

# Mono-crystalline Solar Module (54Cells) All Black

## CEC6-54MHV

**400~415W**

**POWER OUTPUT RANGE**

**20.5%~21.3%**

**MODULE EFFICIENCY**

### PRODUCT CHARACTERISTICS

- ◆ Light weight, easy to install, high cost performance, high efficiency
- ◆ Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)
- ◆ Guaranteed output: 0~+5W
- ◆ Excellent performance in weak light condition, such as cloudy, morning and sunset
- ◆ Independently certification by international certification authorities, include IEC61215,IEC61730,CE



### LINEAR WARRANTY AND CERTIFICATION

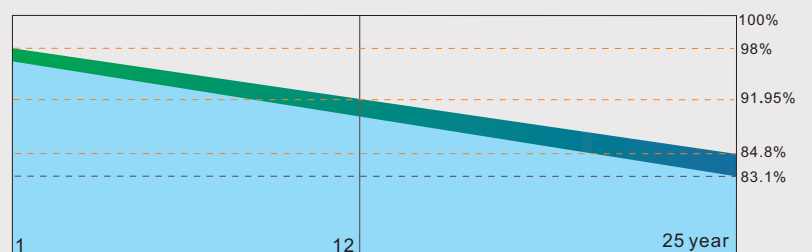


**1st YEAR** 1st year Power output not less than 98%

**12 YEAR** Warranty for product materials and processes within 12 years

**12 YEAR** Power output not less than 91.95% within 12 years

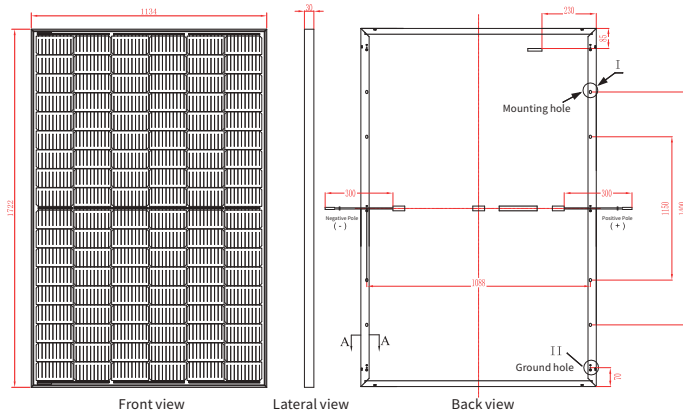
**25 YEAR** Power output not less than 84.8% within 25 years



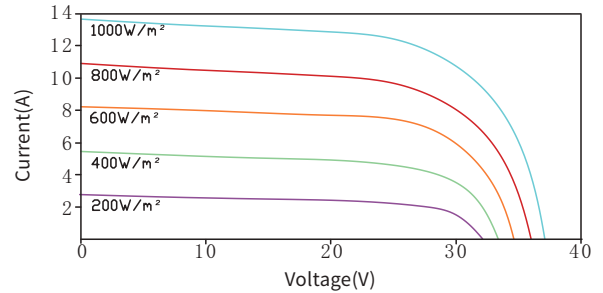
■ New linear power warranty  
■ Standard module linear power warranty

# QUALITY OF CENTRAL ENTERPRISE SERVICE GUARANTEE

## Assembly Drawing



## I-V Curve (400W)



## Limit Parameters

Operating temperature	-40°C to +85°C
Maximum fuse current rating	25A

## Mechanical Characteristics

Cell type	182×91mm monocrystalline silicon solar cells, a group of 108 cells (6×18)
Glass	3.2 mm thick low-iron tempered glass with high light transmittance
Junction Box	IP Grade: IP68

## Temperature Rating

Nominal Module Operating Temperature (NMOT)	42°C±2°C
Maximum Power (Pmax) Temperature Coefficient ( $\delta$ (%/°C))	-0.34
Open-circuit voltage (Voc) Temperature coefficient ( $\beta$ (%/°C))	-0.26
Short circuit current (Isc) Temperature coefficient ( $\alpha$ (%/°C))	0.05

## Physical Parameter

Dimension	1722*1134*30mm
Mounting hole size	1150*1088,1400*1088mm
Cable Length	300mm; Customizable
Weight	21.5Kg

## Mode of Packing

40 Feet Container	Pieces per case	36 pcs/case
	Quantity per pallet	2 case/pallet
	Pieces per container	936 pcs/40'GP

## Parameters of Module

Electrical parameters (Standard test condition)	CEC6-54-400MH CEC6-54-400MHV	CEC6-54-405MH CEC6-54-405MHV	CEC6-54-410MH CEC6-54-410MHV	CEC6-54-415MH CEC6-54-415MHV
Maximum power-Pmax(Wp)	400	405	410	415
Maximum operating voltage-Vmp(V)	31.09	31.26	31.42	31.61
Maximum operating current-Imp(A)	12.86	12.96	13.05	13.13
Open-circuit voltage -Voc(V)	37.00	37.20	37.40	37.60
Short-circuit current-Isc(A)	13.65	13.76	13.84	13.94
Maximum system voltage-Vdc(V)	1000/1500	1000/1500	1000/1500	1000/1500
Module efficiency(%)	20.5%	20.7%	21.00%	21.30%
Power tolerance(W)	0/+5W	0/+5W	0/+5W	0/+5W

