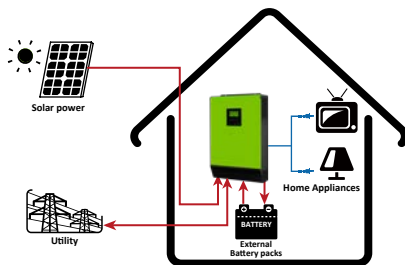


# InfiniSolar V



- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie (with battery connected), off-grid and grid-tie with backup
- Monitoring software for real-time status display and control
- Parallel operation up to 6 units only for 3K/4K/5K models



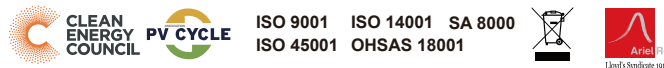
## InfiniSolar V On-Grid Inverter With Energy Storage Selection Guide

MODEL	InfiniSolar V-1K-12	InfiniSolar V-2K-24	InfiniSolar V-3K-48	InfiniSolar V-4K-48	InfiniSolar V-5K-48
Max. PV Array Power	1000W	2000W	4000W	4000W	6000W
Rated Output Power	1000W	2000W	3000W	4000W	5000W
Maximum PV Array Open Circuit Voltage	145 VDC	145 VDC	145 VDC	145 VDC	145 VDC
MPPT Range @ Operating Voltage	15 VDC ~ 115 VDC	30 VDC ~ 115 VDC	60 VDC ~ 115 VDC	60 VDC ~ 115 VDC	60 VDC ~ 115 VDC
MPP Tracker Number	1	1	1	1	2
<b>GRID-TIE OPERATION</b>					
<b>GRID OUTPUT (AC)</b>					
Nominal Output Voltage	220/230/240 VAC				
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)				
Nominal Output Current	4.3 A	8.7 A	13 A	17.4 A	21.7 A
Power Factor	> 0.99				
<b>EFFICIENCY</b>					
Maximum Conversion Efficiency (DC/AC)	90%				
<b>OFF-GRID, HYBRID OPERATION</b>					
<b>GRID INPUT</b>					
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC				
Frequency Range	50 Hz/60 Hz (Auto sensing)				
Maximum AC Input Current	30A		40A		
<b>BATTERY MODE OUTPUT (AC)</b>					
Nominal Output Voltage	220/230/240 VAC				
Output Waveform	Pure sine wave				
Efficiency (DC to AC)	93%				
<b>BATTERY &amp; CHARGER</b>					
Nominal DC Voltage	12 VDC	24 VDC	48 VDC	48 VDC	48 VDC
Maximum Solar Charge Current	80 A	80 A	80 A	80 A	120 A
Maximum AC Charge Current	60 A				
Maximum Charge Current	140 A	140 A	140 A	140 A	180 A
<b>GENERAL</b>					
<b>PHYSICAL</b>					
Dimension, D x W x H (mm)	100 x 300 x 440	100 x 300 x 440	120 x 295 x 468	120 x 295 x 468	190 x 295 x 483
Net Weight (kgs)	8	8	11	11	16
<b>INTERFACE</b>					
Parallel Function	N/A	N/A	Yes	Yes	Yes
External Safety Box (Optional)	Yes				
Communication Ports	USB or RS232/Dry-Contact				
<b>ENVIRONMENT</b>					
Humidity	0 ~ 90% RH (Non-condensing)				
Operating Temperature	0 to 50°C				

Product specifications are subject to change without further notice.

