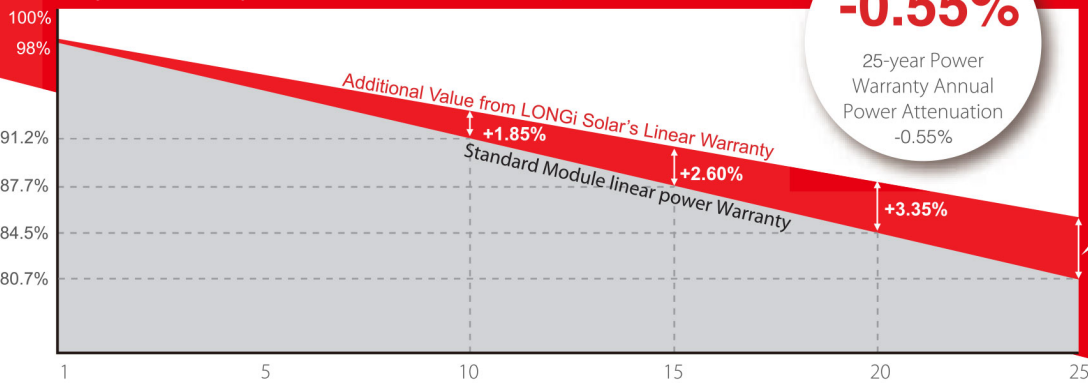


# LR4-72HPH 420~440M



**High Efficiency  
Low LID Mono PERC  
with Half-cut Technology**

12-year Warranty for Materials and Processing;  
25-year Warranty for Extra Linear Power Output



### Complete System and Product Certifications

- IEC 61215, IEC61730, UL1703
- ISO 9001:2008: ISO Quality Management System
- ISO 14001: 2004: ISO Environment Management System
- TS62941: Guideline for module design qualification and type approval
- OHSAS 18001: 2007 Occupational Health and Safety



\* Specifications subject to technical changes and tests. LONGi Solar reserves the right of interpretation.

**Positive power tolerance** (0 ~ +5W) guaranteed

**High module conversion efficiency** (up to 19.8%)

**Slower power degradation** enabled by Low LID Mono PERC technology: first year <2%, 0.55% year 2-25

**Solid PID resistance** ensured by solar cell process optimization and careful module BOM selection

**Reduced resistive loss** with lower operating current

**Higher energy yield** with lower operating temperature

**Reduced hot spot risk** with optimized electrical design and lower operating current

**ALENA ENERGY**  
INVERTER & PIN MẶT TRỜI CAO CẤP

**LONGi Solar**

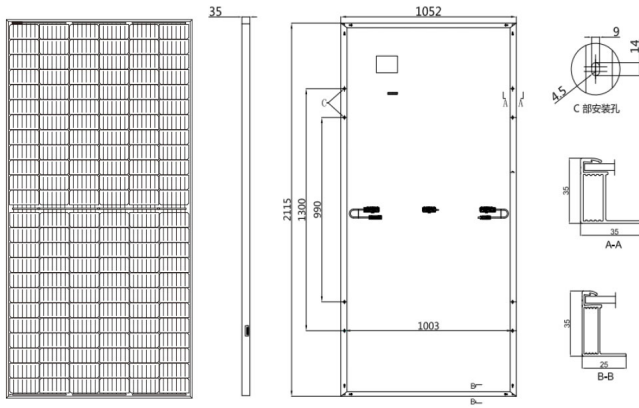
**ALENA ENERGY TECHNOLOGY CO.,LTD**

Address: 167-169 Dien Bien Phu street, Da Kao ward, District 1, Ho Chi Minh city, Vietnam

Tel: (028) 39 26 26 83 - Email: sales@alena-energy.com

# LR4-72HPH 420~440M

## Design (mm)



Units: mm(inch)  
 Tolerance:  
 Length:  $\pm 2$ mm  
 Width:  $\pm 2$ mm  
 Height:  $\pm 1$ mm  
 Pitch-row:  $\pm 1$ mm