Measured values under STC (temperature 25°C, air mass AM1.5, irradiance 1000W/m<sup>2</sup>)

## Test under NMOT conditions

Max Power(Wp)	298.9	302.7	306.4	310.1
Max-Power Voltage Vmp(V)	28.98	29.13	29.29	29.45
Max-Power Current Imp(A)	10.32	10.39	10.46	10.53
Open-Circuit Voltage Voc(V)	34.97	35.15	35.34	35.53
Short-Circuit Current Isc(A)	11.07	11.17	11.26	11.35



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# Mono-crystalline Solar Module (54Cells) Normal White

## CEC6-54MHV

**400~420W**

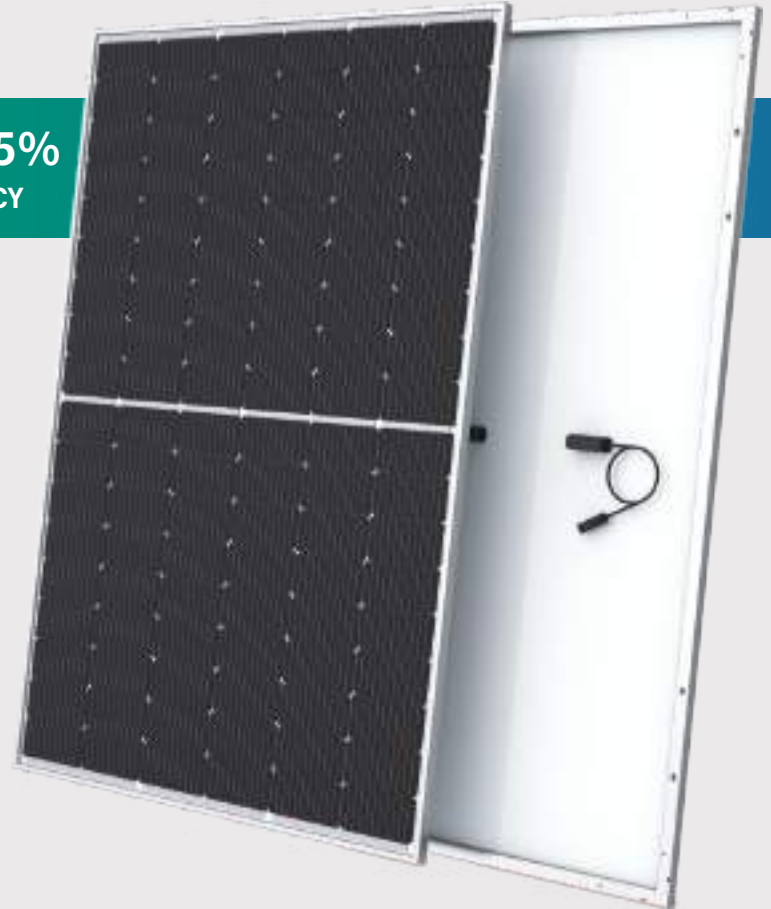
**POWER OUTPUT RANGE**

**20.5%~21.5%**

**MODULE EFFICIENCY**

### PRODUCT CHARACTERISTICS

- ◆ Light weight, easy to install, high cost performance, high efficiency
- ◆ Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)
- ◆ Guaranteed output: 0~+5W
- ◆ Excellent performance in weak light condition, such as cloudy, morning and sunset
- ◆ Independently certification by international certification authorities, include IEC61215, IEC61730, CE



### LINEAR WARRANTY AND CERTIFICATION

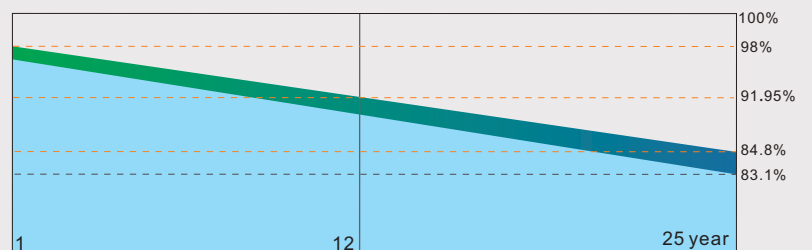


**1st YEAR** 1st year Power output not less than 98%

**12 YEAR** Warranty for product materials and processes within 12 years

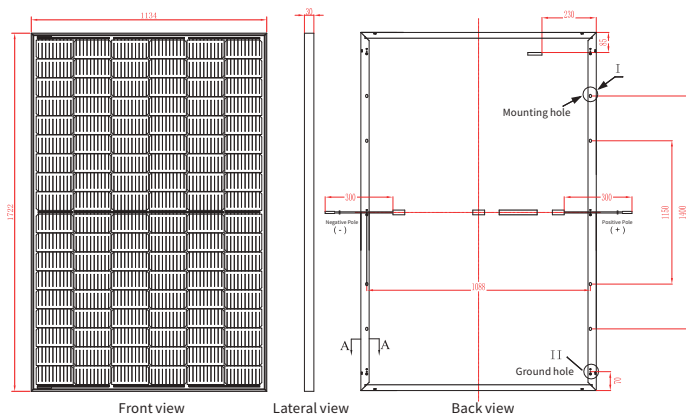
**12 YEAR** Power output not less than 91.95% within 12 years

