

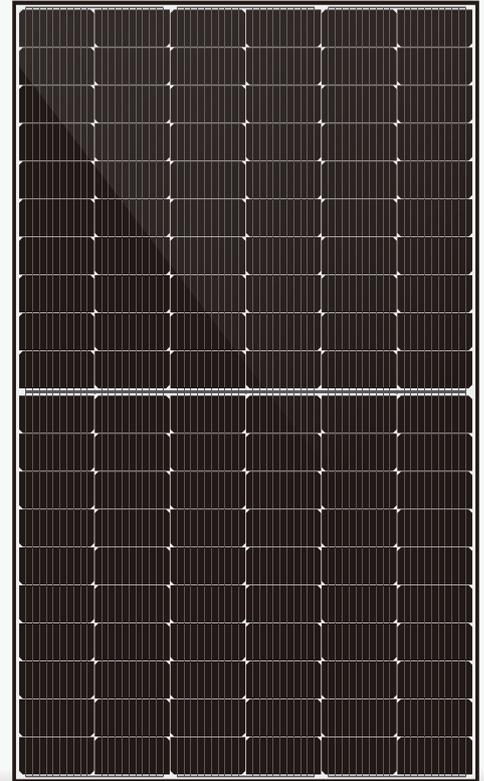
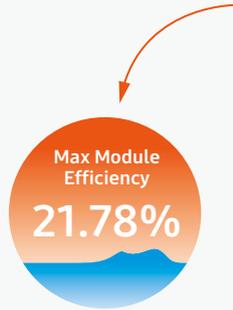


ZECO-60X10

0~+5W

# 450~470 W

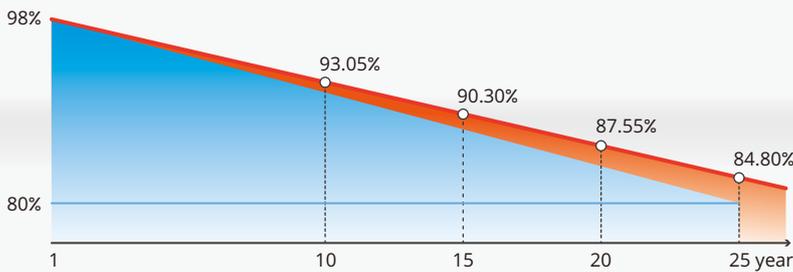
Half-Cell High Efficiency PV Module



## Quality Guarantee

12-Year material & technology warranty

25-Year linear power output warranty



— ZECOMEX solar linear power output guarantee

— Standard linear power output guarantee



### More Power Generation

Larger size of light receiving area and higher module conversion efficiency



### 10 Busbar Technology

Higher power collection density improves power generation



### Stable Generation Performance

Guaranteed 0~+5W positive tolerance and slower power attenuation:  
first year ≤2%, 0.55% per year from 2-25



### Higher Power Gains and Lower Losses

Excellent low irradiance performance and low shadow loss



### Process Optimized and Upgraded

Lower risk of hot spot and stronger anti-PID ability



### Strong Environmental Adaptability and Great Durability

Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pascal) and snow load (5400 Pascal)

## Comprehensive

## Products and System Certificates



IEC 61215 / IEC 61730 / CE / FIDE / INMETRO

ISO 45001-

2018/International standards for occupational health & safety

ISO 14001-

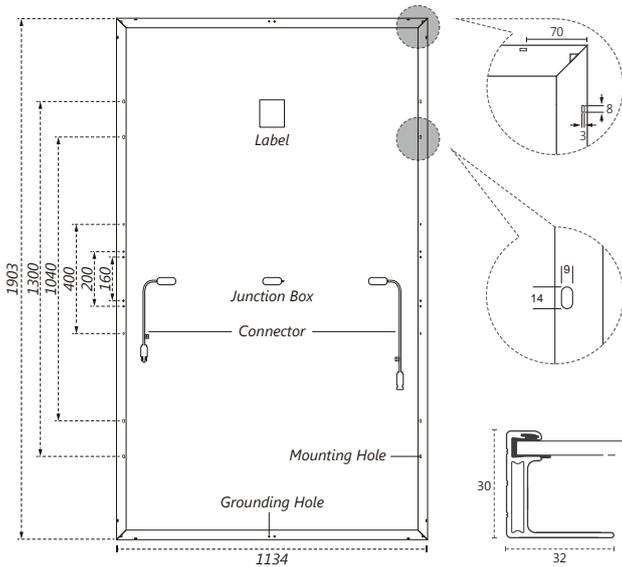
2015/Standards for environmental management system

ISO 9001-

2015/Quality management system

# ZECO-60X10 450~470W

## Design



## Mechanical Specification

<b>Cells Type</b> Mono 182×91mm	<b>Dimension (L×W×T)</b> 1903×1134×30mm
<b>Weight</b> 23.8kg	<b>Packing</b> 36pcs/pallet, 864pcs/40HQ
<b>Output Cable</b> (Including connector)	4.0mm <sup>2</sup> , 300/400mm in length, length can be customized
<b>No. of Cells</b>	120 (6×20)
<b>Glass</b>	3.2mm High Transmission, Antireflection Coating
<b>Junction box</b>	IP68, 3 Bypass Diodes
<b>Connector</b>	MC4 Compatible

## Operating Parameters

<b>Maximum system voltage</b>	1500V DC
<b>Operating Temperature</b>	-40 ~ +85°C
<b>Maximum series fuse rating</b>	25A
<b>Snow load, frontside</b>	5400Pa
<b>Wind load, backside</b>	2400Pa
<b>Nominal operating cell temperature</b>	45°C±2°C
<b>Application level</b>	Class A

## STC-Electrical Characteristics

Module Type	ZECO-60X10				
Maximum Power (Pmax/W)	450	455	460	465	470
Open-circuit Voltage (Voc/V)	41.6	41.8	42.0	42.2	42.4
Maximum Power Voltage (Vmp/V)	35.2	35.4	35.6	35.8	36.0
Short-circuit Current (Isc/A)	13.66	13.72	13.78	13.84	13.90
Maximum Power Current (Imp/A)	12.78	12.85	12.92	12.99	13.06
Module Efficiency (%)	20.85	21.08	21.32	21.55	21.78
Temperature Coefficient of Isc			0.05%/°C		
Temperature Coefficient of Voc			-0.31%/°C		
Temperature Coefficient of Pmax			-0.35%/°C		

Standard Test Environment : Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, Spectrum AM1.5

## NOCT-Electrical Characteristics

Maximum Power (Pmax/W)	335	339	342	349	353
Open-circuit Voltage (Voc/V)	39.0	39.2	39.4	39.9	40.1
Maximum Power Voltage (Vmp/V)	33.3	33.5	33.7	33.9	34.1
Short-circuit Current (Isc/A)	11.02	11.07	11.12	11.17	11.22
Maximum Power Current (Imp/A)	10.05	10.10	10.16	10.32	10.37

Standard Test Environment : Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Spectrum AM1.5, Wind speed 1m/s

## I-V Curve (ZECO-60X10-470W)

