

# Tiger Neo N-type 54HL4R-B 420-440 Watt ALL-BLACK MODULE

## N-Type

Positive power tolerance of 0~+3%

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018

Occupational health and safety management systems



## Key Features



### SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



### PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



### Hot 2.0 Technology

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.

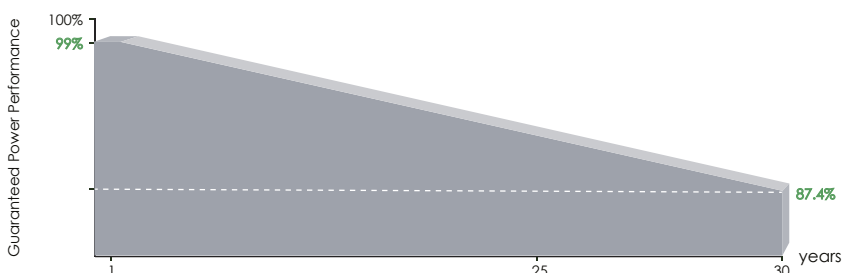


### Enhanced Mechanical Load

Certified to withstand: wind load (4000 Pascal) and snow load (6000 Pascal).



## LINEAR PERFORMANCE WARRANTY

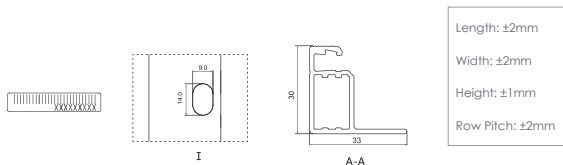
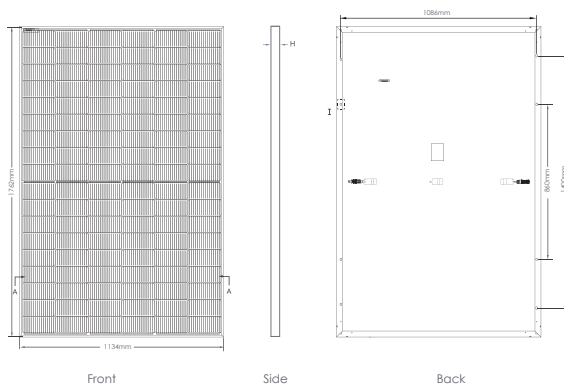


**25** Year Product Warranty

**30** Year Linear Power Warranty

**0.40%** Annual Degradation Over 30 years

## Engineering Drawings



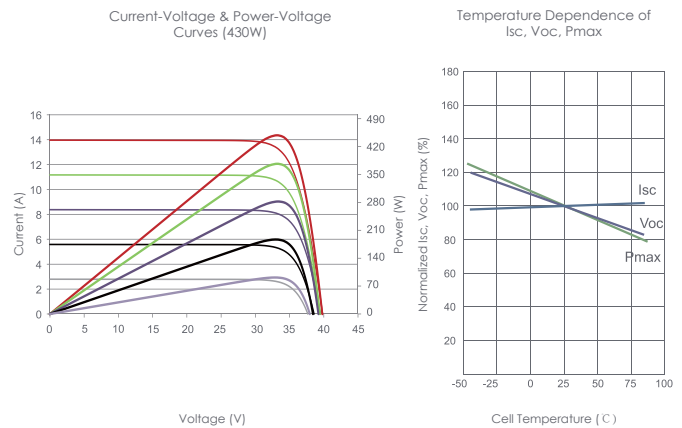
\*This tolerance range applies only to the four-angle distance of the module as indicated above.

## Packaging Configuration

( Two pallets = One stack )

36pcs/pallets, 72pcs/stack, 936pcs/ 40'HQ Container

## Electrical Performance & Temperature Dependence



## Mechanical Characteristics

Cell Type	N type Mono-crystalline
No. of cells	108 (6×18)
Dimensions	1762×1134×30mm (69.36×44.65×1.18 inch)
Weight	22 kg (48.50 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm <sup>2</sup> (+): 400mm, (-): 200mm or Customized Length

## SPECIFICATIONS

Module Type	JKM420N-54HL4R-B		JKM425N-54HL4R-B		JKM430N-54HL4R-B		JKM435N-54HL4R-B		JKM440N-54HL4R-B	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	420Wp	316Wp	425Wp	320Wp	430Wp	323Wp	435Wp	327Wp	440Wp	331Wp
Maximum Power Voltage (Vmp)	32.16V	29.95V	32.37V	30.19V	32.58V	30.30V	32.78V	30.50V	32.99V	30.73V
Maximum Power Current (Imp)	13.06A	10.55A	13.13A	10.60A	13.20A	10.66A	13.27V	10.72A	13.34A	10.77A
Open-circuit Voltage (Voc)	38.74V	36.80V	38.95V	37.00V	39.16V	37.20V	39.36V	37.39V	39.57V	37.59V
Short-circuit Current (Isc)	13.51A	10.91A	13.58A	10.96A	13.65A	11.02A	13.72A	11.08A	13.80A	11.14A
Module Efficiency STC (%)	21.02%		21.27%		21.52%		21.77%		22.02%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1000VDC (IEC)									
Maximum series fuse rating	25A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.29%/°C									
Temperature coefficients of Voc	-0.25%/°C									
Temperature coefficients of Isc	0.045%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									

