

2.3. Specifications Performance

2.3.1 Battery Parameters

Table 2-1

Series	iPower Mini			
Battery Type	LiFePO4			
Model	YL-W4850	YL-W48100	YL-W48150	YL-W48200
Nominal Voltage[V]	48			
Nominal Capacity[Ah]	50	100	150	200
Nominal Energy[kWh]	2.4	4.8	7.2	9.6
Max. output Power[kW]	2.4	4.8	4.8	4.8
Net Weight[kg]	30	51	85	87
Dimension [mm]W*D*H	410*450*144	480*520*167	610*630*167	520*520*230
Working Voltage[V]	40~54			
Operating Temperature Charging[°C]	0~55			
Operating Temperature Discharging[°C]	-20~60			
Max. Charge Current[A]	50	100		
Max. Discharge Current[A]	50	100		
Recommend Charge Current[A]	10	20	30	40
Charge Mode	CC-CV			
Communication	CAN/RS485/RS232/Dry Contact			
IP Level	IP30			
Temperature & Period Storage[°C]	Less than 6 Month@-10°C~35°C			
	Less than 3 Month@-10°C~45°C			
	Less than 1 Month@-20°C~45°C			

11. Technical parameters

Models	SVP48100LV-P	SVP48100LV	SVP48120LV-P	SVP48120LV
Parallel mode				
Permitted parallel number	1~6	NO	1~6	NO
AC mode				
Rated input voltage	120(L1/N, L2/N)/240Vac(L1/L2)			
Input phase voltage range	(85Vac~140Vac)±2%			
Frequency	50Hz/60Hz (Auto detection)			
Frequency Range	47±0.3Hz~55±0.3Hz (50Hz); 57±0.3Hz~65±0.3Hz (60Hz);			
Overload/short circuit protection	Circuit breaker			
Efficiency	>95%			
Conversion time (bypass and inverter)	10ms (typical)			
AC reverse protection	Yes			
Maximum bypass phase overload current	2pole, 60A/60A(L1/L2)			
Inverter mode				
Output voltage waveform	Pure sine wave			
Rated output power (VA)	Split phase: 10000		Split phase: 12000	
	Single phase: 7200 (limited by the wiring terminals)		Single phase: 7200 (limited by the wiring terminals)	
Rated output power (W)	Split phase: 10000		Splitphase:12000	
	Single phase: 7200 (limited by the wiring terminals)		Singlephase:7200 (limitedbythewiringterminals)	
Power factor	1			
Rated output voltage (Vac)	120Vac (L1/N, L2/N)/240Vac(L1/L2)			
Output voltage error	±5%			
Output frequency range (Hz)	50Hz±0.3Hz/60Hz±0.3Hz			

Maximum Efficiency	>91%	
Overload protection	(105% < load < 110%) ±5%: report error and turn off the output after 5 minutes; (110% < load < 125%) ± 5%: report error and turn off the output after 10 seconds; Load > 125% ±5%: report error and turn off the output after 5 seconds;	
Peak power	Split phase: 15000VA	Split phase: 18000VA
	Single phase: 10800VA	Single phase: 18000VA
Loaded motor capability	5HP	6HP
Output short circuit protection	Can protect, after continuous short circuit for 1 second	
Bypass circuit breaker phase specification	2pole, 63A/63A(L1/L2)	
Rated battery input voltage	51.2V (Minimum starting voltage 44V)	
Battery voltage range	40.0Vdc~58.6Vdc±0.6Vdc (Under voltage alarm/shutdown voltage/over voltage alarm /over voltage recovery... settable on LCD screen)	
Power saving mode self-consumption	Load per phase is null or less than 25W enter power-saving mode	
AC charging		
Battery type	Lead acid or lithium battery	
Maximum charge current(can be set)	120A	160A
Charge current error	±5A _{dc}	
Charge voltage range	40 –58.6Vdc	
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker phase specifications	2pole, 60A/60A(L1/L2)	
PV charging		
Number of MPPT groups	2	
Maximum PV open circuit voltage	500Vdc	
PV operating voltage range	90Vdc~485Vdc	
MPPT voltage range	90Vdc~450Vdc	

