

# RENEWABLE **ENERGY** Products

# **SOLAR PANEL** Stems

IKK Group of Companies





We are a "Solutions Provider" company, specialized in the Design, Manufacturing and Trading of Building and Construction Materials in the region.

Unitech is a member of the IKK Group of Companies. It has been present in the market since 1978 and has grown to become one of the leading companies in the supply of building and construction materials. The company is an ISO QMS 9001:2015 certified company and is a member of the US Green Building Council.

Unitech has an extensive presence covering various cities through the GCC and MENA countries: Jeddah, Riyadh, Dammam, Dubai, Abu Dhabi, Manama, Kuwait, Amman, Beirut and Cairo. The company is present in Europe via its design and engineering office in Stuttgart.

Our vision is to be the Customer's First Choice.

**Our mission** is to have the conviction to be the leader in building/construction industry through:

- Providing Excellence in Services with Passionate and Educated Sales Force
- Strengthen Culture through Unified Sense of Purpose
- Innovative Product Range which is Customer Centric
- Reputable and Quality Service Company
- Attracting, Engaging and Retaining Talent

#### Unitech's core values are based on:

- Excellence: Highest Quality.
- Integrity: Outstanding Customer Service.
- Service with Pride: Highly Effective Business Operation.

# SOLAR PANEL TYPES

# STANDARD SINGLE GLASS FULL CELL

# **ZXP6-72 SERIES**

#### SOLAR 5BB POLYCRYSTALLINE PV MODULE

#### 325W-330W-335W-340W-345W-350W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXP6-72 polycrystalline modules by UNITECH SOLAR represent a highly flexible solution for diverse installation types, from industrial rooftop plants to small home PV systems or large ground surfaces. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXP6-72 polycrystalline solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.

### 12 years product warranty/25 years output warranty 0.7% Annual Degradation over 25 years





#### **5 Busbar Solar Cell** No power loss thanks to improved temperature co-efficient caused by 5 busbar solar cell



#### Anti PID

Limited power degradation of ZXP6-72 module caused by PID effect is guaranteed under strict testing condition for mass production



Certified to withstand the most challenging environmental conditions 5400 Pa snow load 2400 Pa wind load

#### High Efficiency Graphene coating can

increase about 2W of the module efficiency by rising around 0.5% of the light transmission

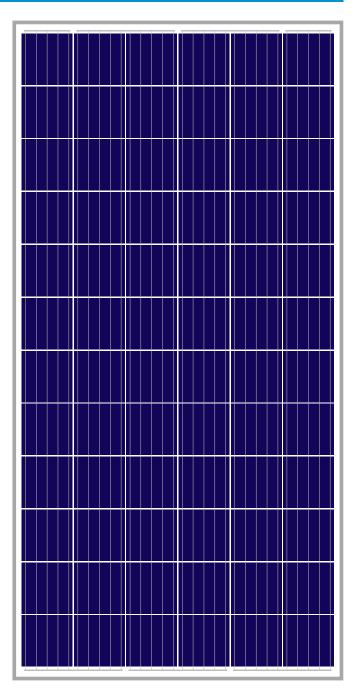


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

1	)

Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	27
Piece/Container	648

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXP6 72 325/P	ZXP6 72 330/P	ZXP6 72 335/P	ZXP6 72340/P	ZXP6 72 345/P	ZXP6 72 350/P
Nominal Power Watt Pmax(W)	325	330	335	340	345	350
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	37.3	37.5	37.7	37.9	38.1	38.3
Maximum Power Current Imp(A)	8.72	8.8	8.89	8.98	9.06	9.14
Open Circuit Voltage Voc(V)	46.6	46.8	47	47.2	47.4	47.6
Short Circuit Current Isc(A)	9.12	9.16	9.22	9.28	9.34	9.42
Module Efficiency %	16.72	16.97	17.23	17.49	17.74	18.00

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	240.4	244.2	248.3	253	256.9	259.6
Maximum Power Voltage Vmpp(V)	34.8	35.2	35.4	35.8	36.1	36.1
Maximum Power Current Impp(A)	6.9	6.93	7.02	7.06	7.11	7.2
Open Circuit Voltage Voc(V)	42.9	43.1	43.3	43.4	43.6	43.8
Short Circuit Current Isc(A)	7.38	7.42	7.46	7.51	7.56	7.63

\*NMOT(Nominal module operating temperature):Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

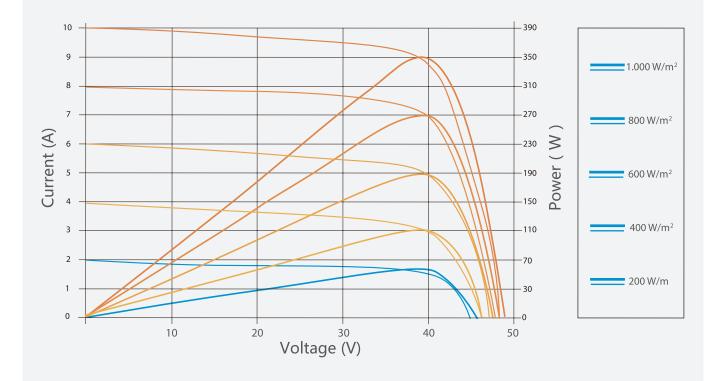
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.40%/ºC
Temperature coefficient of Voc	-0.31%/ºC
Temperature coefficient of Isc	0.06%/ºC

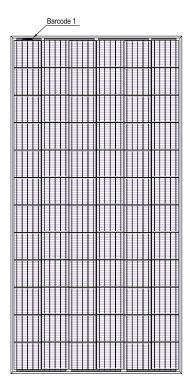
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

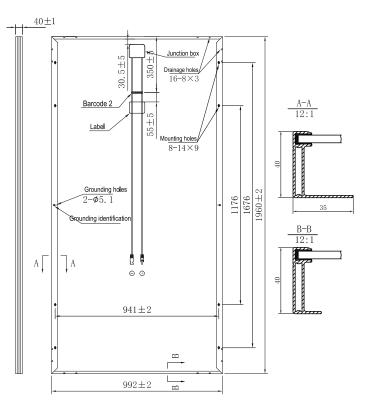
#### **WORKING CONDITIONS**

Maximum system voltage	1000 / 1 500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	15 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Poly 156.75x156.75 mm	
Cells orientation	72 (6x12)	
Module dimension	1960x992x40 mm	
Weight	22.5 kg	
Glass	High transparency, low iron,tempered	
	Glass 3.2mm (AR- coating)	
Junction box	IP 68, 3 diodes	
Cables	4mm <sup>2</sup> ,1100 mm	
Connectors	MC4-compatible	







# ZXM6-60 SERIES

#### SOLAR 5BB MONOCRYSTALLINE PV MODULE

#### 295W-300W-305W-310W-315W

Made with selected materials and components to grant quality, duration,

efficiency and through outputs, the ZXM6-60 monocrystalline modules by UNITECH SOLAR represent a highly flexible solution for diverse installation types, from industrial rooftop plants to small home PV systems or large ground surfaces. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXP6-72 polycrystalline solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.

#### 12 years product warranty/25 years output warranty 0.55% Annual Degradation over 25 years





Tier 1 & Bankable Well known trade mark in China; Tier 1 bankable brand globally



#### Anti PID

Limited power degradation of ZXM6-60 module caused by PID effect is guaranteed under strict testing condition for mass production



Certified to withstand the most challenging environmental conditions 5400 Pa snow load 2400 Pa wind load

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission



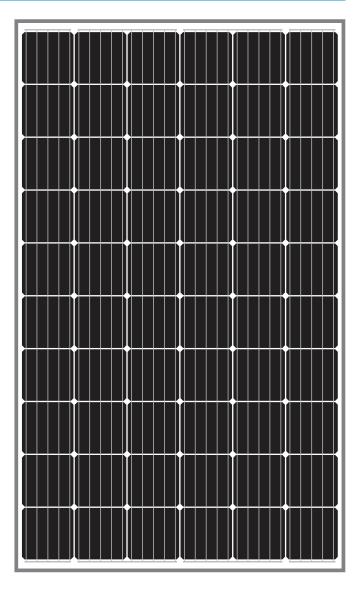
#### **Better Weak Illumination** Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings





**Grahpene Coating** Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	27
Piece/Container	756

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- 60-295/M	ZXM6- 60-300/M	ZXM6- 60-305/M	ZXP6 72340/P	ZXM6- 60-310/M
Nominal Power Watt Pmax(W)	295	300	305	310	315
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	32.2	32.4	32.7	32.9	33.1
Maximum Power Current Imp(A)	9.17	9.26	9.33	9.43	9.52
Open Circuit Voltage Voc(V)	39.5	39.7	39.9	40.1	40.3
Short Circuit Current Isc(A)	9.67	9.75	9.85	9.95	10.05
Module Efficiency %	18.02	18.33	18.63	18.94	19.24

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	219.0	222.3	225.8	229.3	232.4
Maximum Power Voltage Vmpp(V)	29.8	30.2	30.4	30.6	30.6
Maximum Power Current Impp(A)	7.34	7.36	7.42	7.49	7.61
Open Circuit Voltage Voc(V)	36.6	36.7	36.9	37.1	37.3
Short Circuit Current Isc(A)	7.81	7.81	7.88	7.96	8.12

\*NMOT(Nominal module operating temperature):Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

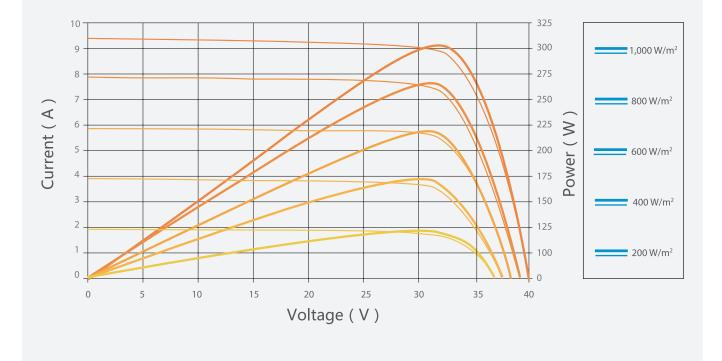
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.37%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/°C

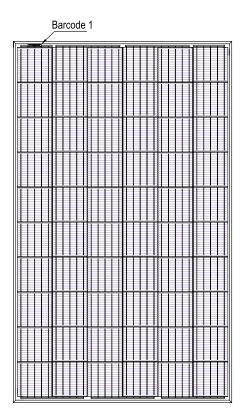
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

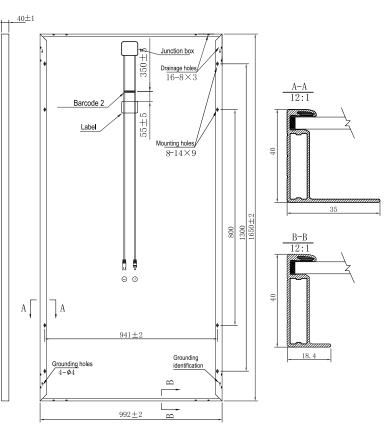
#### **WORKING CONDITIONS**

Maximum system voltage	1000 / 1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	15 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 156.75×156.75 mm	
Cells orientation	60(6×10)	
Module dimension	1650×992×40 mm	
Weight	19 kg	
Glass	High transparency,low iron,tempered	
	Glass 3.2 mm (AR-coating)	
Junction box	IP 68,3 diodes	
Cables	4 mm² ,900 mm	
Connectors	MC4-compatible	







# STANDARD SINGLE GLASS HALF CELL

# **ZXM6-H120 SERIES**

#### SOLAR 5BB HALF-CELL MONOCRYSTALLINE PV MODULE

#### 300W-305W-310W-315W-320W

Made with selected materials and components to grant quality, duration,

efficiency and through outputs, the ZXM6-H120 monocrystalline modules by UNITECH SOLAR(power output 300 up to 320Wp), represent a highly flexible solution for diverse installation types, from industrial rooftop plants to small home PV systems or large ground surfaces. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-H120 monocrystalline solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.

