

Inspiring green-energy since 2003

# MONOCRYSTALLINE PV MODULES

## AE HM6L-60 Series 315W-345W

120  
CELLS



HIGHLY STABLE  
AND TOUGH



### SAFETY

Instantly reduced temperature, thus eliminating material hazard and ensuring more safety of the module, preventing fire risks caused by hot spots.



### GERMAN QUALITY

AE Solar photovoltaic modules are produced using high quality materials, automated robotic lines, German technology and standards.



### PERFORMANCE GUARANTEE

AE Solar assures high investment, security and warranty claims by providing linear performance guarantee of 25 years and 12 years of product warranty.



### RELIABILITY

Bypass diodes prevent cells mismatching at shaded areas. The lower temperature of hot-spot free modules will eliminate potential cause for back sheet degradation, hence enhancing reliability for longer term.



### HIGH RETURNS

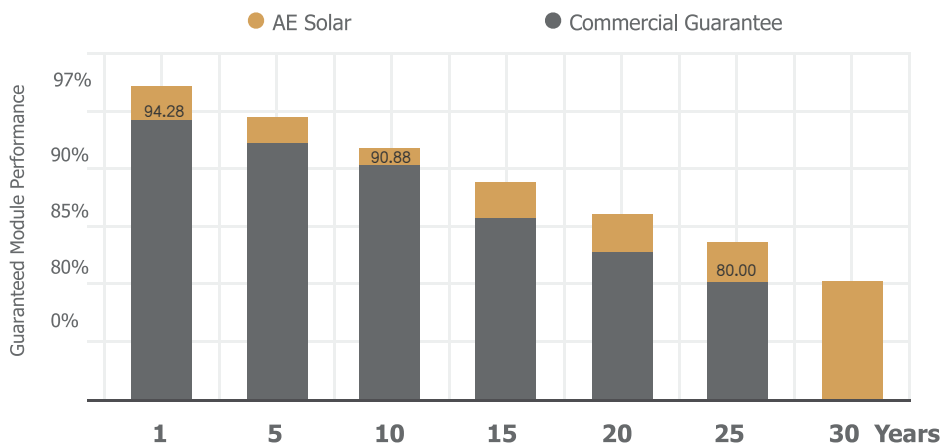
This new technology prevents instant falls in the module output, thus increasing the performance ratio up to 30% and return for all types of installations.



### CERTIFICATES

Lining with international standards, AE Solar Photovoltaic modules are tested and certified under extreme stress conditions and it can bear harsh environment influences.

## OUR PERFORMANCE GUARANTEE



Deutsche  
Qualität  
Garantiert

# TECHNICAL DATA

AE HM6L-60 Series 315W-345W

## SPECIFICATIONS

		AE315HM6L-60		AE320HM6L-60		AE325HM6L-60		AE330HM6L-60	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power	P <sub>max</sub> (Wp)	315	234	320	238	325	242	330	246
Maximum power voltage	V <sub>mp</sub> (V)	33.33	30.84	33.61	31.13	33.89	31.43	34.17	31.71
Maximum power current	I <sub>mp</sub> (A)	9.45	7.59	9.52	7.64	9.59	7.70	9.66	7.76
Open-circuit voltage	V <sub>oc</sub> (V)±3%	40.70	37.24	40.90	37.46	41.10	37.90	41.30	38.12
Short-circuit current	I <sub>sc</sub> (A) ±3%	10.04	8.11	10.15	8.20	10.20	8.24	10.31	8.33
Module efficiency	(%)	18.67		18.96		19.26		19.56	

		AE335HM6L-60		AE340HM6L-60		AE345HM6L-60	
		STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power	P <sub>max</sub> (Wp)	335	249	340	253	345	257
Maximum power voltage	V <sub>mp</sub> (V)	34.44	31.87	34.69	32.15	34.95	32.43
Maximum power current	I <sub>mp</sub> (A)	9.73	7.81	9.80	7.87	9.87	7.93
Open-circuit voltage	V <sub>oc</sub> (V)±3%	41.50	38.40	41.70	38.31	41.90	38.59
Short-circuit current	I <sub>sc</sub> (A)±3%	10.36	8.37	10.55	8.52	10.64	8.59
Module efficiency	(%)	19.85		20.15		20.45	
Operating temperature	(°C)	-40 to +85		Temp. coefficients of P <sub>max</sub>		(%/°C)	-0.3438
Maximum system voltage DC	(V)	1500		Temp. coefficients of V <sub>oc</sub>		(%/°C)	-0.2722
Maximum series fuse rating	(A)	20		Temp. coefficients of I <sub>sc</sub>		(%/°C)	0.0353
Power tolerance	(%)	0±3		Nom. Operating cell temp.(NOCT)		(°C)	44±2

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m<sup>2</sup> with spectrum AM 1.5 and a cell temperature of 25°C.