Battery voltage range	40-58.6Vdc
Maximum PV input power	6000W+6000W
Maximum PV input current	22A+22A
PV charge current(can be set)	220A
Charging short circuit protection	Blown fuse
Wiring protection	Reverse polarity protection
Hybrid charging Max charger current specifications (AC charger+PV charger)	
Max charger current(can be set)	0-220A
Certified specifications	
Certification	UL1741 / CSA C22.2#107.1
EMC certification level	FCC part15, CLASS B
Operating temperature range	-10°C to 55°C(>45°C derating)
Storage temperature range	-25°C ~ 60°C
Humidity range	5% to 95% (Conformal coating protection)
Noise	≤60dB
Heat dissipation	Forced air cooling, variable speed of fan
Communication interface	USB/RS485(/WiFi/GPRS)/ Dry node control
Size (L*W*D)	620mm*450mm*132mm
Weight (kg)	23.8



SunPower E-Series: E20-330-COM

SunPower® Commercial DC Panel



SunPower E-Series panels combine high efficiency with the strongest durability and warranty available in the market today, resulting in more long-term energy and savings. ^{1,2}



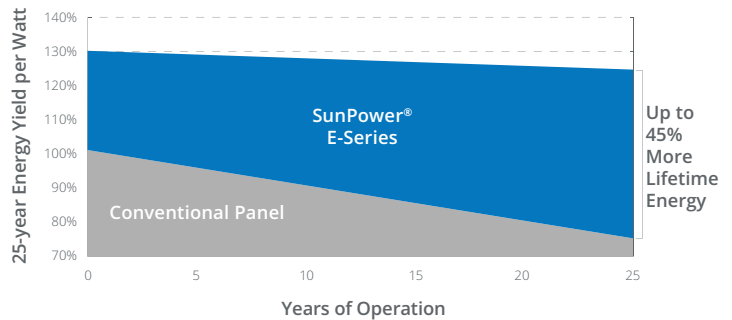
High Efficiency

Generates more power and savings per available space, making it easier to meet your organization's goals.

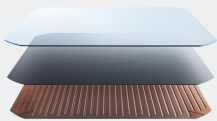


More Lifetime Energy and Savings

Designed to deliver 45% more energy in the same space over 25 years in real-world conditions like partial shade and high temperatures. ²



Fundamentally Different. And Better.



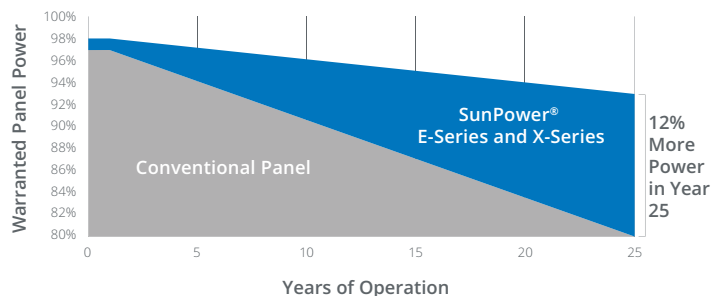
The SunPower Maxeon® Solar Cell

- Enables high efficiency panels ²
- Delivers leading reliability ³
- Patented solid metal foundation prevents breakage and corrosion



Best Reliability, Best Warranty

With more than 25 million panels deployed around the world, SunPower technology is proven to last. That's why we stand behind our panel with the industry's best 25-year Combined Power and Product Warranty, including the highest Power Warranty in solar.



E-Series: E20-330-COM SunPower® Commercial DC Panel


Electrical Data			
	SPR-E20-330-COM	SPR-E20-327-COM	SPR-E19-320-COM
Nominal Power (Pnom) ⁷	330 W	327 W	320 W
Power Tolerance	+5/-3%	+5/-3%	+5/-3%
Panel Efficiency	20.2%	20.1%	19.6%
Rated Voltage (Vmpp)	54.7 V	54.7 V	54.7 V
Rated Current (Impp)	6.04 A	5.98 A	5.86 A
Open-Circuit Voltage (Voc)	64.9 V	64.9 V	64.8 V
Short-Circuit Current (Isc)	6.52 A	6.46 A	6.24 A
Max. System Voltage	1000 V UL & 1000 V IEC		
Maximum Series Fuse	15 A		
Power Temp Coef.	-0.33% / °C		
Voltage Temp Coef.	-176.6 mV / °C		
Current Temp Coef.	2.6 mA / °C		