# 12 years product warranty/25 years output warranty 0.55% Annual Degradation over 25 years





Tier 1 & Bankable Well known trade mark in China; Tier 1 bankable brand globally



#### Anti PID

Limited power degradation of ZXM6-H120 module caused by PID effect is guaranteed under strict testing condition for mass production



Certified to withstand the most challenging environmental conditions 5400 Pa snow load 2400 Pa wind load

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

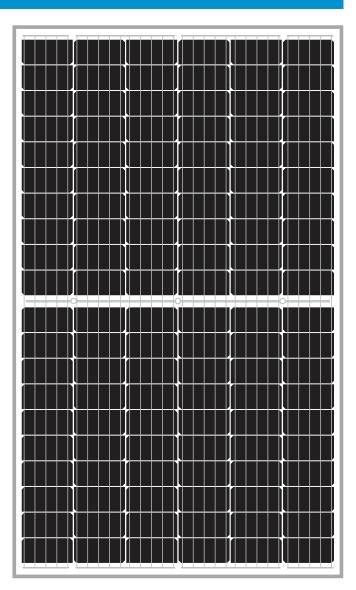


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings



#### Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	30
Piece/Container	840

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- H120-300/M	ZXM6- H120-305/M	ZXM6- H120-310/M	ZXM6- H120-315/M	ZXM6- H120-320/M
Nominal Power Watt Pmax(W)	300	305	310	315	320
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	32.5	32.7	33.0	33.2	33.4
Maximum Power Current Imp(A)	9.24	9.33	9.40	9.49	9.59
Open Circuit Voltage Voc(V)	39.4	39.6	39.8	40.0	40.2
Short Circuit Current Isc(A)	9.90	9.97	10.03	10.10	10.15
Module Efficiency %	18.05	18.36	18.66	18.96	19.26

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5

\*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	223.2	226.7	230.2	233.6	237.4
Maximum Power Voltage Vmpp(V)	29.9	30.1	30.3	30.5	30.8
Maximum Power Current Impp(A)	7.47	7.54	7.59	7.65	7.71
Open Circuit Voltage Voc(V)	36.6	36.8	36.9	37.1	37.3
Short Circuit Current Isc(A)	8.00	8.06	8.10	8.16	8.20

\*NMOT(Nominal module operating temperature):Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/°C

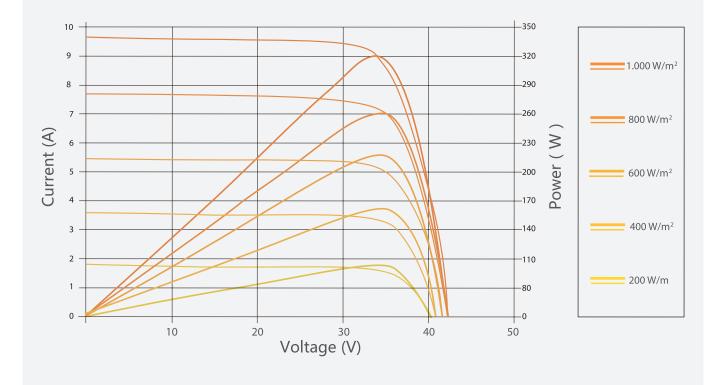
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

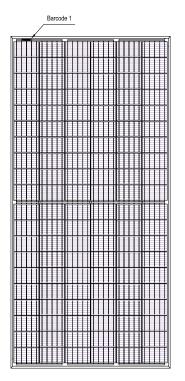
#### **MECHANICAL DATA**

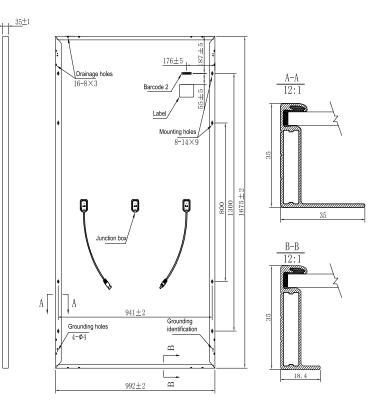
Solar cells	Mono 156.75*78.375mm	
Cells orientation	120(6×20)	
Module dimension	1675×992×35 mm	
Weight	19.5 kg	
Glass	High transparency,low iron,tempered	
	Glass 3.2mm (AR- coating)	
Junction box	IP 68, 3 diodes	
Cables	4 mm² ,350 mm	
Connectors	MC4-compatible	

#### **WORKING CONDITIONS**

Maximum system voltage	1000 / 1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	15 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa







# **ZXM6-H144 SERIES**

#### SOLAR 5BB HALF-CELL MONOCRYSTALLINE PV MODULE

#### 385W-390W-395W-400W-405W-410W

Made with selected materials and components to grant quality, duration,

efficiency and through outputs, the ZXM6-H144 monocrystalline modules by UNITECH SOLAR(power output 385 up to 410 Wp, represent a highly flexible solution for diverse installation types, from industrial rooftop plants to small home PV systems or large ground surfaces. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-H144 monocrystalline solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.

### 12 years product warranty/25 years output warranty 0.55% Annual Degradation over 25 years





#### Half Cell Technology

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXM6-H144 module caused by PID effect is guaranteed under strict testing condition for mass production



Certified to withstand the most challenging environmental conditions 5400 Pa snow load 2400 Pa wind load

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

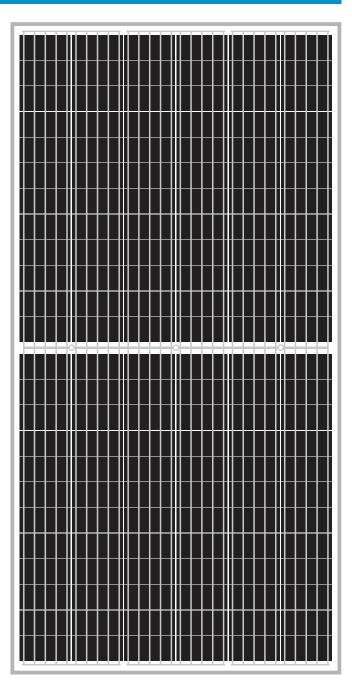


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	30
Piece/Container	660

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- H144-385/M	ZXM6- H144-390/M	ZXM6- H144-395/M	ZXM6- H144-400/M	ZXM6- H144-405/M	ZXM6- H144-410/M
Nominal Power Watt Pmax(W)	385	390	395	400	405	410
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.4	40.6	40.8	41.0	41.2	41.4
Maximum Power Current Imp(A)	9.53	9.61	9.69	9.76	9.84	9.91
Open Circuit Voltage Voc(V)	48.5	48.7	48.9	49.1	49.3	49.5
Short Circuit Current Isc(A)	10.00	10.08	10.16	10.24	10.32	10.40
Module Efficiency %	18.98	19.23	19.48	19.72	19.97	20.22

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5

\*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	285.1	288.8	292.6	296.1	300.0	303.5
Maximum Power Voltage Vmpp(V)	37.4	37.6	37.8	38.0	38.2	38.4
Maximum Power Current Impp(A)	7.61	7.67	7.74	7.80	7.86	7.91
Open Circuit Voltage Voc(V)	45.0	45.2	45.3	45.5	45.7	45.9
Short Circuit Current Isc(A)	8.08	8.14	8.21	8.27	8.34	8.40

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

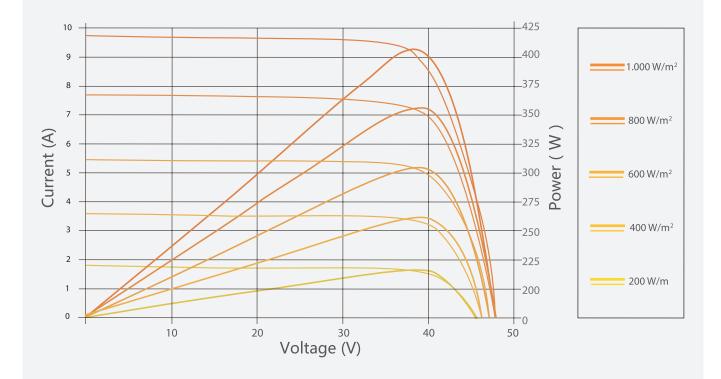
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of lsc	0.05%/ºC

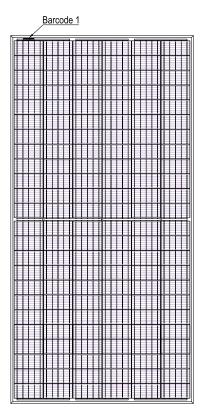
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

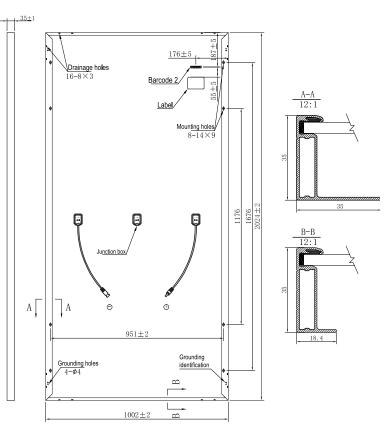
#### **WORKING CONDITIONS**

Maximum system voltage	1000 / 1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 158.75×79.375 mm		
Cells orientation	144(6×24)		
Module dimension	2024×1002×35 mm		
Weight	22.5 kg		
Glass	High transparency,low iron,tempered		
	Glass 3.2 mm (AR- coating)		
Junction box	IP 68, 3 diodes		
Cables	4 mm² ,350 mm		
Connectors	MC4-compatible		







# **ZXP6-H144 SERIES**

#### SOLAR 5BB HALF-CELL MONOCRYSTALLINE PV MODULE

#### 340W-345W-350W-355W-360W-365W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXP6-H144 polycrystalline modules by UNITECH SOLAR represent a highly flexible solution for diverse installation types, from industrial rooftop plants to small home PV systems or large ground surfaces. This allows you to produce clean energy whilst reducing your energy bill.

UNITECH SOLAR'S ZXP6-H144 polycrystalline solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.

#### 12 years product warranty/25 years output warranty 0.7% Annual Degradation over 25 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXP6-H144 module caused by PID effect is guaranteed under strict testing condition for mass production



Certified to withstand the most challenging environmental conditions 5400 Pa snow load 2400 Pa wind load

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

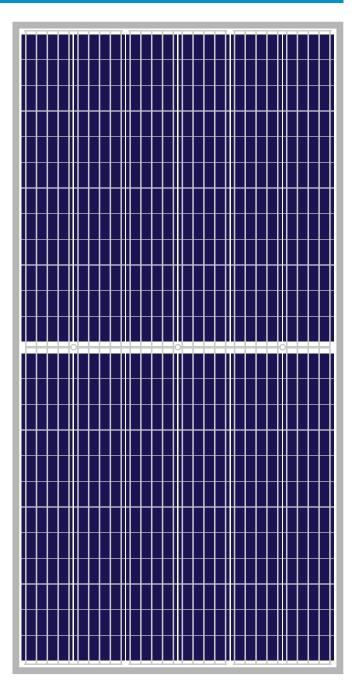


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	30
Piece/Container	660

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXP6- H144-340/P	ZXP6- H144-345/P	ZXP6- H144-350/P	ZXP6- H144-355/P	ZXP6- H144-360/P	ZXP6- H144-365/P
Nominal Power Watt Pmax(W)	340	345	350	355	360	365
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	38.2	38.4	38.6	38.8	39.0	39.2
Maximum Power Current Imp(A)	8.91	8.99	9.07	9.15	9.24	9.32
Open Circuit Voltage Voc(V)	46.9	47.1	47.3	47.5	47.7	47.9
Short Circuit Current Isc(A)	9.22	9.28	9.37	9.46	9.55	9.64
Module Efficiency %	16.76	17.01	17.26	17.50	17.75	18.00

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	253.9	257.5	260.8	264.3	268.4	271.8
Maximum Power Voltage Vmpp(V)	36.3	36.3	36.5	36.6	36.8	37.0
Maximum Power Current Impp(A)	7.00	7.09	7.15	7.22	7.29	7.35
Open Circuit Voltage Voc(V)	43.5	43.7	43.9	44.1	44.3	44.5
Short Circuit Current Isc(A)	7.45	7.50	7.57	7.64	7.71	7.79

