

PROGETTO DEFINITIVO PER LA REALIZZAZIONE DI UN IMPIANTO DI PRODUZIONE DI ENERGIA ELETTRICA DA FONTE SOLARE (IMPIANTO FOTOVOLTAICO), DELLA POTENZA DI PICCO TOTALE PARI A 24,99 MWp E POTENZA NOMINALE IN IMMISSIONE PARI A 24,0 MW E RELATIVE OPERE DI CONNESSIONE ALLA RETE ELETTRICA DI PROPRIETA' DI E-DISTRIBUZIONE SPA.

Sezione:

### SEZIONE 7 - DOCUMENTAZIONE GENERALE

Titolo elaborato:

### SCHEDA TECNICA PANNELLO FOTOVOLTAICO

n. Elaborato: 7.13  
rev. 02

Scala: -----  
data: Novembre 2024

Committente:

# NEOEN

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# LUMI STUDIO

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# Hi-MO 7

Preliminary

## LR8-66HGD 595~625M

- High-performance PV modules for utility power plants
- Advanced HPDC cell technology delivers superior module efficiency and power
- High bifaciality and excellent power temperature coefficient achieves high energy yield
- LONGi lifecycle quality ensures long-term performance

12

12-year Warranty for  
Materials and Processing

30

30-year Warranty for Extra  
Linear Power Output

### Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO9001: 2015: ISO Quality Management System

ISO14001: 2015: ISO Environment Management System

ISO45001: 2018: Occupational Health and Safety

IEC62941: Guideline for module design qualification and type approval

# LONGi



**23.1%**  
MAX MODULE  
EFFICIENCY

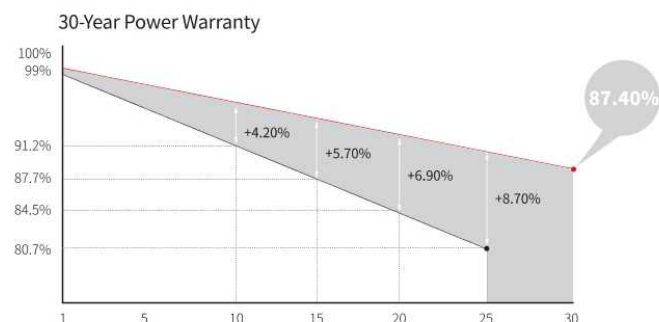
**0~3%**  
POWER  
TOLERANCE

**<1%**  
FIRST YEAR  
POWER DEGRADATION

**0.4%**  
YEAR 2-30  
POWER DEGRADATION

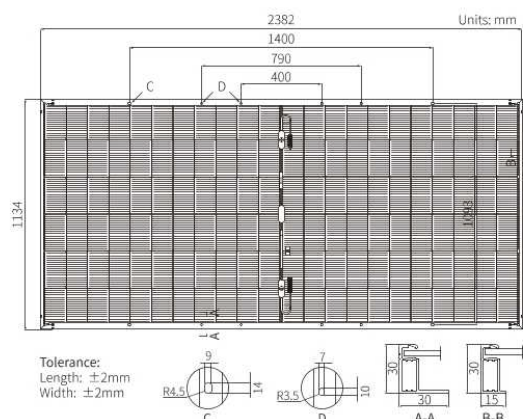
**HALF-CELL**  
Lower operating temperature

### Additional Value



### Mechanical Parameters

Cell Orientation	132 (6×22)
Junction Box	IP68, three diodes
Output Cable	4mm <sup>2</sup> , +400, -200mm/±1400mm length can be customized
Glass	Dual glass, 2.0+2.0mm heat strengthened glass
Frame	Anodized aluminum alloy frame
Weight	33.1kg
Dimension	2382×1134×30mm
Packaging	36pcs per pallet / 144pcs per 20' GP 720pcs or 576pcs (only for USA) per 40' HC



### Electrical Characteristics

STC: AM1.5 1000W/m<sup>2</sup> 25°C NOCT: AM1.5 800W/m<sup>2</sup> 20°C 1.0 m/s

Test uncertainty for P<sub>max</sub>: ±3%

Module Type	LR8-66HGD-595M		LR8-66HGD-600M		LR8-66HGD-605M		LR8-66HGD-610M		LR8-66HGD-615M		LR8-66HGD-620M		LR8-66HGD-625M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (P <sub>max</sub> /W)	595	452.9	600	456.7	605	460.6	610	464.4	615	468.2	620	472.0	625	475.8
Open Circuit Voltage (V <sub>oc</sub> /V)	47.50	45.14	47.70	45.33	47.90	45.52	48.10	45.71	48.30	45.90	48.50	46.09	48.70	46.28
Short Circuit Current (I <sub>sc</sub> /A)	15.90	12.77	15.95	12.81	16.00	12.85	16.05	12.89	16.10	12.93	16.15	12.97	16.20	13.01
Voltage at Maximum Power (V <sub>mp</sub> /V)	39.29	37.34	39.46	37.50	39.61	37.64	39.78	37.81	39.97	37.99	40.17	38.18	40.37	38.37
Current at Maximum Power (I <sub>mp</sub> /A)	15.15	12.14	15.21	12.18	15.28	12.24	15.34	12.29	15.39	12.33	15.44	12.37	15.49	12.41
Module Efficiency(%)	22.0		22.2		22.4		22.6		22.8		23.0		23.1	

### Electrical characteristics with different rear side power gain (reference to 610W front)

P <sub>max</sub> /W	V <sub>oc</sub> /V	I <sub>sc</sub> /A	V <sub>mp</sub> /V	I <sub>mp</sub> /A	P <sub>max</sub> gain
641	48.10	16.85	39.78	16.11	5%
671	48.10	17.66	39.78	16.87	10%
702	48.20	18.46	39.88	17.64	15%
732	48.20	19.26	39.88	18.41	20%
763	48.20	20.06	39.88	19.18	25%

### Operating Parameters

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Maximum System Voltage	DC1500V (IEC/UL)
Maximum Series Fuse Rating	35A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Bifaciality	80±5%
Fire Rating	UL type 29 IEC Class 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

### Temperature Ratings (STC)

Temperature Coefficient of I <sub>sc</sub>	+0.045%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.230%/°C
Temperature Coefficient of P <sub>max</sub>	-0.280%/°C