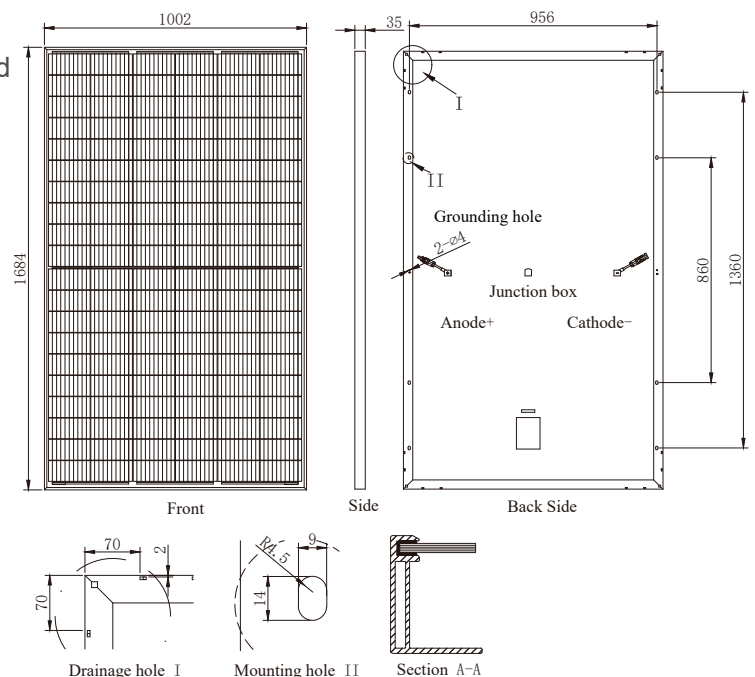
## MATERIAL CHARACTERISTICS

Cell type	Mono-crystalline 158.75*79.38 mm
No.of cells	120 Cells (60 Full Cells)
Dimensions	1684 x 1002 x 35 mm
Weight	19KG
Fire Class Rating	Class C
Junction box	IP68, 3 Bypass Diodes
Output cable	1 x 4.0mm <sup>2</sup> , 350 mm length or customised
Front cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy Black
Connector Make and Model	Staubli PV-KST4-EVO2 Suzhou Xtong PV-XT101.1
Country of Manufacture	China

## PACKAGING INFORMATION

Packing configuration	64 pcs /double pallets
Loading capacity	832 pcs /40HQ
Size / pallet (mm)	1725x1135x2405
Weight	1335 kg /double pallets

## DIMENSIONS



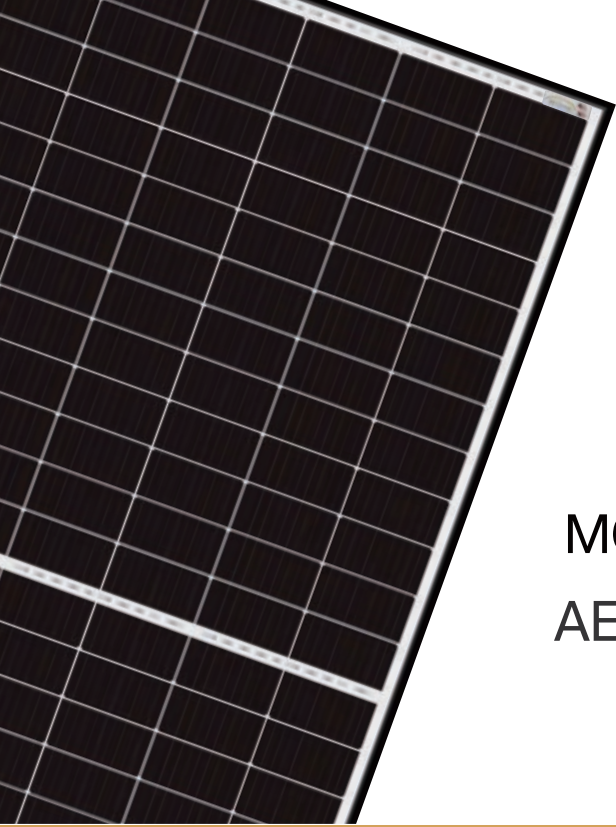
## CERTIFICATES



AES-DSH2019 V.002  
All rights reserved. Specifications included in this data sheet are subject to change without notice.

