

EG4 18kPV & All Weather ESS Specifications

ESS Model Number	PP-16/280A1-18K1-AWLL	PP-16/280A2-18K1-AWLL	PP-16/280A3-18K1-AWLL
PV Input Data			
Number of MPPTs per Inverter	3		
Max. Power Current	25A / 15A / 15A		
Max. Short Circuit Current	31A / 19A / 19A		
MPPT Voltage Range	100~600 VDC		
MPPT Operating Voltage	120~500 VDC		
Max. Solar Power (per inverter)	18kW Usable 21kW STC		
AC Specifications			
Nominal AC Voltage	120/240V 120/208V		
Frequency	50Hz 60Hz		
AC Bypass	200A (Grid) 90A (Generator)		
Max. Cont. Line Wattage	8kW per 120V line per inverter		
Switchover Time	10ms		
AC Power (Solar + Battery)			
Rated Output Current	50A		
Rated Output Power	12kW @ 240V 10.4kW @ 208V		
Peak Power	14.7kW (10 min) 15.5kW (5 min)		
AC Power (Battery Only)			
Rated Output Current	42.6A	50A	
Rated Output Power	10.2kW @ 240/208V	12kW @ 240V 10.4kW @ 208V	
Peak Power	15kW (10s)	13.5kW (10 min)	
Battery Specifications			
Nominal Voltage	51.2V		
Total Amp-Hours	280Ah	560Ah	840Ah
Total Storage Capacity	14.3kWh	28.6kWh	42.9kWh
Max. Charge Current (per inverter)	200A	250A	
Max. Discharge Current (per inverter)	200A	250A	
General Data			
Max. Efficiency – PV to Grid	97.5%		
Max. Efficiency – Battery to Grid	94%		
Idle Consumption (per inverter)	~70W (normal) ~18W (standby)		
Noise Emission (per inverter)	68dB @ 3ft		
Altitude	<2,000m		
Operating Temperature Range	-25~60°C, >45°C derating		
Dimensions of Inverter	34.3×20.5×11.2in.		
Dimensions of Conduit Box	9.13×24.13×10.57in.		
Dimensions of Battery	34.6×22.3×9.1in.		
ESS Communication Protocol	RS485 CAN		
ESS Warranty	10-year		
Safety			
Safety Metrics and Certifications	UL1741SB Rule 21, RSD NEC 2020:690.12, AFCI NEC 2020:690.11 / UL1699B, GFDI NEC 2020:690.41 (B), CSA 22.2.107.1, CSA 22.2.330, UL9540		
ESS Weather Rating	IP65, NEMA4X		
Integrated Disconnect	Yes		
PV Reverse Polarity Protection	Yes		

ESS Model Number	PP-16/280A2-18K2-AWLL	PP-16/280A3-18K2-AWLL
PV Input Data		
Number of MPPTs per Inverter	3	
Max. Power Current	25A / 15A / 15A	
Max. Short Circuit Current	31A / 19A / 19A	
MPPT Voltage Range	100~600 VDC	
MPPT Operating Voltage	120~500 VDC	
Max. Solar Power (per inverter)	18kW Usable 21kW STC	
AC Specifications		
Nominal AC Voltage	120/240V 120/208V	
Frequency	50Hz 60Hz	
AC Bypass	200A (Grid) 90A (Generator)	
Max. Cont. Line Wattage	8kW per 120V line per inverter	
Switchover Time	20ms	
AC Power (Solar + Battery)		
Rated Output Current	100A	
Rated Output Power	24kW @ 240V 20.8kW @ 208V	
Peak Power	29.4kW (10 min) 31kW (5 min)	
AC Power (Battery Only)		
Rated Output Current	85.2A	100A
Rated Output Power	20.4kW @ 240/208V	24kW @ 240V 20.8kW @ 208V
Peak Power	30kW (10s)	27kW (10 min)
Battery Specifications		
Nominal Voltage	51.2V	
Total Amp-Hours	560Ah	840Ah
Total Storage Capacity	28.6kWh	42.9kWh
Max. Charge Current (per inverter)	200A	250A
Max. Discharge Current (per inverter)		
General Data		
Max. Efficiency – PV to Grid	97.5%	
Max. Efficiency – Battery to Grid	94%	
Idle Consumption (per inverter)	~70W (normal) ~18W (standby)	
Noise Emission (per inverter)	68dB @ 3ft	
Altitude	<2,000m	
Operating Temperature Range	-25~60°C, >45°C derating	
Dimensions of Inverter	34.3×20.5×11.2in.	
Dimensions of Conduit Box	9.13×24.13×10.57in.	
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ESS Communication Protocol	RS485 CAN	
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ESS Weather Rating	IP65/NEMA4X	
Integrated Disconnect	Yes	
PV Reverse Polarity Protection	Yes	



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