

Hi-MO **X10** Guardian Fire-Resistant

LR7-72HVDA

640~670M



Class A Fire Certification:

Industry's first mass-produced module with Class A fire safety certification¹



Anti-Ignition:

Source-level prevention of hot spots and arcing²



Fire-Resistance:

Effectively contains fire spread, securing critical rescue time



Higher Power Generation:

A+ anti-shading, 70% power loss cut³



**Bifacial
Power Generation**

15Y Product
Warranty

30Y Performance
Warranty

Complete System and Product Certifications

IEC 61215, IEC 61730

IEC62941: Guideline for module design qualification and type approval

ISO9001: Quality Management System

ISO14001: Environment Management System

ISO45001: Occupational Health and Safety



24.80%

MAX MODULE
EFFICIENCY

1%

FIRST YEAR
POWER DEGRADATION

0.35%

YEAR 2-30
POWER DEGRADATION

-0.26%/°C

BETTER TEMPERATUR
COEFFICIENT

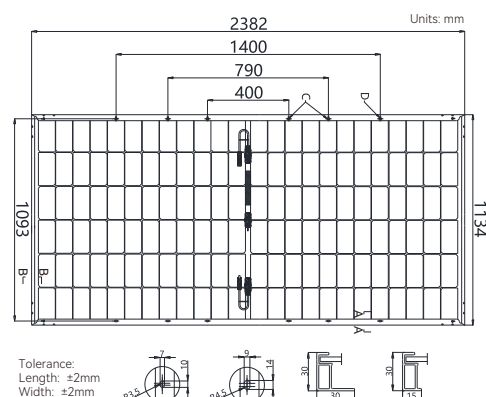
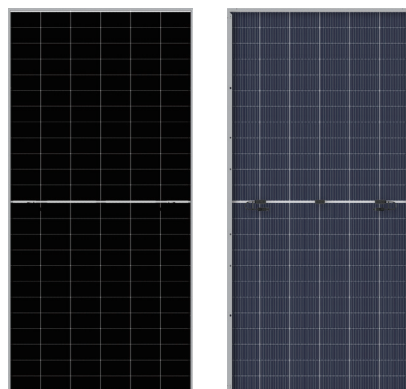
Mechanical Parameters

Cell Orientation	144 (6×24)
Junction Box	IP68, three diodes
Output Cable	4mm ² ; +400/-200mm/±1400mm length can be customized
Glass	Dual glass 2.0mm+2.0mm, with Special Fire-Resistant Glass
Frame	Anodized aluminum alloy frame
Weight	32.5 kg
Dimension	2382×1134×30mm
Packaging	36pcs per pallet / 144pcs per 20'GP / 720pcs per 40'HC

Remark: 17.5m trucks are rated at 30t load. Actual loading quantity is subject to vehicle specs.

Electrical characteristics with different rear side power gain

Pmax/W	Voc/V	Isc/A	Vmp/V	Imp/A	Pmax gain
655	54.32	15.22	44.97	14.57	0%
688	54.32	15.98	44.97	15.30	5%
721	54.32	16.74	44.97	16.03	10%
755	54.42	17.50	45.07	16.76	15%
788	54.42	18.26	45.07	17.48	20%
821	54.42	19.03	45.07	18.21	25%



Electrical Characteristics

STC : AM1.5 1000W/m² 25°C

Test uncertainty for Pmax: ±3%

Module Type	LR7-72HVDA-640M	LR7-72HVDA-645M	LR7-72HVDA-650M	LR7-72HVDA-655M	LR7-72HVDA-660M	LR7-72HVDA-665M	LR7-72HVDA-670M
Testing Condition	STC	STC	STC	STC	STC	STC	STC
Maximum Power (Pmax/W)	640	645	650	655	660	665	670
Open Circuit Voltage (Voc/V)	54.02	54.12	54.22	54.32	54.42	54.52	54.62
Short Circuit Current (Isc/A)	14.98	15.06	15.14	15.22	15.30	15.38	15.46
Voltage at Maximum Power (Vmp/V)	44.67	44.77	44.87	44.97	45.07	45.17	45.27
Current at Maximum Power (Imp/A)	14.33	14.41	14.49	14.57	14.65	14.72	14.80
Module Efficiency(%)	23.69	23.88	24.06	24.25	24.43	24.62	24.80

Operating Parameters

Module [T98] Max	70°C
Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0~3%
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	30A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Bifaciality	φPmax: 70±5%
Fire Rating	IEC Class A

Mechanical Loading

Min Designed Mechanical Load	1600Pa/1600Pa
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

Temperature Ratings (STC)

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.200%/°C
Temperature Coefficient of Pmax	-0.260%/°C