

Three Phase Hybrid Inverter

15-20kW(Grid connection)

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Maximum 50A battery charging and discharging current
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Supports up to 16 devices running in parallel
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IP66 high protection level
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Support three-phase unbalanced loads
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Support diesel engine access
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The critical load UPS and off grid switching time is less than 10ms



Product Model	ESS1-15K3P-02-HV-F	ESS1-20K3P-02-HV-F	ESS1-20K3P-02-HV-F
Input DC (PV)			
Recommended max.PV power	18kW	22.5kW	30kW
Max. input voltage	1000V		
Rated input voltage	620V		
MPPT voltage range	200-850V		
Continuous input current	32A/32A		
MPPT number/Max.input stings number	2/4		
Batteries			
Input/Output DC(Battery)	Lithium batteries		
Battery voltage range	120-600V		
Max. charge/discharge power	12kW	15kW	20kW
Max. charge/discharge current	50A		
Communication mode	RS485/CAN		
Charging curve	Three-paragraph		
AC(Off Grid)			
Max.output power	12kW	15kW	20kW
Switch time of grid-connected and off-grid	<10ms		
THDi	< 2%(Linear load)		
AC(On Grid)			
Rated output power	12kW	15kW	20kW
Rated grid output voltage	3L/N/PE, 380V/400V		
Rated grid output frequency	50Hz/60Hz		
Max. output current	25A		
Max. input current	34.1A		
Power factor	> 0.99(0.8 leading ...0.8 lagging)		
THDi	< 2%(Full load)		
Efficiency			
Max. efficiency	> 97.5%		
MPPT efficiency	> 99.5%		
Protection function			
Island protection	Available		
Input Protection for reverse connection	Available		
100% three-phase unbalanced load	Available		
AFCI protection	Optional		
System Data			
Maximum number of parallel machines	16		
Communication Port	RS485/WIFI(Optional)/4G(Optional)/LAN(Optional)		
Dimensions	567mmx497mmx237mm		
Weight	29kg	31.6kg	
Operating ambient temperature	-40 ~ +60℃ (>45 derating)		
Degree of protection	IP66		
Cooling concept	Natural	Intelligent air-cooled	
AC-Input			
Rated Voltage	3L/N/PE 380/400V	3L/N/PE 380/400V	3L/N/PE 380/400V
Rated Frequency	50/60Hz	50/60Hz	50/60Hz
Max Input Current	27.3A	34.1A	45.5A