



RAYBOX™ HS2

SINGLE PHASE HYBRID ALL-IN-ONE SOLUTION
| 5K | 8K | 10K |



AC retrofit & easy installation

16A

Max 16A input current to better match high power panel



Modular design and expandable up to 20.0kWh

UPS

With UPS function switch time ≤ 10ms

IP65

IP65 outdoor design

AFCI

AFCI integrated(optional) RSD supported(optional)

MODEL	HS2-5K-T2-2 4G	HS2-5K-T2-3 4G	HS2-5K-T2-4 4G	HS2-5K-T2-5 4G
DC Input				
Max. PV Array Power [Wp]@STC	7500			
Max. DC Voltage [V]	1000			
MPPT Voltage Range [V]	180~900			
Rated DC Voltage [V]	600			
Start Voltage [V]	180			
Backfeed Current [A]	0			
Max.DC Input Current [A]	16/16			
Max.DC Short Circuit Current [A]	19.2/19.2			
No. of MPPT	2			
Battery Parameters				
Battery Type	LiFePO4			
Battery Voltage Range[V]	180~600			
Max. Charging/Discharging Current [A]	30/30			
Backfeed Current [A]	0			
Short Circuit Current [A]	50			
Scalability	BU2-5.0-HV1 (up to 25.0kWh -> 5.0kWh x number of battery modules)			
Nominal Capacity [kWh]	10.0	15.0	20.0	25.0
Usable Capacity [kWh]	9.0	13.5	18.0	22.5
AC Output [On-grid]				
Rated AC Power [W]	5000			
Rated Apparent Power [VA]	5000			
Max. Apparent Power ¹ [VA]	5500			
Rated Output Current [A]@230Vac	7.2			
Max. Output Current [A]	8.0			
Current Inrush [A]	52			
Short Circuit Current [A]	71			
Rated AC Voltage/Range [V]	3L+N+PE, 230/400			
Rated Output Frequency/Range [Hz]	50,60/45~55,55~65			
Power Factor [cos φ]	0.8 leading~0.8 lagging			
Total Harmonic Distortion [THDi]	<3%			
AC Input [On-grid]				
Rated AC Voltage/Range [V]	3L+N+PE, 230/400			
Rated Input Frequency [Hz]	50,60			
Max. Input Current [A]@230Vac	14.5			
AC Output [Back-up]				
Max. Output Power [VA]	5000			
Max. Output Current [A]	7.2			
Peak Output Apparent Power [VA]	10000, 60s			
Rated AC Voltage/Range [V]	3L+N+PE, 230/400			
Rated Output Frequency/Range [Hz]	50,60/45~55,55~65			
Output THDv (@ Linear Load)	<3%			
Efficiency				
Max. Efficiency	98.0%			
Euro Efficiency	97.6%			
Protection				
Battery Input Reverse Polarity Protection	Integrated			
Over load Protection	Integrated			
AC Short Circuit Current Protection	Integrated			
DC Surge Protection	Integrated			
AC Surge Protection	Integrated			
Anti-islanding Protection	AFD			
AFCI Protection	Optional			
Interface				
PV Connection	D4/MC4 (optional)			
AC Connection	Plug-in connector			
Battery Connection	Quick connector			
Display	LED+APP			
Communication	Wi-Fi/Ethernet/4G(Optional)			
General Parameters				
Topology	Non-isolated			
Operating Temperature Range	Charging:0~50 Deg C; Discharging: -10~50 Deg C			
Cooling Method	Natural Convection			
Pollution Degree	PD3 (for outside), PD2 (for inside)			
Overvoltage Category	II (DC), III (AC)			
Protective Class	I			
Ambient Humidity	0~100% Non-condensing			
Altitude	3000m (>2000m Power Derating)			
Noise [dBA]	<35			
Ingress Protection	IP65			
Dimensions [H*W*D] [mm] (PCE Unit)	450*626*365			
Weight [kg] (PCE Unit)	33			
Dimensions [H*W*D] [mm] (BESS)	972*626*365	1233*626*365	1494*626*365	1755*626*365
Weight [kg] (BESS)	134	184.5	235	285.5
Warranty [Year]	Refer to Warranty Policy			
Standard	EN62109-1/2, EN61000-6-2/4, EN50438, EN50549, C10/11, IEC62116, IEC61727, RD1699, RD413, UNE 206006, UNE 206007, NTS, CEI 0-16, AS4777.2, NBR16149, NBR 16150 VDE-AR-N 4015, VDE 0126-1-1			
Made in China				

