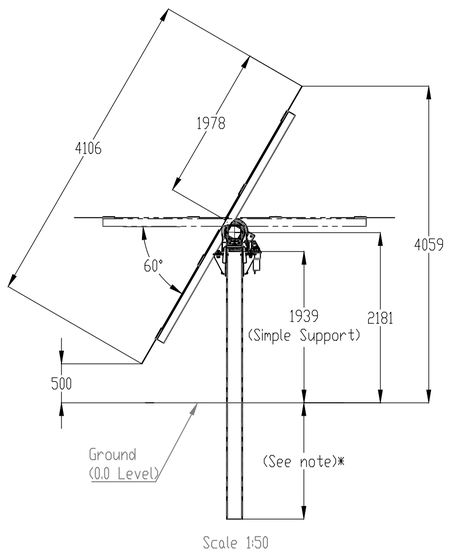

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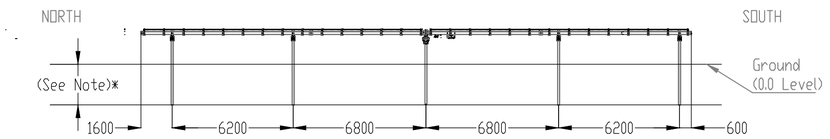
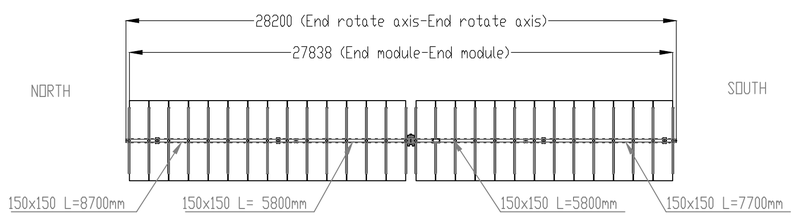
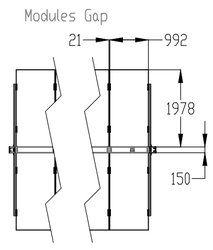


Note*

Simple Support - Standard Embedment Length
60 Degrees
1.3m (1336mm)
1.5m (1565mm)
1.7m (1763mm)
2m (2073mm)
2.5m (2530mm)
2.8m (2835mm)
3m (3089mm)





Scale 1:100

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COMUNE DI UTA E ASSEMINI

OGGETTO
REALIZZAZIONE DI IMPIANTO FOTOVOLTAICO A TERRA 25000 kWp CON SISTEMA DI ACCUMULO - TIPO A INSEGUIMENTO MONOASSIALE

COMMITTENTE
ENERGYMAC3 SRL,
VIA SIMPLICIO SPANO 10, 07026 OLBIA (SS)

PROGETTO DEFINITIVO

ELABORATO
DETTAGLI COSTRUTTIVI - STRUTTURA FOTOVOLTAICA

NUMERO ELABORATO
AU 09

SCALA: VARIE

DATA: DICEMBRE 2021

REV.	DATA	DESCRIZIONE	REDATTO	CONTROLLATO	APPROVATO
3		Terza emissione			
2		Seconda emissione			
1		Prima emissione	Arch. Valentina Madeddu	Arch. Chiara Martis	Ing. S.Floris

CODICE COMMESSA	NOME FILE	FASE PROGETTUALE	CATEGORIA	REV.
		DEF	IMPIANTI	00

STUDIO ALCHEMIST:
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Arch. Valentina Madeddu
Arch. Elena Porcu
Ing. Carlo Casula
Arch. Luigi Mereu
Geol. Mario Strinna
Geom. Alberto Barroccu

PROGETTISTA - TIMBRO E FIRMA

ORDINE INGEGNERI PROVINCIA DI CAGLIARI
N. 5777
Dott. Ing. STEFANO FLORIS

PROGETTISTA - TIMBRO E FIRMA

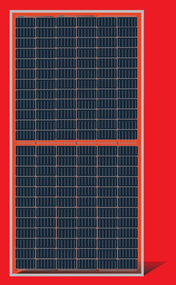
COLLEGIO GEOMETRI E GEOMETRI LAUREATI PROVINCIA DI CAGLIARI
CINZIA MARIA N. NIEDDU ARCHITETTO

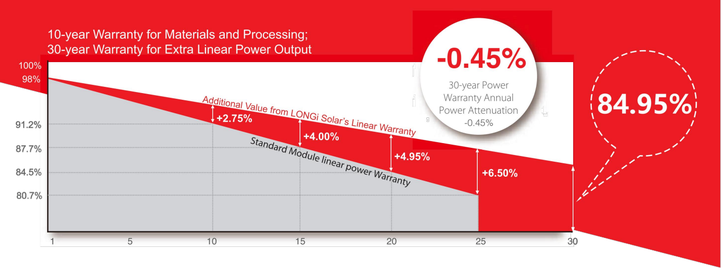
SCHEDE TECNICHE - PANNELLO FOTOVOLTAICO

LR4-72HBD
415~435M

Hi-MO4

High Efficiency
Low LID Bifacial PERC with
Half-cut Technology





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.

