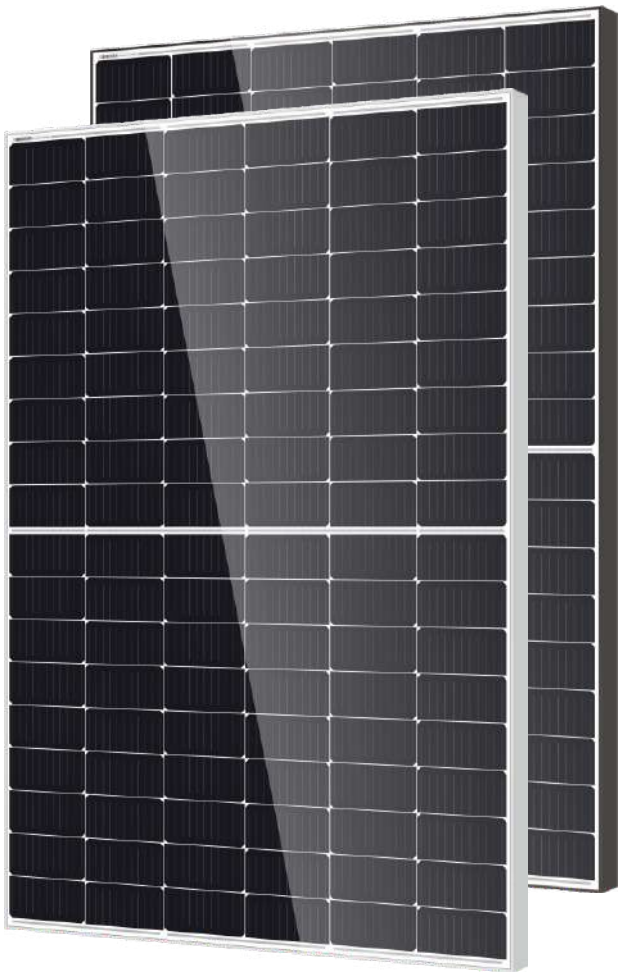
YONGKANG HAOYU SOLAR ENERGY CO.,LTD



# 460w

## M10 solar modules

**Mono MBB**

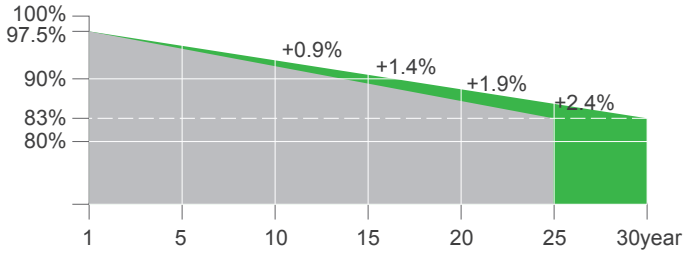
N TYPE TOPCON

IEC 61215 / IEC 61730
ISO 9001 : Quality Management System
ISO 14001 : Environment Mangement System
OHSAS 18001 : Occupational Health and Safety Management System

## KEY FEATURES

- High module conversion efficiency,through superior manufacturing technology
- Guaranteed power output tolerance from -3 to +3%
- Excellent performance under low-light irradiance environment
- Anodized aluminum is mainly for improving corrosion resistance
- Highly transparent,low iron tempered glass
- Entire module certified to withstand high wind loads(2400Pa) and snow load(5400Pa)

## WARRANTY




12 years — 12-year Warranty for Materials and Processing

30 years — 30-year Warranty for Extra Linear Power Output

# Bifacial Topcon Plus Half Cell(6x18)
# M10 Mono Solar Module

Your Best PV Supplier

## ELECTRICAL SPECIFICATIONS

| | | | | |
|---|---|---|---|---|
| Model Type | TDC460M10-60 | | | |
| Peak Power (Pmax) | 460W | | | |
| Module Efficiency | 23.02% | | | |
| Maximum Power Voltage (Vmp) | 31.05V | | | |
| Maximum Power Current (Imp) | 14.82A | | | |
| Open Circuit Voltage (Voc) | 36.92V | | | |
| Short Circuit Current (Isc) | 15.75A | | | |
| Power Tolerance | ±3% | | | |
| Maximum System Voltage | DC 1500V | | | |
| Operating Temperature | -40℃--+85℃ | | | |
| Series Fuse Rating (A) | 20A | | | |
| Number of Bypass Diode | 3 | | | |
| Normal Operating Cell Temperature(NOCT) | 45℃±2℃ | | | |