## Mechanical Parameters

Cell Orientation: 144 (6x24)  
 Junction Box: IP68, three diodes  
 Output Cable: 4mm<sup>2</sup>, 300mm in length,  
 length can be customized  
 Glass: Single glass  
 3.2mm coated tempered glass  
 Frame: Anodized aluminum alloy frame  
 Weight: 24 kg  
 Dimension: 2115x1052x35mm  
 Packaging: 30pcs per pallet  
 150pcs per 20'GP  
 660pcs per 40'HC

## Operating Parameters

Operational Temperature: -40 °C ~ +85 °C  
 Power Output Tolerance: 0 ~ +5 W  
 Voc and Isc Tolerance:  $\pm 3\%$   
 Maximum System Voltage: DC1500V (IEC/UL)  
 Maximum Series Fuse Rating: 20A  
 Nominal Operating Cell Temperature: 45 $\pm 2$  °C  
 Safety Class: Class II  
 Fire Rating: UL type 4

## Electrical Characteristics

Test uncertainty for Pmax:  $\pm 3\%$

Model Number	LR4-72HPH-420M		LR4-72HPH-425M		LR4-72HPH-430M		LR4-72HPH-435M		LR4-72HPH-440M	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	420	311.1	425	314.8	430	318.5	435	322.2	440	326.0
Open Circuit Voltage (Voc/V)	48.8	45.5	49.0	45.7	49.2	45.9	49.4	46.1	49.6	46.3
Short Circuit Current (Isc/A)	11.04	8.90	11.11	8.95	11.19	9.02	11.26	9.08	11.33	9.13
Voltage at Maximum Power (Vmp/V)	40.2	37.1	40.4	37.3	40.6	37.5	40.8	37.7	41.0	37.9
Current at Maximum Power (Imp/A)	10.45	8.38	10.52	8.44	10.60	8.50	10.67	8.56	10.74	8.61
Module Efficiency(%)	18.9		19.1		19.3		19.6		19.8	

STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25 °C, Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20 °C, Spectra at AM1.5, Wind at 1m/s

## Temperature Ratings ( STC )

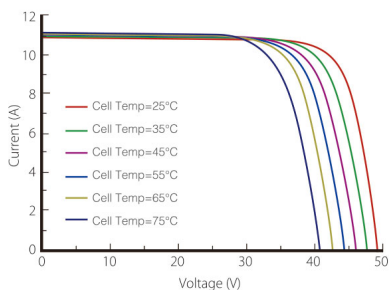
Temperature Coefficient of Isc	+0.057%/ °C
Temperature Coefficient of Voc	-0.286%/ °C
Temperature Coefficient of Pmax	-0.370%/ °C

## Mechanical Loading

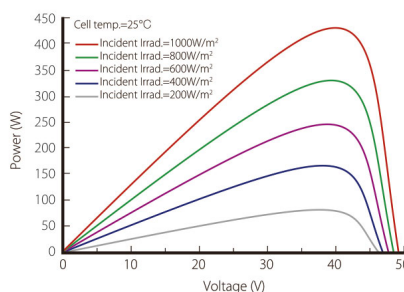
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

## I-V Curve

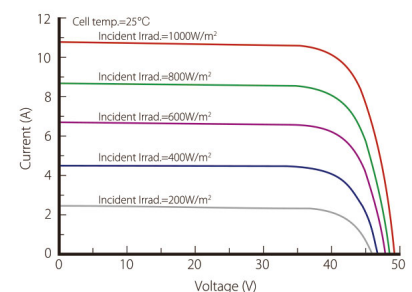
Current-Voltage Curve (LR4-72HPH-430M)



Power-Voltage Curve (LR4-72HPH-430M)



Current-Voltage Curve (LR4-72HPH-430M)



**ALENA ENERGY**  
 INVERTER & PIN MẶT TRỜI CAO CẤP

**LONGi Solar**

**ALENA ENERGY TECHNOLOGY CO.,LTD**

Address: 167-169 Dien Bien Phu street, Da Kao ward, District 1, Ho Chi Minh city, Vietnam

Tel: (028) 39 26 26 83 - Email: sales@alena-energy.com