

8 Technical Specifications

Technical Data	Cygni8.0HS						
	M2	M3	M4	M6	M8	M9	M12
Battery Input Data							
Battery Type	LiFePO4						
Expandable Quantity	2	3	4	6	8	9	12
Number of Cygni Battery Hub	0	0	0	2	2	3	3
Nominal Energy(kWh)	7.68	11.52	15.36	23.04	30.72	34.56	46.08
Usable Energy(kWh)	7.30	10.94	14.59	21.89	29.18	32.83	43.77
Operating Voltage(V)	168~219	252~328	336~438	252~328	336~438	252~328	336~438
Nominal Voltage(V)	192	288	384	288	384	288	384
Nominal Capacity(Ah)	40						
Max.Charge/Discharge Current(A)	39						
Max.Discharge Power(kW)	7.68	8.8	8.8	8.8	8.8	8.8	8.8
Max.Charge Power(kW)	7.68	8.8	8.8	8.8	8.8	8.8	8.8
Max.DOD (Depth of Discharge) (%)	95						
Operating Temperature Range(°C)	0~50						
Cycle Life	≥8000Cycles, 70%SOH						
Alarms	Overcharge/Overdischarge/Overcurrent/Overtemperature/Short Circuit						
Safety Regulation	IEC 62619/IEC 60730						
Technical Data	Cygni10.0HS						
	M2	M3	M4	M6	M8	M9	M12
Battery Input Data							
Battery Type	LiFePO4						
Expandable Quantity	2	3	4	6	8	9	12
Number of Cygni Battery Hub	0	0	0	2	2	3	3
Nominal Energy(kWh)	7.68	11.52	15.36	23.04	30.72	34.56	46.08

Usable Energy(kWh)	7.30	10.94	14.59	21.89	29.18	32.83	43.77
Operating Voltage(V)	168~219	252~328	336~438	252~328	336~438	252~328	336~438
Nominal Voltage(V)	192	288	384	288	384	288	384
Nominal Capacity(Ah)	40						
Max.Charge/Discharge Current(A)	39						
Max.Discharge Power(kW)	7.68	11	11	11	11	11	11
Max.Charge Power(kW)	7.68	11	11	11	11	11	11
Max.DOD (Depth of Discharge) (%)	95						
Operating Temperature Range(°C)	0~50						
Cycle Life	≥8000Cycles, 70%SOH						
Alarms	Overcharge/Overdischarge/Overcurrent/Overtemperature/Short Circuit						
Safety Regulation	IEC 62619/IEC 60730						

PV String Input Data	Cygni8.0HS	Cygni10.0HS
Max.PV Input Power (W)	12000	15000
Max.PV Input Voltage (V)	600	
Maximum inverter backfeed current to array	0A	
MPPT Range (V)	60-550	
SPS Start-up Voltage (V)	60	
MPPT Voltage Range For Nominal Power (V)	180-500	210-500
Nominal DC Input Voltage (V)	390	
Max.Input Current (A)	16/16/16	16/16/16
Max.Short Current (A)	23/23/23	23/23/23
No.of MPP Trackers	3	3
No.of Strings per MPP Tracker	1	
AC Output Data(On-grid)	Cygni8.0HS	Cygni10.0HS

Nominal Apparent Power Output to Utility Grid (VA)	8000	9999
Max.Apparent Power Output to Utility Grid (VA)	8000	9999
Max.Power From Grid (VA)	8000	9999
Nominal Output Voltage (V)	230	
Nominal Output Frequency (HZ)	50	
Inrush current (Peak and duration)	135.8A /3us	
Rated/Max.AC Current Output to Grid(A)	34.8	43.5
Rated/Max.AC Current From Grid (A)	34.8	43.5
Maximum output fault current (Peak and duration)	135.8A /3us	
Output Power Factor	Adjustable from 0.8 leading to 0.8 lagging	
Input Icc	$\leq 10\text{kA}$	
Output THDi (Nominal Power)	$< 3\%$	
AC Output Data (Back-up)	Cygni8.0HS	Cygni10.0HS
Max.Output Apparent Power(VA)	8000	10000
Peak Output Apparent Power (VA)	9600,60sec	12000,60sec
Rated/Max.Output Current (A)	34.8	43.5
Inrush current (Peak and duration)	135.8A /3us	
Nominal Output Voltage	230 (Without Transformer)	