\*STC: Irradiance 1000W/m<sup>2</sup> Cell Temperature 25°C AM=1.5  
NOCT: Irradiance 800W/m<sup>2</sup> Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s

# GOODWE

## ES G2 Series

### 3-6kW | Single Phase | 2 MPPTs Hybrid inverter (LV)

The GoodWe ES G2 inverter, ranging from 3 to 6kW, is a single-phase hybrid inverter designed to increase self-consumption of the generated solar energy, with the ability to control the flow of energy intelligently. The inverter can automatically realize UPS-level switching to the back-up mode in less than 10ms, with strong backup ability to withstand heavy loads like air conditioners. Its smart design also offers great flexibility for demanding scenarios as it supports parallel connection for dependable backup power supply. Featured with plug-and-play, compact design, and minimal weight, PV installations are quicker and easier to complete than ever before. Importantly, ES G2 is compatible with a wide range of low voltage batteries such as GoodWe Lynx Home U battery. For homeowners looking to achieve a high degree of energy autonomy, reliable power supply and affordable energy prices, the ES G2 is the right choice.



#### Smart Control & Monitoring

- Smart load control with dry contacts
- Smart home integration with multi-protocol communications



#### Friendly & Thoughtful Design

- Plug & Play
- Elegant and compact design



#### Superb Safety & Reliability

- Optional AFCI on DC side<sup>1</sup>
- Remote Shutdown



#### Flexible & Adaptable Applications

- Maximum 16A DC input current per string and high-power module compatibility
- Strong backup power supply

<sup>1</sup>: Optional functions or devices are purchased separately.

Technical Data	GW3000-ES-20	GW3600-ES-20	GW3600M-ES-20	GW5000-ES-20	GW5000M-ES-20	GW6000-ES-20	GW6000M-ES-20
<b>Battery Input Data</b>							
Battery Type <sup>1</sup>	Li-Ion						
Nominal Battery Voltage (V)	48						
Battery Voltage Range (V)	40 ~ 60						
Max. Continuous Charging Current (A) <sup>1</sup>	60	75	60	120	60	120	60
Max. Continuous Discharging Current (A) <sup>1</sup>	60	75	60	120	60	120	60
Max. Charge Power (W) <sup>1</sup>	3000	3600	3000	5000	3000	6000	3000
Max. Discharge Power (W)	3200	3900	3200	5300	3200	6300	3200
<b>PV String Input Data</b>							
Max. Input Power (W) <sup>2</sup>	4500	5400	5400	7500	7500	9000	9000
Max. Input Voltage (V)	600						
MPPT Operating Voltage Range (V)	60 ~ 550						
Start-up Voltage (V)	58						
Nominal Input Voltage (V)	360						
Max. Input Current per MPPT (A)	16						
Max. Short Circuit Current per MPPT (A)	23						
Number of MPP Trackers	1	2	2	2	2	2	2
Number of Strings per MPPT	1						
<b>AC Output Data (On-grid)</b>							
Nominal Apparent Power Output to Utility Grid (VA)	3000	3680	3680	5000 <sup>3</sup>	5000 <sup>3</sup>	6000 <sup>3</sup>	6000 <sup>3</sup>
Max. Apparent Power Output to Utility Grid (VA)	3000	3680	3680	5000 <sup>3</sup>	5000 <sup>3</sup>	6000 <sup>3</sup>	6000 <sup>3</sup>
Max. Apparent Power from Utility Grid (VA)	6000	7360	3680	10000	5000	10000	6000
Nominal Output Voltage (V)	220 / 230 / 240						
Nominal AC Grid Frequency (Hz)	50 / 60						
Max. AC Current Output to Utility Grid (A)	13.6	16.7	16.7	22.7	22.7	27.3	27.3
Max. AC Current From Utility Grid (A)	27.3	33.5	16.7	43.5	22.7	43.5	27.3
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)						
Max. Total Harmonic Distortion	<3%						
<b>AC Output Data (Back-up)</b>							
Back-up Nominal Apparent Power (VA)	3000	3680	3680	5000	5000	6000	6000
Max. Output Apparent Power (VA)	3000 (6000@10sec)	3680 (7360@10sec)	3680	5000 (10000@10sec)	5000	6000 (10000@10sec)	6000
Max. Output Current (A)	13.6	16.7	16.7	22.7	22.7	27.3	27.3
Nominal Output Voltage (V)	220 / 230 / 240						
Nominal Output Frequency (Hz)	50 / 60						
Output THDv (@Linear Load)	<3%						
<b>Efficiency</b>							
Max. Efficiency	97.6%						
European Efficiency	96.7%						
Max. Battery to AC Efficiency	95.5%						
MPPT Efficiency	99.9%						
<b>Protection</b>							
PV String Current Monitoring	Integrated						
PV Insulation Resistance Detection	Integrated						
Residual Current Monitoring	Integrated						
PV Reverse Polarity Protection	Integrated						
Anti-islanding Protection	Integrated						
AC Overcurrent Protection	Integrated						
AC Short Circuit Protection	Integrated						
AC Overvoltage Protection	Integrated						
DC Switch	Integrated						
DC Surge Protection	Type II						
AC Surge Protection	Type III						
AFCI	Optional						
Remote Shutdown	Integrated						
<b>General Data</b>							
Operating Temperature Range (°C)	-25 ~ +60						
Relative Humidity	0 ~ 95%						
Max. Operating Altitude (m)	3000 (>2000 Derating)						
Cooling Method	Natural Convection						
Display	LED, WLAN + APP						
Communication with BMS	CAN						
Communication with Meter	RS485						
Communication with Portal	WiFi / WiFi + LAN / 4G						
Weight (kg)	19.6	20.8	20.0	21.5	20.0	21.5	20.0
Dimension (W x H x D mm)	505.9 x 434.9 x 154.8						
Topology	Non-isolated						
Self-consumption at Night (W)	<10						
Ingress Protection Rating	IP65						
Mounting Method	Wall Mounted						