Tests And Certifications (Preliminary)	
Standard Tests ⁸	UL1703 (Type 2 Fire Rating), IEC 61215, IEC 61730
Quality Management Certs	ISO 9001:2015, ISO 14001:2015
EHS Compliance	RoHS, OHSAS 18001:2007, lead free, Recycle Scheme, REACH SVHC-163
Ammonia Test	IEC 62716
Desert Test	MIL-STD-810G
Salt Spray Test	IEC 61701 (maximum severity)
PID Test	1000 V: IEC 62804, PVEL 600 hr duration
Available Listings	UL, TUV, MCS, CEC

- 1 SunPower 327 W compared to a Conventional Panel on same-sized arrays (260 W, 16% efficient, approx. 1.6 m²), 4% more energy per watt (based on PVSyst pan files), 0.75%/yr slower degradation (Campeau, Z. et al. "SunPower Module Degradation Rate," SunPower white paper, 2013).
- 2 Based on search of datasheet values from websites of top 10 manufacturers per IHS, as of January 2017.
- 3 Jordan, et. al. Robust PV Degradation Methodology and Application. PVSC 2018.
- 4 SunPower is rated #1 on Silicon Valley Toxics Coalition's Solar Scorecard.
- 5 Cradle to Cradle Certified is a multi-attribute certification program that assesses products and materials for safety to human and environmental health, design for future use cycles, and sustainable manufacturing.
- 6 X-Series and E-Series panels additionally contribute to LEED Materials and Resources credit categories.
- 7 Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25° C). NREL calibration Standard: SOMS current, LACCS FF and Voltage.
- 8 Type 2 fire rating per UL1703:2013, Class C fire rating per UL1703:2002.
- 9 Please read the safety and installation guide for more information regarding load ratings and mounting configurations.

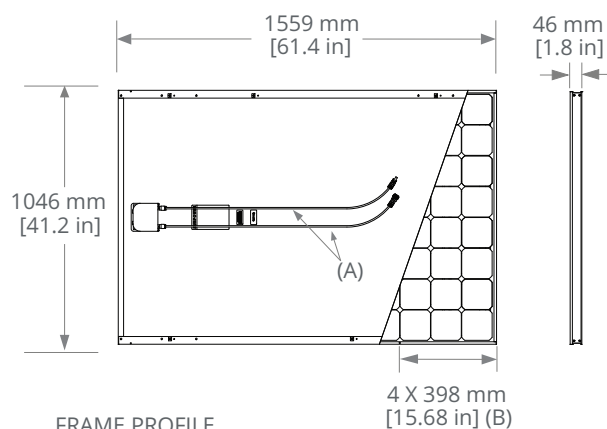
See www.sunpower.com/company for more reference information.
For more details, see extended datasheet: www.sunpower.com/solar-resources.
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Operating Condition And Mechanical Data	
Temperature	-40° F to +185° F (-40° C to +85° C)
Impact Resistance	1 inch (25 mm) diameter hail at 52 mph (23 m/s)
Appearance	Class A
Solar Cells	96 Monocrystalline Maxeon Gen II
Tempered Glass	High-transmission tempered anti-reflective
Junction Box	IP-65, TE (PV4S)
Weight	41 lbs (18.6 kg)
Max. Test Load ⁹	Wind: 114 psf, 5500 Pa, 560 kg/m ² back Snow: 133 psf, 6400 Pa, 652 kg/m ² front
Design Load	Wind: 50 psf, 2400 Pa, 244 kg/m ² back Snow: 112 psf, 5400 Pa, 550 kg/m ² front
Frame	Class 2 silver anodized; stacking pins



FRAME PROFILE



- (A) Cable Length: 1000 mm +/- 10 mm
- (B) Stacking Pins
- (C) Long Side: 32 mm [1.3 in]
Short Side: 22 mm [0.9 in]

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