

**CHUBB  
INSURANCE**

# SYP240S~SYP260P

## POLYCRYSTALLINE MODULE 60x6"

### Characteristics & Performance

- Use of only certified materials at highest quality standards.
- The process of cell and module production is fully automated with 100% quality control and product traceability.
- Heavy load mechanical resistance: TÜV certified (5400Pa tested against snow and 2400Pa test against wind)
- Excellent performances even during low solar radiation
- Guaranteed positive tolerance 0 to +3% of power for each module

### Certifications for Incentives

#### ■ Quality, Environment, Health & Safety

ISO9001:2008, ISO14001:2004, OHSAS18001:2007

Full Member PV Cycle Association AISBL

#### ■ Product Certifications

Quality and Robustness: IEC61215:2005

Safety: IEC61730 -1/-2, MCS, CEC, UL

Resistance to salt corrosion (salt fog): IEC61701:2000

Resistance to ammonia fumes: Ammonia Resistance Test

### 25 Year Linear Power Guarantee

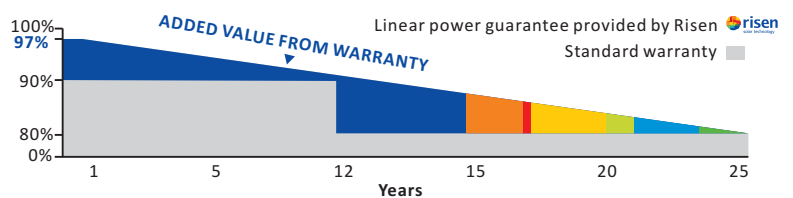
#### ■ Commercial

12 years on material and manufacturing defects

#### ■ Performance

Power not less than 90% of power peak during the first 12 years

Power not less than 80% of power peak during the subsequent 13 years.



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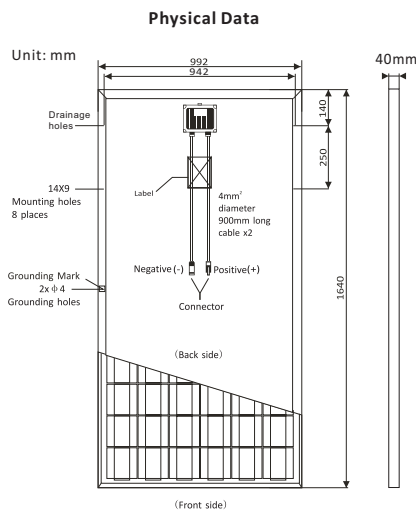
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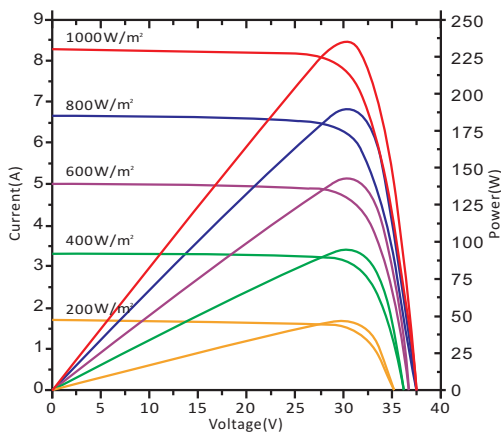
Qualified: IEC61215  
Qualified: IEC61730



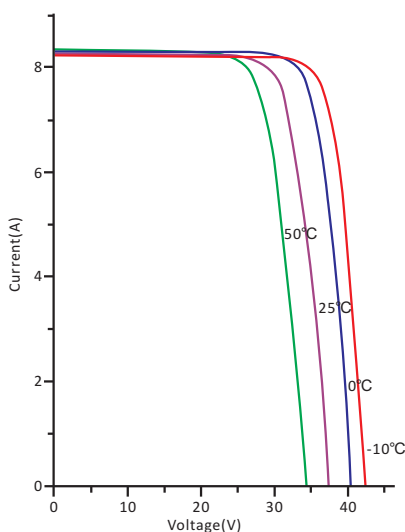


### SYP235S

#### Electrical characteristics at different irradiances (25°C)



#### I-V characteristics at different cell temperatures (AM1.5, 1000W/m<sup>2</sup>)



### Electrical Characteristics at STC

Type		SYP240S	SYP245S	SYP250P	SYP255P	SYP260P
Maximum Power	P <sub>max</sub> (W)	240W	245W	250W	255W	260W
Tolerance Value for Power	%	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%
Maximum Power Voltage	V <sub>mpp</sub> (V)	30.20	30.30	30.30	30.50	30.50
Maximum Power Current	I <sub>mpp</sub> (A)	7.96	8.09	8.26	8.38	8.53
Open Circuit Voltage	V <sub>oc</sub> (V)	37.20	37.30	37.30	37.40	37.50
Short Circuit Current	I <sub>sc</sub> (A)	8.33	8.34	8.90	9.05	9.24
Module Efficiency	η	>14.78%	>15.07%	>15.37%	>15.67%	>15.98%

Performance at STC: Irradiance of 1000W/m<sup>2</sup>, Module temperature 77±3.6<sup>o</sup>T (25±2<sup>o</sup>C)  
 AM 1.5 Power measurement tolerance: ±3%

### Electrical Characteristics at NOCT

Type		SYP240S	SYP245S	SYP250P	SYP255P	SYP260P
Maximum Power	P <sub>max</sub> (W)	173.04	179.10	183.20	187.40	189.28
Maximum Power Voltage	V <sub>mpp</sub> (V)	26.56	27.30	27.50	27.60	27.80
Maximum Power Current	I <sub>mpp</sub> (A)	6.52	6.56	6.66	6.79	6.81
Open Circuit Voltage	V <sub>oc</sub> (V)	33.65	34.20	34.30	34.40	34.50
Short Circuit Current	I <sub>sc</sub> (A)	6.8	7.02	7.11	7.23	7.32

Performance at NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20<sup>o</sup>C, Wind speed 1m/s  
 Power measurement tolerance: ±3%

### Temperature Coefficients(Tc)

NOCT(Nominal Operating Cell temperature)	45±2 <sup>o</sup> C
Temperature Coefficient of VOC(β)	-0.33%/ <sup>o</sup> C
Temperature Coefficient of ISC(α)	+0.033%/ <sup>o</sup> C
Temperature Coefficient of Pmax	-0.39%/ <sup>o</sup> C

### Permissible Operating Conditions

Maximum System Voltage	1000 V
Operating Temperature Range	-40 <sup>o</sup> C ~ +85 <sup>o</sup> C
Maximum Surface Load Capacity	Test up to 5400Pa according to IEC61215 (Advanced test)
Resistance Against Hail	Maximum diameter of 1in.(25mm) impact speed of 51.5mph(23m/s)

### Mechanical specifications

Cells	Polycrystalline cell with 3-busbars,6"(6x10)
Junction Box	IP67,combined with 3 by-pass diodes
Front Glass Thickness	3.2mm
Connecting Cable/Connector	MC4 compatible connector/4mm <sup>2</sup> diameter, 900mm length
Frame Dimension	1640x992x40mm
Weight	19.5KG

### Packing Features

Frame Height	40mm
Qty/Pallet (PCS)	26
Qty/40HC container (PCS)	728