

## User Guide / 使用說明

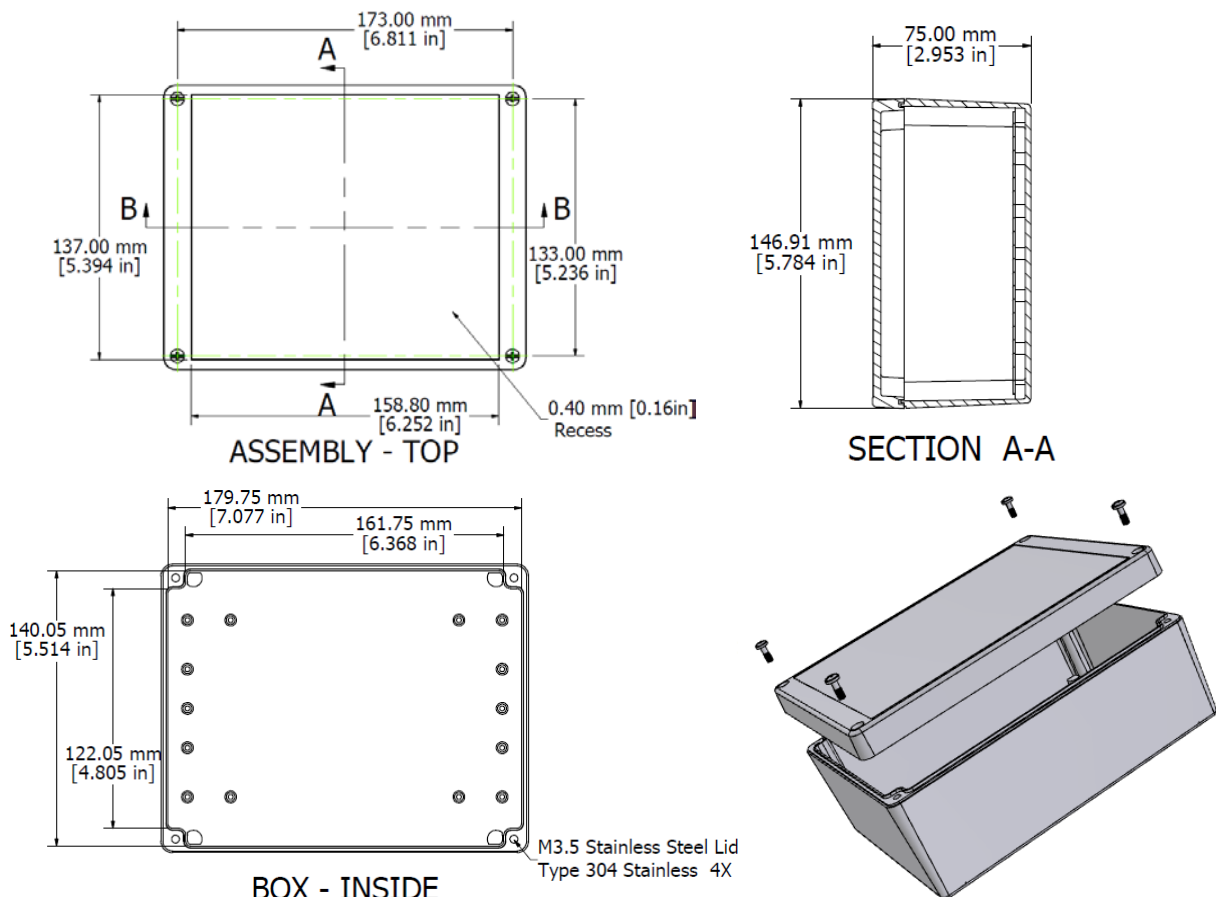
### 1. Product Description / 產品描述

- Series Name / 產品系列名稱：Arc-solar Box P
- Outer Dimension / 外尺寸 (L×W×H): 187×147×75 (±0.5) mm ; Weight / 重量: 520 g
- PV Module Specification / 光伏模組規格：