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

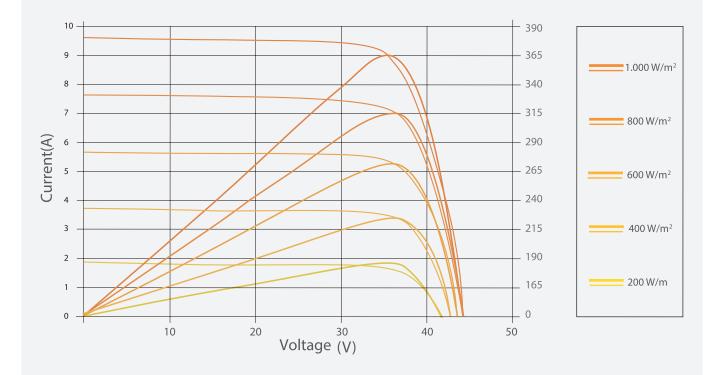
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.39%/ºC
Temperature coefficient of Voc	-0.31%/ºC
Temperature coefficient of Isc	0.06%/ºC

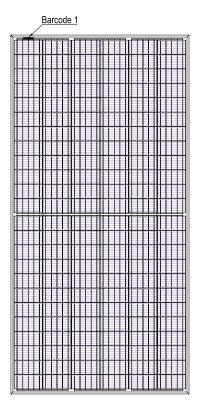
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

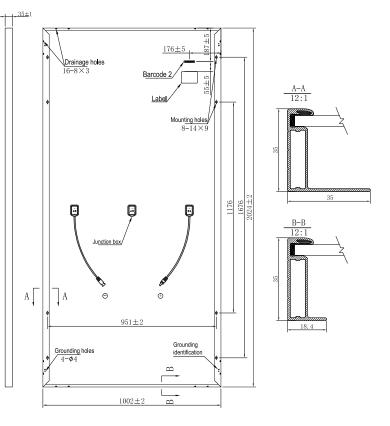
#### **WORKING CONDITIONS**

Maximum system voltage	1000 / 1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Poly 158.75*79.375mm
Cells orientation	144(6×24)
Module dimension	2024×1002×35 mm
Weight	22.5 kg
Glass	High transparency,low iron,tempered
	Glass 3.2mm (AR- coating)
Junction box	IP 6, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible







# **ZXM6-NH120 SERIES**

#### SOLAR 9BB HALF-CELL MONOCRYSTALLINE PV MODULE

#### 350W-355W-360W-365W-370W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-NH120 monocrystalline modules by UNITECH SOLAR (power output 350 up to 370Wp, represent a highly flexible solution for diverse installation types, from industrial rooftop plants to small home PV systems or large ground surfaces. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-NH120 Monocrystalline solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.

# 12 years product warranty/25 years output warranty 0.55% Annual Degradation over 25 years





**High Efficiency** 

Graphene coating can increase about 2W of

the module efficiency

by rising around 0.5% of the light transmission

#### 9 Busbar Solar Cell No power loss thanks to improved temperature co-efficient caused by 9 busbar solar cell



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#### Anti PID

Limited power degradation of ZXM6-NH120 module caused by PID effect is guaranteed under strict testing condition for mass production



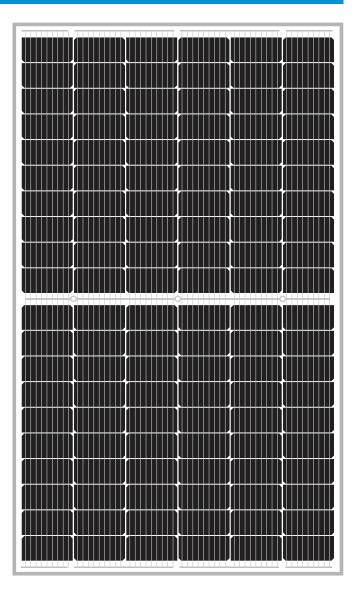
Certified to withstand the most challenging environmental conditions 5400 Pa snow load 2400 Pa wind load

#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings



#### Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	30
Piece/Container	840

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- NH120-350/M	ZXM6- NH120-355/M	ZXM6- NH120-360/M	ZXM6- NH120-365/M	ZXM6- NH120-370/M
Nominal Power Watt Pmax(W)	350	355	360	365	370
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	33.4	33.6	33.8	34.0	34.2
Maximum Power Current Imp(A)	10.48	10.57	10.66	10.74	10.82
Open Circuit Voltage Voc(V)	40.2	40.4	40.6	40.8	41.0
Short Circuit Current Isc(A)	11.04	11.14	11.24	11.33	11.42
Module Efficiency %	18.80	19.07	19.34	19.61	19.88

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	256.1	259.8	263.5	267.1	270.6
Maximum Power Voltage Vmpp(V)	30.9	31.1	31.3	31.4	31.6
Maximum Power Current Impp(A)	8.28	8.36	8.43	8.50	8.57
Open Circuit Voltage Voc(V)	37.2	37.4	37.6	37.8	38.0
Short Circuit Current Isc(A)	8.92	9.00	9.08	9.15	9.22

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

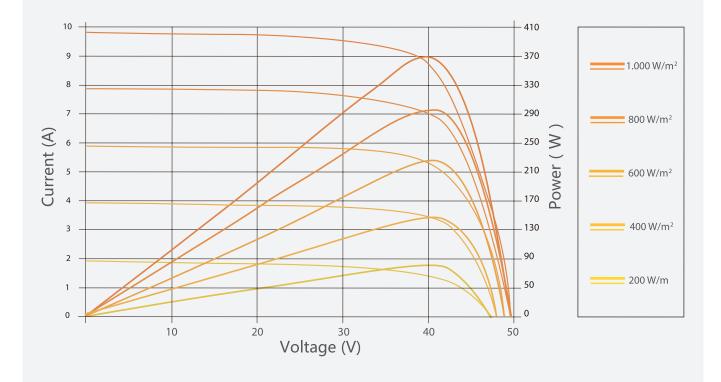
NMOT	44°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/ºC

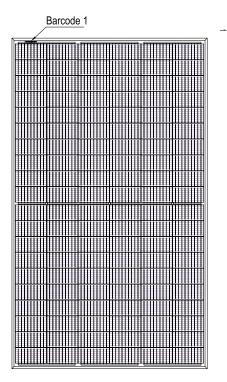
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

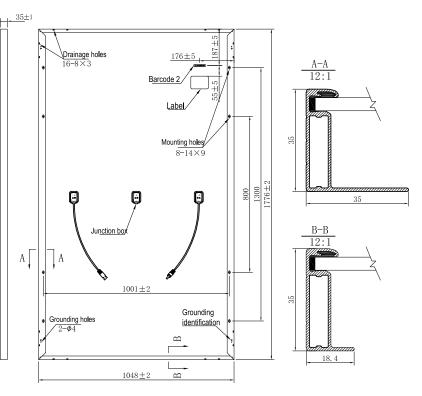
#### **WORKING CONDITIONS**

Maximum system voltage	1000 / 1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 166×83mm	
Cells orientation	120(6×20)	
Module dimension	1776×1048×35 mm	
Weight	19.5 kg	
Glass	High transparency,low iron,tempered	
	Glass 3.2 mm (AR- coating)	
Junction box	IP 68, 3 diodes	
Cables	4 mm² ,350 mm	
Connectors	MC4-compatible	







# **ZXM6-NH144 SERIES**

#### SOLAR 9BB HALF-CELL MONOCRYSTALLINE PV MODULE

#### 395W-400W-405W-410W-415W-420W-425W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-NH144 Monocrystalline modules by UNITECH SOLAR (power output 395 up to 425Wp, represent a highly flexible solution for diverse installation types, from industrial rooftop plants to small home PV systems or large ground surfaces. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-NH144 Monocrystalline solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.

# 12 years product warranty/25 years output warranty 0.55% Annual Degradation over 25 years





#### 9 Busbar Solar Cell No power loss thanks to improved temperature co-efficient caused by 9 busbar solar cell



#### Anti PID

Limited power degradation of ZXM6-NH144 module caused by PID effect is guaranteed under strict testing condition for mass production



Certified to withstand the most challenging environmental conditions 5400 Pa snow load 2400 Pa wind load

#### High Efficiency

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

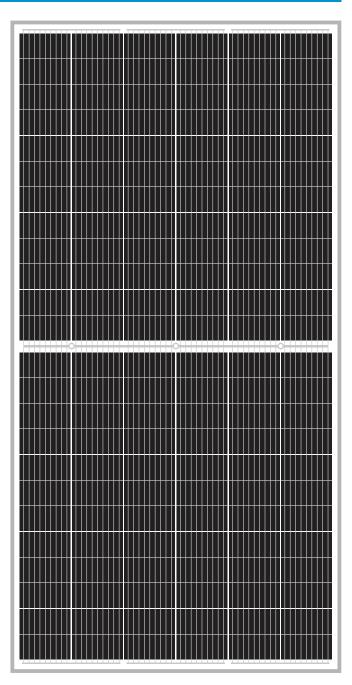


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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#### Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	30
Piece/Container	660

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- NH144- 395/M	ZXM6- NH144- 400/M	ZXM6- NH144- 405/M	ZXM6- NH144- 410/M	ZXM6- NH144- 415/M	ZXM6- NH144- 420/M	ZXM6- NH144- 425/M
Nominal Power Watt Pmax(W)	395	400	405	410	415	420	425
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.8	41.0	41.2	41.4	41.6	41.8	42.0
Maximum Power Current Imp(A)	9.69	9.76	9.84	9.91	9.98	10.05	10.12
Open Circuit Voltage Voc(V)	48.9	49.1	49.3	49.5	49.7	49.9	50.1
Short Circuit Current Isc(A)	10.16	10.22	10.28	10.34	10.40	10.46	10.52
Module Efficiency %	19.48	19.72	19.97	20.22	20.46	20.	20.96

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	293.8	297.3	301.1	304.7	307.9	311.3	313.1
Maximum Power Voltage Vmpp(V)	38.0	38.2	38.5	38.6	38.9	39.1	39.3
Maximum Power Current Impp(A)	7.73	7.78	7.83	7.89	7.92	7.96	7.97
Open Circuit Voltage Voc(V)	45.5	45.7	45.8	46.0	46.2	46.3	46.5
Short Circuit Current Isc(A)	8.20	8.25	8.30	8.35	8.40	8.45	8.50

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

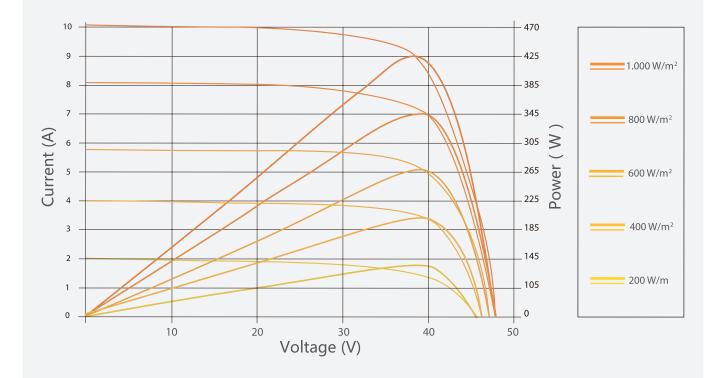
NMOT	44°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/°C

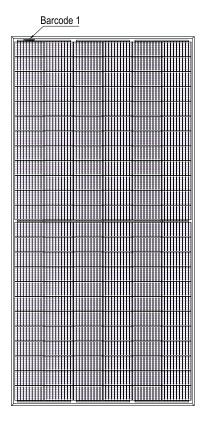
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

