

ALTAIR HVS BATTERY



HIGH VOLTAGE BATTERY

7.68 to 25.6 kWh



SAFETY

- Modular design with plug-in connections
- Quick connections between battery and inverter
- Quick&easy-to-install with basic tools
- Warranty



RELIABLE

- IP65 rated design
- High quality cell inside
- Aerosol Protection as fire extinguisher



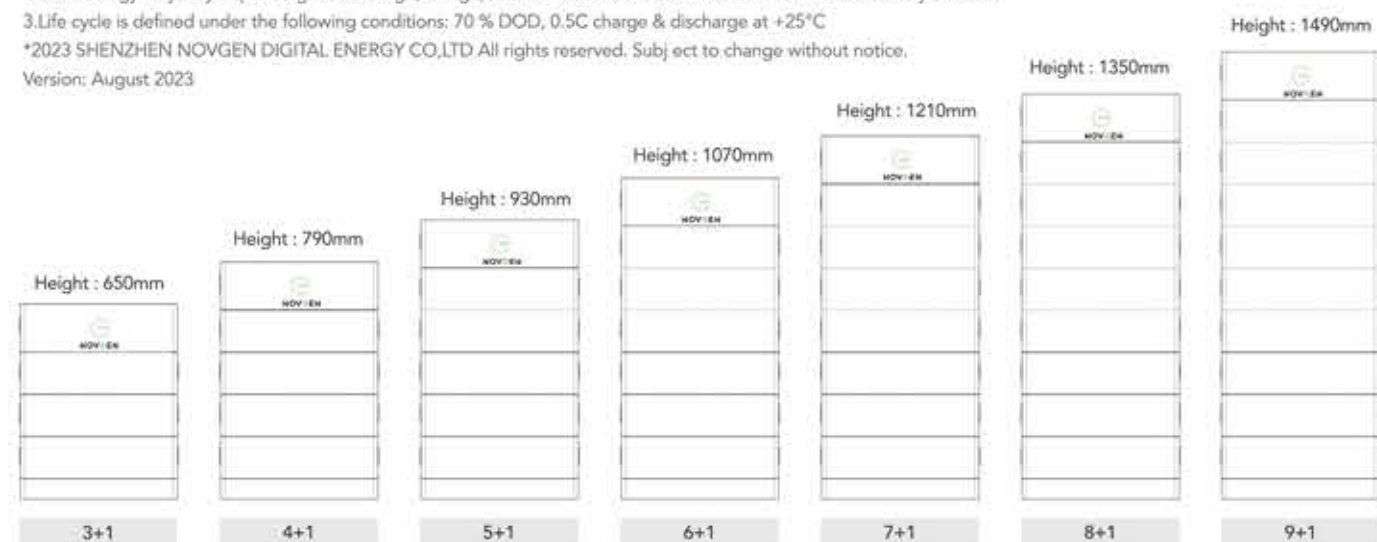
USER-FRIENDLY

- Stackable and Expandable up to 25.6 kWh(10 modules)
- Multi-use applications: self-consumption, peak shaving, time of use tariffs
- Online monitoring via Novgen apps