MODEL	HS2-8K-T2-2 4G	HS2-8K-T2-3 4G	HS2-8K-T2-4 4G	HS2-8K-T2-5 4G
DC Input				
Max. PV Array Power [Wp]@STC				12000
Max. DC Voltage [V]				1000
MPPT Voltage Range [V]				180~900
Rated DC Voltage [V]				600
Start Voltage [V]				180
Backfeed Current [A]				0
Max. DC Input Current [A]				16/16
Max. DC Short Circuit Current [A]				19.2/19.2
No. of MPPT				2
Battery Parameters				
Battery Type				LiFePO4
Battery Voltage Range[V]				180~600
Max. Charging/Discharging Current [A]				30/30
Backfeed Current [A]				0
Short Circuit Current [A]				50
Scalability	BU2-5.0-HV1 (up to 25.0kWh -> 5.0kWh x number of battery modules)			
Nominal Capacity [kWh]	10.0	15.0	20.0	25.0
Usable Capacity [kWh]	9.0	13.5	18.0	22.5
AC Output [On-grid]				
Rated AC Power [W]				8000
Rated Apparent Power [VA]				8000
Max. Apparent Power ¹⁾ [VA]				8800
Rated Output Current [A]@230Vac				11.6
Max. Output Current [A]				12.8
Current Inrush [A]				52
Short Circuit Current [A]				71
Rated AC Voltage/Range [V]				3L+N+PE, 230/400
Rated Output Frequency/Range [Hz]				50, 60/45~55, 55~65
Power Factor [cos φ]				0.8 leading~0.8 lagging
Total Harmonic Distortion [THDi]				<3%
AC Input [On-grid]				
Rated AC Voltage/Range [V]				3L+N+PE, 230/400
Rated Input Frequency [Hz]				50, 60
Max. Input Current [A]@230Vac				23.2
AC Output [Back-up]				
Max. Output Power [VA]				8000
Max. Output Current [A]				11.6
Peak Output Apparent Power [VA]				16000, 60s
Rated AC Voltage/Range [V]				3L+N+PE, 230/400
Rated Output Frequency/Range [Hz]				50, 60/45~55, 55~65
Output THDv (@ Linear Load)				<3%
Efficiency				
Max. Efficiency				98.0%
Euro Efficiency				97.6%
Protection				
Battery Input Reverse Polarity Protection				Integrated
Over load Protection				Integrated
AC Short Circuit Current Protection				Integrated
DC Surge Protection				Integrated
AC Surge Protection				Integrated
Anti-islanding Protection				AFD
AFCI Protection				Optional
Interface				
PV Connection				D4/MC4(optional)
AC Connection				Plug-in connector
Battery Connection				Quick connector
Display				LED+APP
Communication				Wi-Fi/Ethernet/4G(Optional)
General Parameters				
Topology				Non-isolated
Operating Temperature Range				Charging:0~50 Deg C; Discharging: -10~50 Deg C
Cooling Method				Natural Convection
Pollution Degree				PD3 (for outside), PD2 (for inside)
Overvoltage Category				II(DC), III(AC)
Protective Class				I
Ambient Humidity				0-100% Non-condensing
Altitude				3000m (>2000m Power Derating)
Noise [dBA]				<35
Ingress Protection				IP65
Dimensions [H*W*D] [mm] (PCE Unit)				450*626*365
Weight [kg] (PCE Unit)				33
Dimensions [H*W*D] [mm] (BESS)	972*626*365	1233*626*365	1494*626*365	1755*626*365
Weight [kg] (BESS)	134	184.5	235	285.5
Warranty [Year]	Refer to Warranty Policy			
Standards	EN62109-1/2, EN61000-6-2/4, EN50438, EN50549, C10/11, IEC62116, IEC61727, RD1699, RD413, UNE 206006, UNE 206007, NTS, CEI 0-16, AS4777.2, NBR16149, NBR 16150 VDE-AR-N 4015, VDE 0126-1-1			
Made in China				