**25 YEAR** Power output not less than 84.8% within 25 years

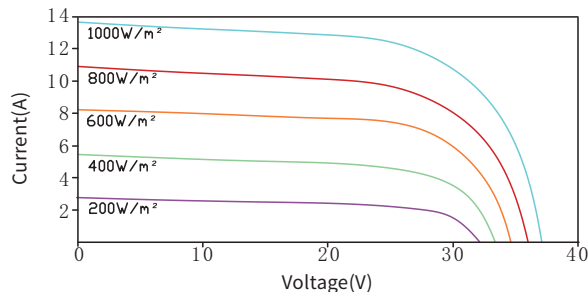


■ New linear power warranty  
■ Standard module linear power warranty

## Assembly Drawing



## I-V Curve (400W)



## Limit Parameters

Operating temperature	-40°C to +85°C
Maximum fuse current rating	25A

## Physical Parameter

Dimension	1722*1134*30mm
Mounting hole size	1150*1088,1400*1088mm
Cable Length	300mm; Customizable
Weight	21.5Kg

## Mechanical Characteristics

Cell type	182×91mm monocrystalline silicon solar cells, a group of 108 cells (6×18)
Glass	3.2 mm thick low-iron tempered glass with high light transmittance
Junction Box	IP Grade: IP68

## Temperature Rating

Nominal Module Operating Temperature (NMOT)	42°C±2°C
Maximum Power (Pmax) Temperature Coefficient ( $\delta$ (%/°C))	-0.34
Open-circuit voltage (Voc) Temperature coefficient ( $\beta$ (%/°C))	-0.26
Short circuit current (Isc) Temperature coefficient ( $\alpha$ (%/°C))	0.05

## Mode of Packing

40 Feet Container	Pieces per case	36 pcs/case
	Quantity per pallet	2 case/pallet
	Pieces per container	936 pcs/40'GP

## Parameters of Module

Electrical parameters (Standard test condition)	CEC6-54-400MH CEC6-54-400MHV	CEC6-54-405MH CEC6-54-405MHV	CEC6-54-410MH CEC6-54-410MHV	CEC6-54-415MH CEC6-54-415MHV	CEC6-54-420MH CEC6-54-420MHV
Maximum power-Pmax(Wp)	400	405	410	415	420
Maximum operating voltage-Vmp(V)	31.09	31.26	31.42	31.61	31.77
Maximum operating current-Imp(A)	12.86	12.96	13.05	13.13	13.22
Open-circuit voltage -Voc(V)	37.00	37.20	37.40	37.60	37.80
Short-circuit current-Isc(A)	13.65	13.76	13.84	13.94	14.03
Maximum system voltage-Vdc(V)	1000/1500	1000/1500	1000/1500	1000/1500	1000/1500
Module efficiency(%)	20.50%	20.70%	21.00%	21.30%	21.50%
Power tolerance(W)	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W

Measured values under STC (temperature 25°C, air mass AM1.5, irradiance 1000W/m<sup>2</sup>)

## Test under NMOT conditions

Max Power(Wp)	298.9	302.7	306.4	310.1	315
Max-Power Voltage Vmp(V)	28.98	29.13	29.29	29.45	29.69
Max-Power Current Imp(A)	10.32	10.39	10.46	10.53	10.61
Open-Circuit Voltage Voc(V)	34.97	35.15	35.34	35.53	35.66
Short-Circuit Current Isc(A)	11.07	11.17	11.26	11.35	11.44



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# Mono-crystalline Solar Module (54Cells) Black Frame and White Backsheet

