

製品仕様書

製品名 : 太陽電池モジュール

型 式 : PVM S200R2

2012. 04. 03.

1. 型名 : PVM S200R2

2. 種類 : 単結晶 太陽電池 (Mono-Crystalline PV Module)

3. 太陽電池モジュール規格

項目	特性	公差
開放電圧(V)	45.52	±3%
短絡電流(A)	5.78	±3%
最大出力電圧(V)	37.28	±3%
最大出力電流(A)	5.37	±3%
最大出力(W)	200	+3%
モジュール効率(%)	16.25	
寸法(mm)	1574 × 782 × 40	
重量(kg)	15.5	

*試験条件 : 1000W/m², 25°C, A.M 1.5

4. 構造及び性能

1) 一般事項

- 使用温度許容範囲
- 周囲温度 : -25 ~ 80°C
- 素子温度 : -40 ~ 90°C

2) 太陽電池単位Cell

- 結晶形態 : 単結晶 Cell
- 寸法 : 125mm × 125mm ± 0.5mm
- 厚み : 190μm ± 20μm
- ドーピング形態 : P極にN極 ドーピング

- +電極：裏面
- -電極：表面(太陽光受光面)

3) 太陽電池の単位Cell間接続

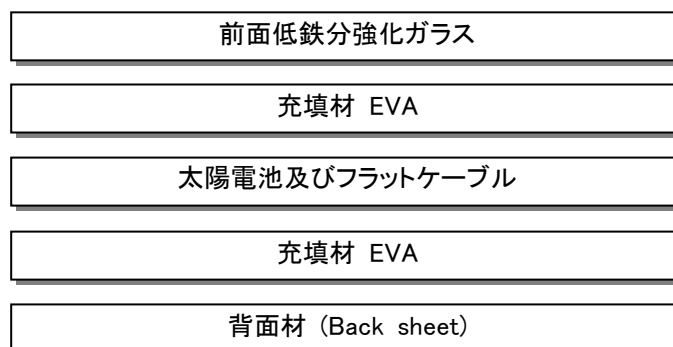
- 単位電池の数及び接続：72個直列接続
- 接続材料及び方法：Cu フラットケーブル, ろう付け

4) 太陽電池板の重要材料及び断面構造

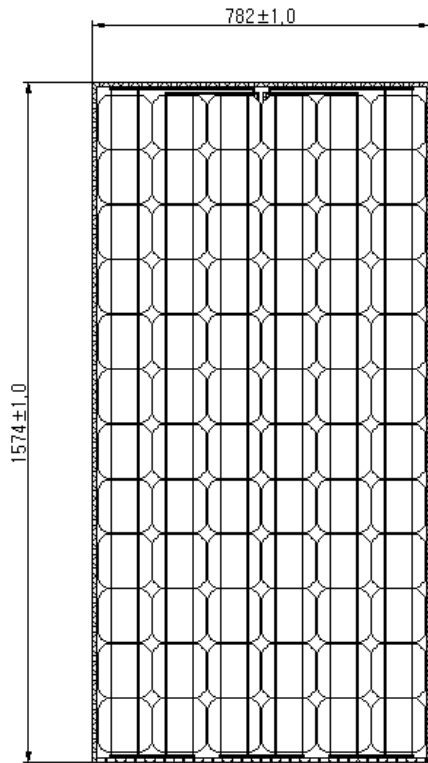
A. 重要材料

- ① 充填材：EVA(Ethylene Vinyl Acetate)
 - ② 背面材（絶縁材）：PVF/PET/PVF
 - ③ 前面ガラス：低鉄分(Fe) Mist 強化ガラス
鉄分が少ないほど光の透過が良く、ガラスの表面にエンボス(Embossing) 処理をして、光を散乱させることで採光度を向上させる手段としてMistガラスを使うこと。
 - ④ フレーム：アルミニウム(Al-anodized),
- 硫酸表皮処理の後、酸化被膜処理をして腐食防止
 - ⑤ 端子部分
 - 形式：ダイオード内蔵形, 防水形
 - 材質：ABS 成型物
 - 連結リード線：コネクタ ケーブル (90cm)、MC4互換
 - ダイオード：600V 10A *注1 Hot Spot Effect防止用 バイパスダイオード3個
- *注1：太陽電池板の一部分に陰が映る場合は逆起電力が発生され、出力が下がる現象

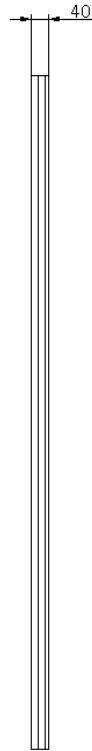
B. 断面構造



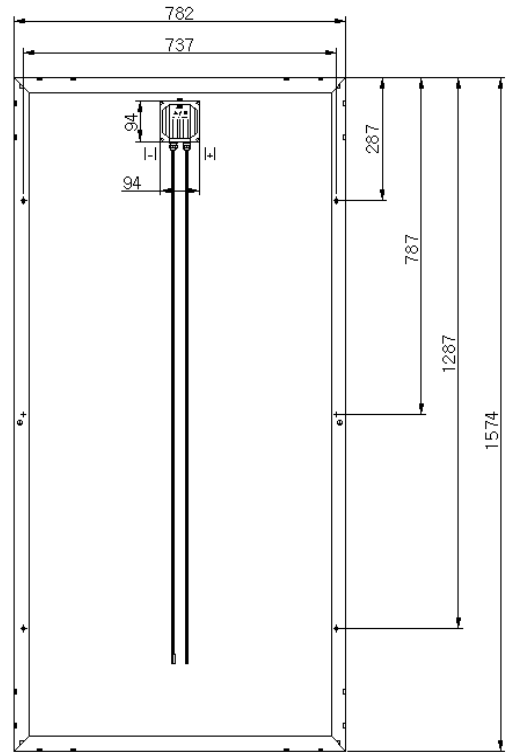
C. 図面



Front View



Side View



Rear View

E. 梱包

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