Item / 項目	Specification / 規格
Open-circuit Voltage / 開路電壓 ( $V_{oc}$ ; V)*	2.66 (±5%)
Short-circuit Current / 短路電流 ( $I_{sc}$ ; mA)*	1,750 (±5%)
Max. Power Output / 最大功率 (mW)*	3,050 (±5%)

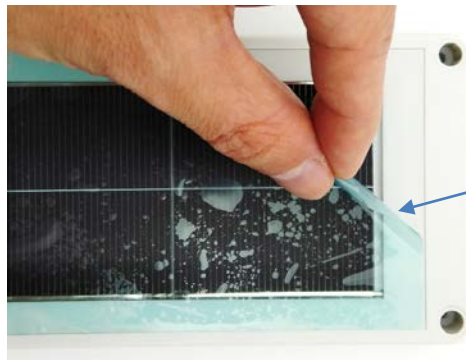
\*: Data measured under 1 Sun Condition / 標準量測環境測試數據 (1,000 W/m<sup>2</sup> with AM1.5 spectrum)

- Drove by Flexwave's optimize-designed power management. / 搭載飛立威光能優化設計之電力管理系統。
- Polycarbonate-made box with IP67 degree of protection. / 具 IP67 防水防塵等級之聚碳酸酯外殼。



## 2. Installation / 組裝說明：

- Remove the protect film on surface. / 將表面保護膜剝除。
- Install fully charged battery before plugging in functional device. / 請先安裝充飽電的充電電池，再接上功能性裝置。
- Place Oring into the groove inside of top cover and make sure flat side of Oring face out. / 將防水膠條裝入上蓋背面溝槽中，注意膠條平坦面朝外。
- Recommended Lid Screw Torque: 30 ozf-in (21 cN-m). / 建議螺絲鎖附扭矩為 30 ozf-in (21 cN-m)。
- Users can drill sizeable holes to fix waterproof joints for alternative applications. / 用戶可自行鑽孔定義防水接頭進行應用。

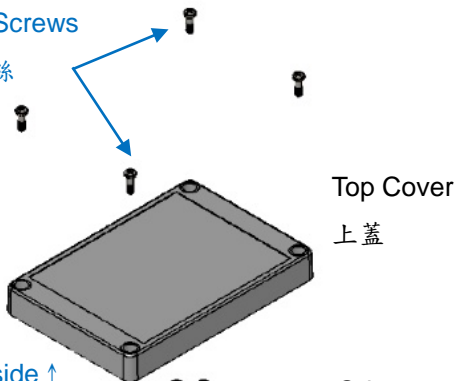


Remove the protect film.