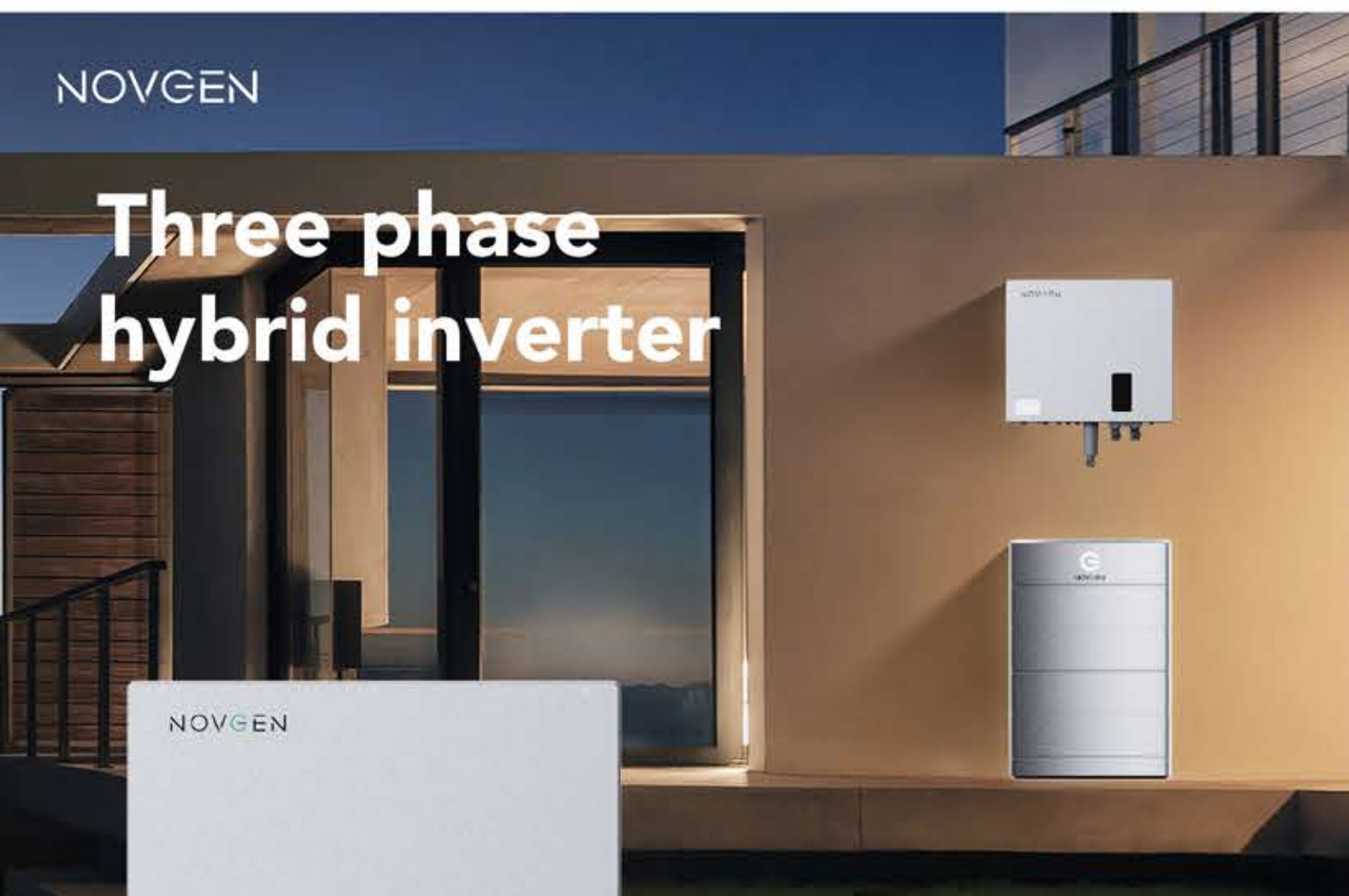
TECHNICAL DATASHEET

BATTERY MODULE		Altair HVS Battery							
Cell type	LiFePO4								
Module quantity	3	4	5	6	7	8	9	10	
Nominal energy ¹	7.68 kWh	10.24 kWh	12.8 kWh	15.36 kWh	17.92 kWh	20.48 kWh	23.04 kWh	25.6 kWh	
Usable energy ²	6.91 kWh	9.21 kWh	11.52 kWh	13.82 kWh	16.12 kWh	18.43 kWh	20.73 kWh	23.04 kWh	
Nominal voltage	153.6V	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V	
Operating voltage	144V	192V	240V	288V	336V	384V	432V	480V	
	172.8V	230.4V	288V	345.6V	403.2V	460.8V	518.4V	576V	
SYSTEM DATA	Nominal charging / discharging current								
	25 A								
Max.charging / discharging current									
	40 A								
Dimensions (W/D/H)	525x370x650 mm	525x370x790 mm	525x370x930 mm	525x370x1070 mm	525x370x1210 mm	525x370x1350 mm	525x370x1490 mm	525x370x1630 mm	
Weight	110 kg	140 kg	170 kg	200 kg	230 kg	260 kg	290 kg	320 kg	
Battery module weight	29kg								
Installation location	Indoor / Outdoor								
Mounting method	Floor mounted								
Operating temperature range	Charge : 0°C ~ 55°C								
	Discharge : -20°C ~ 55°C								
Storage temperature range	-20°C ~ 45°C								
Cooling concept	Natural convection								
Degree of protection	IP65								
Relative humidity	5% ~ 95%, non-condensing								
Communication	CAN								
GENERAL DATA	Certification								
	IEC 62619 / EN 61000 IEC 62040 / UN38.3								
Life cycle ³	6000 times								
DOD	90 %								
Compatible Inverters	Novgen , Megarevo , Solplanet , Growatt								

1.Nominal energy is defined under the following conditions: cell voltage 2.0-3.65V,1C charge&discharge at +25°C
2.Usable energy is defined under the following conditions: 90 % DOD, 1C charge 8 discharge at +25°C
Usable energy may vary depending on discharge, charge, environmental conditions and SOC % limits defined by the user.
3.Life cycle is defined under the following conditions: 70 % DOD, 0.5C charge & discharge at +25°C
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Three phase hybrid inverter