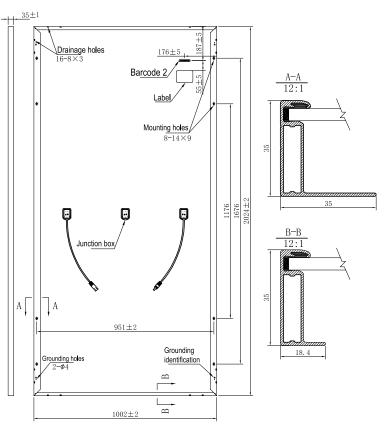
#### **WORKING CONDITIONS**

Maximum system voltage	1000 / 1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 158.75*79.375mm			
Cells orientation	144(6×24)			
Module dimension	2024×1002×35 mm			
Weight	22.5 kg			
Glass	High transparency,low iron,tempered			
	Glass 3.2 mm (AR- coating)			
Junction box	IP 68, 3 diodes			
Cables	4 mm² ,350 mm			
Connectors	MC4-compatible			







# LIGHT-DOUBLE GLASS FULL CELL

# **ZXM6-LD60 SERIES**

#### SOLAR 5BB LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 305W-310W-315W-320W-325W-330W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-LD60 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-LD60 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### Innovative PV module In comparison with common double glass modules, our modules are extremely robust and superior air tightness



#### Anti PID

Limited power degradation of ZXM6-LD60 module caused by PID effect is guaranteed under strict testing condition for mass production



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#### Easy to install The module is very light in weight so the installation is easier and transport costs are

#### High Efficiency

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission



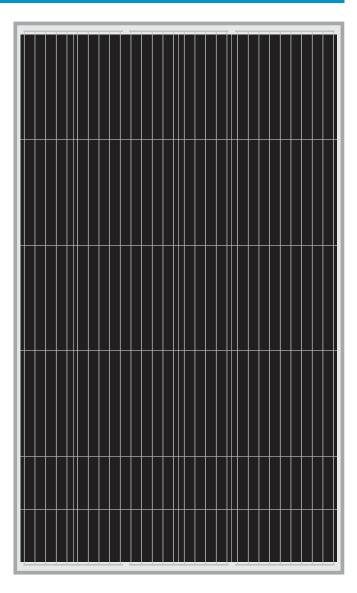
#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings



#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	1008

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- LD60-305/M	ZXM6- LD60-310/M	ZXM6- LD60-315/M	ZXM6- LD60-320/M	ZXM6- LD60-325/M	ZXM6- LD60-330/M
Nominal Power Watt Pmax(W)	305	310	315	320	325	330
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	32.6	32.8	33.0	33.2	33.4	33.4
Maximum Power Current Imp(A)	9.36	9.46	9.55	9.64	9.74	9.74
Open Circuit Voltage Voc(V)	39.8	40.0	40.2	40.4	40.6	40.6
Short Circuit Current Isc(A)	9.85	9.95	10.05	10.15	10.25	10.25
Module Efficiency %	18.14	18.44	18.73	19.03	19.33	19.33

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	225.6	229.4	233.0	236.6	240.5	240.5
Maximum Power Voltage Vmpp(V)	30.2	30.4	30.5	30.7	30.9	30.9
Maximum Power Current Impp(A)	7.48	7.56	7.64	7.71	7.79	7.79
Open Circuit Voltage Voc(V)	36.8	37.0	37.2	37.4	37.5	37.5
Short Circuit Current Isc(A)	7.96	8.04	8.12	8.20	8.28	8.28

\*NMOT(Nominal module operating temperature):Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

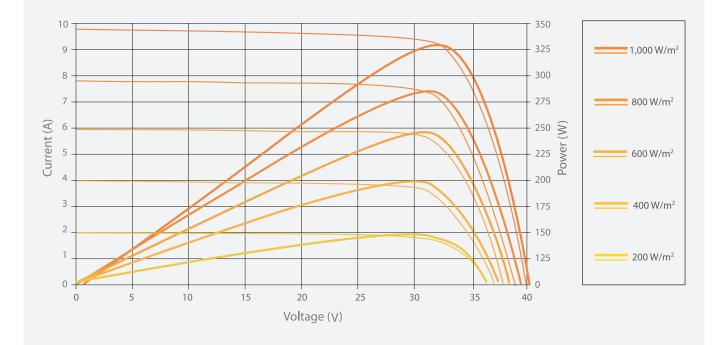
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.37%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of lsc	0.05%/°C

\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

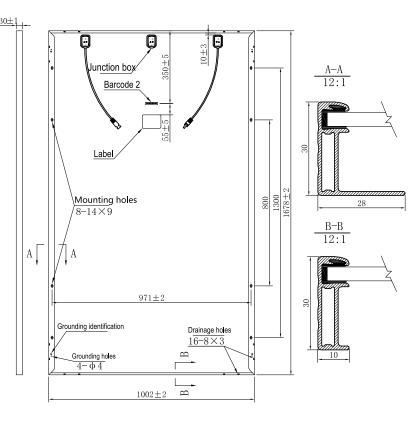
#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 158.75×158.75 mm
Cells orientation	60(6×10)
Module dimension	1678×1002×30 mm(With Frame)
Weight	22kg
Glass	2.0+2.0mm heat strengthened glass
Cables	4 mm² ,350 mm
Connectors	MC4-compatible



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# **ZXM6-LD72 SERIES**

#### SOLAR 5BB LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 355W-360W-365W-370W-375W-380W

Made with selected materials and components to grant quality, duration,

efficiency and through outputs, the ZXM6-LD72 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-LD72 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### Innovative PV module In comparison with common double glass modules, our modules are extremely robust and superior air tightness



#### Anti PID

Limited power degradation of ZXM6-LD72 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

The module is very light in weight so the installation is easier and transport costs are lower

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

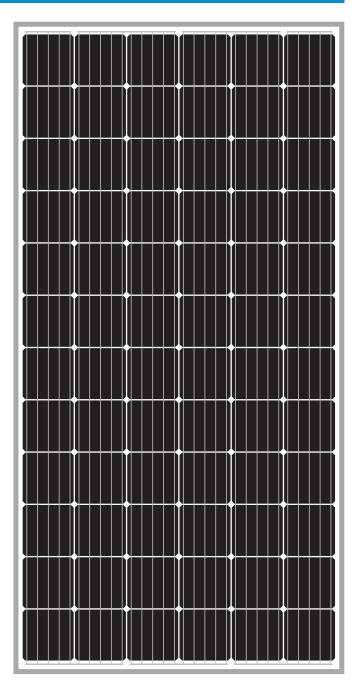


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	864

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6-LD72 -355/M	ZXM6-LD72 -360/M	ZXM6-LD72 -365/M	ZXM6-LD72 -370/M	ZXM6-LD72 -375/M	ZXM6-LD72 -380/M
Nominal Power Watt Pmax(W)	355	360	365	370	375	380
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	38.8	39.0	39.2	39.4	39.6	39.8
Maximum Power Current Imp(A)	9.15	9.24	9.32	9.40	9.47	9.55
Open Circuit Voltage Voc(V)	47.5	47.6	47.9	48.1	48.3	48.5
Short Circuit Current Isc(A)	9.65	9.80	9.83	9.90	9.97	10.04
Module Efficiency %	18.09	18.35	18.60	18.86	19.11	19.37

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	262.3	265.7	269.6	273.5	277.8	281.1
Maximum Power Voltage Vmpp(V)	35.9	35.9	36.3	36.5	36.6	36.8
Maximum Power Current Impp(A)	7.30	7.39	7.43	7.49	7.59	7.63
Open Circuit Voltage Voc(V)	43.9	44.0	44.3	44.5	44.7	44.8
Short Circuit Current Isc(A)	7.80	7.92	7.94	8.00	8.06	8.11

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

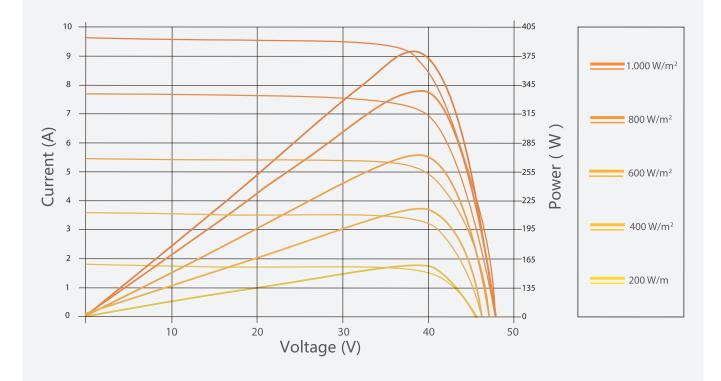
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.37%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/ºC

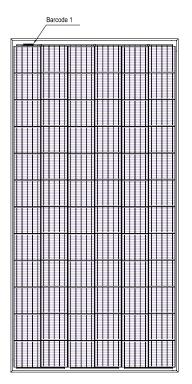
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

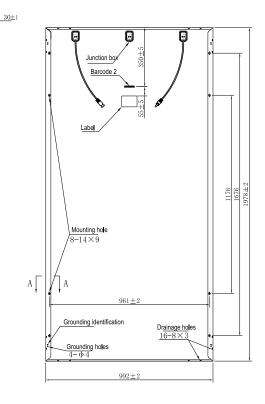
#### **WORKING CONDITIONS**

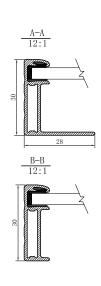
Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 156.75×156.75 mm
Cells orientation	72(6×12)
Module dimension	1978×992×30 mm(With Frame)
Weight	25.5 kg
Glass	2.0+2.0 mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible









# **ZXP6-LD72 SERIES**

#### SOLAR 5BB LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 325W-330W-335W-340W-345W-350W

Made with selected materials and components to grant quality, duration,

efficiency and through outputs, the ZXP6-LD72 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXP6-LD72 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### Innovative PV module In comparison with common double glass modules, our modules are extremely robust and superior air tightness



#### Anti PID

Limited power degradation of ZXP6- LD72 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

The module is very light in weight so the installation is easier and transport costs are lower

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission



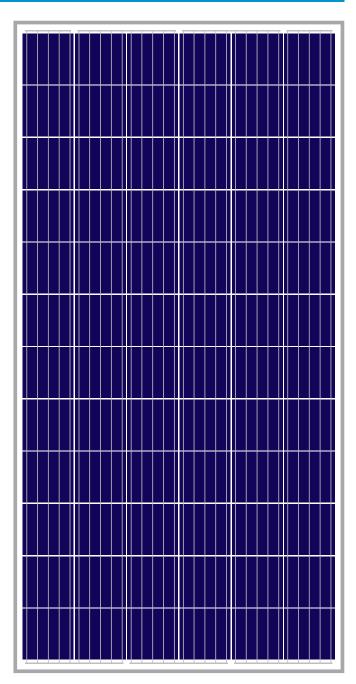
#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	864

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXP6-LD72 -325/P	ZXP6-LD72 -330/P	ZXP6-LD72 -335/P	ZXP6-LD72 -340/P	ZXP6-LD72 -345/P	-350/P       350       0~+3       38.2       9.17       47.5
Nominal Power Watt Pmax(W)	325	330	335	340	345	350
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	37.2	37.4	37.6	37.8	38.0	38.2
Maximum Power Current Imp(A)	8.74	8.83	8.91	9.00	9.08	9.17
Open Circuit Voltage Voc(V)	46.5	46.7	46.9	47.1	47.3	47.5
Short Circuit Current Isc(A)	9.12	9.16	9.21	9.27	9.34	9.42
Module Efficiency %	16.56	16.82	17.07	17.33	17.58	17.84

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5

\*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	240.2	244.8	249.0	253.5	257.4	260.5
Maximum Power Voltage Vmpp(V)	34.9	35.3	35.6	35.9	36.2	36.2
Maximum Power Current Impp(A)	6.88	6.94	7.00	7.06	7.11	7.21
Open Circuit Voltage Voc(V)	42.8	43.0	43.1	43.3	43.5	43.7
Short Circuit Current Isc(A)	7.38	7.41	7.46	7.50	7.56	7.63

\*NMOT(Nominal module operating temperature):Irradiance 800W/m², Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

