



<b>Model</b>	<b>IVEM12048-II</b>
<b>Line Mode Specifications</b>	
Rated Output Power(VA)	12000VA
Rated Output Power(W)	12000W
Nominal DC Input Voltage	48V
Nominal Input Voltage	230Vac
Max. AC Input Voltage	280Vac
Nominal Input Frequency	50Hz / 60Hz (Auto Detection)
Efficiency(Line Mode)	>95% (Rated R Load, Battery Full Charged)
Pass Through Without Battery	Yes
<b>Utility Charge Mode Specifications</b>	
Input Voltage Range	230Vac
Over Charge Protection	90-280Vac
Max. Charge Current	240A
Charge Current Regulation	10-240A (Adjustable Unit is 1A)
Over Charge Protection	Yes
<b>Solar Charging &amp; Grid Charging</b>	
Max.PV Open Circuit Voltage	500V
PV Voltage Working Range	90V-450V
Max. Input Power	15000W(7500W for Single PV)
Max. Solar Charging Current	240A
Max. Charging Current(PV+Grid)	240A
Max. Input Current	27A X 2(MAX 54A)
Min. Startup Voltage	100V
<b>Inverter Mode Specifications</b>	
Output Voltage Waveform	Pure sine wave
Nominal Output Voltage	230Vac+5%
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)
Parallel Capability	Yes, up to 6 units
Peak Efficiency	94.5%
Over-Load Protection(SMPS load)	5s@≥150% load; 10s @105% ~150% load
Surge Rating	2* rated power for 5s
Capable of Starting Electric	Yes
Output Short Circuit Protection	Yes
<b>General Specifications</b>	
Operating Temperature	-10°C~50°C
Range Storage Temperature	-15°C~60°C
Net Weight(KG)	26.8KG
Product Dimension(MM)	634*476*141MM
Package Dimension(MM)	726*594*258MM

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## 2.3 Specifications

Model	FLA48300
Capacity	15kWh
Battery Type	LiFePO4
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current[1]	≤150A
Recommend Charge/Discharge Power[1]	≤7,500W
Maximum Charge/Discharge Current(15s)	200A
Maximum Charge/Discharge Power(15s)	10,000W
Depth of Discharge(DOD)	≥ 95%
Scalability	Up to 15 units in parallel(225kWh)
Communication	RS485 / CAN
Protection Level	IP21
Cycle Life[2]	≥ 6,000 Cycles
Charging Temperature Range	0-55 °C
Discharging Temperature Range	-20-55 °C
Display	LCD+LED
Installation	Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	7 Years
Net Weight	135kg
Gross Weight	160kg
Product Dimension	480x1100x300mm
Package Dimension	1150x635x498mm
[1] Recommend charge/discharge current/power is affected by temperature and SOC.	
[2] Test conditions: 0.2C Charging/Discharging @25°C, 80% DOD.	



## 2.4 Recommended Settings

Lithium battery pack is not same as lead-acid battery, so for the devices which you connect with the battery pack for charging or discharging, such as inverters, MPPT charger controllers or UPS, please implement pre-settings as recommended settings as below before you launched them.

Setting	FLA48300
Max. Charging Voltage	57.6V
Floating Charging Voltage	57.6V
Max. Charging Current	150A*N
Cut-off Voltage	48V

Notes: "N" means the number of battery packs connected in parallel.

## Mechanical Characteristics

Cell Type	N -type Mono-crystalline
No. of cells	144 (72×2)
Dimensions	2278×1134×30 mm
Weight	27.0 kg
Front Glass	3.2mm, Anti-reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Protection Class	Class II
IEC Fire Type	Class C
Connector Type	JK03M/MC4/Others
	4.0 mm <sup>2</sup>
Output Cables	(+): 400 mm , (-): 200 mm or Customized Length

## Packaging Configuration

Pallet Dimensions	2308×1120×1249 mm
Packing detail (Two pallets=One stack)	36 pcs/pallets, 72 pcs/stack, 720 pcs/ 40'HQ Container

## Specifications (STC)

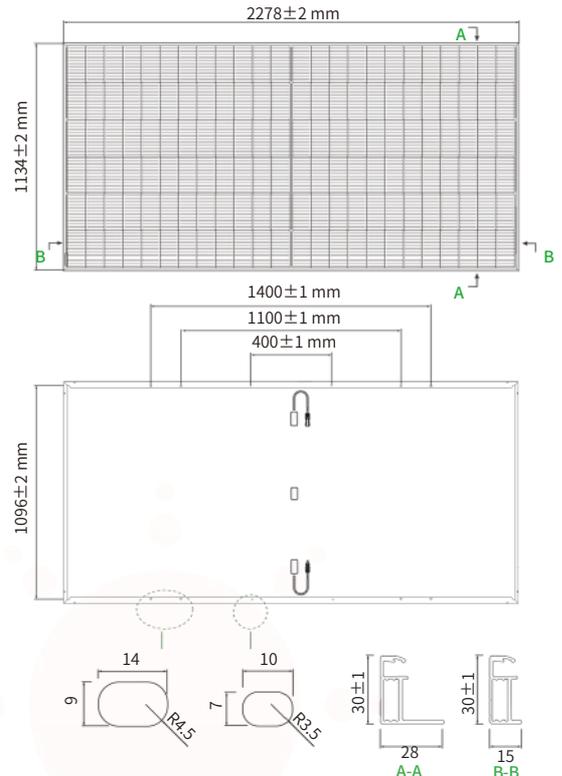
Maximum Power –Pmax [Wp]	580	585	590	595	600	605
Maximum Power Voltage – Vmp [V]	43.35	43.53	43.71	43.88	44.06	44.23
Maximum Power Current – Imp [A]	13.38	13.44	13.50	13.56	13.62	13.68
Open-circuit Voltage – Voc [V]	52.31	52.47	52.63	52.79	52.95	53.11
Short-circuit Current – Isc [A]	14.01	14.07	14.13	14.19	14.25	14.31
Module Efficiency STC [%] Power	22.45	22.65	22.84	23.03	23.23	23.42
Tolerance Temperature	0 ~ + 3 %					
Coefficients of Pmax Temperature	-0.29 %/°C					
Coefficients of Voc Temperature	-0.25 %/°C					
Coefficients of Isc	0.045 %/°C					

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

## Application Conditions

Operating Temperature	-40 °C ~ +70°C
Maximum System Voltage	1000/1500 VDC (IEC)
Maximum Series Fuse Rating	25 A

## Engineering Drawings



\*Note: For specific dimensions and tolerance ranges, please refer to the corresponding detailed module drawings.

## Electrical Performance

