

UNI-SOLAR®

UNI-SOLAR® FRAMED MODULES

Models:

- * US-64
- * US-42
- * US-32
- * US-21
- * US-11
- * US-5
- * US-3



Applications:

- * Village Power
- * Electric Fence Charging
- * Water Pumping
- * Telecommunications
- * Recreational Vehicles
- * Telemetry
- * Traffic Control Signals
- * Security Lighting
- * Remote Homes
- * Parks & Recreation
- * Grid-Connected Systems

UNI-SOLAR® framed panels are for permanent, fixed position mounting with optimum tilt, wind resistance, and exposure to sunlight. These glass-free modules can be utilized in a wide variety of applications from fence charging to telecommunications. The large framed panels are often used as building blocks in photovoltaic arrays, which can be assembled to meet virtually any load.

Each **UNI-SOLAR®** framed solar battery charger uses United Solar's proprietary Triple Junction spectrum-splitting thin film amorphous silicon cell design to achieve high performance.

Encapsulated in UV-stabilized polymers and framed with anodized aluminum, a Galvalume steel backing provides stiffness to the module. Bypass diodes are connected across each cell, allowing the modules (excluding the US-3) to produce power even when partially shaded. US-32, US-42, and US-64 modules are equipped with weather-resistant junction boxes to accept 1/2-inch conduit.

Features:

- *Module Ratings -- 3, 5, 11, 21, 32, 42, 64 Watts
- *Polymer Encapsulation
- *Anodized Aluminum Frame
- *Unbreakable Construction
- *Limited Warranty
- *Blocking Diodes for Battery Protection



Three Year Limited Warranty for US-3
Ten Year Limited Warranty on US-21, US-11 and US-5
Twenty Year Limited Warranty on US-64, US-42 and US-32

UNI-SOLAR® solar electric modules with their rugged anodized aluminum frame and unbreakable polymer encapsulation technology are ideal for a range of solar power applications. On the right, two US-21 modules are used for battery charging in an RV.





UNI-SOLAR® FRAMED MODULES TECHNICAL SPECIFICATIONS

	US-3	US-5	US-11	US-21	US-32	US-42	US-64
Rated Power (W)	2.68	5.0	10.3	21	32	42	64
Operating Voltage (V)	8.10	16.5	16.5	21	16.5	16.5	16.5
Operating Current (A)	0.33	0.30	0.62	1.27	1.94	2.54	3.88
Open Circuit Voltage (V)	12.0	23.8	23.8	23.8	23.8	23.8	23.8
Open Circuit Voltage (V) @-10 deg. C and 1250 W/sq. m	13.8	27.1	27.1	27.1	27.1	27.1	27.1
Short Circuit Current (A)	0.40	0.37	0.78	1.59	2.40	3.17	4.80
Short Circuit Current (A) @ 75 deg. C and 1250 W/sq. m	0.52	0.49	1.02	2.10	3.10	4.20	6.30
Series Fuse Rating (A)	0.75	0.75	1.5	3.0	4.0	6.0	8.0
Weight (lbs/kg)	1.7/0.77	2.5/1.13	3.6/1.63	6.6/2.99	10.6/4.8	13.8/6.27	20.2/9.17
Height (in)	11.26	19.33	19.33	36.55	53.78	36.55	53.78
Width (in)	8.07	8.07	15.08	15.08	15.07	29.18	29.18

Bekaert ECD Solar Systems LLC and United Solar Systems Corp



UNI-SOLAR[®] FRAMED MODULES LIMITED WARRANTY

Limited Warranty

Twenty Years for Products: US-32, 42, and 64

Ten Years for Products : US-21, 11, and 5

Three Years for Product : US-3

Bekaert ECD Solar Systems LLC warrants the modules against lost power output as follows:

For a period of twenty (20) years from the date of sale to the original purchaser, US-32, US-42, and US-64 modules returned by the original purchaser to an authorized Bekaert ECD Solar Systems Distributor of Service Facility which upon inspection are determined to exhibit a power output of less than 80% of the Rated Power specified at the time of sale due to defects in materials or workmanship will be repaired or replaced, or, at the option of Bekaert ECD Solar Systems it will replace such lost power by providing the buyer additional modules to restore total wattage of all defective modules in the user's installation or system to 80% of the Rated Power output.

For a period of ten (10) years from the date of sale to the original purchaser, US-21, US-11, and US-5 modules returned by the original purchaser to an authorized Bekaert ECD Solar Systems Distributor of Service Facility which upon inspection are determined to exhibit a power output of less than 80% of the Rated Power specified at the time of sale due to defects in materials or workmanship will be repaired or replaced, or, at the option of Bekaert ECD Solar Systems it will replace such lost power by providing the buyer additional modules to restore total wattage of all defective modules in the user's installation or system to 80% of the Rated Power output.

For a period of three (3) years from the date of sale to the original purchaser, US-3 modules returned by the original purchaser to an authorized Bekaert ECD Solar Systems Distributor of Service Facility which upon inspection are determined to exhibit a power output of less than 80% of the Rated Power specified at the time of sale due to defects in materials or workmanship will be repaired or replaced, or, at the option of Bekaert ECD Solar Systems it will replace such lost power by providing the buyer additional modules to restore total wattage of all defective modules in the user's installation or system to 80% of the Rated Power output.