

AIONRISE

Generate | Store | Utilise

PHOTOVOLTAIC MODULE BIFACIAL SHINGLED

AION414SH Series 635-675 Wp

AIONRISE high-efficiency AION414SH PV Modules use shingled cell technologies providing long-term higher output comparing to other analogs and provide lower levelized cost of energy making better return on investments.

AION414SH PV Modules are certified by all key quality standards of IEC 61215 / 61730 / 62716 / 61701 / 60068, and UL 61730 with Regular Production Surveillance and Extensive participation in the testing programs of the global independent certification authorities insuring the high reliability, safety, and quality.



POSITIVE POWER TOLERANCE



SHINGLING TECHNOLOGY



LOW SYSTEM COST



MINIMIZING THE SHADING IMPACT



PID RESISTANT



SALT CORROSION RESISTANT



SAND RESISTANT



HOT SPOTS REDUCTION



AMMONIA RESISTANT



ECO-FRIENDLY

25
YEARS

PERFORMANCE
GUARANTEE

15
YEARS

PRODUCT
WARRANTY

GUARANTEED MODULE PERFORMANCE



MAXIMUM RATED PARAMETERS

Max. system voltage DC	1500 V
Max. fuse rating	30 A
Operating temperature	Front 5400 / Back 2400
Max. front static load	-40°C to 85°C
Hail resistance	Max. 25mm, impact speed 23m/s

MATERIAL CHARACTERISTICS

Dimensions	2384 × 1096 × 35 mm
Weight	39 kg
Glass	2 mm AR coated tempered glass/low iron
Cells	Mono-crystalline
Cell layout	414 (69*6)
Frame	Anodized aluminum alloy
Junction box	IP 68 rated, 3 bypass diodes
Output cable	4 mm ² , +300 /-1000 mm (Vertical), +250 /-150 mm (Horizontal)
Connector	Staubli MC4 / MC4-Evo 2 / Compatible

PACKAGING

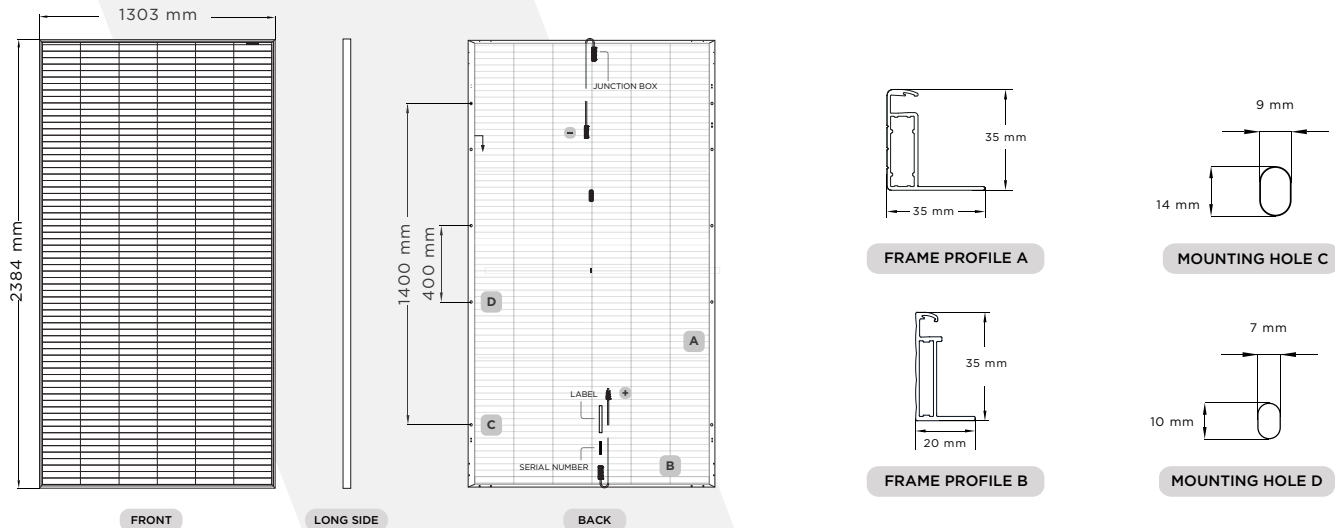
One pallet quantity	31 pcs
40 ft HC / HQ Container	558 pcs
Truck	744 pcs

TEMPERATURE PARAMETERS

NMOT	42.30±2 °C
Temp. coefficient of maximum power (Pmax)	-0.34 % / °C
Temp. coefficient of open-circuit voltage (Voc)	-0.27 % / °C
Temp. coefficient of short-circuit current (Isc)	+0.04 % / °C

STC: Irradiance 1000 W/m², spectrum AM 1.5, temperature 25°C.
 NMOT: Irradiance 800 W/m², wind speed 1 m/s, temperature 20°C.
 Pm tolerance: 0 to +5W. Power test uncertainty: ±3%, Voc (V),
 Isc (A), Vm (V) and Im (A). Test tolerance: ±3%.

DIMENSIONS (in mm)



CERTIFICATES

IEC61215/61730 IEC62804(PID) IEC61701 (Salt)
 IEC62716 (Ammonia), IEC60068-2-68(Sand)
 IC TS 62941 -2016 / PV industry quality management system



ELECTRICAL CHARACTERISTICS (STC)

AION414SH

Nominal maximum power - Pmax (Wp)	675	670	665	660	655	650	645	640	635
Open-circuit voltage - Voc (V)	47.2	47.1	47.0	46.9	46.8	46.7	46.6	46.5	46.4
Short-circuit current - Isc (A)	18.36	18.26	18.16	18.06	17.97	17.84	17.74	17.64	17.54
Maximum power voltage - Vmp (V)	39.2	39.1	39.0	38.9	38.8	38.8	38.7	38.6	38.5
Maximum power current - Imp (A)	17.26	17.16	17.07	16.98	16.89	16.77	16.68	16.58	16.49
Module efficiency - ηm (%)	21.7	21.6	21.4	21.2	21.1	20.9	20.8	20.6	20.4

ELECTRICAL CHARACTERISTICS (NMOT)

Maximum power - Pmax (Wp)	508	504	501	497	493	489	486	482	478
Open-circuit voltage - Voc (V)	45.0	44.9	44.8	44.7	44.5	44.4	44.3	44.2	44.2
Short-circuit current - Isc (A)	14.79	14.71	14.63	14.55	14.47	14.37	14.29	14.21	14.13
Maximum power voltage - Vmp (V)	37.3	37.3	37.2	37.1	37.0	37.0	36.9	36.8	36.7
Maximum power current - Imp (A)	13.61	13.54	13.46	13.39	13.32	13.25	13.17	13.10	13.02

COMPARISON OF REAR POWER GAINS (650W)

Power Gain-PG	5%	10%	15%	20%	25%	30%
Maximum Power-Pm (W)	693	726	759	792	825	858
Open Circuit Voltage-Voc (V)	46.9	46.9	46.9	47.0	47.0	47.0
Short Circuit Current-Isc (A)	18.97	19.87	20.77	21.68	22.58	23.48
Maximum Power Voltage-Vm (V)	38.9	38.9	38.9	39.0	39.0	39.0
Maximum Power Current-Im (A)	17.83	18.68	19.53	20.38	21.23	22.07

CONTACT INFORMATION

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