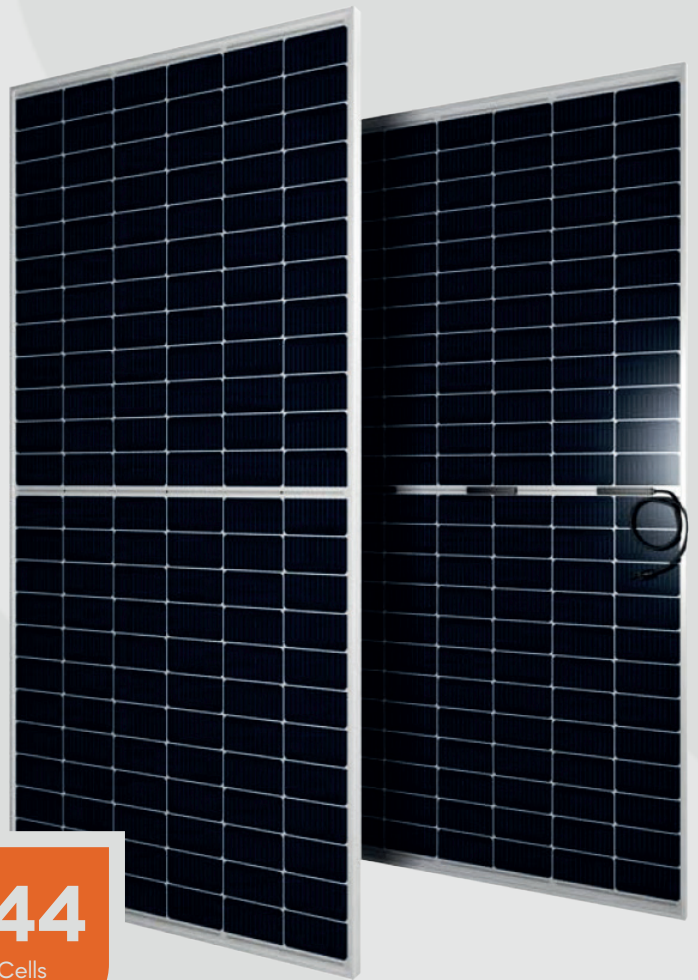


# HETER SERIES SOLAR MODULES

440-450W

## Overview

A fully certified, premium quality and high efficiency module made with A grade materials manufactured in Turkey. Guaranteed positive tolerance of up to 5W



144  
Cells  
HJT



### Quality

- ISO 9001 CERTIFICATION
- PIN-UP TECHNOLOGY LAMINATION
- NDC (NON-DESTRUCTIVE CUTTING)
- MICRO GAP



### Components

- CERTIFIED SUPPLIERS
- STRICT CRITERIA FOR THE SELECTION OF CELLS (EUROPE AND ASIA)
- MC4 COMPATIBLE



### Tech

- IEC 61215 AND 61730 PARTS II
- LOAD RESISTANCE -5400 PA
- HAIL IMPACT RESISTANCE CLASS 4
- MAX VOLTAGE 1500 V



### Warranty

- PRODUCT: 15 YEARS
- 1 YEAR: MONO (98%)
- 10 YEARS: 90% / 30 YEARS UP TO: 86% (LINEAR)



### Environment

- REGULATED CARBON FOOTPRINT
- ISO 45001 AND ISO 14001 STD.



### Product

- CLASS 440 - 450 WP -0/+4.99 WP
- HJT CELLS
- 144 CELLS HJT MODULE

## DIFFERENCES



Up to 450 Wp (+81 Wp at 20% bifacial gain)



Module efficiency up to 24.8% (BiFi +20%)



Glass-glass bifacial design

### LOW TEMPERATURE COEFFICIENT

**-0.26%/°C**

vs. from -0.35 to -0.42 %/°C  
for mass market PV modules

### EXTRA HIGH BIFACIAL COEFFICIENT

up to **90%**  
vs. 70% for mass market PV modules

# Solar Module

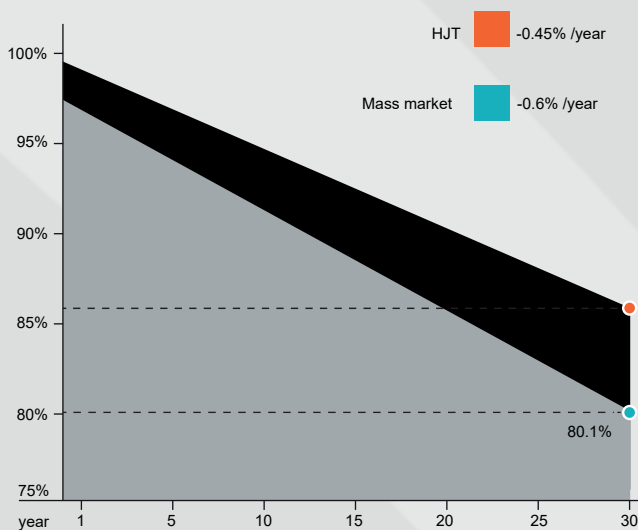
## Electrical Characteristics

Rated Power	MIR 440 144C/M	MIR 445 144C/M	MIR 450 144C/M
Power Tolerance	0~+5W	0~+5W	0~+5W
Maximum Power Voltage (Vmp)	44.34	44.52	44.07
Maximum Power Current (Imp)	9.94	10.03	10.12
Open Circuit Voltage (Voc)	53.42	53.64	53.86
Short Circuit Current (Isc)	10.40	10.45	10.50
Module Efficiency (%)	20.05	20.80	21
Maximum System Voltage	DC 1500V		

## Mechanical Data

Width	1039 ± 2 mm
Length	2064 ± 2 mm
Thickness	35 ± 0.5 mm
Glass	Glass - glass bifacial design 2/2 mm
Output Cables	4.0 mm MC4 compatible

## Linear Performance Warranty



## Temperature Characteristics

Pmax Temperature Coefficient	-0,26%/°C
Voc Temperature Coefficient	-0.244%/°C
Isc Temperature Coefficient	+0.055%/°C
Operating Temperature	-40~+85°C

## Packing Configuration

Container	40'HQ
Pieces per Pallet	30
Pieces per Container	630

