

MODEL	HEC2-BHP100r2	HEC2-BHP150r2	HEC2-BHP200r2-A	HEC2-BHP300r2
Component	Base+BMS+2*Module	Base+BMS+3*Module	2*(Base+BMS+2*Module)	2*(Base+BMS+3*Module)
Voltage[V]	204.8	307.2	204.8	307.2
Recommend operating voltage range[V] (@90%DOD)	185.6-224	278.4-336	185.6-224	278.4-336
Battery module	Module*2	Module*3	Module*4	Module*6
Nominal capacity[Ah]	50	50	100	100
Total energy[kWh]	10.2	15.3	20.4	30.6
Usable energy[kWh] (@90%DOD)	9.18	13.77	18.36	27.54
Battery roundtrip efficiency	94%	94%	94%	94%
Nominal power [kW]	5.12	7.68	10.24	15.36
Nominal charge/discharge current[A]	25		50	
Cycle life	6000 Cycles (60%)			
Expected life time	10 Years (60%)			
Available discharge/charge temperature range[°C]	-20 to 55 (derating at 45) / 0 to 55(derating at 45)			
	-20 to 55 (derating at 45) / -20 to 55(derating at 45, build-in heating function Optional)			
Storage temperature[°C]	0 to 40 (6 months)			
Humidity	15~95%			
Altitude[m]	Below 2000m			
Protection	IP65			
System to Inverter	RS485/CAN2.0			
Battery to battery / BMS	Daisy chain			
Display Interface	LED			
Switch on/off	Button*1+Breaker*1			
Certificate	CE,IEC62619,IEC62040,IEC60529,IEC61000,UN38.3,UL			
Hazardous materials classification	Class 9			
Weight[kg]	124±6	179±8	248±11	358±16
External dimensions (W*H*D) (mm)	800±5*840±30* 160±5	800±5*1150±30*160±5	1600±5*840±30* 160±5	1600±5*1150±30* 160±5
Remark	1 Series		2 Series Parallel	

RESIDENTIAL ESS

HIENERGY-S ALL-IN-ONE SOLUTION

Hiconics Single-phase HEC2 Series All-in-one energy storage system covers 5kW/5kWh~ 5kW/30kWh with high voltage battery module. It stores and manage energy to power your home in a reliable, efficient way.



Residential ESS

Single-phase HEC2 All-in-one Solution



-20°C~55°C

Operation Temperature



100%

Pre-installation of internal cable



IP65

Protection Level

Lego-Style installation

Pre-installation of battery cable
True Lego-style installation, free
from internal wiring

Efficient

High voltage system,
Higher charging & discharging
energy conversion efficiency

Highly adaptable

-20°C ~ 55°C operation temperature,
Equipped with internal temperature
regulation system"

Technical Data	HEC2-S3.8Hr2	HEC2-S5.0Hr2	HEC2-S6.0Hr2
PV Input			
Max.PV array power[W]	3750/3750	3750/3750	3750/3750
Max.DC voltage[V]		600	
Nominal DC operating voltage[V]		360	
MPP voltage range[V]		100-480	
MPP voltage range for nominal power[V]	136-480	176-480	210-480
Start up voltage[V]		120	
Max.input current(A/B)[A]		15/15	
Max.short circuit current(A/B)[A]		18/18	
No.of MPP tracks/String per MPP trackers		2/1	
BAT Side			
Battery voltage range[V]		85-400	
Battery voltage range for nominal power[V]	162-400	210-400	250-400
Recommended battery voltage[V]		300	
Max.charge/discharge current[A]*2		25/25	
Communication interfaces		RS485/CAN	
Reverse connect protection		Yes	
AC Grid Side(On-grid)			
Nominal AC output power[W]	3800	5000*1	6000*1
Max.Output Power(W)	3800	5000*1	6000*1
Nominal grid voltage[V] / Grid Voltage Range[V]		230/220 / 180-280	
Nominal grid frequency[Hz]		50/60	
AC Grid Frequency Range (Hz)		45-65	
Max. output AC current to Utility Grid[A]	16.5	21.8	26.1
Max. AC Current From Utility Grid (A)	16.5	21.8	26.1
Max.output overcurrent protection[A]	20.6@10sec	27.2@10sec	32.6@10sec
Max.output fault peak current[A]	32.5@0.1ms	43@0.1ms	52@0.1ms
Inrush Peak current[A]		65@5us	
Power factor		~1 (Adjustable from 0.8 leading to 0.8 lagging)	
I.THD[%]		<3@Rated power	
EPS Side			
Back-up Nominal Apparent Power(VA)	3800	5000	6000
Nominal power[W]	3800	5000	6000
Nominal output voltage[V]		230(±2%)	
Nominal output frequency[Hz]		50/60(±0.2%)	
Max.output current[A]	16.5	21.8	26.1
Max.output overcurrent protection[A]	20.6@10S	27.2@10S	32.6@10S
Max.output fault peak current[A]	32.5@0.2mS	43@0.2mS	52@0.2mS
Inrush peak Current(A)	65@5uS	65@5uS	65@5uS
Changeover time[ms]		<20	
Switching from Grid Connected Mode to Standalone Mode[ms]		<20	
Switching from standalone mode to network connected mode[s]		2	
Output THD[%]		<3@Linear Load	
EFFICIENCY			
MPPT efficiency[%]		99.9	
Euro efficiency[%]		97.02	
Max.efficiency[%]		97.6	
Battery charge/discharge efficiency[%]		97.6(PV-BAT), 96.5(BAT-AC)	
ENVIRONMENT LIMIT			
Ingress protection		IP65	
Protection class		Class I	
Pollution degree		PD3	
Over voltage category		III (MAINS), II (DC)	
Operating temperature range[]		-20~+60(derating at +45)	
Max.operation altitude[m]		<2000	
Humidity		0-100%	
Cooling Method		Natural Convection	
User Interface		LED,APP	
Communication method		CAN/RS485/WLAN	
Typical noise emission[dB]		<40	
Dimension (W*H*D) [mm]		800*450*160	
Weight[KG]		32	
Topology		Non-isolated	
Self-consumption at Night (W)		<15	
Storage Temperature (°C)		-40~+85	
Standard warranty[years]		10	
Compliance		IEC/EN 62109-1&2, IEC62477, IEC61000-6-1, IEC61000-6-3, IEC60529,IEC60068, IEC61683, EN50549-1,G99,CEI021,VDE4105,AS4777.2	

Remark: *1:The grid feed in power for VDE4105 is limited 4600VA;

*2:Battery charging current is limited 25A and power is limited 6000W.