MODEL	HS2-10K-T2-2 4G	HS2-10K-T2-3 4G	HS2-10K-T2-4 4G	HS2-10K-T2-5 4G
DC Input				
Max. PV Array Power [Wp]@STC	15000			
Max. DC Voltage [V]	1000			
MPPT Voltage Range [V]	180~900			
Rated DC Voltage [V]	600			
Start Voltage [V]	180			
Backfeed Current [A]	0			
Max.DC Input Current [A]	16/16			
Max.DC Short Circuit Current [A]	19.2/19.2			
No. of MPPT	2			
Battery Parameters				
Battery Type	LiFePO4			
Battery Voltage Range[V]	180~600			
Max.Charging/Discharging Current [A]	30/30			
Backfeed Current [A]	0			
Short Circuit Current [A]	50			
Scalability	BU2-5.0-HV1 (up to 25.0kWh -> 5.0kWh x number of battery modules)			
Nominal Capacity [kWh]	10.0	15.0	20.0	25.0
Usable Capacity [kWh]	9.0	13.5	18.0	22.5
AC Output [On-grid]				
Rated AC Power [W]	9999			
Rated Apparent Power [VA]	9999			
Max.Apparent Power ⁹⁹ [VA]	9999			
Rated Output Current [A]@230Vac	14.5			
Max. Output Current [A]	14.5			
Current Inrush [A]	52			
Short Circuit Current [A]	71			
Rated AC Voltage/Range [V]	3L+N+PE, 230/400			
Rated Output Frequency [Hz]	50, 60/45~55, 55~65			
Power Factor [cos φ]	0.8 leading~0.8 lagging			
Total Harmonic Distortion [THDi]	<3%			
AC Input [On-grid]				
Rated AC Voltage/Range [V]	3L+N+PE, 230/400			
Rated Input Frequency [Hz]	50, 60			
Max. Input Current [A]@230Vac	23.2			
AC Output [Back-up]				
Max.Output Power [VA]	9999			
Max. Output Current [A]	14.5			
Peak Output Apparent Power [VA]	16500, 60s			
Rated AC Voltage/Range [V]	3L+N+PE, 230/400			
Rated Output Frequency/Range [Hz]	50, 60/45~55, 55~65			
Output THDv (@ Linear Load)	<3%			
Efficiency				
Max. Efficiency	98.0%			
Euro Efficiency	97.6%			
Protection				
Battery Input Reverse Polarity Protection	Integrated			
Over load Protection	Integrated			
AC Short Circuit Current Protection	Integrated			
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Anti-islanding Protection	AFD			
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Battery Connection	Quick connector			
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Topology	Non-isolated			
Operating Temperature Range	Charging:0~50 Deg C; Discharging: -10~50 Deg C			
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Pollution Degree	PD3 (for outside), PD2 (for inside)			
Overvoltage Category	II(DC), III(AC)			
Protective Class	I			
Ambient Humidity	0~100% Non-condensing			
Altitude	3000m (>2000m Power Derating)			
Noise [dBA]	<35			
Ingress Protection	IP65			
Dimensions [H*W*D] [mm] (PCE Unit)	450*626*365			
Weight [kg] (PCE Unit)	33			
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