**Alternative Energy(AE) Solar Co.,Ltd**  
Messerschmittring 54, 86343 Königsbrunn  
Germany

Tel.: +49 8231 92 92 52 2  
Fax: +49 8231 97 82 68 9  
Email: sales@ae-solar.com  
Web: www.ae-solar.com



Inspiring green-energy since 2003

# MONOCRYSTALLINE PV MODULES

## AE HM6L-72 Series 380W-415W

144  
CELLS



  
HIGHLY STABLE  
AND TOUGH



### SAFETY

Instantly reduced temperature, thus eliminating material hazard and ensuring more safety of the module, preventing fire risks caused by hot spots.



### RELIABILITY

Bypass diodes prevent cells mismatching at shaded areas. The lower temperature of hot-spot free modules will eliminate potential cause for back sheet degradation, hence enhancing reliability for longer term.



### GERMAN QUALITY

AE Solar photovoltaic modules are produced using high quality materials, automated robotic lines, German technology and standards.



### HIGH RETURNS

This new technology prevents instant falls in the module output, thus increasing the performance ratio up to 30% and return for all types of installations.



### PERFORMANCE GUARANTEE

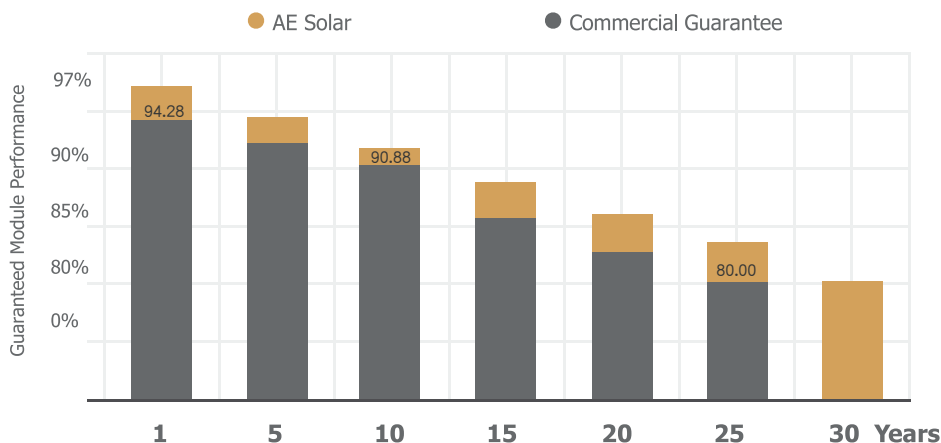
AE Solar assures high investment, security and warranty claims by providing linear performance guarantee of 25 years and 12 years of product warranty.



### CERTIFICATES

Lining with international standards, AE Solar Photovoltaic modules are tested and certified under extreme stress conditions and it can bear harsh environment influences.

## OUR PERFORMANCE GUARANTEE



Deutsche  
Qualität  
Garantiert

# TECHNICAL DATA

AE HM6L-72 Series 380W-415W

## SPECIFICATIONS

		AE380HM6L-72		AE385HM6L-72		AE390HM6L-72		AE395HM6L-72	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power	P <sub>max</sub> (Wp)	380	283	385	286	390	290	395	294
Maximum power voltage	V <sub>mp</sub> (V)	40.25	37.33	40.53	37.49	40.79	37.78	41.06	38.06
Maximum power current	I <sub>mp</sub> (A)	9.44	7.58	9.50	7.63	9.56	7.68	9.62	7.72
Open-circuit voltage	V <sub>oc</sub> (V)±3%	48.10	44.46	48.30	44.75	48.50	45.20	48.70	45.65
Short-circuit current	I <sub>sc</sub> (A) ±3%	10.17	8.21	10.21	8.25	10.25	8.28	10.29	8.31
Module efficiency	(%)	18.89		19.14		19.38		19.63	

