- Scalable: Parallel operation up to 6 units only available for 5KVA
- Selectable input voltage range for PC or home appliances
- Built-in MPPT charger controller and selectable charging current based on your applications
- Smart battery charging algorithm to optimize battery life
- Configurable AC/Solar input priority via LCD panel
- Compatible to mains or generators
- Auto restart while AC back and cold start function available
- Overload and short circuit protection

EssenSolar Off Grid Inverter Specification

Model Number	FSP102PV-230F-48	FSP302PV-230F-48	FSP502PV-230F-48
Grid system	Single Phase, 230Vac		
Rated power	1,000VA/ 1,000W	3,000VA/ 2,400W	5,000VA/ 4,000W
Max. PV input power	900W	900W	4,000W
Max. PV voltage (OC)	102Vdc	102Vdc	145Vdc
MPPT voltage range (Full Power)	60 - 88Vdc	60 - 88dc	60 - 115Vdc
Number of MPPT	1	1	1
Input Characteristic			
AC voltage	Single Phase, 230Vac		
Selectable Voltage Range	170-280 Vac (For PC/ SPS applications) 90-280 Vac (For home facilities)		
Frequency range	50 Hz/ 60 Hz (Auto)		
Output Characteristic			
AC voltage regulation @ backup mode	230Vac ± 5%		
Surge ability	2,000VA	6,000VA	10,000VA
Transfer time	10 ms (For PC/ SPS) ; 20 ms (For home facilities)		
Output waveform	Pure sinewave		
Peak Efficiency (PV to AC)	95%	95%	95%
Efficiency (Battery to AC)	90%	90%	90%
Charging Characteristic			
Max. charging power	860W	860W	6,720W
Max. charging current	18A	18A	140A
Max. PV charging current	18A	18A	80A
Max. AC charging current	15A	15A	60A
Nominal Battery voltage	48Vdc	48Vdc	48Vdc
Over charge protection	62Vdc	62Vdc	60Vdc
Battery floating voltage	54Vdc	54Vdc	54Vdc
Rated backup time w/ 48V/ 100Ah (min)	186	63	40
Max. Efficiency (PV to Battery)	98%	98%	98%
Night time power consumption	<2W		
Physical & Environment Data			
Operating ambient temp range	0℃ - 55℃		
Humidity	5 - 95% RH, non-condensing		
Altitude	0 - 1000m		
Dimensions (W x H x D)	272 mm x 355 mm x 100 mm	272 mm x 355 mm x 100 mm	295 mm x 468 mm x 120 mm
Net weight	7kg	7.5kg	11 kg
Protect function	Overload, short circuit, over voltage, high temperature		
Cooling	Air forced		
Enclosure environmental rating	IP20		
Interface			
HMI	LCD display		
Communication port	USB	USB	RS232
Dry contact port	Yes	Yes	Yes
Optional accessories	Remote control panel, Parallel kits (Only for 5k model)		
Features			
Monitoring software	Yes		
Compliance	IEC 55022 Class A IEC 62109, IEC 60950,		
Certification	CE		

*Power derating 1% per 100m while higher than 1000m

*Product specification are subject to change w/o further notice