Front side performance equivalent to conventional low LID mono PERC:
- High module conversion efficiency (up to 19.4%)
- Better energy yield with excellent low irradiance performance and temperature coefficient
- First year power degradation <2%

Bifacial technology enables additional energy harvesting from rear side (up to 25%)

Glass/glass lamination ensures 30 year product lifetime, with annual power degradation < 0.45%, 1500V compatible to reduce BOS cost

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

LONGi Solar

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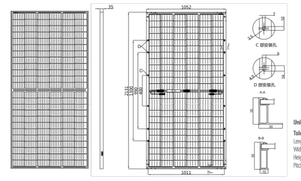
Note: Due to continuous technical innovation, R&D and improvement, technical data above mentioned may be of modification accordingly. LONGi Solar have the sole right to make such modification at anytime without further notice; Demanding party shall request for the latest datasheet for such as contract need, and make it a consisting and binding part of lawful documentation duly signed by both parties.

20190509-Draft

LR4-72HBD **415~435M**

Design （mm）



Mechanical Parameters

Cell Orientation: 144 （6×24）
Junction Box: IP68, three diodes
Output Cable: 4mm², 300mm in length, length can be customized
Glass: Dual glass 2.0mm tempered glass
Frame: Anodized aluminum alloy frame
Weight: 29.5kg
Dimension: 2131×1052×35mm
Packaging: 30pcs per pallet 150pcs per 20'GP 660pcs per 40'HC

Operating Parameters

Operational Temperature: -40℃ ~+85℃
Power Output Tolerance: 0 ~+5 W
Voc and Isc Tolerance: ±3%
Maximum System Voltage: DC1500V (IEC / UL)
Maximum Series Fuse Rating: 20A
Nominal Operating Cell Temperature: 45±2℃
Safety Class: Class II
Fire Rating: UL type 6
Bifaciality: ≥75%

Electrical Characteristics Test uncertainty for Pmax: ±3%

Model Number	LR4-72HBD-415M		LR4-72HBD-420M		LR4-72HBD-425M		LR4-72HBD-430M		LR4-72HBD-435M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	415	308.6	420	312.3	425	316.0	430	319.7	435	323.5
Open Circuit Voltage (Voc/V)	49.0	45.6	49.2	45.8	49.4	46.0	49.6	46.2	49.8	46.4
Short Circuit Current (Isc/A)	10.73	8.69	10.80	8.74	10.86	8.80	10.93	8.85	11.00	8.91
Voltage at Maximum Power (Vmp/V)	40.6	37.7	40.8	37.9	41.0	38.1	41.2	38.2	41.4	38.4
Current at Maximum Power (Imp/A)	10.23	8.19	10.30	8.25	10.37	8.30	10.44	8.36	10.51	8.42
Module Efficiency(%)	18.5		18.7		19.0		19.2		19.4	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25℃, Spectra at AM1.5
NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20℃, Spectra at AM1.5, Wind at 1m/S

Electrical characteristics with different rear side power gain (reference to 425W front)

Pmax /W	Voc/V	Isc /A	Vmp/V	Imp /A	Pmax gain
446	49.4	11.41	41.0	10.88	5%
468	49.4	11.95	41.0	11.40	10%
489	49.5	12.49	41.1	11.92	15%
510	49.5	13.04	41.1	12.44	20%
531	49.5	13.58	41.1	12.96	25%

Temperature Ratings（STC）

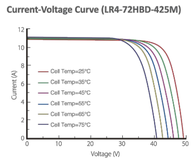
Temperature Coefficient of Isc	+0.060%/℃
Temperature Coefficient of Voc	-0.300%/℃
Temperature Coefficient of Pmax	-0.370%/℃

Mechanical Loading

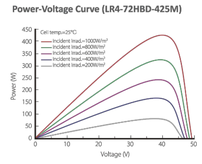
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

I-V Curve

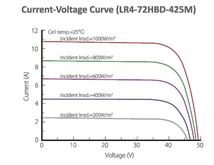
Current-Voltage Curve (LR4-72HBD-425M)



Power-Voltage Curve (LR4-72HBD-425M)



Current-Voltage Curve (LR4-72HBD-425M)



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