

# 470-490W Mono

# 120 Half-Cell Layout

### 182mm H-TOPCon Cell









Half Cut Cell Technology



SMBB Technology

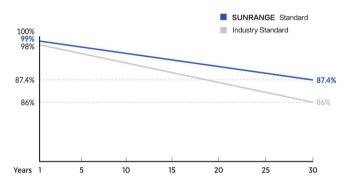








### **Linear Performance Warranty**



\* SUNRANGE: Standard warranty 15 years, can be extended up to 20 years.

### **Insured By**





#### **Comprehensive Certificates**

- ISO9001:2015 QMS
- ISO14001:2015 EMS
- ISO45001:2018 OHSMS
- IEC61215/IEC61730 Standard Quality
- IEC61701/IEC62716 Salt/Mist/Ammonia Tests

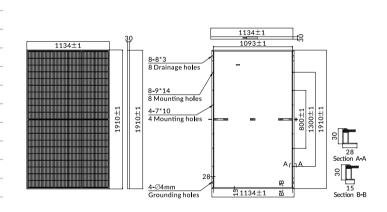




# SUNRANCE

### **MECHANICAL CHARACTERISTICS**

Solar Cells	N-type Mono		
No. of Cells	120 (6×20)		
Dimensions	1910 x 1134 x 30mm		
Weight	22.5kg		
Front Glass	3.2mm coated tempered glass		
Frame	Anodized aluminium alloy		
Junction Box	lp68 rated (3 by pass diodes)		
	4.0mm <sup>2</sup>		
Output Cables	300mm (+) / 300mm (-)		
	Length can be customized		
Connectors	Mc4 compatible		
Mechanical load test	5400Pa		



### **ELECTRICAL PARAMETERS**

POWER CLASS	SR60P-470N		SR60P-475N		SR60P-480N		SR60P-485N		SR60P-490N	
	STC	NMOT								
Maximum power (Pmax)	470W	353W	475W	357W	480W	361W	485W	365W	490W	369W
Open Circuit Voltage (Voc)	42.85V	40.81V	43.06V	40.99V	43.27V	41.17V	43.48V	41.35V	43.68V	41.52V
Short Circuit Current (Isc)	14.05A	11.32A	14.12A	11.38A	14.19A	11.44A	14.26A	11.50A	14.33A	11.56A
Voltage at Maximum power (Vmpp)	35.82V	32.99V	36.01V	33.18V	36.20V	33.36V	36.38V	33.55V	36.57V	33.73V
Current Maximum Power (Impp)	13.12A	10.70A	13.19A	10.76A	13.26A	10.82A	13.33A	10.88A	13.40A	10.94A
MODULE EFFICIENCY (%)	21.	70%	21.9	3%	22.	16%	22	.39%	22.6	62%

PACKING CONFIGURAT	ION		I-V CURVE	SR	860P-485N	
Container	20'GP	40'HQ	14-		- 16-	
Pieces per pallet	36	36	. Cell Temp = 25°C		14	
Pallets per container	6	24	12	1000W/m²	12	
Pieces per container	216	864	10 -	800W/m <sup>2</sup>	10-	\\\\\
			Currer		8 1000W/m <sup>1</sup>	\\\\\
			4		- Cell Temp = 10°C - Cell Temp = 25°C - Cell Temp = 40°C - Cell Temp = 55°C	\\\\\
			2		2 - Cell Temp = 70°C	\\\\\
			0 10 20	20 40 50	40 0 10 30	30 40 50 60

## **OPERATING CHARACTERISTICS**

## TEMPERATURE CHARACTERISTICS

Operating Module Temperature	-40°C to +85°C
Maximun System Voltage	1500 DC (IEC)
Maximun Series Fuse Rating	25A
Power Tolerance	0/+5W

45±2°C
-0.29%°C
-0.25%°C
+0.045%°C

Note: The specifications, data and technical characteristics provided in this data sheet are subject to changes due to continuous R&D, product innovation and improvement. SUNRANGE reserves the right to modify the information any time without prior notice.

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