Tier1

BloombergNEF



# M10 TOPCON BIFACIAL

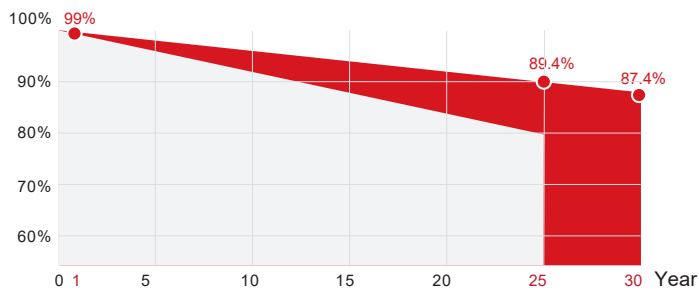
SPDGxxx-N108M10

## 410~440W

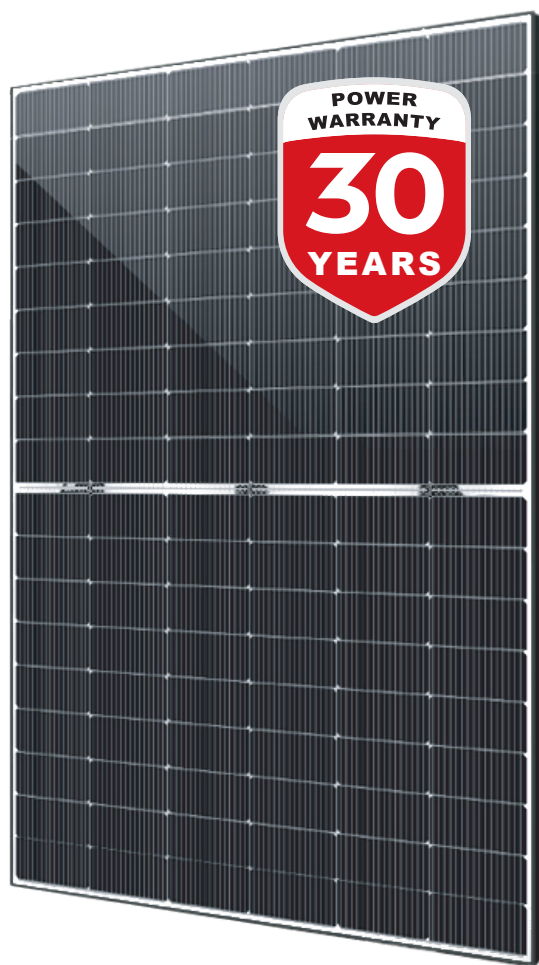
- Double glass
- Black frame
- Bifacial Transparent

25 Yr quality guarantee | 30 Yr power warranty

■ SUNPRO TOPCon module (Additional value from 30-year warranty)  
 ■ Common module



\*SUNPRO Standard tiered warranty



### WARRANTY & GUARANTEE

Linear output power guarantee  
25 years: 89.4% power output  
30 years: 87.4% power output



### WITHSTAND STRONG

Snow load 5400Pa  
Wind load 2400Pa



### PID RESISTANCE

Power positive tolerance: 0~+5W.  
The attenuation probability of PID phenomenon is minimized through battery production technology optimization and material control



### R&D AND PRODUCTION

Advanced production line. Bifaciality>80%, effectively improves backside power generation. The leading solar cell cutting process and multi busbar design with SUNPRO Technology.



### HIGH EFFICIENCY

N-type. Components have better reliability and lower LID/LETID attenuation. Efficiency can reach 22.53%. Excellent low light performance. Higher power output under the conditions of haze, overcast, etc.

## Electrical parameters at standard test conditions (STC:AM=1.5, 1000W/m<sup>2</sup>, Cells Temperature 25 )

Typical type	410W	415W	420W	425W	430W	435W	440W
Max power(Pmax)	410	415	420	425	430	435	440
Max power voltage(Vmp)	31.25	31.37	31.49	31.64	31.79	31.94	32.09
Max power current(Imp)	13.12	13.23	13.34	13.44	13.53	13.62	13.72
Open circuit voltage(Voc)	37.94	38.04	38.13	38.24	38.34	38.43	38.53
Short circuit current(Isc)	13.85	13.96	14.07	14.16	14.25	14.34	14.43
Module Efficiency(%)	21.00	21.25	21.51	21.76	22.02	22.28	22.53
Max system voltage	DC 1500V (TÜV,UL)						
Maximum Series Fuse Rating	30A						