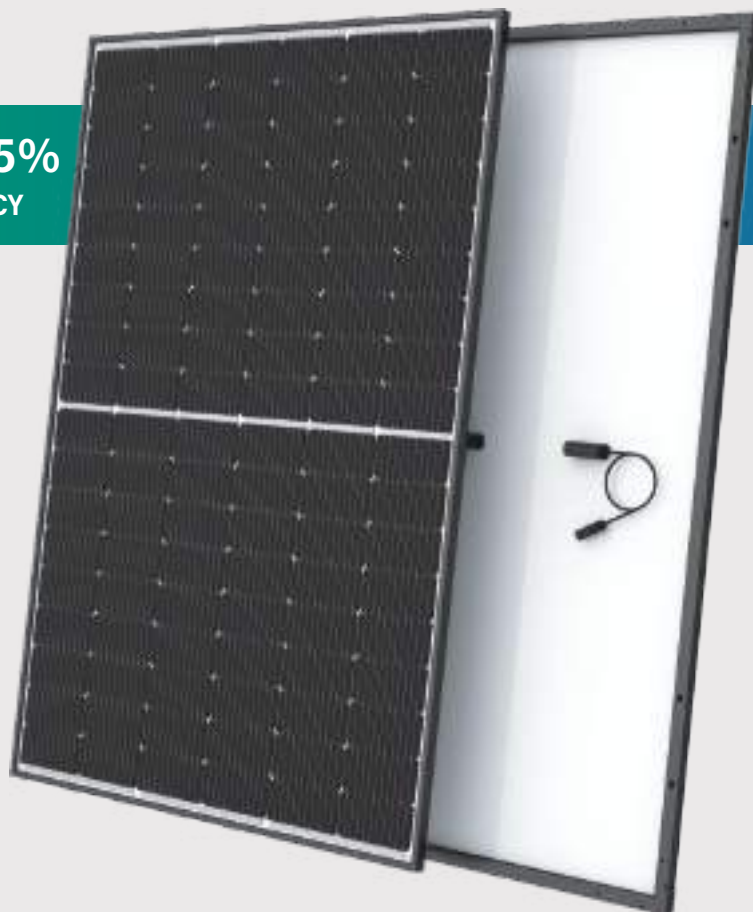
## CEC6-54MHV

**400~420W**

**POWER OUTPUT RANGE**

**20.5%~21.5%**

**MODULE EFFICIENCY**



### PRODUCT CHARACTERISTICS

- ◆ Light weight, easy to install, high cost performance, high efficiency
- ◆ Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)
- ◆ Guaranteed output: 0~+5W
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### LINEAR WARRANTY AND CERTIFICATION

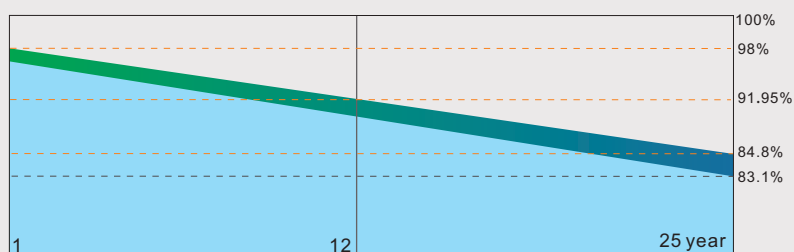


**1st YEAR** 1st year Power output not less than 98%

**12 YEAR** Warranty for product materials and processes within 12 years

**12 YEAR** Power output not less than 91.95% within 12 years

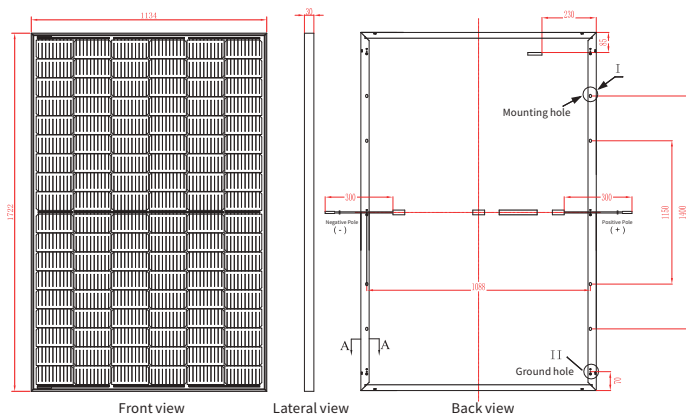
**25 YEAR** Power output not less than 84.8% within 25 years



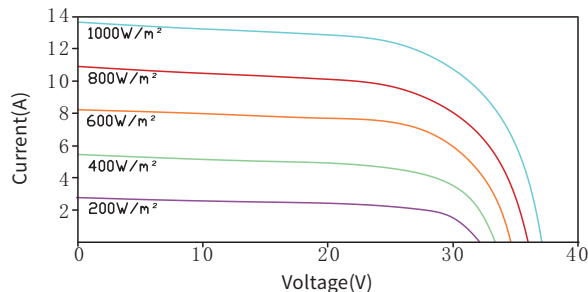
■ New linear power warranty  
■ Standard module linear power warranty

# QUALITY OF CENTRAL ENTERPRISE SERVICE GUARANTEE

## Assembly Drawing



## I-V Curve (400W)



## Limit Parameters

Operating temperature	-40°C to +85°C
Maximum fuse current rating	25A

## Physical Parameter

Dimension	1722*1134*30mm
Mounting hole size	1150*1088,1400*1088mm
Cable Length	300mm; Customizable
Weight	21.5Kg

## Mechanical Characteristics

Cell type	182×91mm monocrystalline silicon solar cells, a group of 108 cells (6×18)
Glass	3.2 mm thick low-iron tempered glass with high light transmittance
Junction Box	IP Grade: IP68

## Temperature Rating

Nominal Module Operating Temperature (NMOT)	42°C±2°C
Maximum Power (Pmax) Temperature Coefficient ( $\delta$ (%/°C))	-0.34
Open-circuit voltage (Voc) Temperature coefficient ( $\beta$ (%/°C))	-0.26
Short circuit current (Isc) Temperature coefficient ( $\alpha$ (%/°C))	0.05

## Mode of Packing

40 Feet Container	Pieces per case	36 pcs/case
	Quantity per pallet	2 case/pallet
	Pieces per container	936 pcs/40'GP

## Parameters of Module

Electrical parameters (Standard test condition)	CEC6-54-400MH CEC6-54-400MHV	CEC6-54-405MH CEC6-54-405MHV	CEC6-54-410MH CEC6-54-410MHV	CEC6-54-415MH CEC6-54-415MHV	CEC6-54-420MH CEC6-54-420MHV
Maximum power-Pmax(Wp)	400	405	410	415	420
Maximum operating voltage-Vmp(V)	31.09	31.26	31.42	31.61	31.77
Maximum operating current-Imp(A)	12.86	12.96	13.05	13.13	13.22
Open-circuit voltage -Voc(V)	37.00	37.20	37.40	37.60	37.80
Short-circuit current-Isc(A)	13.65	13.76	13.84	13.94	14.03
Maximum system voltage-Vdc(V)	1000/1500	1000/1500	1000/1500	1000/1500	1000/1500
Module efficiency(%)	20.50%	20.70%	21.00%	21.30%	21.50%
Power tolerance(W)	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W