\*1: The actual charge and discharge current / power also depends on the battery.

\*2: The max power is the actual power of PV.

\*3: 4600 for VDE-AR-N4105 & NRS 097-2-1.

\*: Please visit GoodWe website for the latest certificates.

\*: All pictures shown are for reference only. Actual appearance may vary.

## Lynx Home U Series

### 5.4-32.4kWh | Low voltage battery

Lynx Home U Series is a low-voltage lithium battery specially designed for residential applications with superior performance. Compatible with GoodWe ES/EM/SBP inverters, Lynx Home U Series comes with GoodWe one-stop-shop solution saving you considerable time and effort. It can be used flexibly for self-consumption and backup applications with a wide capacity range scalable from 5.4 – 32.4kWh. The installation and commissioning are easier and faster than ever with a simple Plug and Play wiring and module auto recognition during system setup. Meet this highly efficient solution for storing your solar power and use it whenever needed.



#### Smart Control

- Remote diagnosis & update
- Auto reboot after undervoltage



#### Friendly & Thoughtful Design

- Auto-recognition modules
- Plug & Play wiring



#### Superb Safety & Reliability

- Reliable LFP technology with high cycle stability
- IP65 protection for outdoor installation safety



#### Flexible & Adaptable Applications

- 5.4 – 32.4kWh wide capacity range
- Compatible with GoodWe ES/EM/SBP inverters

Technical Data	LX U5.4-L	2*LX U5.4-L	3*LX U5.4-L	4*LX U5.4-L	5*LX U5.4-L	6*LX U5.4-L
Rated Energy (kWh) <sup>1</sup>	5.4	10.8	16.2	21.6	27.0	32.4
Usable Energy (kWh) <sup>2</sup>	4.8	9.6	14.4	19.2	24.0	28.8
Cell Type	LFP (LiFePO4)					
Nominal Voltage (V)	51.2					
Operating Voltage Range (V)	48 ~ 57.6					
Nominal Dis- / Charge Current (A) <sup>3</sup>	50	100	100	100	100	100
Nominal Power (kW) <sup>3</sup>	2.88	5.76	5.76	5.76	5.76	5.76
Communication	CAN					
Weight (kg)	57	114	171	228	285	342
Dimensions (W x H x D mm)	505 x 570 x 175 (LX U5.4-L)					
Operating Temperature Range (°C)	Charge: 0 ~ +50 / Discharge: -10 ~ +50					
Relative Humidity	0 ~ 95%					
Max. Operating Altitude (m)	2000					
Ingress Protection Rating	IP65					
Mounting Method	Wall Mounted / Grounded					
Standard and Certification	Safety	IEC62619, IEC62040, CEC				
	EMC	CE, RCM				
	Transportation	UN38.3				

\*1: Test conditions, cell Voltage 2.5 ~ 3.65V, 0.5C charge & discharge at +25 ±2°C for battery system at beginning life. System Usable Energy may vary with different Inverter.

\*2: Test conditions, 90% DOD, 0.5C charge & discharge at +25 ±2°C.

\*3: Nominal Dis- / Charge Current and power derating will occur related to Temperature and SOC.

\*: Please visit GoodWe website for the latest certificates.

# INCLUDES FREE BIRD PROTECTION



MRS BROWN

We already had solar panels installed but we're very troubled with pigeons. Deege installed the netting, the men were efficient extremely polite and tidy workers. Delighted to say we have no constant cooing now. Would highly recommend.



**PROTECT BOTH YOUR INVESTMENT & WILDLIFE**



**ENHANCE THE AESTHETICS OF YOUR SYSTEM**



**MINIMISE CLEANING AND MAINTENANCE COSTS**