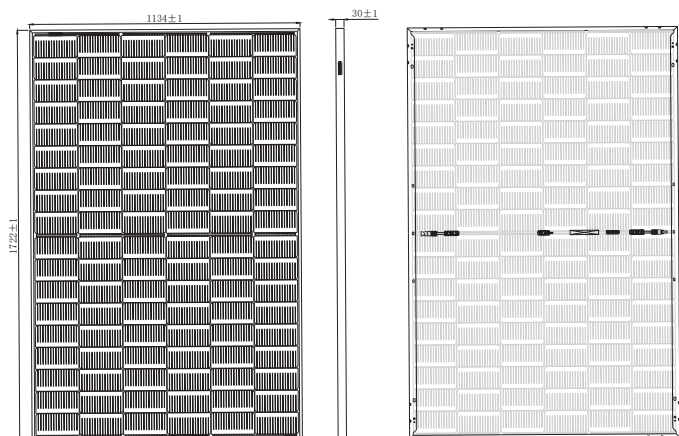
### Electrical Characteristics with 15% Rear Side Power Gain (Take 420W as an example)

Front power Pmax/W	410W	415W	420W	425W	430W	435W	440W
Total power Pmax/W	471.50	477.25	483.00	488.75	494.50	500.25	506
Max power voltage(Vmp)	31.25	31.37	31.49	31.64	31.79	31.94	32.09
Max power current(Imp)	15.09	15.21	15.34	15.45	15.56	15.66	15.77
Open circuit voltage(Voc)	37.94	38.04	38.13	38.24	38.34	38.43	38.53
Short circuit current(Isc)	15.93	16.05	16.18	16.28	16.39	16.49	16.59

### Electrical parameters at NMOT test conditions (Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM 1.5, Wind Speed 1 m/s)

Typical type	410W	415W	420W	425W	430W	435W	440W
Max power(Pmax)	308	312	316	320	324	325	329
Max power voltage(Vmp)	29.4	29.5	29.6	29.7	29.9	29.80	29.90
Max power current(Imp)	10.49	10.58	10.67	10.75	10.84	10.91	11.00
Open circuit voltage(Voc)	35.7	35.8	35.9	36	36.1	36.00	36.10
Short circuit current(Isc)	11.16	11.25	11.34	11.41	11.48	11.56	11.63

## DIMENSIONS AND STRUCTURE



## Mechanical Data

Dimensions	1722x1134x30mm
Weight	23.3kg
Glass	(F) 2.0mm ultra clear embossed double layer colorless glass (B) 2.0mm semi-tempered glass
Output cables	4mm <sup>2</sup> , symmetrical lengths 1100mm
Connectors	MC4 compatible IP68
Cell type	Mono-Crystalline, N type Bifacial, 182x91mm
Number of cells	108cells(Half-Cell)

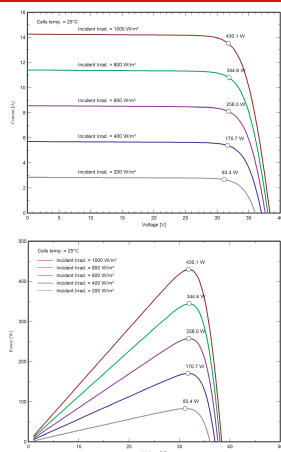
### Temperature Characteristics

Temp.Coeff.of Isc(TK Isc)	0.045% / °C
Temp.Coeff.of Voc(TK Voc)	-0.25% / °C
Temp.Coeff.of Pmax(TK Pmax)	-0.30% / °C
Operating temperature	-40~+85°C
Normal operating cell temperature	42±2°C

### Packing Configuration

Container	40'HQ
Pieces per pallet	72
Pallets per container	13
Pieces per container	936

## I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



## Tests, Certifications and Warranties

Standard tests	IEC 61215, IEC 61730, IEC 61701, IEC 62716, PPP 58042
System certs	ISO 9001, ISO14001, ISO45001
Certifications	TÜV, CE, CEC, UL, WEEE
Extreme wind and snow loads testing	Withstand extreme wind(2400 Pascal) and snow loads(5400 Pascal)
Power tolerance	0~+5W
Junction box	IP 68
Warranties	25 years product warranty and 30 years 87.4% of power



ULTIMATRON  
FRANCE

5 ANNI  
DI GARANZIA

## Scheda tecnica

ULTIMATRON LiFePO4 Smart BMS Batteria al litio  
UBL-12-200-PRO

Rispetto a batterie tradizionali, le nostre batterie al litio ferro fosfato (LiFePO4) offrono molti vantaggi:

- Garanzia del produttore 5 anni
- La tecnologia più sicura, senza rischio di incendio o esplosione
- Lunga durata
- Miglioramento costante della capacità di archiviazione
- Elevata stabilità anche sotto carichi estremi
- Nessun effetto memoria, nessuna necessità di cicli completi di carica e scarica
- Prestazioni elevate anche in condizioni estreme
- Scarico profondo e regolare ed efficienza di carica
- Dimensioni ridotte e peso leggero

### Sistema integrato di gestione della batteria (BMS)

Per consentire il controllo e la carica dei diversi elementi di una batteria di accumulatore e per proteggerla da sovraccarico, sovratensione e surriscaldamento.



Nota: collegamento in serie e parallelo per applicazioni a 12V, 24V, 36V, 48V.



### Monitoraggio Bluetooth 4.0 integrato



Hai tutti i dati importanti dalla batteria sempre sul tuo smartphone o tablet. L'applicazione visualizza i dati in tempo reale.

MARQUE FRANÇAISE





**ULTIMATRON  
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# SCHEDA TECNICA

## UBL SMART BMS SERIE 12.8V

### ULTIMATRON LiFePO4 Smart BMS Batteria al litio UBL-12-200-PRO

#### PRESTAZIONI ELETTRICHE

Voltaggio nominale	12.8V
Capacità nominale	200Ah
Capacità @ 20A	600min
Energia	2560Wh
Resistenza	≤15 mΩ @ 50% SOC
Autoscarica	<3% / Mese
Numero di cicli	>6000@80%D.o.D

#### PRESTAZIONI DI CARICA

Corrente di carica consigliata	60A
Corrente di carica massima	100A
Tensione di carica consigliata	14.6V
Tensione di interruzione della carica	14.6V (2000 ms)
Ricollegare la tensione	≤13.8V
Tensione di bilanciamento	>12.8V

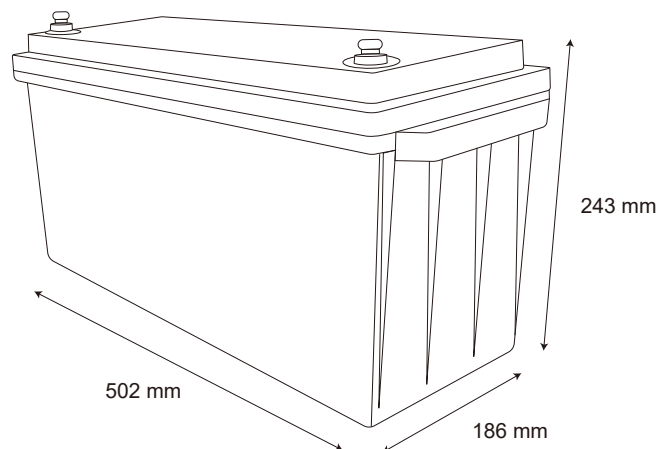
#### PRESTAZIONI DI SCARICA

Corrente di scarica continua massima	150A
Corrente di interruzione di scarica di picco	450A (200~500ms)
Tensione di interruzione di scarica	10V (2000 ms)
Ricollegare la tensione	>11.2V
Protezione da cortocircuito	1000-2000A ± 400A (200 ~ 800 μs)

#### PRESTAZIONI IN TEMPERATURA

Temperatura di scarico	-20 ~ 75 °C
Temperatura di carica	0 ~ 50 °C
Temperatura di conservazione	-5 ~ 35 °C

#### DIMENSIONE



Dimensione L502 \* W186 \* H243mm

#### PRESTAZIONI MECCANICHE

Peso	19.05kg
Tipo di terminale	M8
Coppia terminale	80 ~ 100 in-lbs (9 ~ 11 N-m)
Materiale della cassa	ABS
Codice di protezione dell'ingresso	IP65
Bluetooth	Bluetooth 4.0 con applicazione per smartphone

#### CONFORMITÀ

Certificazioni	CE UN38.3 UL1642 & IEC62133
Classificazione di spedizione	UN 3480, CLASS 9

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