(V)		
Nominal Output		50
Frequency(Hz)		
Maximum output fault current (Peak and duration)		135.8A /3us
Output THD v (@Linear Load)		<3%
Backup ups (ms)		<10
Generator input		NO
Efficiency	Cygni8.0HS	Cygni10.0HS
MPPT efficiency		99.9%
Max.Efficiency		97.5%
Europe Efficiency		97.0%
Protection	Cygni8.0HS	Cygni10.0HS
Anti-island Protection		Integrated
PV String Input Reverse Polarity Protection		Integrated
Battery Reverse Protection		Integrated
Residual Current Monitoring Unit		Integrated
Over Current/Voltage Protection		Integrated
DC Switch (PV)		Integrated
Fire Protection System		Built-in aerosol fire extinguisher
Surge Protection		DC Type II/ AC Type III
Communication Interface	Cygni8.0HS	Cygni10.0HS
Battery BMS		CAN
EMS		RS485
Meter		RS485
E-Stop		YES (DI)
Dry-Point		YES (DO)
Communication		Wi-Fi; Bluetooth
Display		LCD; APP; Web

General Data	Cygni8.0HS	Cygni10.0HS
Topology	Non-Isolated	
Operating Temperature Range (°C)	0-50	
Relative Humidity (%)	0-95	
Operating Altitude(m)	3000	
Cooling	Natural Convection	
Noise(dB)	<35	
Installation	Wall hanging & Floor type	
Enclosure Type	IP 66	
Active anti-islanding method	Active frequency perturbation method	
Pollution degree classification	3(External Environment) ,2(Internal Environment)	
-Storage type	Li-Ion	
-Protective class (I, II or III)	Class I	
-Over voltage category (OVC I, II, III or IV)	II(DC), III(AC)	
Inverter topology (Isolated or non-isolated)	Non-isolated	
Ingress protection (IP) rating	IP66	

General Data	Cygni8.0HS		Cygni10.0HS	
	BAT	C	BAT	C
Decisive voltage class (DVC)	PV	C	PV	C
	AC	C	AC	C
	COM	A	COM	A
Maximum inverter backfeed current to the array	0A		0A	
The maximum output overcurrent protection for each AC output port	65A		65A	
AC surge protection	Class III		Class III	

AC Surge Protection Time	20 ns	20 ns
Country of Manufacture	China	

Technical Specifications

Mode	Weight(kg)	Size(W/H/D)(mm)
Cygni 8.0HS-M2	113.2	650x1130x180
Cygni 8.0HS-M3	153.7	650x1430x180
Cygni 8.0HS-M4	193.7	650x1730x180
Cygni 8.0HS-M6	292.5	650×1630×180/650×1180×180
Cygni 8.0HS-M8	372.5	650×1930×180/650×1480×180
Cygni 8.0HS-M9	425	650×1630×180/650×1180×180/650×1180×180
Cygni 8.0HS-M12	545	650×1930×180/650×1480×180/650×1480×180
Cygni 10.0HS-M2	113.2	650x1130x180
Cygni 10.0HS-M3	153.7	650x1430x180
Cygni 10.0HS-M4	193.7	650x1730x180
Cygni 10.0HS-M6	292.5	650×1630×180/650×1180×180
Cygni 10.0HS-M8	372.5	650×1930×180/650×1480×180
Cygni 10.0HS-M9	425	650×1630×180/650×1180×180/650×1180×180
Cygni 10.0HS-M12	545	650×1930×180/650×1480×180/650×1480×180