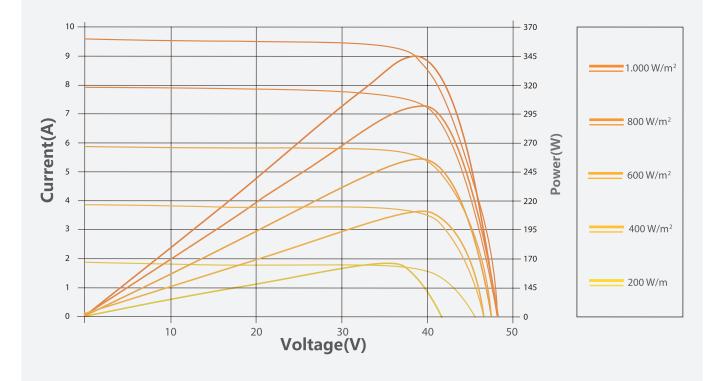
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.40%/ºC
Temperature coefficient of Voc	-0.31%/ºC
Temperature coefficient of lsc	0.06%/ºC

\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

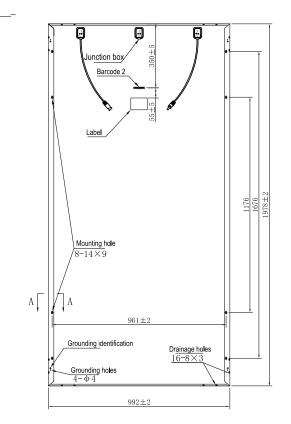
#### **WORKING CONDITIONS**

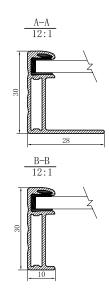
Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	15 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Poly 156.75×156.75 mm
Cells orientation	72(6×12)
Module dimension	1978×992×30 mm(With Frame)
Weight	25.5 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible



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# LIGHT-DOUBLE GLASS HALF CELL

# **ZXM6-HLD144 SERIES**

#### SOLAR 5BB HALF-CELL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 385W-390W-395W-400W-405W-410W

Made with selected materials and components to grant quality, duration,

efficiency and through outputs, the ZXM6-HLD144 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-HLD144 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### Innovative PV module In comparison with common double glass modules, our modules are extremely robust and superior air tightness



#### Anti PID

Limited power degradation of ZXM6-HLD144 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

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#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

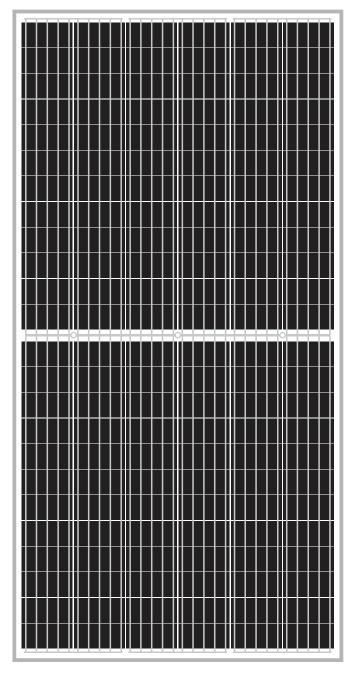


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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#### Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	792

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- HLD144 -385/M	ZXM6- HLD144 -390/M	ZXM6- HLD144 -395/M	ZXM6- HLD144 -400/M	ZXM6- HLD144 -405/M	ZXM6- HLD144 -410/M
Nominal Power Watt Pmax(W)	385	390	395	400	405	410
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.4	40.7	41.0	41.3	41.6	41.9
Maximum Power Current Imp(A)	9.53	9.59	9.64	9.69	9.74	9.79
Open Circuit Voltage Voc(V)	49.3	49.6	49.9	50.2	50.5	50.8
Short Circuit Current Isc(A)	9.86	9.92	9.98	10.03	10.08	10.13
Module Efficiency %	19.26	19.51	19.76	20.01	20.26	20.51

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	287.1	291.0	294.5	298.1	301.8	305.0
Maximum Power Voltage Vmpp(V)	38.2	38.4	38.7	39.0	39.2	39.5
Maximum Power Current Impp(A)	7.52	7.57	7.62	7.65	7.69	7.71
Open Circuit Voltage Voc(V)	45.8	46.1	46.4	46.6	46.9	47.1
Short Circuit Current Isc(A)	7.97	8.02	8.06	8.10	8.15	8.19

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

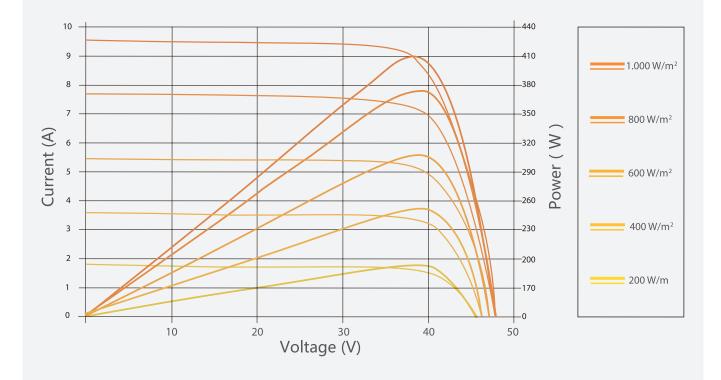
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/ºC

\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

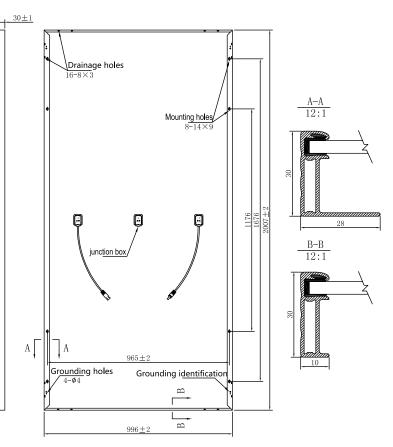
#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 158.75*79.375mm
Cells orientation	144(6×24)
Module dimension	2007×996×30 mm(With Frame)
Weight	26 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible



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# **ZXM6-NHLD120 SERIES**

### SOLAR 9BB HALF-CELL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 320W-325W-330W-335W-340W-345W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-NHLD120 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-NHLD120 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXM6-NHLD120 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

The module is very light in weight so the installation is easier and transport costs are lower

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission



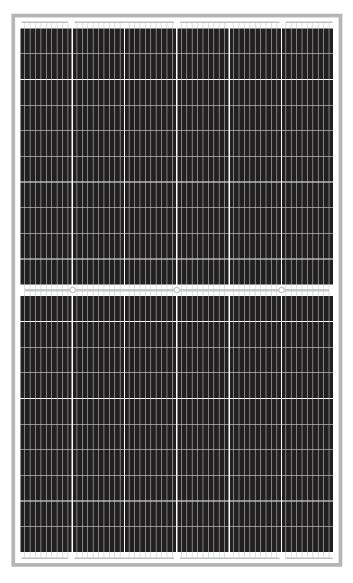
#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	1008

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- NHLD120 -320/M	ZXM6- NHLD120 -325/M	ZXM6- NHLD120 -330/M	ZXM6- NHLD120 -335/M	ZXM6- NHLD120 -340/M	ZXM6- NHLD120 -345/M
Nominal Power Watt Pmax(W)	320	325	330	335	340	345
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	33.4	33.6	33.8	34.1	34.3	34.5
Maximum Power Current Imp(A)	9.59	9.68	9.77	9.85	9.92	10.01
Open Circuit Voltage Voc(V)	40.1	40.3	40.5	40.8	41.0	41.2
Short Circuit Current Isc(A)	10.16	10.25	10.34	10.43	10.52	10.60
Module Efficiency %	18.83	19.12	19.42	19.71	20.01	20.30

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	238.3	241.9	245.5	248.7	252.0	255.8
Maximum Power Voltage Vmpp(V)	30.9	31.1	31.3	31.4	31.5	31.7
Maximum Power Current Impp(A)	7.72	7.79	7.85	7.92	7.99	8.06
Open Circuit Voltage Voc(V)	37.3	37.5	37.7	37.8	38.0	38.2
Short Circuit Current Isc(A)	8.20	8.28	8.35	8.43	8.50	8.56

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

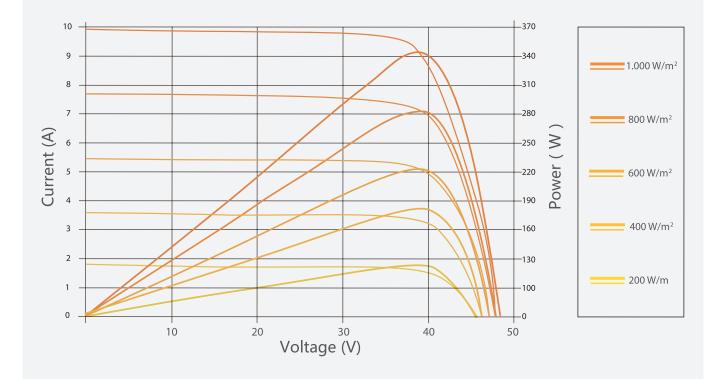
NMOT	44°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/°C

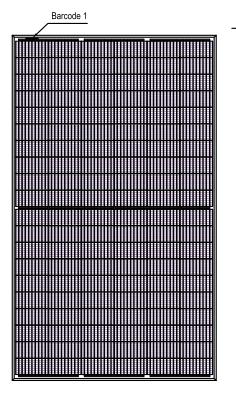
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

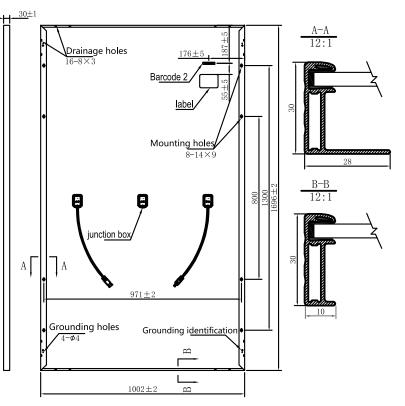
#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC	
Operating temperature	-40°C~+85°C	
Maximum series fuse	20 A	
Maximum load(snow/Wind)	5400 Pa / 2400 Pa	

Solar cells	Mono 158.75*79.375mm
Cells orientation	120(6×20)
Module dimension	1696×1002×30 mm(With Frame)
Weight	22.5 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible







# **ZXM6-NHLD144 SERIES**

### SOLAR 9BB HALF-CELL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 390W-395W-400W-405W-410W-415W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-NHLD144 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXM6-NHLD144 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXM6-NHLD144 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

The module is very light in weight so the installation is easier and transport costs are lower

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

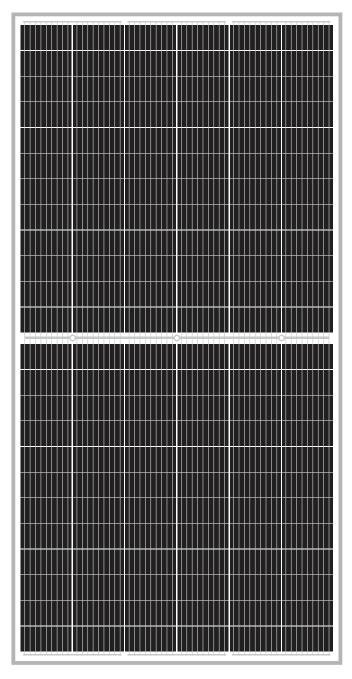


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	792

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- NHLD144 -390/M	ZXM6- NHLD144 -395/M	ZXM6- NHLD144 -400/M	ZXM6- NHLD144 -405/M	ZXM6- NHLD144 -410/M	ZXM6- NHLD144 -415/M
Nominal Power Watt Pmax(W)	390	395	400	405	410	415
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.8	41.0	41.2	41.4	41.6	41.8
Maximum Power Current Imp(A)	9.56	9.64	9.71	9.79	9.86	9.94
Open Circuit Voltage Voc(V)	48.4	48.6	48.8	49.0	49.2	49.6
Short Circuit Current Isc(A)	10.06	10.11	10.18	10.24	10.30	10.39
Module Efficiency %	19.23	19.48	19.72	19.97	20.22	20.46