Measured values under STC (temperature 25°C, air mass AM1.5, irradiance 1000W/m<sup>2</sup>)

## Test under NMOT conditions

Max Power(Wp)	298.9	302.7	306.4	310.1	315
Max-Power Voltage Vmp(V)	28.98	29.13	29.29	29.45	29.69
Max-Power Current Imp(A)	10.32	10.39	10.46	10.53	10.61
Open-Circuit Voltage Voc(V)	34.97	35.15	35.34	35.53	35.66
Short-Circuit Current Isc(A)	11.07	11.17	11.26	11.35	11.44



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# Mono-crystalline Solar Module (54Cells) Black and White Backsheet

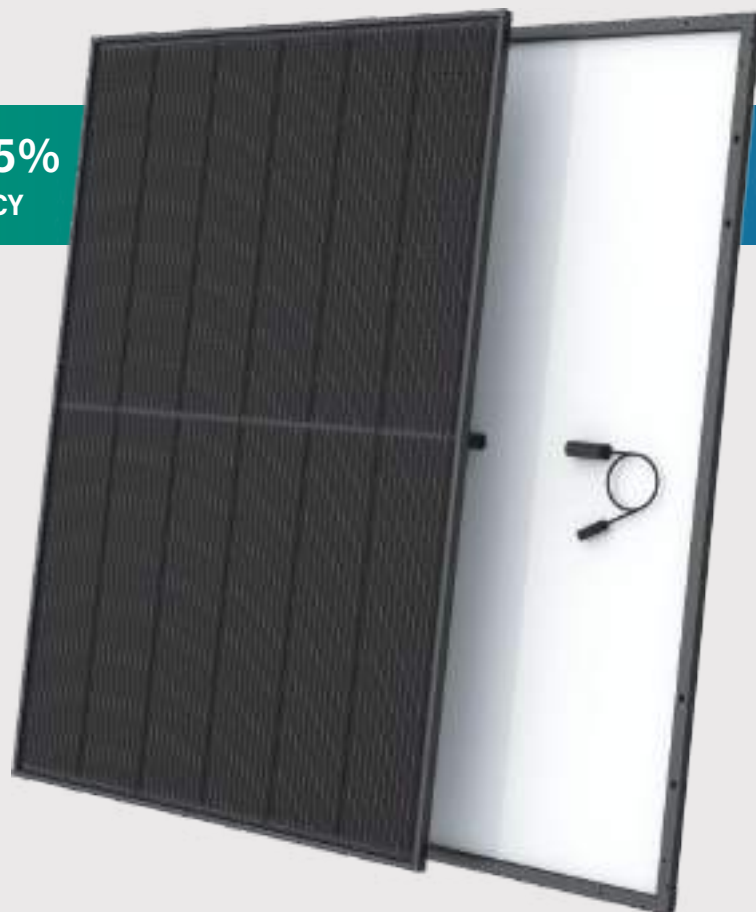
## CEC6-54MHV

**400~420W**

**POWER OUTPUT RANGE**

**20.5%~21.5%**

**MODULE EFFICIENCY**



### PRODUCT CHARACTERISTICS

- ◆ Light weight, easy to install, high cost performance, high efficiency
- ◆ Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)
- ◆ Guaranteed output: 0~+5W
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### LINEAR WARRANTY AND CERTIFICATION

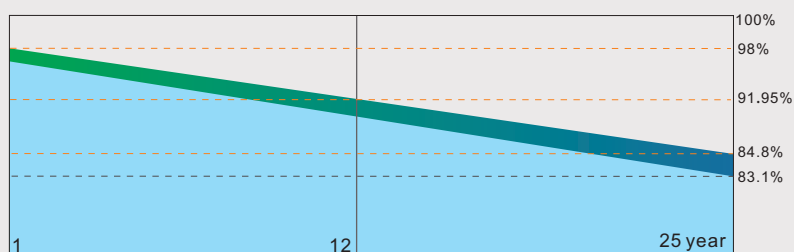


**1st YEAR** 1st year Power output not less than 98%

**12 YEAR** Warranty for product materials and processes within 12 years

**12 YEAR** Power output not less than 91.95% within 12 years

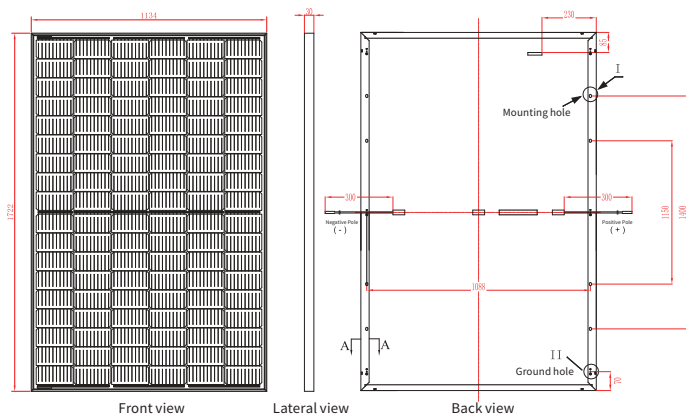
**25 YEAR** Power output not less than 84.8% within 25 years



