

FUSION Photovoltaic Solar Panel with Distribution Module and Controller

DESCRIPTION

The patented FUSION Photovoltaic LED System can reduce lighting operating costs to zero during daylight hours. When the FUSION Distribution Module and Controller is combined with FUSION Integrated luminaires, they deliver steady illumination, regardless of solar contribution.

FUSION Distribution Module is required to connect photovoltaic DC power from the solar panel into Integrated Luminaires. It is optional for SkyLight Luminaires.

When used with Integrated Luminaires, the AC powered drivers can be located within the housing. This allows the luminaires to operate at a cooler temperature.

- The Distribution Module must be used in conjunction with the Controller.
- Solar panel(s) can have up to 175 ft. wire length to the Distribution Module.
- The solar panel is not connected to the electrical grid, eliminating expensive, complicated electrical switch-gear components.

FUSION Controller

GENIUS IoT™ smart device application communicates with the Controller via Bluetooth to control light levels.

- Controller microprocessor monitors the solar panel DC output current every 10 milliseconds and modulates luminaire power to maintain desired footcandle set point, regardless of solar contribution.



Distribution Panel

Controller

SPECIFICATIONS

Item:	Solar Panel
Part #	WS-345
Qty for One System:	1
Wattage Output:	400 Maximum ¹
Weight:	49.60 lbs
Dimensions:	L 77.165" x W 38.976" x H 1.575"
Specifications subject to change without notice. 1 - Subject to solar contribution	

SPECIFICATIONS

Item:	Distribution Module	Controller
Part #	FBXP2-107-C001-01	
Qty for One System:	1	1
Dimensions:	L 16.500" x W 12.250" x H 6.250"	L 6.250" x W 6.250" x H 4.250"
Specifications subject to change without notice.		



FUSION CONTROLLER - Function & Detail

Micro Controller:	32-bit
Clock Speed:	240 Mhz
High-endurance non-volatile memory segments:	200 years @ 55°C
Dimming:	32,768 steps of dimming resolution between 1-100%
Communication:	Bluetooth V2.1. Tested at 150 ft. range.
Application:	Easy-to-use Android configuration tool.
Current Sensing:	Precision Hall effect linear current sensor, factory-calibration for accuracy.
Sampling Rate:	>100 s/s times per second (10ms).
Power Loss Protection:	If controller loses power (and if lights have power), lights will go to maximum light level.
Over-current Protection:	Current sensor can withstand current spikes over 8x times what a single solar panel can generate (100A).
Over-voltage Protection:	Current sensor can withstand continuous voltage of over 3x what a single solar panel can provide (184V).
Current Sensor Power Isolation:	Solar power is isolated from the controller by using Hall effect current sensor. There is no direct circuitry between sensitive components and high power.
Specifications subject to change without notice.	



Simple, intuitive Graphic User Interface for end-user control on any Android device.

Connects via Bluetooth to FUSION Controller.

FUSION Luminaires

FUSION can power and control energybank OmegaLight Integrated High Bay I-Frame and ThinLine Integrated Troffer luminaires that incorporate both AC power and DC power sources. FUSION can also control light output from SkyLight luminaires. See details in their respective specification sheets. energybank can also manufacture custom fixtures - contact your representative for details.



OmegaLight Integrated High Bay I-Frame



ThinLine Integrated Troffer



SkyLight



energybank.

www.energybankinc.com Patents: <https://energybankinc.com/ip>.

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