

Tower-US & Solis S6-US

DYNESS Tower series has flexible installation options. With a cordless design, the Tower system supports a plug & play connection for easy installation and movement. Its OTA function can realize firmware upgrading with one set. DYNESS cooperates with Ginlong Technologies Corporation, forming a complete kit with their high-performance inverter; the Tower ESS can maximize the efficiency of power production and conversion. The whole ESS gets completed US certification, which maintains the safety and stability needs and requirements serving various application scenarios.

Tower-US Highlights & Features:



High VoltageHigh system Efficiency



Expandable Energy 7.1kWh-170.4kWh Max. 12 clusters in parallel



Wireless Connection

Pile up design, easy to install &move



Highly Flexible



Intelligent Design



Efficient Performance



Safe and Reliable

Model	Tower T7-US	Tower T10-US	Tower T14-US		
Module Number	2	3	4		
Nominal Capacity		37Ah			
Nominal Battery Energy	7.10kWh	10.66kWh	14.21kWh		
Nominal Voltage	192V	288V	384V		
Maximum Continuous Discharge Power	4.26kW	6.39kW	8.52kW		
Maximum Continuous Charge Power	4.26kW	6.39kW	8.52kW		
Dimension [W*D*H, inch]	19.8*14.9*27.6	19.8*14.9*35.4	19.8*14.9*43.3		
Weight	231lb	322lb	412lb		
Max Depth of Discharge	100%				
Charging Temp. Range	32°F-122°F				
Discharging Temp. Range	14°F-122°F				
Communication	CAN/RS485				
Warranty	10 Years				
Warranty Document Supplied	Yes				
Cycle Life	≥6000 Cycles				
Enclosure Protection	NEMA 4X				
Color	White				
Alarms	Overcharge/Overdischarge/Overcurrent/Overtemperature/Short Circuit				
Pros	Can be used in both off-grid and hybrid setups compact design modular expansion				
Battery Module Type	HV9637				
Module Connection Method	in series				
Compatible Inverters	Solis				
Certification	UN38.3/UL1973/UL9540A/UL9540				

^[1]Test conditions:0.2C Charging/Discharging,@77 \mathbb{F} ,80% DOD

S6-EH1P(3.8-11.4)K-H-US

Model	S6-EH1P(3.8-11.4)K-H-US				
DC Input (PV)					
Models	3.8K-H	5K-H	7.6K-H-L	10K-H	11.4K-H
Max. input voltage [V]			600		
Rated voltage [V]	380				
Start-up voltage [V]	80				
MPPT voltage range [V]	80-520				
Max. input current [A]	16				
Max. short circuit current [A]	25.6				
MPPT number/Max. input strings number	#2/1	#3/1		#4/1	