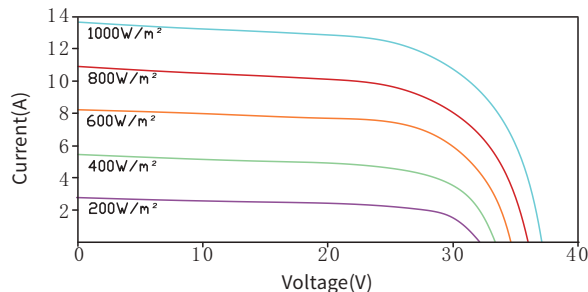
■ New linear power warranty  
■ Standard module linear power warranty

# QUALITY OF CENTRAL ENTERPRISE SERVICE GUARANTEE

## Assembly Drawing



## I-V Curve (400W)



## Limit Parameters

Operating temperature	-40°C to +85°C
Maximum fuse current rating	25A

## Physical Parameter

Dimension	1722*1134*30mm
Mounting hole size	1150*1088,1400*1088mm
Cable Length	300mm; Customizable
Weight	21.5Kg

## Mechanical Characteristics

Cell type	182×91mm monocrystalline silicon solar cells, a group of 108 cells (6×18)
Glass	3.2 mm thick low-iron tempered glass with high light transmittance
Junction Box	IP Grade: IP68

## Temperature Rating

Nominal Module Operating Temperature (NMOT)	42°C±2°C
Maximum Power (Pmax) Temperature Coefficient ( $\delta$ (%/°C))	-0.34
Open-circuit voltage (Voc) Temperature coefficient ( $\beta$ (%/°C))	-0.26
Short circuit current (Isc) Temperature coefficient ( $\alpha$ (%/°C))	0.05

## Mode of Packing

40 Feet Container	Pieces per case	36 pcs/case
	Quantity per pallet	2 case/pallet
	Pieces per container	936 pcs/40'GP

## Parameters of Module

Electrical parameters (Standard test condition)	CEC6-54-400MH CEC6-54-400MHV	CEC6-54-405MH CEC6-54-405MHV	CEC6-54-410MH CEC6-54-410MHV	CEC6-54-415MH CEC6-54-415MHV	CEC6-54-420MH CEC6-54-420MHV
Maximum power-Pmax(Wp)	400	405	410	415	420
Maximum operating voltage-Vmp(V)	31.09	31.26	31.42	31.61	31.77
Maximum operating current-Imp(A)	12.86	12.96	13.05	13.13	13.22
Open-circuit voltage -Voc(V)	37.00	37.20	37.40	37.60	37.80
Short-circuit current-Isc(A)	13.65	13.76	13.84	13.94	14.03
Maximum system voltage-Vdc(V)	1000/1500	1000/1500	1000/1500	1000/1500	1000/1500
Module efficiency(%)	20.50%	20.70%	21.00%	21.30%	21.50%
Power tolerance(W)	0/+5W	0/+5W	0/+5W	0/+5W	0/+5W

Measured values under STC (temperature 25°C, air mass AM1.5, irradiance 1000W/m<sup>2</sup>)

## Test under NMOT conditions

Max Power(Wp)	298.9	302.7	306.4	310.1	315
Max-Power Voltage Vmp(V)	28.98	29.13	29.29	29.45	29.69
Max-Power Current Imp(A)	10.32	10.39	10.46	10.53	10.61
Open-Circuit Voltage Voc(V)	34.97	35.15	35.34	35.53	35.66
Short-Circuit Current Isc(A)	11.07	11.17	11.26	11.35	11.44



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# Mono-crystalline Bifacial Solar Module (54Cells) Normal Double Glass

## CEC6-54MDHV

**400~415W**

**POWER OUTPUT RANGE**

**20.5%~21.3%**

**MODULE EFFICIENCY**

### PRODUCT CHARACTERISTICS

- ◆ Light weight, easy to install, high cost performance, high efficiency
- ◆ Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)
- ◆ Guaranteed output: 0~+5W
- ◆ Excellent performance in weak light condition, such as cloudy, morning and sunset
- ◆ Independently certification by international certification authorities, include IEC61215, IEC61730, CE