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	289.0	293.1	296.7	300.5	304.0	306.9
Maximum Power Voltage Vmpp(V)	37.8	38.0	38.2	38.4	38.6	38.7
Maximum Power Current Impp(A)	7.65	7.71	7.77	7.82	7.87	7.93
Open Circuit Voltage Voc(V)	45.0	45.2	45.4	45.5	45.7	45.9
Short Circuit Current Isc(A)	8.12	8.17	8.22	8.27	8.32	8.39

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

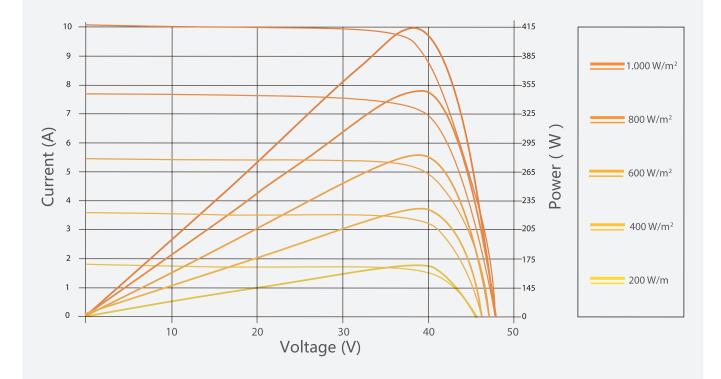
NMOT	44°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of lsc	0.05%/ºC

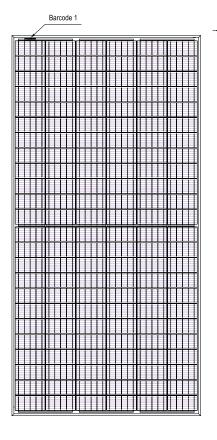
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

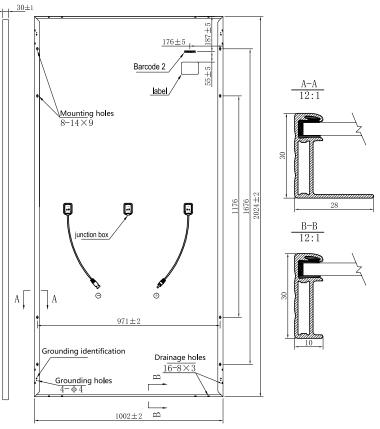
#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 158.75*79.375mm
Cells orientation	144(6×24)
Module dimension	2024×1002×30 mm(With Frame)
Weight	26.5 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible







# **ZXM6-NHLD144 SERIES**

#### SOLAR 9BB HALF-CELL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 420W-425W-430W-435W-440W-445W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-NHLD144 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy whilst reducing your energy bill.

UNITECH SOLAR'S ZXM6-NHLD144 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXM6-HNLD144 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

The module is very light in weight so the installation is easier and transport costs are lower

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission



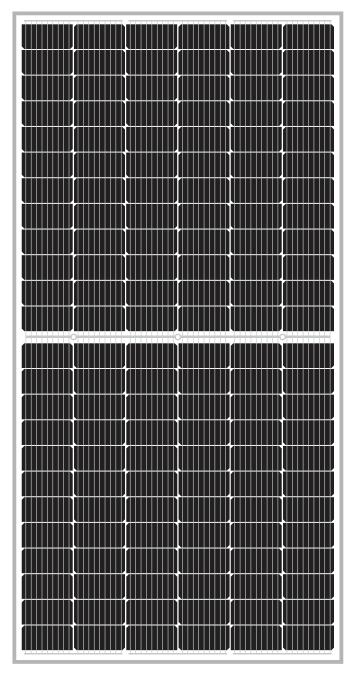
#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	792

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- NHLD144 -420/M	ZXM6- NHLD144 -425/M	ZXM6- NHLD144 -430/M	ZXM6- NHLD144 -435/M	ZXM6- NHLD144 -440/M	ZXM6- NHLD144 -445/M
Nominal Power Watt Pmax(W)	420	425	430	435	440	445
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.2	40.4	40.6	40.8	41.0	41.2
Maximum Power Current Imp(A)	10.45	10.52	10.60	10.67	10.74	10.81
Open Circuit Voltage Voc(V)	48.7	48.9	49.1	49.3	49.5	49.7
Short Circuit Current Isc(A)	10.94	11.02	11.10	11.17	11.25	11.32
Module Efficiency %	19.32	19.55	19.78	20.01	20.24	20.47

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	313.5	317.1	321.0	324.7	328.4	332.1
Maximum Power Voltage Vmpp(V)	37.7	37.8	38.0	38.2	38.3	38.5
Maximum Power Current Impp(A)	8.33	8.39	8.45	8.50	8.56	8.62
Open Circuit Voltage Voc(V)	45.4	45.6	45.8	46.0	46.2	46.2
Short Circuit Current Isc(A)	8.84	8.90	8.96	9.02	9.09	9.14

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

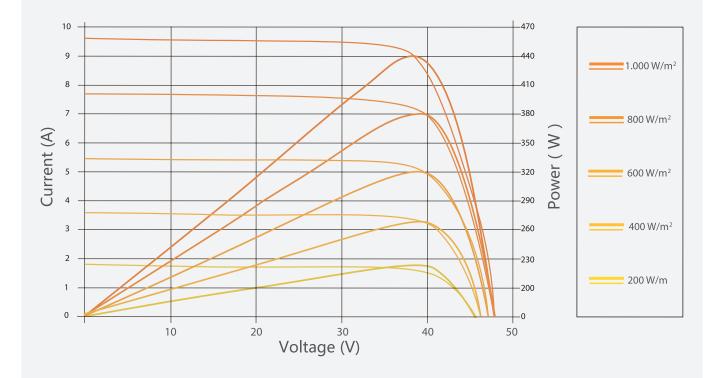
NMOT	44°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/°C

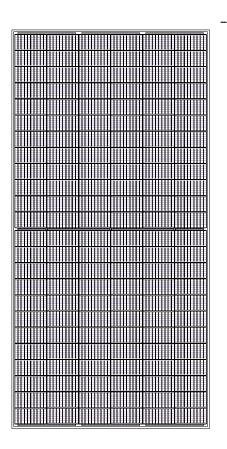
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

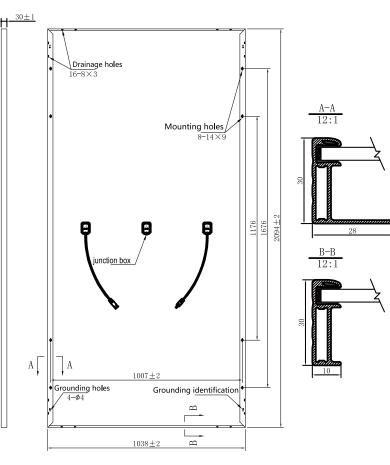
#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC		
Operating temperature	-40°C~+85°C		
Maximum series fuse	20 A		
Maximum load(snow/Wind)	5400 Pa / 2400 Pa		

Solar cells	Mono 166×83mm
Cells orientation	144(6×24)
Module dimension	2094×1038×30 mm(With Frame)
Weight	28 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible







# **ZXP6-HLD120 SERIES**

#### SOLAR 5BB HALF-CELL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 275W-280W-285W-290W-295W-300W

Made with selected materials and components to grant quality, duration,

efficiency and through outputs, the ZXP6-HLD120 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXP6-HLD120 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXP6-HLD120 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

The module is very light in weight so the installation is easier and transport costs are lower

#### High Efficiency

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission



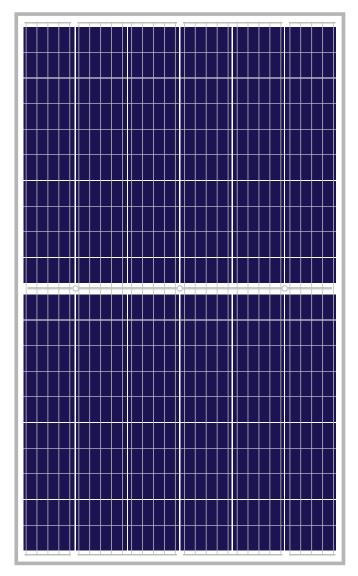
#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

|--|

#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	1008

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXP6-HLD120 -275/P	ZXP6-HLD120 -280/P	ZXP6-HLD120 -285/P	ZXP6-HLD120 -290/P	ZXP6-HLD120 -295/P	ZXP6-HLD120 -300/P
Nominal Power Watt Pmax(W)	275	280	285	290	295	300
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	31.5	31.7	31.9	32.1	32.3	32.5
Maximum Power Current Imp(A)	8.74	8.84	8.94	9.04	9.14	9.24
Open Circuit Voltage Voc(V)	38.5	38.7	38.9	39.1	39.3	39.5
Short Circuit Current Isc(A)	9.15	9.40	9.26	9.38	9.47	9.58
Module Efficiency %	16.50	16.80	17.10	17.40	17.70	18.00

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	202.7	206.4	210.2	214.1	219.4	223.2
Maximum Power Voltage Vmpp(V)	29.3	29.5	29.7	29.9	30.4	30.5
Maximum Power Current Impp(A)	6.92	7.00	7.08	7.16	7.23	7.31
Open Circuit Voltage Voc(V)	35.5	35.6	35.8	36.0	36.4	36.6
Short Circuit Current Isc(A)	7.36	7.43	7.51	7.58	7.66	7.74

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

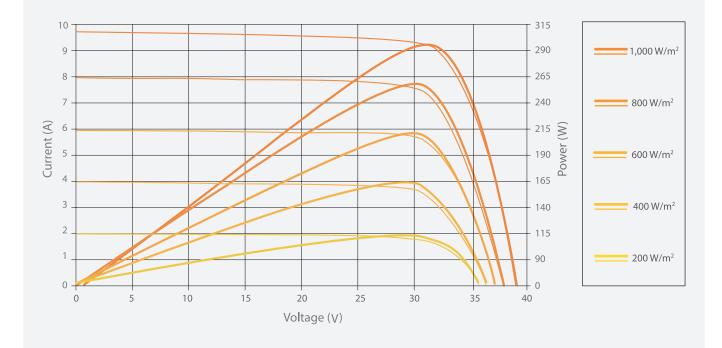
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.39%/ºC
Temperature coefficient of Voc	-0.31%/ºC
Temperature coefficient of lsc	0.06%/ºC

\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

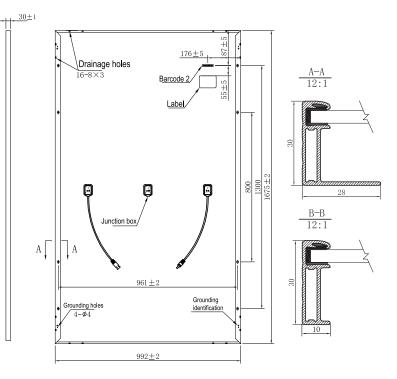
#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	15 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	
Cells orientation	
Module dimension	
Weight	
Glass	
Junction box	
Cables	
Connectors	



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# **ZXP6-HLD144 SERIES**

#### SOLAR 5BB HALF-CELL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 335W-340W-345W-350W-355W-360W

Made with selected materials and components to grant quality, duration,

efficiency and through outputs, the ZXP6-HLD144 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy while reducing your energy bill.