		AE400HM6L-72		AE405HM6L-72		AE410HM6L-72		AE415HM6L-72	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power	P <sub>max</sub> (Wp)	400	298	405	301	410	305	415	309
Maximum power voltage	V <sub>mp</sub> (V)	41.32	38.34	41.59	38.49	41.85	38.76	42.09	39.03
Maximum power current	I <sub>mp</sub> (A)	9.68	7.77	9.74	7.82	9.80	7.87	9.86	7.92
Open-circuit voltage	V <sub>oc</sub> (V)±3%	48.90	46.09	49.10	46.37	49.30	46.81	49.50	47.24
Short-circuit current	I <sub>sc</sub> (A) ±3%	10.33	8.34	10.37	8.38	10.41	8.41	10.45	8.44
Module efficiency	(%)	19.88		20.13		20.38		20.63	
Operating temperature	(°C)	-40 to +85		Temp. coefficients of P <sub>max</sub>		(%/°C)		-0.3538	
Maximum system voltage DC	(V)	1500		Temp. coefficients of V <sub>oc</sub>		(%/°C)		-0.2769	
Maximum series fuse rating	(A)	20		Temp. coefficients of I <sub>sc</sub>		(%/°C)		0.0400	
Power tolerance	(%)	0/±3		Nom. Operating cell temp.(NOCT)		(°C)		44±2	

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m<sup>2</sup> with spectrum AM 1.5 and a cell temperature of 25°C.

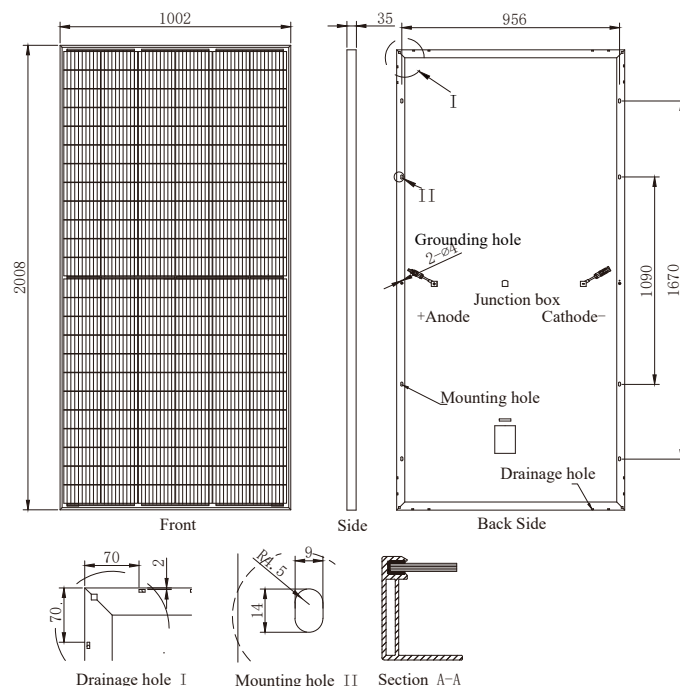
## MATERIAL CHARACTERISTICS

Cell type	Mono-crystalline 158.75*79.38 mm
No.of cells	144 Cells (72 Full Cells)
Dimensions	2008 x 1002 x 35 mm
Weight	21KG
Fire Class Rating	Class C
Junction box	IP68, 3 Bypass Diodes
Output cable	1 x 4.0mm <sup>2</sup> , 350 mm length or customised
Front cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy Black
Connector Make and Model	Staubli PV-KST4-EVO2 Suzhou Xtong PV-XT101.1
Country of Manufacture	China

## PACKAGING INFORMATION

Packing configuration	64 pcs /double pallets
Loading capacity	704 pcs /40HQ
Size / pallet (mm)	2045x1120x2405
Weight	1495 kg /double pallets

## DIMENSIONS



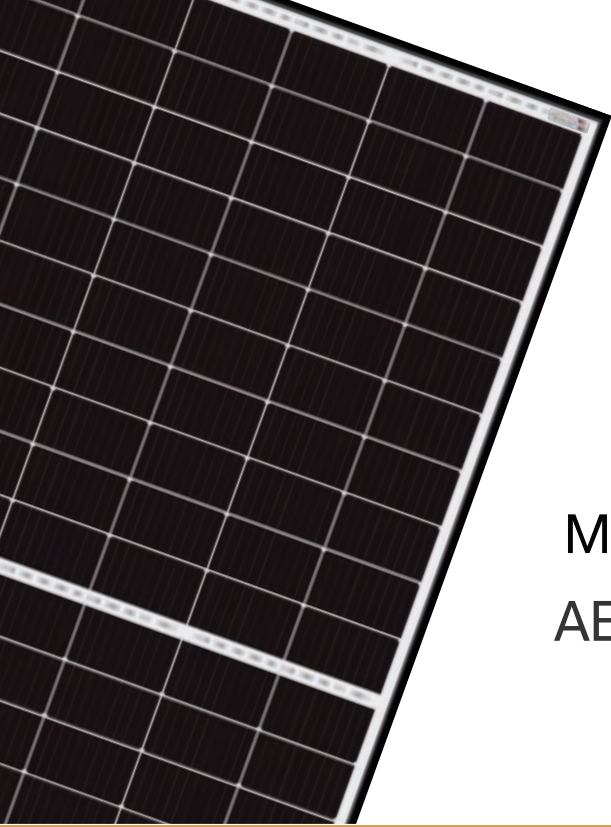
## CERTIFICATES



AES-DSH2019 V.002  
All rights reserved. Specifications included in this data sheet are subject to change without notice.

