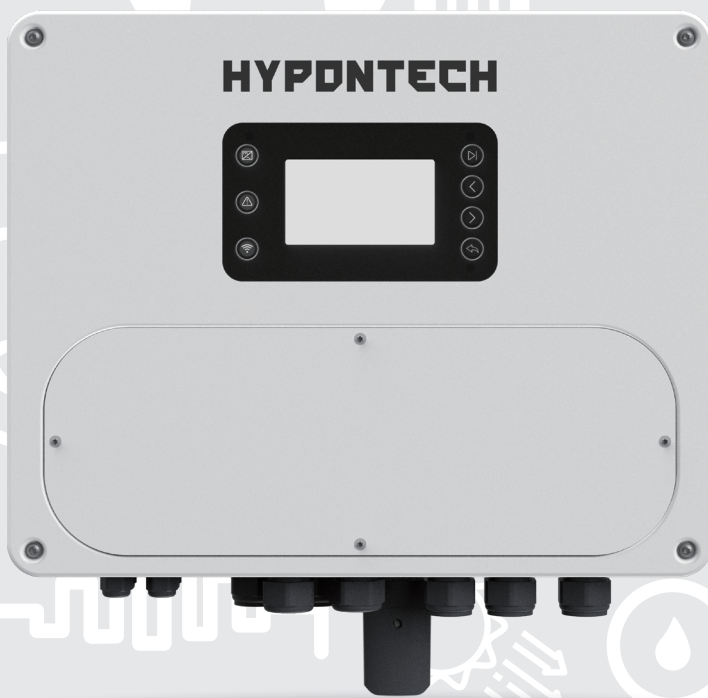


Storage

HIES^{LV}

3 - 6KL

SINGLE PHASE HYBRID



PV Ratio Up to 2.0



Grid Independence



Shadow Scan Algorithm



String-level Monitoring via HYPON.CLOUD

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HES MODEL	HES-3000L		HES-3680L		HES-4000L		HES-5000L		HES-6000L		
PV INPUT DATA					EFFICIENCY						
Max. input voltage / V	500	Max. PV power / W	HES-3000L		6000	MPPT efficiency			99.9%		
Min. DC voltage / V	70			HES-3680L	7360	Max.efficiency			98.0%		
Nominal input voltage / V	360			HES-4000L	8000	Euro efficiency			97.6%		
MPP voltage range / V	70~480			HES-5000L	10000	Charged efficiency@PV-battery			96.0%		
Max. input current / A	18/18			HES-6000L	12000	Charged/discharged efficiency@battery <->grid/load			95.0%		
Max. short current / A	25/25										
No. of MPP trackers	2										
No. strings per MPP tracker	1										
AC OUTPUT / INPUT DATA											
Rated power / W	3000	3680			4000	5000	6000				
Max. apparent power / VA	3300	4048			4400	5500	6600				
Max. apparent power from grid / VA	6600	8096			8800	10000	10000				
Rated grid voltage(AC voltage range) / V						220/230/240					
Rated grid frequency / Hz						50/60					
Rated AC output current / A	13.0	16.0			17.4	21.7	26.1				
Max. AC output current / A	14.3	17.6			19.1	23.9	28.7				
Max. AC current from grid / A	28.7	35.2			38.3	40.0	41.0				
Displacement power factor						0.8 leading – 0.8 lagging					
Total harmonic distortion(THDi, rated power)						<3%					
Grid connection						L/N/PE					
BATTERY INPUT DATA											
Battery type						Lithum/Lead-Acid					
Input voltage range / V						40~60					
Nominal battery voltage / V						48					
Max.charging voltage / V						<=60 (Adjustable)					
Max.charging/discharging current / A	75	75			110	135	135				
Max.charging/discharging power / W	3000	4048			4400	5500	6600				
Charging strategy for Li-ion battery						Self Adaption to BMS					
Charging strategy for lead-acid battery						3 Stages Curve					
Tempreture sensor						Optional (for Lead-Acid)					
AC OUTPUT DATA (BACK-UP)											
Norminal AC power / W	3000	3680			4000	5000	6000				
Nominal output voltage / V						230					
Nominal output frequency / Hz						50/60					
Peak output apparent power / VA	2 times of rated power for 3000~4000W@10s; 1.5 times for 5000~6000W@10s										
Max. output current / A	14.3	17.6			19.1	23.9	28.7				
Switch time / ms						<10					
THDV(@line load)						<2%					
GENERAL DATA					PROTECTION FUNCTION						
Dimensions(W*H*D) / mm	485*365*182				Anti-islanding protection			Integrated			
Weight / Kg	16.5				PV string input reverse polarity protection			Integrated			
User Interface	LCD&LED				Insulation resistor detection			Integrated			
Communication with cloud	WiFi/4G/LAN (Opt)				Residual current monitoring unit			Integrated			
Communication with BMS	CAN/RS485				Output over current protection			Integrated			
Communication with CT	RS485				Output short protection			Integrated			
Cooling method	Natural				Over voltage protection			Integrated			
Operating ambient temperature range / C	-30 ~ +60				Surge protection			DC Type II, AC Type III			
Allowable relative humidity range / %	0 ~ 100				Battery reverse protection			Integrated			
Max. operating altitude / m	3000				Battery terminal temperature protection			Integrated			
Degree of protection	IP65				Rapid shutdown			Optional			
Topology	Transformerless for PV Side/HF for Battery Side				AFCI			Optional			
Power consumption at night / W	<5										
Max. parallel number	9										