### LINEAR WARRANTY AND CERTIFICATION

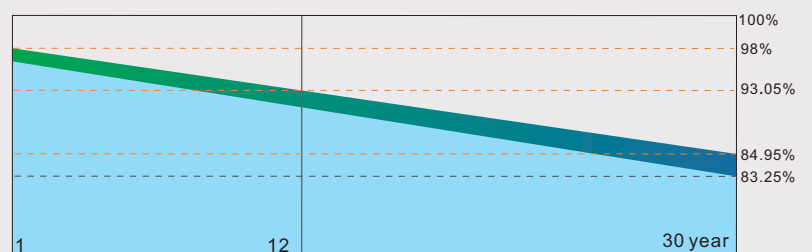


**1st YEAR** 1st year Power output not less than 98%

**12 YEAR** Warranty for product materials and processes within 12 years

**12 YEAR** Power output not less than 93.05% within 12 years

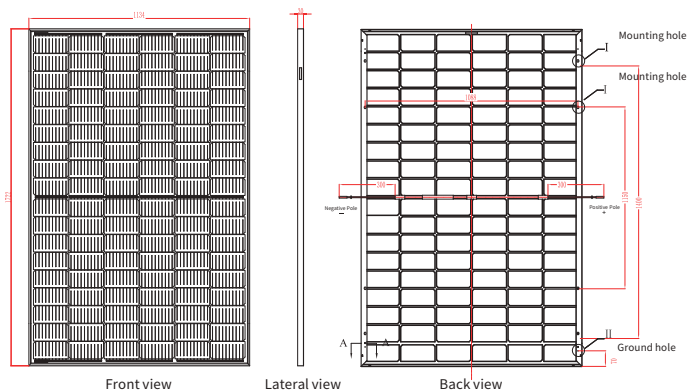
**30 YEAR** Power output not less than 84.95% within 25 years



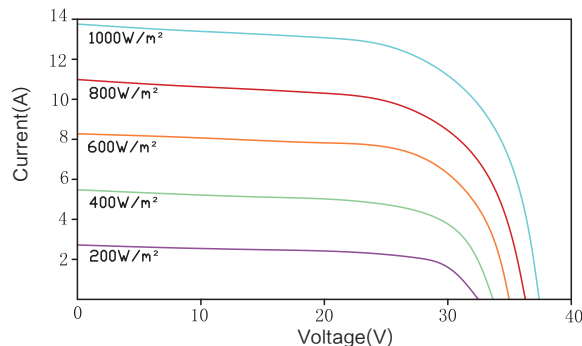
■ New linear power warranty  
■ Standard module linear power warranty

# QUALITY OF CENTRAL ENTERPRISE SERVICE GUARANTEE

## Assembly Drawing



## I-V Curve (410W)



## Mechanical Characteristics

Cell type	182×91mm monocrystalline silicon solar cells, a group of 108 cells (6×18)
Glass	2.0 mm thick low-iron tempered glass with high light transmittance
Junction Box	IP Grade: IP68

## Temperature Rating

Nominal Module Operating Temperature (NMOT)	42°C ± 2°C
Maximum Power (Pmax) Temperature Coefficient ( $\delta$ (%/°C))	-0.34
Open-circuit voltage (Voc) Temperature coefficient ( $\beta$ (%/°C))	-0.26
Short circuit current (Isc) Temperature coefficient ( $\alpha$ (%/°C))	0.05

## Parameters of Module

Electrical parameters (Standard test condition)	CEC6-54-400MDHV	CEC6-54-405MDHV	CEC6-54-410MDHV	CEC6-54-415MDHV
Maximum power-Pmax(Wp)	400	405	410	415
Maximum operating voltage-Vmp(V)	31.09	31.25	31.42	31.61
Maximum operating current-Imp(A)	12.86	12.96	13.05	13.13
Open-circuit voltage -Voc(V)	37.00	37.20	37.40	37.60
Short-circuit current-Isc(A)	13.65	13.76	13.84	13.94
Maximum system voltage-Vdc(V)	1500	1500	1500	1500
Module efficiency(%)	20.50%	20.70%	21.00%	21.30%
Power tolerance(W)	0/+5W	0/+5W	0/+5W	0/+5W

Measured values under STC (temperature 25°C, air mass AM1.5, irradiance 1000W/m<sup>2</sup>)

## Different back-side power gain (for example 410W)

Parameter	5%	10%	15%	20%
Power Gain	5%	10%	15%	20%
Max Power(Wp)	430	451	471	492
Max-Power Voltage Vmp(V)	31.42	31.42	31.42	31.42
Max-Power Current Imp(A)	13.69	14.35	14.99	15.66
Open-Circuit Voltage Voc(V)	37.40	37.40	37.40	37.40
Short-Circuit Current Isc(A)	14.53	15.24	15.92	16.63
Module efficiency	22.02%	23.10%	24.12%	25.20%

## Limit Parameters

Operating temperature	-40°C to +85°C
Maximum fuse current rating	25A

## Physical Parameter

Dimension	1722*1134*30mm
Mounting hole size	1150*1088,1400 *1088mm
Cable Length	300mm; Customizable
Weight	23.5Kg

## Mode of Packing

40 Feet Container	Pieces per case	36 pcs/case
	Quantity per pallet	2 case/pallet
	Pieces per container	936 pcs/40GP



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# Mono-crystalline Bifacial Solar Module (54Cells) Black Frame Double Glass

## CEC6-54MDHV

**400~415W**

**POWER OUTPUT RANGE**

**20.5%~21.3%**

**MODULE EFFICIENCY**



### PRODUCT CHARACTERISTICS

- ◆ Light weight, easy to install, high cost performance, high efficiency
- ◆ Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal)
- ◆ Guaranteed output: 0~+5W
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### LINEAR WARRANTY AND CERTIFICATION

