required only when the battery packs is more than 4 units.							
Battery Input and Output Data								
Rated Voltage	330 V d.c.							
Battery Voltage Range	280-380 V d.c.							
PV Input Data								
Max. Input Power	7200W		9200W		10000W		12000W	
Max. Input Voltage	600 V d.c.							
Start-up Voltage	65V d.c.							
PV input operating voltage range	60-600 V d.c.							
MPPT Operating Voltage Range	60-550 V d.c.							
Full Power MPPT Voltage Range	180-520 V d.c.		230-520 V d.c.		250-520 V d.c.		300-520 V d.c.	
Rated Input Voltage	360 V d.c.							
MPPT number	2							
Input strings number per MPPT	1							
Max. Input Current per MPPT	16A/16A							
Isc PV (Max. Input Short Circuit Current per PV)	23A/23A							
AC Input and Output Data(On Grid)								
Rated Output Active Power to Grid	3600W		4600W		5000W		6000W	
Rated Output Apparent Power to Grid	3600VA		4600VA		5000VA		6000VA	
Max. Output Apparent Power to Grid	3600VA		4600VA		5000VA		6600VA	
Max. Apparent Power From Grid	7200VA		9200VA		10000VA		12000VA	
Rated AC Output Current to Grid	16.4A		20.9A		22.7A		27.3A	
Max. AC Output Current to Grid	16.4A		20.9A		22.7A		30A	
Rated AC Input Current from Grid	32.7A		41.8A		45.5A		50A	
Max. AC Input Current from Grid	32.7A		41.8A		45.5A		50A	
Rated Grid Voltage	L/N/PE; 220V/230V/240 V a.c.							
Rated Frequency	50/60Hz							
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)							
Output THDi (@Nominal output)	<3%							
AC Output Data(Backup)								
Rated Apparent Power	3600W		4600W		5000W		6000W	
Max. Apparent Power	3600VA		4600VA		5000VA		6600VA	
Peak Output Apparent Power,Duration	5400VA, 60S		6900VA, 60S		7500VA, 60S		9000VA, 60S	
Rated Output Current	16.4A		20.9A		22.7A		27.3A	
Max. Output Current	16.4A		20.9A		22.7A		30A	
Switch Time	≤10ms							
Rated Voltage	L/N/PE; 220V/230V/240 V a.c.							
Rated Frequency	50/60Hz							
THDv (@Liner load)	<2%							
Efficiency								
Max. efficiency	97.40%							
Protection								
PV Reverse Polarity Protection	Yes							
PV Insulation Resistance Detection	Yes							
Anti-islanding Protection	Yes							
AC Over Voltage Protection	Yes							
AC Over current protection	Yes							
AC Short Circuit Protection	Yes							
Leakage Current Monitoring	Yes							
DC Switch(Solar)	Yes							
Overvoltage category	DC:OVC II, AC:OVC III							
AFCI	Optional							
General Data								
Topology	Non-isolated							
Active anti-islanding method	Active Frequency Drift							
Mounting Method	Floor/Wall Mounted							
Display	LED&APP							
Communication	WiFi , RS485, Fast Ethernet, Optional: Ethernet/4G,							
Operating Ambient temperature range	-20 ~ 55℃ ²							
Max. Operation Altitude	< 3000m (> 2000m deratings)							
Relative Humidity	0%~100% (Non-condensing)							
Cooling Method	Natural Convection							
Protective Class	I							
IP Rating	IP66							
Net Weight	26.5kg (Inverter), 4.5kg (Base), 65kg (Battery module), 9kg (Battery distribution unit)							
Dimension (W*H*D)	680*370*265mm (inverter), 680*80*260mm (base), 680*370*260mm (Battery module), 680**150*260mm (Battery distribution unit)							
Country of Manufacture	China							
* y for battery system configuration	y presents the number of battery modules, it can be 1,2,3,4,5,6,7,8. For battery combinations and ratings refer to the battery combination							
The battery combination datasheet								
Suffix y for battery combinations	1	2	3	4	5	6	7	8
Battery Type	LFP							
Number of battery modules	1	2	3	4	5	6	7	8
Rated Voltage	330 V d.c.							

Battery Voltage Range	280~380 V d.c.							
Rated Energy ¹	6.0kwh	12.0kwh	18kwh	24kwh	30kwh	36kwh	42kwh	48kwh
Usable Energy ¹	5.8kwh	11.6kwh	17.4kwh	23.2kwh	29.0kwh	34.8kwh	40.6kwh	46.4kwh
Depth of discharge ³	97%							
Rated Charge/Discharge Current for CGS S3.6 6Hy*	9A/9A	12.9A/12.9A	12.9A/12.9A	12.9A/12.9A	12.9A/12.9A	12.9A/12.9A	12.9A/12.9A	12.9A/12.9A
Rated Charge/Discharge Current for CGS S4.6 6Hy*	9A/9A	18A/16.4A	21A/16.4A	21A/16.4A	21A/16.4A	21A/16.4A	21A/16.4A	21A/16.4A
Rated Charge/Discharge Current for CGS S5.0 6Hy*	9A/9A	18A/17.9A	21A/17.9A	21A/17.9A	21A/17.9A	21A/17.9A	21A/17.9A	21A/17.9A
Rated Charge/Discharge Current for CGS S6.0 6Hy*	9A/9A	18A/18A	21A/21A	21A/21A	21A/21A	21A/21A	21A/21A	21A/21A
Rated Charge/Discharge Power for CGS S3.6 6Hy*	3kW/3kW	3.6kW/3.6kW	3.6kW/3.6kW	3.6kW/3.6kW	3.6kW/3.6kW	3.6kW/3.6kW	3.6kW/3.6kW	3.6kW/3.6kW
Rated Charge/Discharge Power for CGS S4.6 6Hy*	3kW/3kW	6kW/4.6kW	6kW/4.6kW	6kW/4.6kW	6kW/4.6kW	6kW/4.6kW	6kW/4.6kW	6kW/4.6kW
Rated Charge/Discharge Power for CGS S5.0 6Hy*	3kW/3kW	6kW/5kW	6kW/5kW	6kW/5kW	6kW/5kW	6kW/5kW	6kW/5kW	6kW/5kW
Rated Charge/Discharge Power for CGS S6.0 6Hy*	3kW/3kW	6kW/6kW	6kW/6kW	6kW/6kW	6kW/6kW	6kW/6kW	6kW/6kW	6kW/6kW

1 Test conditions: Cell Voltage 2.5 - 3.65V, 0.2C charge & discharge at +25 ±2°C for battery system at beginning life.

2 Battery pack is assembled heating film and when the cell temperature between -20 to 0°C, the heating film will work to heat cell higher than 0°C, and in this progress the battery pack cannot be charged.

3 Usable energy capacity of whole system are indicated for the term.

Performance may be de-rated at non-standard condition.

The final explanation right belongs to Cleenergy