THREE PHASE HYBRID INVERTER

MODELS : Polaris-8k-TP3 / Polaris-10k-TP3 / Polaris-12k-TP3



EASY-TO-INSTALL

- Phoenix Contact connectors forreliable tool-free DC connection
- Compact wall mount design
- Simple battery and smart metelin-terfaces for faster installation
- Compatible with our high-voltag batteries



RELIABLE

- Up to 150 % PV array oversizing forhigher yields
- 100% unbalanced three phase AC output
- Improved generation under non-ideal conditions
- UPS level switching time < 10 ms
- IP66 rated design for outdoor use



USER-FRIENDLY

- 3 independent MPPT's for flexible PV array design, more kWp
- Setup, commissioning and monitoring via the Novgen app
- Intelligent work modes and customisable battery management for DOD /Time of Use/Power setting
- Max. 16 A input current, ideal for bifacial and large area PV modules

TECHNICAL DATASHEET

MODEL	Polaris-8k-TP3	Polaris-10k-TP3	Polaris-12k-TP3
PV INPUT			
Max. PV array power	12000 Wp	15000 Wp	18000 Wp
Max. input voltage	1100 V		
MPp voltage range / rated input voltage	200 V to 950 V / 600 V		
Min. input voltage / start voltage	60 V / 250 V		
No. of independent MPPT trackers / strings per MPPT input	3/1		
Max. input current per MPPT tracker	16 A		
Max. short-circuit current per MPPT tracker	24 A		
BATTERY INPUT			
Battery voltage range	120 V to 600 V		
Max. charging / discharging power	8000 W	10000 W	12000 W
Max. charging current / Max. discharging current	36 A		
Rated charging current / Rated discharging current	30 A		
Battery type	LiFePO4		
AC OUTPUT			
AC voltage range / Nominal AC voltage	270 V to 480 V /3/N/PE,220 / 380 V ; 230 / 400 V ; 240 / 415 V		
Rated AC grid frequency	50 Hz / 60 Hz		
AC grid frequency range	45-55 Hz / 55-65 Hz		
Rated apparent power	8000 VA	10000 VA	12000 VA
Max. apparent power	8800 VA	11000 VA	13200 VA
Rated grid output current (@400V)	11.6 A	14.5 A	17.4 A
Max. grid output current(@400V)	12.8 A	16.0 A	19.2 A
Harmonics THDi (@ Nominal power)	< 3% (of nominal power)		
AC INPUT			
Rated grid voltage	3/N/PE, 220 / 380 V ; 230 / 400 V ; 240 /415 V		
Rated grid frequency	50 Hz/60 Hz		
Max. input power from grid	16000 W	20000 W	24000 W
Max. input current from grid	23.2 A	29.0 A	34.8 A
EPS OUTPUT			
Nominal output voltage	3/N/PE, 220 / 380 V ; 230 / 400 V ; 240 /415 V		
Nominal output frequency	50 Hz/60 Hz		
Rated apparent power	8000 VA	10000 VA	12000 VA
Max. output apparent power@linear load	8000 VA	10000 VA	12000 VA
Peak output apparent power	2 times of rated power, 10 s		
Rated Current (@400V)	11.6 A	14.5 A	17.4 A
Max. switch time	< 10 ms		
Output THDv (@ Linear load)	2%		
EFFICIENCY			
MPPT efficiency	99.9 %		
Euro efficiency / Max. efficiency	97.9 % / 98.4 %	97.9 % / 98.4 %	97.9 % / 98.4 %
SAFETY PROTECTION			
DC surge protection(Type II, according to EN/IEC 61643-11)	●		
Insulation resistance detection	●		
PV string input reverse polarity protection	●		
Battery input reverse polarity protection	●		
Ground fault monitoring	●		
Residual current monitoring unit	●		
AC short circuit protection	●		
Anti-islanding protection	●		
GENERAL DATA			
Power factor at rated power / adjustable displacement	1/ 0.8 leading to 0.8 lagging		
Dimensions (W / H / D)	545 mm / 478 mm / 205 mm		
Weight	26 kg		
Operating temperature range	-25 °C ~ +60 °C		
Cooling concept	Natural convection		
Degree of protection (as per IEC 60529)	IP66		
Max. relative humidity	100 %		
Max. operating altitude	4000 m		
FEATURES			
User interface	LED & App		
BMS interface	CAN		
Smart meter interface	RS485		
Internet communication interfaces	Wifi /LAN /4G		
Digital output (dry contact) / No. of outputs	● / 2		
Digital input (dry contact) / No. of inputs	● / 4		
Integrated power control / export power control	● / ●		