UNITECH SOLAR'S ZXP6-HLD144 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXP6-HLD144 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

The module is very light in weight so the installation is easier and transport costs are lower

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

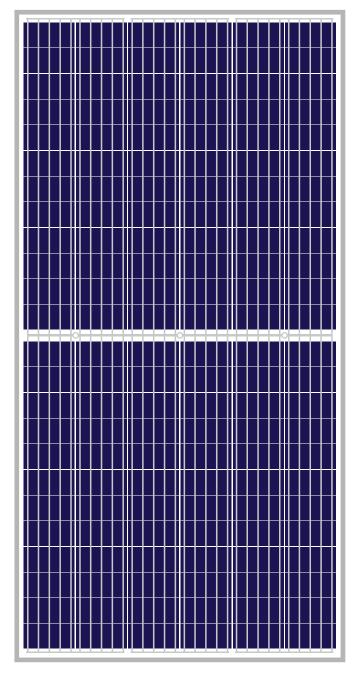


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	792

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXP6-HLD144 -335/P	ZXP6-HLD144 -340/P	ZXP6-HLD144 -345/P	ZXP6-HLD144 -350/P	ZXP6-HLD144 -355/P	ZXP6-HLD144 -360/P
Nominal Power Watt Pmax(W)	335	340	345	350	355	360
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	37.9	38.1	38.3	38.5	38.7	38.9
Maximum Power Current Imp(A)	8.84	8.93	9.01	9.10	9.18	9.26
Open Circuit Voltage Voc(V)	46.6	46.8	47.0	47.2	47.4	47.6
Short Circuit Current Isc(A)	9.16	9.22	9.28	9.37	9.45	9.53
Module Efficiency %	16.89	17.14	17.39	17.64	17.89	18.15

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **ELECTRICAL PROPERTIES | NMOT\***

Maximum Power Pmax(Wp)	246.7	250.7	255.7	259.5	263.0	268.7
Maximum Power Voltage Vmpp(V)	35.5	35.5	36.1	36.4	36.6	36.8
Maximum Power Current Impp(A)	6.96	6.96	7.09	7.14	7.19	7.30
Open Circuit Voltage Voc(V)	42.8	43.0	43.2	43.4	43.6	44.0
Short Circuit Current Isc(A)	7.40	7.51	7.51	7.57	7.63	7.72

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

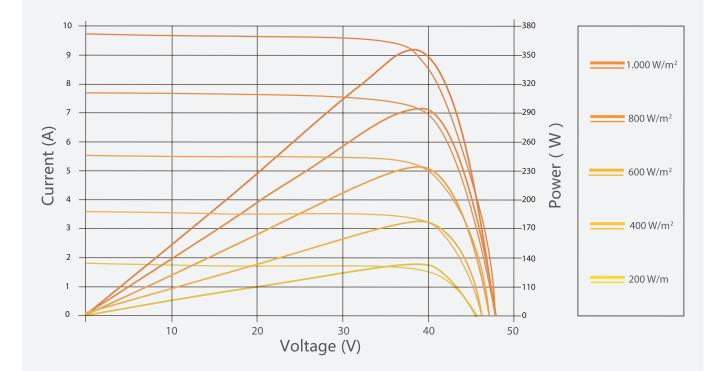
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.39%/ºC
Temperature coefficient of Voc	-0.31%/ºC
Temperature coefficient of Isc	0.06%/ºC

\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

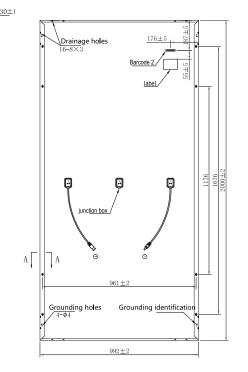
#### **WORKING CONDITIONS**

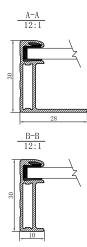
Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	15 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Poly 156.75*78.375mm
Cells orientation	144(6×24)
Module dimension	2000×992×30 mm(With Frame)
Weight	25.5 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible



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# BIFICAIL LIGHT DOUBLE GLASS FULL CELL

# ZXM6-LDD72 SERIES

#### **5BB P-TYPE HIGH EFFICIENCY MONOCRYSTALLINE BIFACIAL DOUBLE GLASS MODULE**

#### 370W-375W-380W-385W-390W-395W

Made with selected materials and components to grant guality, duration, efficiency and through outputs, the ZXM6-LDD72 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy

While reducing your energy bill. UNITECH SOLAR'S ZXM6-LDD72 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

#### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





**High Efficiency** 

Graphene coating can increase about 2W of

the module efficiency by rising around 0.5% of the light transmission

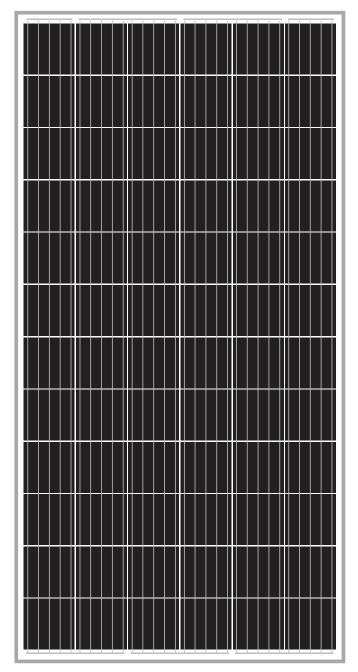
**Bifacial technology Enables** additional energy harvesting from rear side (up to 25%)



Anti PID

### 44

Lower Micro-crack Risk Limited power No internal stress from degradation of the symmetrical Bifacial ZXM6 LDD72 module cell scheme caused by PID effect is guaranteed under strict



**Higher Reliability** Successfully passed various strict tests 6 Salt Mist Corrosion Test / Triple IEC Test **Triple PID Test** 

testing condition for mass production

#### **Better Weak Illumination** Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

Packing Type	40' HQ
Piece/Box	36
Piece/Container	792

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6-LDD72 -370/M	ZXM6-LDD72 -375/M	ZXM6-LDD72 -380/M	ZXM6-LDD72 -385/M	ZXM6-LDD72 -390/M	ZXM6-LDD72 -395/M
Nominal Power Watt Pmax(W)	370	375	380	385	390	395
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	39.7	39.9	40.1	40.3	40.5	40.7
Maximum Power Current Imp(A)	9.32	9.40	9.48	9.56	9.63	9.71
Open Circuit Voltage Voc(V)	47.9	48.1	48.3	48.5	48.7	48.9
Short Circuit Current Isc(A)	9.78	9.87	9.96	10.05	10.14	10.23
Module Efficiency %	18.33	18.58	18.83	19.08	19.33	19.57

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5

\*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	273.7	277.3	281.0	284.8	288.3	292.1
Maximum Power Voltage Vmpp(V)	36.7	36.9	37.0	37.2	37.3	37.5
Maximum Power Current Impp(A)	7.46	7.52	7.59	7.66	7.73	7.80
Open Circuit Voltage Voc(V)	44.3	44.5	44.6	44.8	45.0	45.2
Short Circuit Current Isc(A)	7.92	7.99	8.06	8.14	8.21	8.28

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

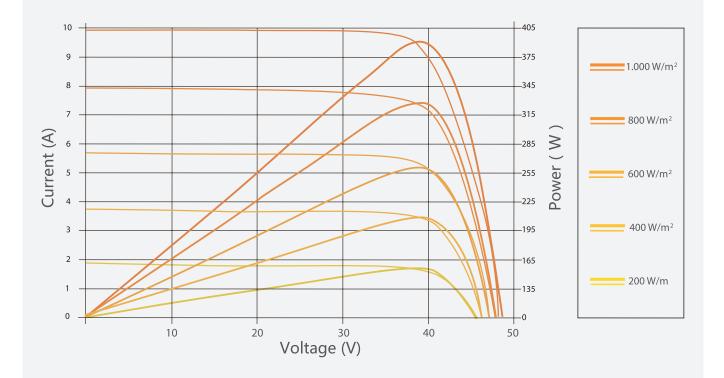
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.37%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/°C
Refer Bifacial Factor	70±5%

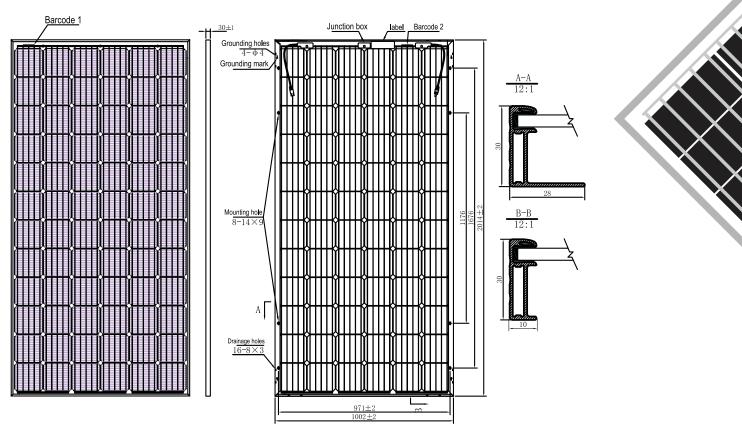
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC		
Operating temperature	-40°C~+85°C		
Maximum series fuse	20 A		
Maximum load(snow/Wind)	5400 Pa / 2400 Pa		

Solar cells	Mono 158.75×158.75 mm
Cells orientation	72(6×12)
Module dimension	2014×1002×30 mm(With Frame)
Weight	26 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible





# BIFICAIL LIGHT DOUBLE GLASS HALF CELL

# **ZXM6-HLDD144 SERIES**

#### 5BB HALF-CELL BIFACIAL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 385W-390W-395W-400W-405W-410W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-HLDD144 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy whilst reducing your energy bill.

UNITECH SOLAR'S ZXM6-HLDD144 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXM6-HLDD144 module caused by PID effect is guaranteed under strict testing condition for mass production



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

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

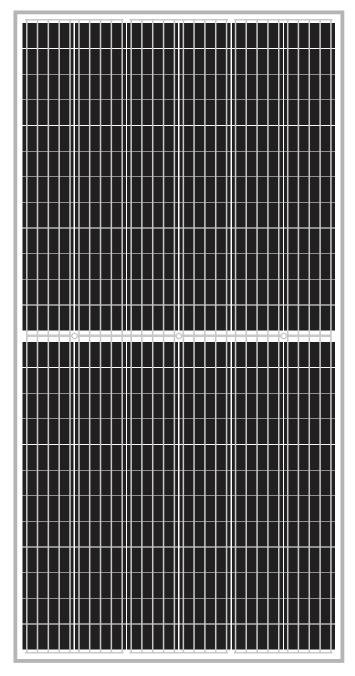


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	792

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- HLDD144 -385/M	ZXM6- HLDD144 -390/M	ZXM6- HLDD144 -395/M	ZXM6- HLDD144 -400/M	ZXM6- HLDD144 -405/M	ZXM6- HLDD144 -410/M
Nominal Power Watt Pmax(W)	385	390	395	400	405	410
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.3	40.5	40.7	40.9	41.1	41.3
Maximum Power Current Imp(A)	9.56	9.63	9.71	9.78	9.86	9.93
Open Circuit Voltage Voc(V)	48.4	48.6	48.8	49.0	49.2	49.4
Short Circuit Current Isc(A)	10.08	10.16	10.24	10.32	10.40	10.49
Module Efficiency %	19.01	19.26	19.51	19.75	20.00	20.25

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	282.3	285.7	285.7	293.1	297.5	301.0
Maximum Power Voltage Vmpp(V)	37.2	37.3	37.3	37.7	38.0	38.2
Maximum Power Current Impp(A)	7.60	7.66	7.66	7.78	7.83	7.88
Open Circuit Voltage Voc(V)	44.7	44.9	44.9	45.3	45.6	45.8
Short Circuit Current Isc(A)	8.14	8.21	8.21	8.34	8.40	8.47

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

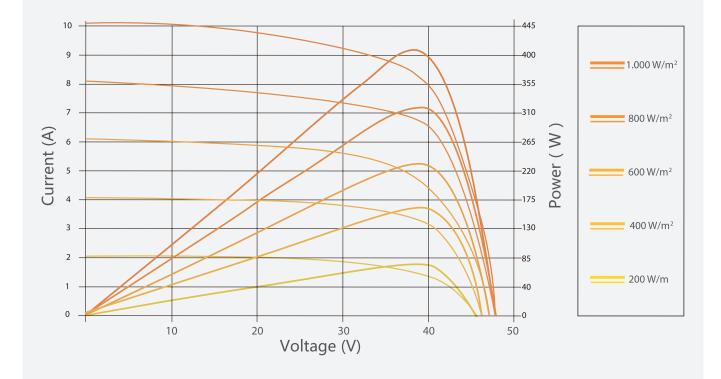
NMOT	45°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of lsc	0.05%/°C
Refer Bifacial Factor	70±5%

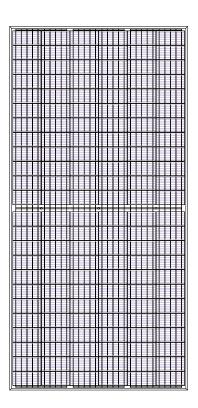
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

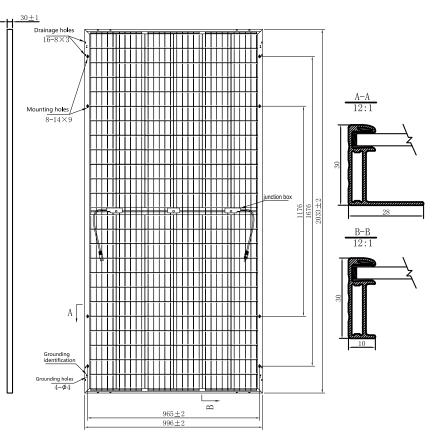
#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 158.75*79.375mm
Cells orientation	144(6×24)
Module dimension	2033×996×30 mm(With Frame)
Weight	26 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible







# **ZXM6-NHLDD120 SERIES**

#### 9BB HALF-CELL BIFACIAL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 320W-325W-330W-335W-340W-345W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-NHLDD120 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy whilst reducing your energy bill.

