

Storage

HES^{LV}

3-6KT
SINGLE PHASE HYBRID



PV Ratio Up to
2.0



Grid
Independence



Smart
Load Function



Shadow Scan
Algorithm



String-level Monitoring
via HYPON.CLOUD

HYPONTECH

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EN 20260410

HES MODEL		HES-3000T		HES-3680T		HES-4000T		HES-5000T		HES-6000T					
PV INPUT DATA															
Max. PV Power / W		HES-3000T		6000		Max.Input Voltage / V		600		Max. Short Circuit Current / A		20/20			
HES-3680T		7360		HES-5000T		10000		Start Up Voltage / V		70		No. of MPPTs/No. Strings Per MPPT		2/1	
HES-4000T		8000		HES-6000T		12000		MPP Voltage Range / V		80-550		Max. Input Current / A		18/18	
										Rated Input Voltage / V		360			
BATTERY INPUT DATA															
Battery Type				Li-ion/ Lead-Acid		Rated Battery Voltage / V				48					
Input Voltage Range / V				40-60		Max.Charging/Discharging Voltage / V				<=60 (Adjustable)					
Max.charging/Discharging Current / A		HES-3000T		HES-3680T		70		Charging Strategy For Li-ion Battery				Self Adaption to BMS or without BMS			
		HES-4000T		80		Charging Strategy For Lead-acid Battery				3 Stages Curve					
		HES-5000T		HES-6000T		120		Temperature Sensor				Optional (for Lead-Acid)			
Max.Charging/Discharging Power / W		3000		3680		4000		5000		6000					
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 / V		220/230/240		220/230/240		220/230/240		220/230/240		220/230/240					
Rated Grid Frequency / Hz		50/60		50/60		50/60		50/60		50/60					
Rated Output Current / A		13.0		16.0		17.4		21.7		26.1					
Max. Output Current / A		14.3		17.6		19.1		23.9		28.7					
Max. Current from Grid / A		28.7		35.2		38.3		40.0		40.0					
Power Factor		0.8ind - 0.8cap		0.8ind - 0.8cap		0.8ind - 0.8cap		0.8ind - 0.8cap		0.8ind - 0.8cap					
THDi @ Rated Power		<3%		<3%		<3%		<3%		<3%					
Grid Connection		L-N-PE		L-N-PE		L-N-PE		L-N-PE		L-N-PE					
AC OUTPUT DATA (BACK UP)															
Rated Power / W		3000		3680		4000		5000		6000					
Rated Output Voltage / V		220/230		220/230		220/230		220/230		220/230					
Rated Output Frequency / Hz		50/60		50/60		50/60		50/60		50/60					
Peak Output Apparent Power / VA		2 times of rated power for 3000-4000W@10s; 1.5 times for 6000/5000													
Rated Output Current / A		13.0		16.0		17.4		21.7		26.1					
Switch Time / ms		<10		<10		<10		<10		<10					
THDV@ Rated Power		<2%		<2%		<2%		<2%		<2%					
AC INPUT DATA (Generator)															
Max. Input Power / W		3000		3680		4000		5000		6000					
Rated Input Voltage / V		220/230		220/230		220/230		220/230		220/230					
Rated Input Frequency / Hz		50/60		50/60		50/60		50/60		50/60					
Rated Input Current / A		13.0		16.0		17.4		21.7		26.1					
PROTECTION															
Anti-Islanding Protection		Integrated		Output Over Circuit Protection		Integrated		Battery Reverse Protection		Integrated					
PV String Input Reverse Polarity Protection		Integrated		Output Short Circuit Protection		Integrated		Battery Terminal Temp Protection		Integrated					
Insulation Resistor Detection		Integrated		Over Voltage Protection		Integrated									
Residual Current Monitoring Unit		Integrated		Surge Protection		DC Type II, AC Type III									
GENERAL DATA						EFFICIENCY									
Dimensions (W*H*D) / mm		455*365*182		Communication with CT Meter		RS485		MPPT Efficiency		99.9%					
Weight / kg		18.4		Operating Ambient Temperature / °C		-30 ~ +60		Euro Efficiency		97.6%					
User Interface		LCD&LED		Allowable Relative Humidity Range / %		0-100		Max. Efficiency		98.0%					
PV Connection Type		MC4/D4		Max. Operating Altitude / m		3000		Charged Efficiency@PV-Battery		96.0%					
AC Connection Type		OT Terminals		Degree of Protection		IP65		Charged/Discharged Efficiency@Battery <->Grid/Load		95.0%					
Battery Connection Type		Plug-in		Topology		Transformerless for PV Side / HF for Battery Side									
Communication with Cloud		WiFi/GPRS/4G/LAN (Opt)		Night Consumption / W		<5									
Communication with BMS		CAN/RS485													
Cooling Method		Natural													
Max. Parallel		9													