**Alternative Energy(AE) Solar Co.,Ltd**  
Messerschmittring 54, 86343 Königsbrunn  
Germany

Tel.: +49 8231 92 92 52 2  
Fax: +49 8231 97 82 68 9  
Email: sales@ae-solar.com  
Web: www.ae-solar.com



Inspiring green-energy since 2003

# MONOCRYSTALLINE PV MODULES

## AE HM6L-60 Series 355W-385W

120  
CELLS



HIGHLY STABLE  
AND TOUGH



### SAFETY

Instantly reduced temperature, thus eliminating material hazard and ensuring more safety of the module, preventing fire risks caused by hot spots.



### RELIABILITY

Bypass diodes prevent cells mismatching at shaded areas. The lower temperature of hot-spot free modules will eliminate potential cause for back sheet degradation, hence enhancing reliability for longer term.



### GERMAN QUALITY

AE Solar photovoltaic modules are produced using high quality materials, automated robotic lines, German technology and standards.



### HIGH RETURNS

This new technology prevents instant falls in the module output, thus increasing the performance ratio up to 30% and return for all types of installations.



### PERFORMANCE GUARANTEE

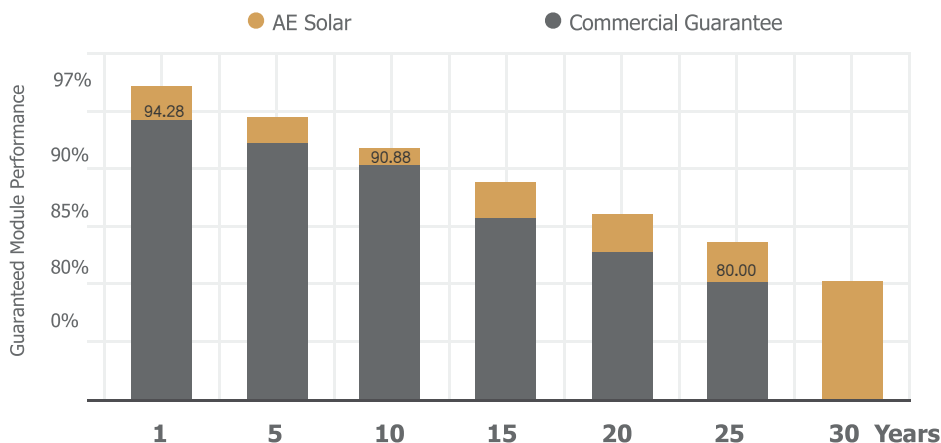
AE Solar assures high investment, security and warranty claims by providing linear performance guarantee of 25 years and 12 years of product warranty.



### CERTIFICATES

Lining with international standards, AE Solar Photovoltaic modules are tested and certified under extreme stress conditions and it can bear harsh environment influences.

## OUR PERFORMANCE GUARANTEE



Deutsche  
Qualität  
Garantiert

# TECHNICAL DATA

AE HM6L-60 Series 355W-385W

## SPECIFICATIONS

		AE355HM6L-60		AE360HM6L-60		AE365HM6L-60		AE370HM6L-60	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power	P <sub>max</sub> (Wp)	355	264	360	268	365	272	370	275
Maximum power voltage	V <sub>mp</sub> (V)	33.8	31.30	34.0	31.52	34.2	31.74	34.4	31.84
Maximum power current	I <sub>mp</sub> (A)	10.50	8.43	10.59	8.50	10.67	8.57	10.76	8.64
Open-circuit voltage	V <sub>oc</sub> (V)±3%	40.7	37.33	40.9	37.56	41.1	37.79	41.3	37.87
Short-circuit current	I <sub>sc</sub> (A) ±3%	11.30	9.13	11.40	9.21	11.50	9.29	11.60	9.37
Module efficiency	(%)	19.5		19.8		20.0		20.3	