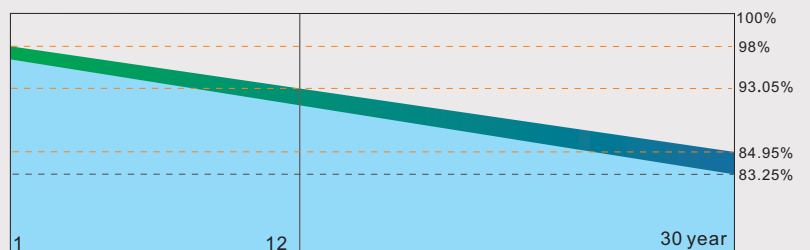


**1st YEAR** 1st year Power output not less than 98%

**12 YEAR** Warranty for product materials and processes within 12 years

**12 YEAR** Power output not less than 93.05% within 12 years

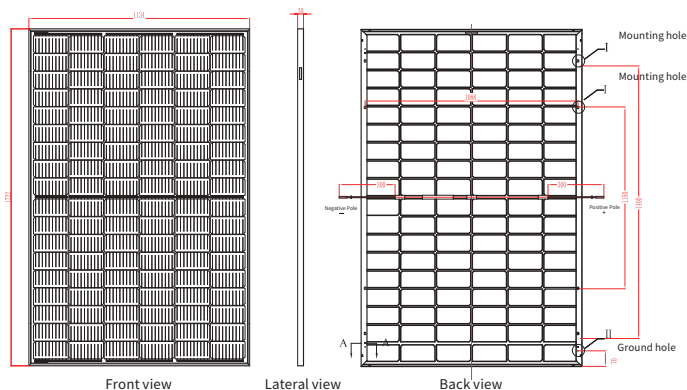
**30 YEAR** Power output not less than 84.95% within 25 years



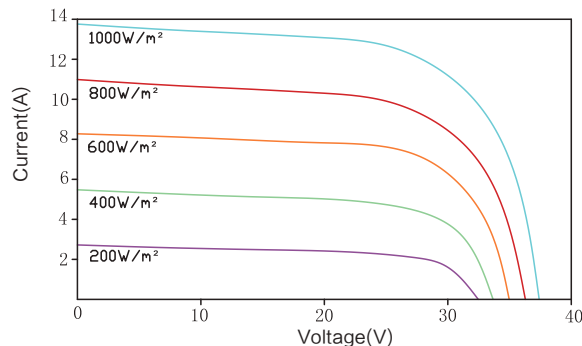
■ New linear power warranty  
■ Standard module linear power warranty

# QUALITY OF CENTRAL ENTERPRISE SERVICE GUARANTEE

## Assembly Drawing



## I-V Curve (410W)



## Mechanical Characteristics

Cell type	182×91mm monocrystalline silicon solar cells, a group of 108 cells (6×18)
Glass	2.0 mm thick low-iron tempered glass with high light transmittance
Junction Box	IP Grade: IP68

## Temperature Rating

Nominal Module Operating Temperature (NMOT)	42°C ± 2°C
Maximum Power (Pmax) Temperature Coefficient ( $\delta$ (%/°C))	-0.34
Open-circuit voltage (Voc) Temperature coefficient ( $\beta$ (%/°C))	-0.26
Short circuit current (Isc) Temperature coefficient ( $\alpha$ (%/°C))	0.05

## Parameters of Module

Electrical parameters (Standard test condition)	CEC6-54-400MDHV	CEC6-54-405MDHV	CEC6-54-410MDHV	CEC6-54-415MDHV
Maximum power-Pmax(Wp)	400	405	410	415
Maximum operating voltage-Vmp(V)	31.09	31.25	31.42	31.61
Maximum operating current-Imp(A)	12.86	12.96	13.05	13.13
Open-circuit voltage -Voc(V)	37.00	37.20	37.40	37.60
Short-circuit current-Isc(A)	13.65	13.76	13.84	13.94
Maximum system voltage-Vdc(V)	1500	1500	1500	1500
Module efficiency(%)	20.50%	20.70%	21.00%	21.30%
Power tolerance(W)	0/+5W	0/+5W	0/+5W	0/+5W

Measured values under STC (temperature 25°C, air mass AM1.5, irradiance 1000W/m<sup>2</sup>)

## Different back-side power gain (for example 410W)

Parameter	5%	10%	15%	20%
Power Gain	5%	10%	15%	20%
Max Power(Wp)	430	451	471	492
Max-Power Voltage Vmp(V)	31.42	31.42	31.42	31.42
Max-Power Current Imp(A)	13.69	14.35	14.99	15.66
Open-Circuit Voltage Voc(V)	37.40	37.40	37.40	37.40
Short-Circuit Current Isc(A)	14.53	15.24	15.92	16.63
Module efficiency	22.02%	23.10%	24.12%	25.20%

## Limit Parameters

Operating temperature	-40°C to +85°C
Maximum fuse current rating	25A

## Physical Parameter

Dimension	1722*1134*30mm
Mounting hole size	1150*1088,1400 *1088mm
Cable Length	300mm; Customizable
Weight	23.5Kg

## Mode of Packing

40 Feet Container	Pieces per case	36 pcs/case
	Quantity per pallet	2 case/pallet
	Pieces per container	936 pcs/40GP



Make Power Genration More Green

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