Annex 1: Inverter Parameter Table

Technical Data	HEC2-S6.0Hr2	HEC2-S5.0Hr2	HEC2-S3.8Hr2	HEC2-S3.68Hr2[7]
PV Input				
Max.PV array power	3750 W/3750 W			
Max.DC voltage	600 V [3]			
Nominal DC operating voltage	360 V			
MPPT voltage range	100 V-540 V			
MPP voltage range for nominal power [5]	225 V-480 V	185 V-480 V	141 V-480 V	137 V-480 V
Start up voltage	120 V			
Max.input current(A/B)	15 A/15 A			
Max.short circuit current(A/B)	18 A/18 A			
No.of MPP tracks/String per MPP tracker	2/1			
BAT Side				
Battery voltage range	85V [4] - 400 V			
Battery voltage range for nominal power	250 V-400 V	225 V-400 V	170 V-400 V	160 V-400 V
Recommended battery voltage	300 V			
Max.charge/discharge current [2]	25 A/25 A			
Communication interfaces	RS485/CAN			
Reverse connect protection	Yes			
AC Grid Side(On-grid)				
Nominal AC output power	6000 W [1]	5000 W [1]	3800 W	3680 W
Max.Output Power	6000 W [1]	5000 W [1]	3800 W	3680 W
Nominal Apparent Power Output to Utility Grid	6000 VA [1]	5000 VA [1]	3800 VA	3680 VA
Max. Apparent Power Output to Utility Grid	6000 VA [1]	5000 VA [1]	3800 VA	3680 VA
Nominal Apparent Power from Utility Grid	6000 VA	5000 VA	3800 VA	3680 VA
Max. Apparent Power from Utility Grid	6000 VA	6000 VA [6]	6000 VA [6]	6000 VA [6]
Nominal grid voltage	L/N/PE 230V			
Grid Voltage Range	180 V-280 V			
Nominal grid frequency	50 Hz			
AC Grid Frequency Range	50 Hz±5 Hz			
Max. output AC current to Utility Grid	26.1 A	21.7 A	16.5 A	16 A
Rate output AC current to Utility Grid	26.1 A	21.7 A	16.5 A	16 A
Rated AC Current From Utility Grid	26.1 A	21.7 A	16.5 A	16 A
Max. AC Current From Utility Grid	26.1 A	26.1 A [6]	26.1 A [6]	26.1 A [6]
Power factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)			
I.THD	<3%@Rated power		<5%@Rated power	

EPS Side				
Back-up Nominal Apparent Power	6000 VA	5000 VA	3800 VA	3680 VA
Nominal power	6000 W	5000 W	3800 W	3680 W
Max. Output Apparent Power without Grid	7500VA@10sec			
Max. Output Apparent Power with Grid	7500VA@10sec			
Nominal output voltage	L/N/PE 230V			
Nominal output frequency	50 Hz			
Nominal Output Current	26.1 A	21.7 A	16.5 A	16 A
Max.output current	26.1 A	21.7 A	16.5 A	16 A
Max.output overcurrent protection	32.6A@10sec			
Switching from Grid Connected Mode to backup Mode	<20 ms			
Output THD	<5%@Linear Load			
EFFICIENCY				
MPPT efficiency	99.9%	99.9%	99.9%	99.9%
Euro efficiency	95.2%	95.2%	95.0%	95.0%
Max.efficiency	96.8%	96.7%	96.5%	96.5%
Battery charge/discharge efficiency	97.6%(PV-BAT)	97.6%(PV-BAT)	97.6%(PV-BAT)	97.6%(PV-BAT)
	96.0%(BAT-AC)	96.3%(BAT-AC)	95.4%(BAT-AC)	95.4%(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	<2000m			
Humidity	0-95%			
Cooling	Natural Convection			
User Interface	LED,APP			
Communication with BMS	CAN/485			
Communication with Meter	RS485			
Communication with Portal	WIFI			
Typical noise emission	<40dB			
Dimension（W*H*D）	800 mm*450 mm*160 mm			
Weight	34 KG			
Topology	Non-isolated			
Self-consumption at Night	<25 W			
DC Connector	MC4 (4~6 mm²)			

AC Connector	Quick Plug
Storage Temperature	-40℃ to +85℃
Standard warranty	5 years
STANDARD	
Safety	IEC/EN 62109-1&2, IEC 62477
EMC	IEC 61000-6-1, IEC 61000-6-3
Environment	IEC 60529,IEC 60068
Efficiency	IEC 61683
Certification	EN 50549-1,G99,G98,CEI 021,VDE 4105,AS/NZS 4777.2

Remark:

[1] The grid feed in power for VDE4105 is limited 4600VA.

[2] Battery charging current is limited 25A and power is limited 6000W.

[3] The machine may be damaged if PV port exceeds this voltage, full power operation voltage should be less than 480V, 480V-540V for limited power operation.

[4] Battery port boot voltage must be greater than 95V.

[5] The power is 6000W according to the grid port.

[6] The value will appear when the grid is charging battery and support EPS load.

[7] 3.68kW is UK only.

Annex 2: Battery Parameters

Mode	HEC2-BHP50r2	HEC2-BHP100r2	HEC2-BHP150r2	HEC2-BHP200r2-A	HEC2-BHP300r2
Component	Base+BMS + 1*Module	Base+BMS + 2*Module	Base+BMS +3*Module	2*(Base+BMS +2*Module)	2*(Base+BMS +3*Module)
Nominal Voltage	102.4 V	204. 8 V	307.2 V	204. 8 V	307.2 V
Maximum Protection Voltage	116.8 V	233.6 V	350.4 V	233.6 V	350.4 V
Minimum Protection Voltage	89.6 V	179.2 V	268.8 V	179.2 V	268.8 V
Number of Battery Modules	1	2	3	4	6
Nominal Capacity	50 Ah	50 Ah	50 Ah	100 Ah	100 Ah
Total Energy	5.1 kWh	10.2 kWh	15.3 kWh	20.4 kWh	30.6 kWh
Nominal Power	2.56 kW	5.12 kW	7.68 kW	10.24 kW	15.36 kW
Nominal Charge/Discharge Current	25A	25A	25A	50A	50A
Maximum Charge/Discharge Current	25 A	25 A	25 A	50 A	50 A
Cycle Life	6000 Cycles(@0.5C,90%DOD,25°C,60%SOH)				
Expected Life Time	10 Years(60%SOH)				
Operating Ambient Temperature Range	-20 to 55°C(derating above 45°C)				
Storage Temperature	-20°C to 55°C (1 months)				
	-20°C to 45°C (3 months)				
	-20°C to 35°C(1 year)				
Humidity	0~95%				
Altitude	Below 2000 m				
Ingress Protection	IP65				
System to Inverter	RS485/CAN2.0				
Battery to Battery/BMS	Daisy chain				
Display Interface	LED				
Switch on/off	Button*1 +Breaker*1	Button*1 +Breaker*1	Button*1 +Breaker*1	2*（Button*1 +Breaker*1）	2*（Button*1 +Breaker*1）
Certificate	CE ,IEC 62619,IEC 62040,IEC 60529,IEC 61000,UN 38.3				
Hazardous Materials Classifcation	Class 9				
Weight	69±4 kg	124±6 kg	179±8 kg	248±12 kg	358±16 kg
External Dimension(W*H*D)	800±20*530 ±30*160±20 mm	800±20*840 ±30*160±20 mm	800±20*1150 ±30*160±20 mm	1600±20*840 ±30*160±20 mm	1600±20*1150 ±20*160±20 mm
Remark	1 Series			2 Series Parallel	