		AE375HM6L-60		AE380HM6L-60		AE385HM6L-60	
		STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power	P <sub>max</sub> (Wp)	375	279	380	283	385	286
Maximum power voltage	V <sub>mp</sub> (V)	34.6	32.06	34.8	32.28	35.0	32.38
Maximum power current	I <sub>mp</sub> (A)	10.84	8.70	10.92	8.77	11.00	8.83
Open-circuit voltage	V <sub>oc</sub> (V)±3%	41.5	38.10	41.7	38.32	41.9	38.40
Short-circuit current	I <sub>sc</sub> (A)±3%	11.70	9.45	11.80	9.53	11.90	9.61
Module efficiency	(%)	20.6		20.9		21.1	
Operating temperature	(°C)	-40 to +85		Temp. coefficients of P <sub>max</sub>		(%/°C)	-0.370
Maximum system voltage DC	(V)	1500		Temp. coefficients of V <sub>oc</sub>		(%/°C)	-0.286
Maximum series fuse rating	(A)	20		Temp. coefficients of I <sub>sc</sub>		(%/°C)	0.057
Power tolerance	(%)	0±3		Nom. Operating cell temp.(NOCT)		(°C)	45±2

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m<sup>2</sup> with spectrum AM 1.5 and a cell temperature of 25°C.

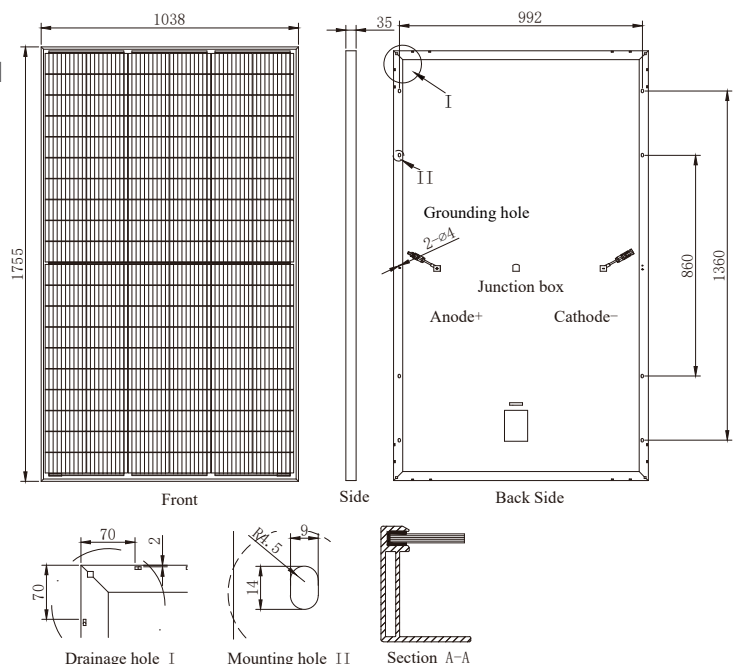
## MATERIAL CHARACTERISTICS

Cell type	Mono-crystalline 166*83 mm
No. of cells	120 Cells (60 Full Cells)
Dimensions	1755 x 1038 x 35 mm (1765 x 1048 x 35 mm Optional)
Weight	19.5KG
Fire Class Rating	Class C
Junction box	IP68, 3 Bypass Diodes
Output cable	1 x 4.0mm <sup>2</sup> , 350 mm length or customised
Front cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy Black
Connector Make and Model	Staubli PV-KST4-EVO2 Suzhou Xtong PV-XT101.1
Country of Manufacture	China

## PACKAGING INFORMATION

Packing configuration	62 pcs /double pallets
Loading capacity	806 pcs /40HQ
Size / pallet (mm)	1790x1135x2415
Weight	1315 kg /double pallets