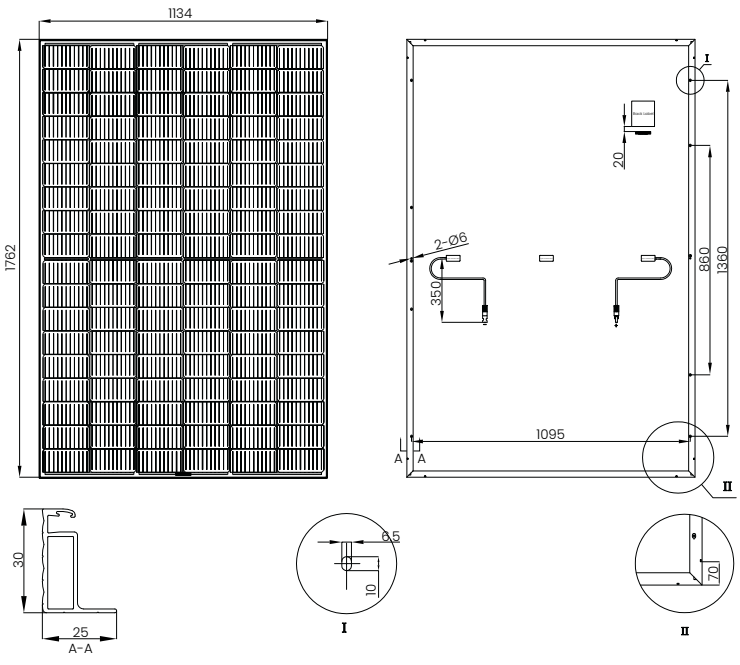
## MECHANICAL SPECIFICATIONS

| | |
|---|---|
| Cell Type | Monocrystalline 182*91mm |
| No.of Cells | 60(6*10) |
| Dimensions | 1762*1134*30mm(L*W*H) |
| Weight | 21.6KG/PC |
| Front Glass | High transmission tempered glass |
| Frame | Anodized aluminium alloy |
| Junction Box | IP67//IP65 6diodes |
| Cable | TUV 1×4.0mm, Length:400mm |
| Connectors | MC4/MC4 Comparable |
| Container's model | 936pcs (40''High Cube Container) |

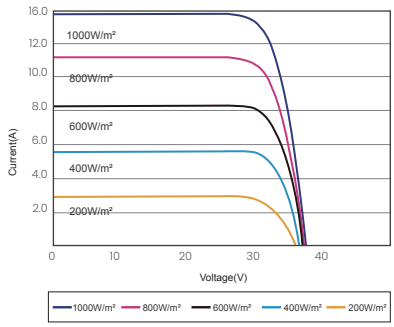
## TEMPERATURE COEFFICIENT

| | |
|---|---|
| Temp.Coeff. of Isc (TK Isc) | +0.065%/℃ |
| Temp.Coeff. of Voc(TK Voc). | -0.346%/℃ |
| Temp.Coeff. of Pmax(TK Pmax) | -0.46%/℃ |

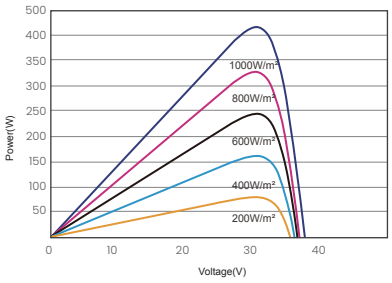
## PHYSICAL CHARACTERISTICS Unit:mm




## ELECTRICAL CHARACTERISTICS




I-V CURVES OF PV MODULE(460W)




P-V CURVES OF PV MODULE(460W)

Note:the specifications are obtained under the Standard Test Conditions (STCs):1000W/m2 solar irradiance , 1.5 Air Mass , and cell temperature of 25℃ ;
The NOCT is obtained under the Test Conditions : 800W/m2,20℃ ambient temperature , 1m/s wind speed ,AM 1.5 spectrum.