



# FWAVE Solar Modules

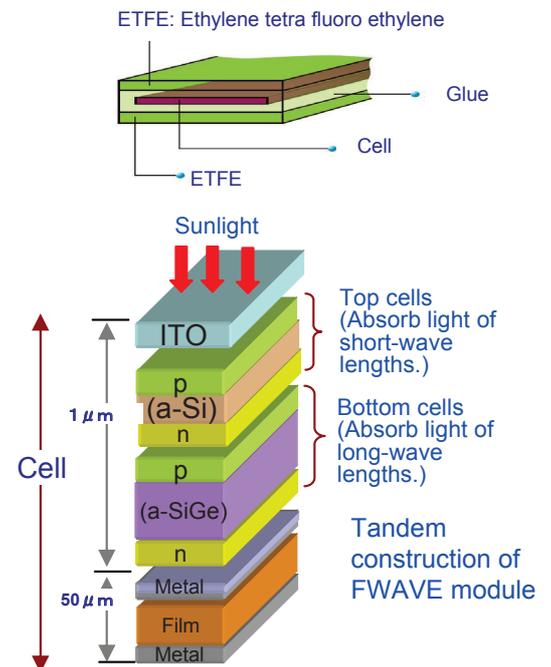
## 92W Module Series



FPV1092COM4

### General Features

- Thin-film amorphous-silicon FWAVE solar modules generate 10 % more power annually than crystalline comparables.
- A tandem cell construction allows FWAVE modules to perform well at high temperatures. The wide spectrum range of that construction also allows the modules to generate more power.
- The light weight and flexibility of FWAVE solar modules makes transporting and installing them easy.
- FWAVE modules are glass-free and, so, do not generate glare or splinter.



### Applications

Steel plates, plastic sheets and membranes laminated with lightweight, flexible FWAVE modules can be installed on commercial and industrial rooftops, walls and other places where it is impossible to install conventional, heavy crystalline comparables.



## Electrical Characteristics

**Rated power (Pmax)** 92Wp  
**Production Pmax tolerance** ±5%

[STC]*1		FPV1092COM2	FPV1092COM4
Peak output power	W	92	92
Peak operating voltage	V	319	319
Peak operating current	A	0.288	0.288
Open-circuit voltage	V	429	429
Short-circuit current	A	0.390	0.390

\*1: 1000W/m<sup>2</sup>, AM1.5, 25°C

[NOCT]*2		FPV1092COM2	FPV1092COM4
Peak output power	W	70	70
Peak operating voltage	V	298	298
Peak operating current	A	0.235	0.235
Open-circuit voltage	V	393	393
Short-circuit current	A	0.317	0.317
NOCT	°C	44.8	44.8

\*2: 800W/m<sup>2</sup>, AM1.5, 1m/sec. wind, 20°C, open circuit

Temperature coefficient of Isc +0.08%/deg.C  
 Temperature coefficient of Voc -0.35%/deg.C

## Physical Characteristics

		FPV1092COM2	FPV1092COM4
Length	mm	3399	3511
Width	mm	460	484
Thickness	mm	1	1
Weight	kg	1.68	1.81
Diameter when rolled up	mm	100	100

## Warranties

Material and workmanship: 2 years  
 Power output: 80% of minimum power after 20 years of use (Pmax minus the largest negative tolerance of 5%)

## Other Features

### ADHESIVE

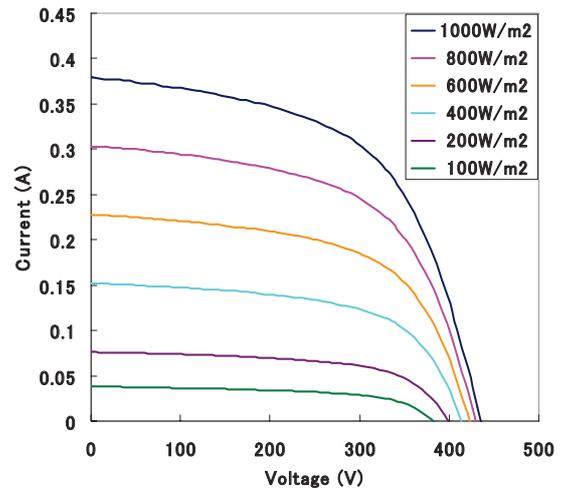
We recommend glues to attach the non-sun lit side of FWAVE modules to substrates (e.g. KE45T glue to galvanized steel plates). For more details please contact us.

### ELECTRICAL CONNECTIONS

Top- or bottom-mounted cable junction boxes with MC3 connectors are provided on either the positive- or negative-side of modules.

## IV Curves

Current & Voltage at various irradiance levels

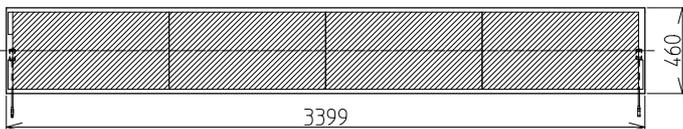


## Certificates

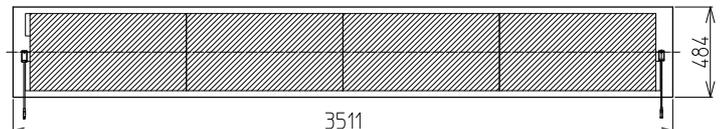
**IEC** Certified compliant with IEC61730 and IEC 61646 by VDE in November, 2008 (Fire tests not conducted.)

## Drawings

**FPV1092COM2**  
 FWAVE module with bottom-mounted cable junction boxes



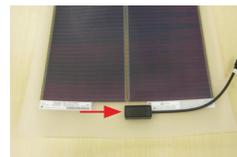
**FPV1092COM4**  
 FWAVE module with top-mounted cable junction boxes



Sun-lit side  
 (Standard orientation of cable junction box)



Non-sun lit side  
 (Standard orientation of cable junction box)



Sun-lit side  
 (Standard orientation of cable junction box)



Sun-lit side  
 (Non-standard orientation of cable junction box)

### NOTICE

- During the first 2-3 months of operation, electrical output may exceed specified ratings.
- Electrical specifications are based on measurements performed at standard test conditions with an irradiance of 1000W/m<sup>2</sup>, an air mass of 1.5, and a cell temperature of 25°C.
- Specifications subject to change without prior notice.

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