 $[\]hbox{\cite{thm 2-10} Power when communicate with inverter is 0.6C} \\$

Model		S6-El	H1P(3.8-11.4)K	-H-US	
Energy Storage					
Battery type			Lithium-ion		
Battery voltage range			120-500 V		
Maximum charge/discharge current	25 /	A		50 A	
Battery communication			CAN/RS485		
Number of batteries per inverter	2-4				
Output AC (Grid)			2 7		
Rated output power (Max.) [kW]	3.8(3.8)	5(5)	7.6(7.6)	10(10)	11.4(11.4)
Rated output voltage [V]	3.0(3.0)	3(3)	240	10(10)	11.4(11.4)
Rated grid frequency [Hz]			60		
Rated output current (Max.) [A]	15.8(15.8)	20.8(20.8)	31.7(31.7)	41.7(41.7)	47.5(47.5)
Power factor	13.0(13.0)				47.3(47.3)
		>0.99	(0.8 leading – 0.8 la	gging)	
Output AC (Back-up)		_	7.0	4.0	
Rated output power [kW]	3.8	5	7.6	10	11.4
Max. apparent output power [kVA]	6.1(10s)	8(10s)	12.2(10s)	16(10s)	18.2(10s)
Rated grid output current [A]	15.8	20.8	31.7	41.7	47.5
Max. output current [A]	25.4	33.3	50.7	66.7	76
Back-up switch time	<10ms				
Rated output voltage [V]	240V(L1-L2)				
Rated frequency [Hz]	60				
Max. allowable phase imbalance			100%		
AC Input (Grid)					
Input voltage range (V)			211-264		
Max. input current	23.8A	31.2A	47.6A	62.6A	71.3A
Frequency range			58.8Hz-61.2Hz		
AC Output (Backup and Off-grid)					
Rated output power	3.8kW	5kW	7.6kW	10kW	11.4kW
Max. apparent output power	6.1KVA,10sec	8KVA,10sec	12.2KVA,10sec	16KVA,10sec	18.2KVA,10se
Back-up switch time			<10 ms		
Rated output voltage (L1-L2)			240 V		
Rated output voltage (L1/L2-N)			120 V		
AC output voltage range			211-264 V		
Rated grid frequency			60 Hz		
Frequency range			55-65 Hz		
Rated AC output current	15.8A	20.8A	31.7A	41.7A	47.5A
Max. output overcurrent protection, 10 sec	25.4A	33.3A	50.7A	66.7A	76A
Max. allowable phase imbalance			100%		
Backup support configurations		Whole	-home and dedicate	d loads	
Power factor	>0.99 (0.8 leading - 0.8 lagging)				
THDv (@linear load)			<3%	999/	
Efficiency			13 70		
			97.60%		
PV CEC officiency	97.60%				
PV CEC efficiency	97.20%				
Battery charged by PV Max. efficiency	98.50%				
Battery charged/discharged to AC Max. efficiency			97.00%		
Protetion					
Ground fault detection			Yes		
Residual (leakage) current detection	Yes				
Integrated AFCI (DC arc-fault circuit protection)	Yes				
DC reverse-polarity protection	Yes(PV only)				
Danid Chutdown NEC 2017	Integrated SunSpec-certified Transmitter				
Rapid Shutdown NEC 2017		See MLRSD Compatibilty Sheet			
Compatible RSD Receivers		See N	ALRSD Compatibilty	Sheet	
		See N	ILRSD Compatibilty	Sheet	

Model	S6-EH1P(3.8-11.4)K-H-US			
General Data				
Dimensions (W*H*D)	19.23*32.97*8.62 in (488.5*837.5*219mm)	21.87*34.88*8.62 in (555.5*866*219mm)		
Weight	65.16 lbs (29.56 kgs)	89.59 lbs (40.64 kgs)		
Mounting type	Wall Bracket			
Topology	Transformerless			
Self-consumption (night)	< 20 W			
Operation temperature range	[-31 °F to 140 °F (-25°C to 60°C)]			
Ingress protection	TYPE 4X (IP66)			
Noise emission	<30 dB(A)			
Cooling method	Natural convection			
Max. operation altitude	13,120 ft (4000 m)			
Compliance	"UL 1741, UL 1741 SA, UL 1741 SB, IEEE 1547-2018, IEEE 1547.1-2020, UL 1699B, UL 1998, California Rule 21, HECO Rule 14H*, NEC 690.12-2020, CAN/CSA C22.2107.1-1, FCC Part 15 Class B"			
Generator support	Yes			
Features				
DC connection	1 in. knockouts for conduit (x2) on the side and bottom; Spring clamp terminals			
AC connection	1.5 in. knockouts for conduit (x3) on the side and bottom; Spring clamp terminals			
Interface	LED indicator lights, Bluetooth/Mobile application			
Monitoring platform	SolisCloud (modbus map and API sharing available upon request)			
Integrated ANSI C12.20 revenue grade meter	Optional (Continental Control Systems RWND-3D-240-MB)			
Communication	RS485, Cellular, Wi-Fi, Optional: LAN			
Integrated RSD Transmitter Brands	See the MLRSD Compatibility Sheet			