UNITECH SOLAR'S ZXM6-NHLDD120 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and pricequality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXM6-NHLDD120 module caused by PID effect is guaranteed under strict testing condition for mass production



#### Easy to install

The module is very light in weight so the installation is easier and transport costs are lower

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission



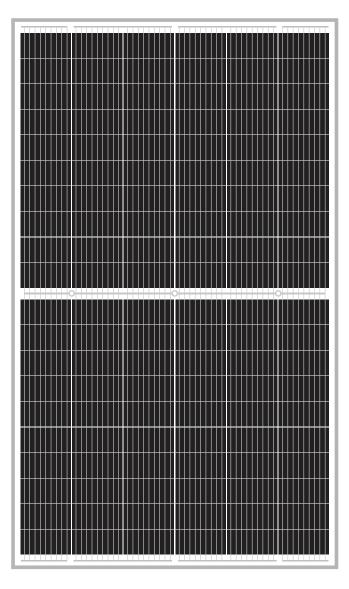
#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

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#### **Grahpene Coating**

Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ	
Piece/Box	36	
Piece/Container	936	

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- NHLDD120 -320/M	ZXM6- NHLDD120 -325/M	ZXM6- NHLDD120 -330/M	ZXM6- NHLDD120 -335/M	ZXM6- NHLDD120 -340/M	ZXM6- NHLDD120 -345/M
Nominal Power Watt Pmax(W)	320	325	330	335	340	345
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	33.4	33.6	33.8	34.0	34.2	34.4
Maximum Power Current Imp(A)	9.59	9.68	9.77	9.86	9.95	10.03
Open Circuit Voltage Voc(V)	40.2	40.4	40.6	40.8	41.0	41.2
Short Circuit Current Isc(A)	10.15	10.23	10.31	10.39	10.47	10.55
Module Efficiency %	18.55	18.84	19.13	19.42	19.71	19.99

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	237.2	240.9	243.8	246.4	250.2	253.7
Maximum Power Voltage Vmpp(V)	30.8	31.0	31.2	31.5	31.7	31.9
Maximum Power Current Impp(A)	7.70	7.77	7.81	7.83	7.89	7.97
Open Circuit Voltage Voc(V)	37.3	37.5	37.6	37.8	38.0	38.1
Short Circuit Current Isc(A)	8.20	8.27	8.33	8.40	8.46	8.52

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

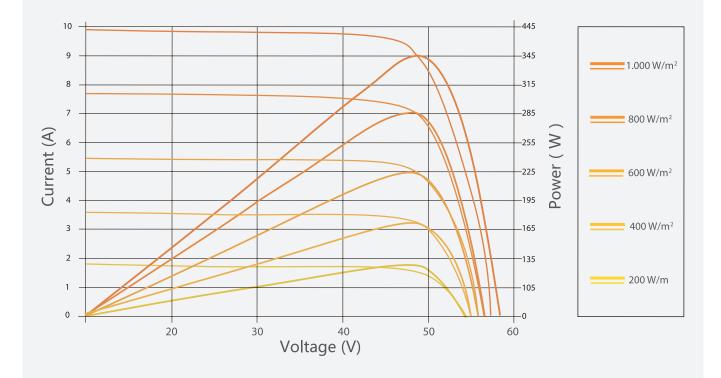
NMOT	44°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/ºC
Refer Bifacial Factor	70±5%

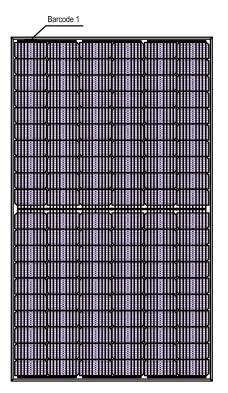
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

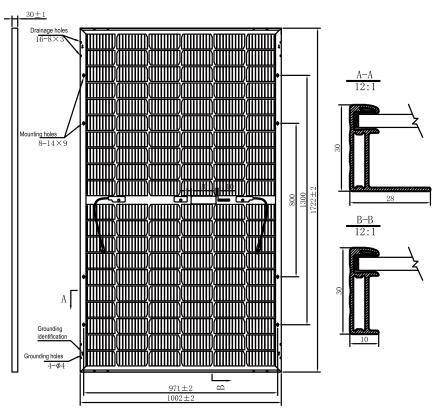
#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa

Solar cells	Mono 158.75*79.375mm
Cells orientation	120(6×20)
Module dimension	1722×1002×30 mm(With Frame)
Weight	23 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible







# **ZXM6-NHLDD144 SERIES**

#### 9BB HALF-CELL BIFACIAL LIGHT-WEIGHT DOUBLE GLASS MONO PV MODULE

#### 320W-325W-330W-335W-340W-345W

Made with selected materials and components to grant quality, duration, efficiency and through outputs, the ZXM6-NHLDD144 double glass modules by UNITECH SOLAR feature have both decorative and shading functions. They represent the perfect choice for BIPV and BAPV construction applications. This allows you to produce clean energy whilst reducing your energy bill.

UNITECH SOLAR'S ZXM6-NHLDD144 double glass solar modules are tested and approved by international acknowledged laboratories, so that we can offer our customers a reliable and pricequality optimized product.

### 12 years product warranty/25 years output warranty 0.5% Annual Degradation over 30 years





#### More power output

Module RS decreases, FF (fill factor) increases, power gain is stable above 2%, and can be increased by 5~10W



#### Anti PID

Limited power degradation of ZXM6-NHLDD144 module caused by PID effect is guaranteed under strict testing condition for mass production



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

#### **High Efficiency**

Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission

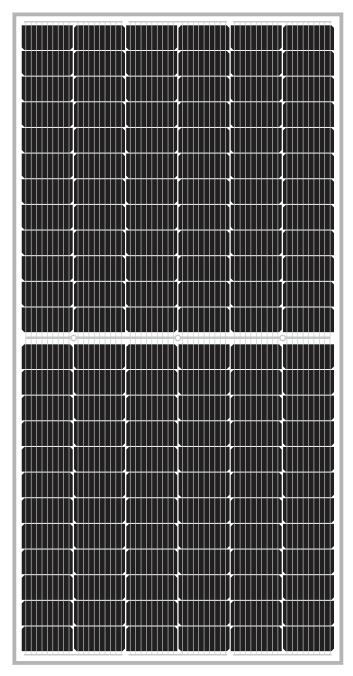


#### Better Weak Illumination Response

Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings

	)

Graphene Coating Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



Packing Type	40' HQ
Piece/Box	36
Piece/Container	792

#### **ELECTRICAL PROPERTIES | STC\***

Module Type	ZXM6- NHLDD144 -420/M	ZXM6- NHLDD144 -425/M	ZXM6- NHLDD144 -430/M	ZXM6- NHLDD144 -435/M	ZXM6- NHLDD144 -440/M	ZXM6- NHLDD144 -445/M
Nominal Power Watt Pmax(W)	420	425	430	435	440	445
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.9	41.1	41.3	41.5	41.7	41.9
Maximum Power Current Imp(A)	10.27	10.35	10.42	10.49	10.56	10.63
Open Circuit Voltage Voc(V)	49.3	49.5	49.7	49.9	50.1	50.3
Short Circuit Current Isc(A)	10.93	11.00	11.07	11.14	11.21	11.28
Module Efficiency %	19.10	19.33	19.56	19.79	20.01	20.24

\*STC (Standard Test Condition): Irradiance 1000W/m², Module Temperature 25°C, AM 1.5 \*The data above is for reference only and the actual data is in accordance with the practical testing

#### ELECTRICAL PROPERTIES | NMOT\*

Maximum Power Pmax(Wp)	312.9	316.7	320.3	323.9	327.6	330.6
Maximum Power Voltage Vmpp(V)	37.8	38.0	38.2	38.4	38.5	38.7
Maximum Power Current Impp(A)	8.28	8.34	8.39	8.44	8.50	8.53
Open Circuit Voltage Voc(V)	45.9	46.1	46.3	46.5	46.6	46.8
Short Circuit Current Isc(A)	8.83	8.88	8.94	8.99	9.05	9.11

\*NMOT(Nominal module operating temperature):Irradiance 800W/m²,Ambient Temperature 20°C,AM 1.5,Wind Speed 1m/s \*The data above is for reference only and the actual data is in accordance with the practical testing

#### **TEMPERATURE RATINGS**

NMOT	44°C ±2°C
Temperature coefficient of Pmax	-0.36%/ºC
Temperature coefficient of Voc	-0.29%/ºC
Temperature coefficient of Isc	0.05%/ºC
Refer Bifacial Factor	70±5%

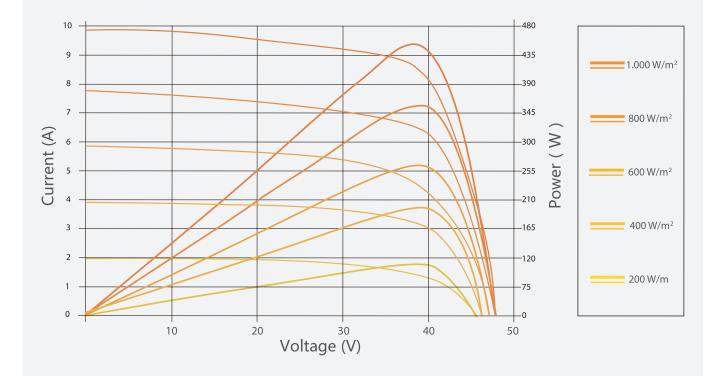
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

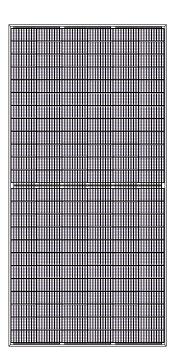
#### **MECHANICAL DATA**

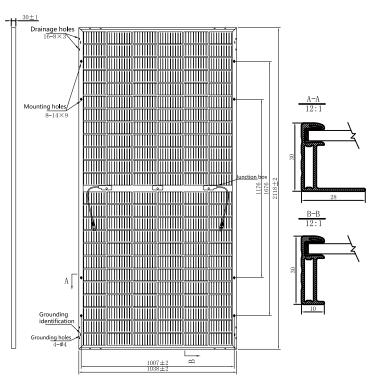
Solar cells	Mono 166*83mm
Cells orientation	144(6×24)
Module dimension	2118×1038×30 mm(With Frame)
Weight	28.5 kg
Glass	2.0mm+2.0mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm² ,350 mm
Connectors	MC4-compatible

#### **WORKING CONDITIONS**

Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	20 A
Maximum load(snow/Wind)	5400 Pa / 2400 Pa







### **LOCATIONS**

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