## DIMENSIONS



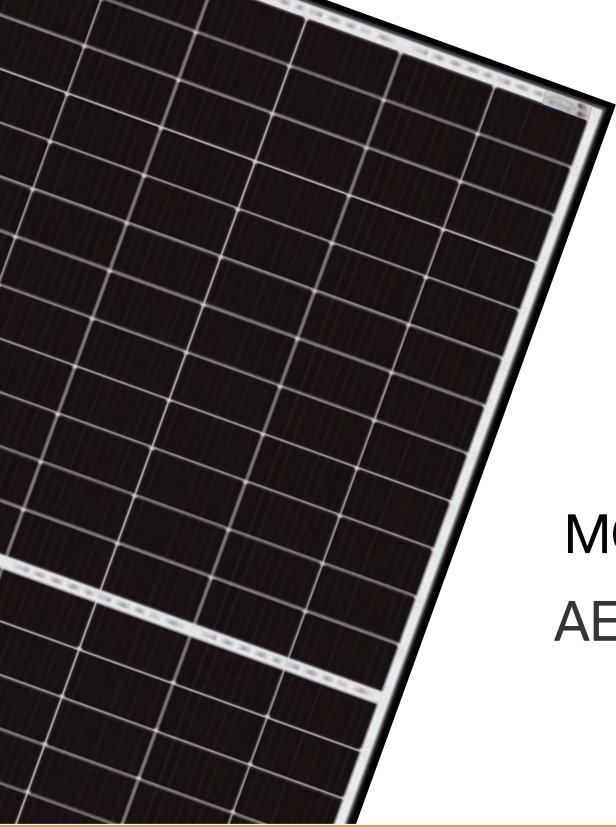
## CERTIFICATES



AES-DSH2019 V.002  
All rights reserved. Specifications included in this data sheet are subject to change without notice.

**Alternative Energy(AE) Solar Co.,Ltd**  
Messerschmittring 54, 86343 Königsbrunn  
Germany

Tel.: +49 8231 92 92 52 2  
Fax: +49 8231 97 82 68 9  
Email: sales@ae-solar.com  
Web: www.ae-solar.com



Inspiring green-energy since 2003

# MONOCRYSTALLINE PV MODULES

## AE HM6L-72 Series 425W-465W

144  
CELLS



HIGHLY STABLE  
AND TOUGH



### SAFETY

Instantly reduced temperature, thus eliminating material hazard and ensuring more safety of the module, preventing fire risks caused by hot spots.



### GERMAN QUALITY

AE Solar photovoltaic modules are produced using high quality materials, automated robotic lines, German technology and standards.



### PERFORMANCE GUARANTEE

AE Solar assures high investment, security and warranty claims by providing linear performance guarantee of 25 years and 12 years of product warranty.



### RELIABILITY

Bypass diodes prevent cells mismatching at shaded areas. The lower temperature of hot-spot free modules will eliminate potential cause for back sheet degradation, hence enhancing reliability for longer term.



### HIGH RETURNS

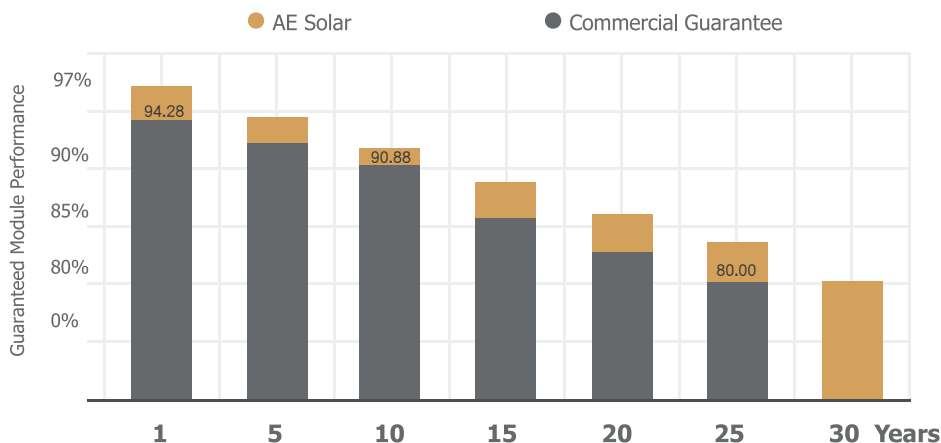
This new technology prevents instant falls in the module output, thus increasing the performance ratio up to 30% and return for all types of installations.



### CERTIFICATES

Lining with international standards, AE Solar Photovoltaic modules are tested and certified under extreme stress conditions and it can bear harsh environment influences.

## OUR PERFORMANCE GUARANTEE



Deutsche  
Qualität  
Garantiert

# TECHNICAL DATA

AE HM6L-72 Series 425W-465W

## SPECIFICATIONS

		AE425HM6L-72		AE430HM6L-72		AE435HM6L-72		AE440HM6L-72		AE445HM6L-72	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power	Pmax (Wp)	425	316	430	320	435	324	440	327	445	331
Maximum power voltage	Vmp(V)	40.4	37.41	40.6	37.59	40.8	37.82	41.0	37.92	41.2	38.16
Maximum power current	Imp (A)	10.52	8.45	10.60	8.51	10.67	8.57	10.74	8.62	10.80	8.67
Open-circuit voltage	Voc(V)±3%	48.2	45.40	48.4	45.73	48.70	46.05	48.90	46.23	49.20	46.55
Short-circuit current	Isc (A) ±3%	11.12	8.98	11.18	9.03	11.24	9.08	11.30	9.13	11.36	9.17
Module efficiency	(%)	19.55		19.78		20.01		20.24		20.47	