剝除表面保護膜

M3.5 Stainless Screws

M3.5 不鏽鋼螺絲



Top Cover  
上蓋

Oring Round-side ↑  
圓角面朝上

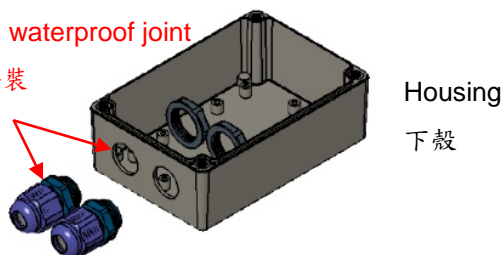
Oring  
防水膠條

Oring Flat-side ↓  
平面朝下

Self-drilling waterproof joint

可自鑽孔安裝

防水接頭



Housing  
下殼

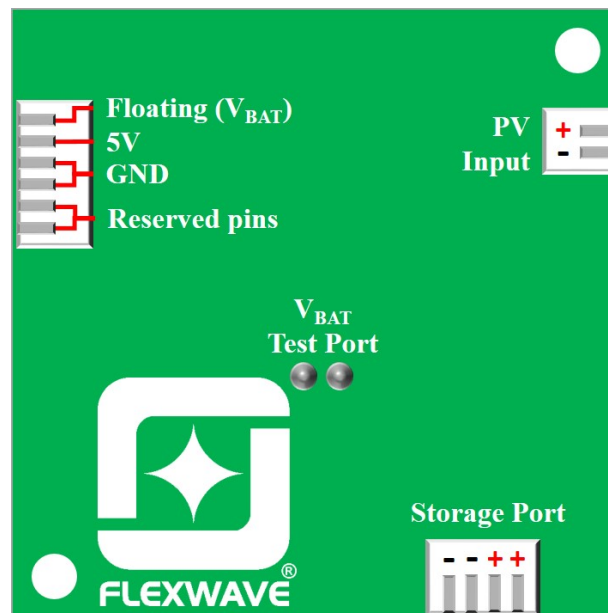


Oring Flat-side

防水膠條平坦面

### 3. Function Description / 功能闡述

- The charging Voltage of the Max. Power Point Tracking (MPPT) system is fixed in 4.2V. / 最大功率追蹤系統充電電壓固定為 4.2V。
- Storage device is an essential/ necessary component for maintaining output system stable. / 儲能裝置為必要元件，用以維持輸出系統之穩定。
- The floating pin provides battery voltage with a limited current. / 系統端浮動電壓腳位僅提供電池電壓，並限制最大電流。
- Model type of connectors: Molex / JST pitch 1.25 mm (Female). / 連接器型號：Molex / JST pitch 1.25 mm (母頭)。
- The following picture illustrates the functions of the smart power system. / 請見下圖功能接點闡述說明。



The function diagram of Power Management.

Power Manager / 電力控制系統		Min./最小值	TYP./設定值	Max./最大值	Unit/單位
Charging voltage of storage port. / 充電電壓 ( $V_{BAT}$ )				4.2	V
Peak output current of 5V output. / 5V 系統端最大瞬間輸出電流 ( $V_{SYS}$ )				900	mA
Quiescent current. / 靜態電流 ( $I_Q$ )	MPPT System / 最大功率追蹤		85	120	$\mu A$
	5V step-up output. / 5V 升壓系統		100	250	
Accuracy of $V_{BAT}$ , $V_{SYS}$ . / 充電與系統電壓誤差範圍		-5		+5	%
Recommended operating ambient condition. / 建議工作環境溫度		-10		85	$^{\circ}C$

\* Must have battery protection board when adopting rechargeable battery. / 充電電池組須帶有保護板。

## 4. Warranty and Maintenance / 保固與保養

- Please read the following information before using to ensure use products safely/ products safety. / 使用前請詳閱以下說明，確保產品的安全使用。



Do not throw Arc-solar box P into the water.

禁止丟入水中。



Do not puncture, crush, throw or drop the box.

禁止穿刺、用力擠壓、扔擲。



Do not bring sharp objects to rub against the box, to avoid scratches and damage.

禁止使用剪刀或其他利刃接觸，以避免損壞。



Away from flammable products and petrochemical oil/gas.

遠離火源與石化油氣產品。

- Yellowing index ( $\Delta Y$ ) <5% of the waveguide body after 10 years exposure. / 波導本體經 10 年曝曬黃化指數小於 5%。
- Clean the surface by ethanol or clean water. / 以酒精或清水擦拭清洗。

## 5. Certificates / 驗證測試

- IP67 degrees of protection provided by Arc-solar box manufactured by Flexwave are certified by SGS according to IEC 60529 Edition 2.2:2013. / 飛立威光能製造之 Arc-solar box 由 SGS 依據 IEC 60529 Edition 2.2:2013 電器規範通過 IP67 防水防塵等級測試。
- European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) are certified by BUREAU VERITAS CONSUMER PRODUCTS SERVICES (H.K.) LIMITED, TAIWAN BRANCH. / 飛立威光能製造之 Arc-solar box 由 BUREAU VERITAS 依據歐盟委員會針對電子產品指令(電子電氣進用某些有害物質指令, RoHS)測試合規。
- CE-EMC are certified by Weishang Certification Co., Ltd. / 飛立威光能製造之 Arc-solar box 由曄尚科技股份有限公司依據 CE-EMC 電磁相容性指令測試合規。

