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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Anhui Daheng Energy Technology Co., Ltd.**

**HCM78X9 435-445W**

**HCM78X9-435**

Also available on the web at

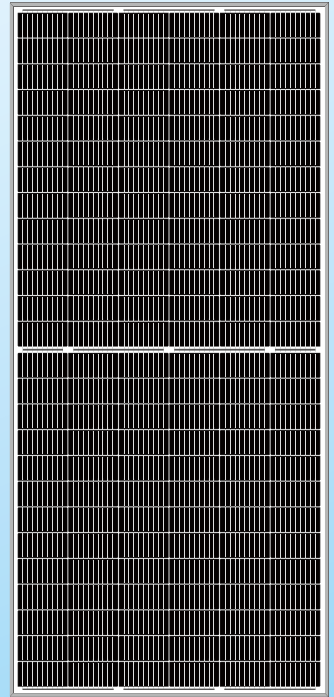
[EnergyPal.com/anhui-daheng-energy-technology-co-ltd-solar-panels/hcm78x9-435](http://EnergyPal.com/anhui-daheng-energy-technology-co-ltd-solar-panels/hcm78x9-435)



# HCM78X9

# 435~445W

## Half-Cell High Efficiency PV Module



HIGH EFF.

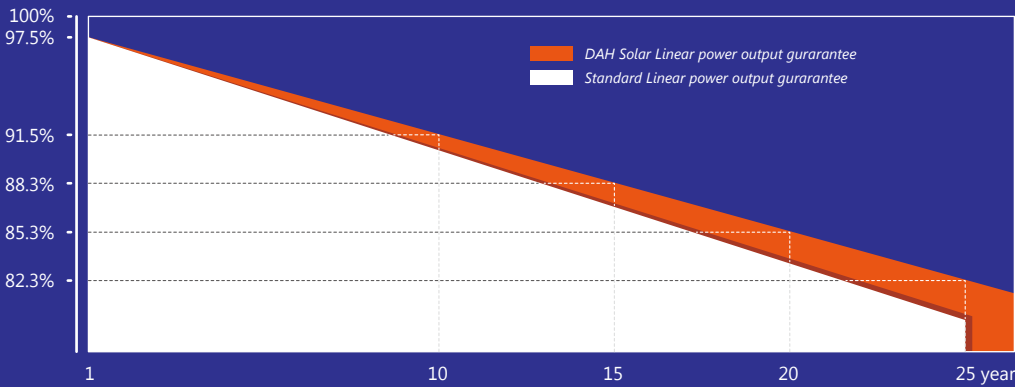


HALF CELL



### Quality Guarantee

12-year material & technology warranty  
25-year linear power output warranty



## 20.45%

Max Module Eff.

## 0~+5W

Positive Tolerance

### Performance Advantage

- > More Busbars, the Less of Broken and cracking, As the Narrowed Cell Bus Bar Width, the Light Receiving Area and Power are Increased too.
- > Half-Cell technology and back passivation technology, excellent photoelectric conversion efficiency.
- > Excellent low-light power generation performance, even if it is half blocked, there is still 50% power output.
- > Series-parallel combined circuit design, higher output power than conventional PERC.

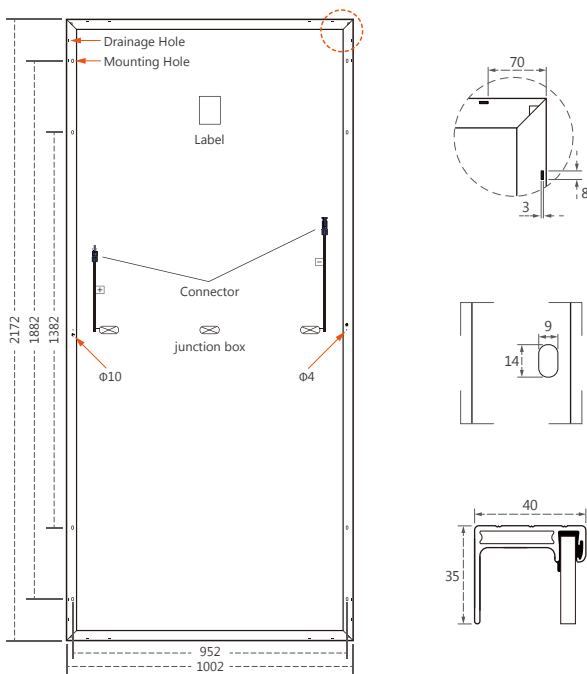


— Top Runner of Smart PV Module —

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[www.DAHSOLARPV.com](http://www.DAHSOLARPV.com)



**Design****Mechanical Specification**

Cells Type	Mono 158.75×79.375mm
Weight	24.8kg
Dimension (L×W×T)	2172*1002*40mm
Cable	4.0mm <sup>2</sup> ; Portrait: N 400mm/P 300mm, (Cable length can be customized)
No.of Cells	156 (6×26)
Glass	3.2 mm High Transmission, Antireflection Coating
Junction box	IP68, 3 Bypass Diodes
Connector	QC4 or MC4 Compatible
Packing	27pcs/pallet, 270pcs/20GP, 580pcs/40HQ

**Operating Parameters**

Maximum system voltage	1000V/1500V DC
Operating Temperature	-40 ~ +85℃
Maximum series fuse rating	20A
Snow load, frontside	5400Pa
Wind load, backside	2400Pa
Nominal operating cell temperature	45℃±2℃
Application level	Class A

**Electrical Characteristics(STC)**

Module Type	HCM78X9-435W	HCM78X9-440W	HCM78X9-445W
Maximum Power (Pmax)	435W	440W	445W
Open-circuit Voltage (Voc)	53.7V	53.9V	54.2V
Maximum Power Voltage (Vmp)	45.3V	45.6V	45.8V
Short-circuit Current (Isc)	10.19A	10.25A	10.29A
Maximum Power Current (Imp)	9.61A	9.65A	9.72A
Module Efficiency (%)	19.99%	20.22%	20.45%
Power Tolerance	0~+5W		
Temperature Coefficient of Isc	0.05%/℃		
Temperature Coefficient of Voc	-0.29%/℃		
Temperature Coefficient of Pmax	-0.37%/℃		
Standard Test Environment	Irradiance 1000w/m <sup>2</sup> , Cell temperature 25℃, Spectrum AM1.5		

**Electrical Characteristics(NOCT)**

Module Type	HCM78X9-435W	HCM78X9-440W	HCM78X9-445W
Maximum Power (Pmax)	328W	332W	336W
Open-circuit Voltage (Voc)	51.2V	51.4V	51.6V
Maximum Power Voltage (Vmp)	42.9V	43.1V	43.3V
Short-circuit Current (Isc)	8.21A	8.24A	8.29A
Maximum Power Current (Imp)	7.65A	7.70A	7.76A
Standard Test Environment	Irradiance 800w/m <sup>2</sup> , Cell temperature 20℃, Spectrum AM1.5, Wind speed 1m/s		