		AE450HM6L-72		AE455HM6L-72		AE460HM6L-72		AE465HM6L-72	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power	Pmax (Wp)	450	335	455	339	460	342	465	346
Maximum power voltage	Vmp(V)	41.4	38.38	41.6	38.6	41.8	38.70	42.0	38.92
Maximum power current	Imp (A)	10.87	8.73	10.94	8.78	11.00	8.84	11.07	8.89
Open-circuit voltage	Voc(V)±3%	49.50	46.87	49.70	47.1	49.90	47.39	50.10	47.74
Short-circuit current	Isc (A)±3%	11.42	9.22	11.48	9.27	11.53	9.31	11.58	9.35
Module efficiency	(%)	20.70		20.93		21.16		21.39	
Operating temperature	(°C)	-40 to +85		Temp. coefficients of Pmax		(%/°C)		-0.370	
Maximum system voltage DC	(V)	1500		Temp. coefficients of Voc		(%/°C)		-0.286	
Maximum series fuse rating	(A)	20		Temp. coefficients of Isc		(%/°C)		0.057	
Power tolerance	(%)	0±3		Nom. Operating cell temp.(NOCT)		(°C)		45±2	

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m<sup>2</sup> with spectrum AM 1.5 and a cell temperature of 25°C.

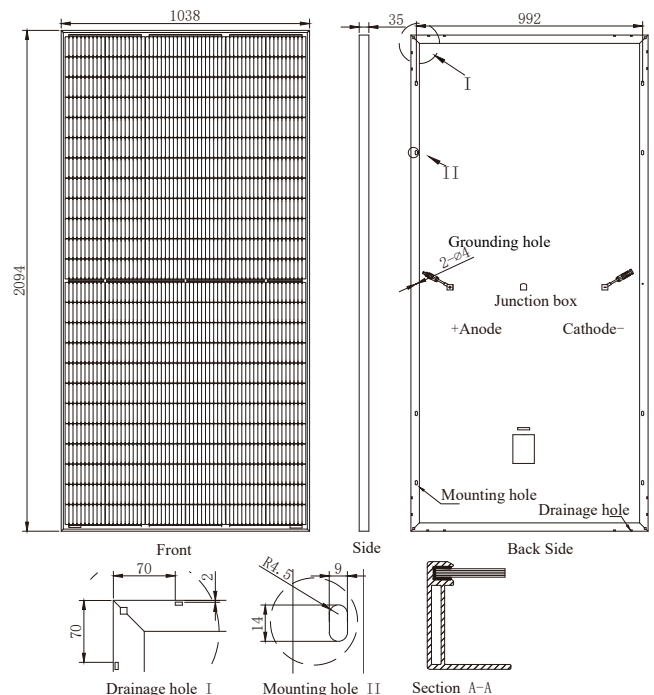
## MATERIAL CHARACTERISTICS

Cell type	Mono-crystalline 166*83 mm
No. of cells	144 Cells (72 Full Cells)
Dimensions	2094x 1038 x 35 mm (2108 x 1048 x 35 mm Optional)
Weight	23KG
Fire Class Rating	Class C
Junction box	IP68, 3 Bypass Diodes
Output cable	1 x 4.0mm <sup>2</sup> , 350 mm length or customised
Front cover	3.2mm Tempered Glass
Frame	Anodized Aluminium Alloy Black
Connector Make and Model	Staubli PV-KST4-EVO2 Suzhou Xtong PV-XT101.1
Country of Manufacture	China

## PACKAGING INFORMATION

Packing configuration	62 pcs /double pallets
Loading capacity	682 pcs /40HQ
Size / pallet (mm)	2125x1135x2415
Weight	1550 kg /double pallets

## DIMENSIONS



## CERTIFICATES



AES-DSH2019 V.002  
All rights reserved. Specifications included in this data sheet are subject to change without notice.

**Alternative Energy(AE) Solar Co.,Ltd**  
Messerschmittring 54, 86343 Königsbrunn  
Germany

Tel.: +49 8231 92 92 52 2  
Fax: +49 8231 97 82 68 9  
Email: sales@ae-solar.com  
Web: www.ae-solar.com