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Solar Panel Guide Specification Data Sheet

AE Solar
AEXXXHP6-60 280-305W (AU)
AE290HP6-60

Also available on the web at
EnergyPal.com/ae-solar-solar-panels/ae290hp6-60

AEXXXHP6-60

AE SOLAR High Efficiency Polycrystalline Half-cut Cell Solar Module
280-305W



Higher Module Efficiency

Brings 5-10W power gain due to half-cut production system



More Energy Yield

Lower NMOT and better temperature coefficient by lower cell series resistance, helps boost energy yield



Lower Operating Temperature, More Reliable

Lower operating temperature and hot spot temperature during the sunny day, making the module prevail during the sunny days



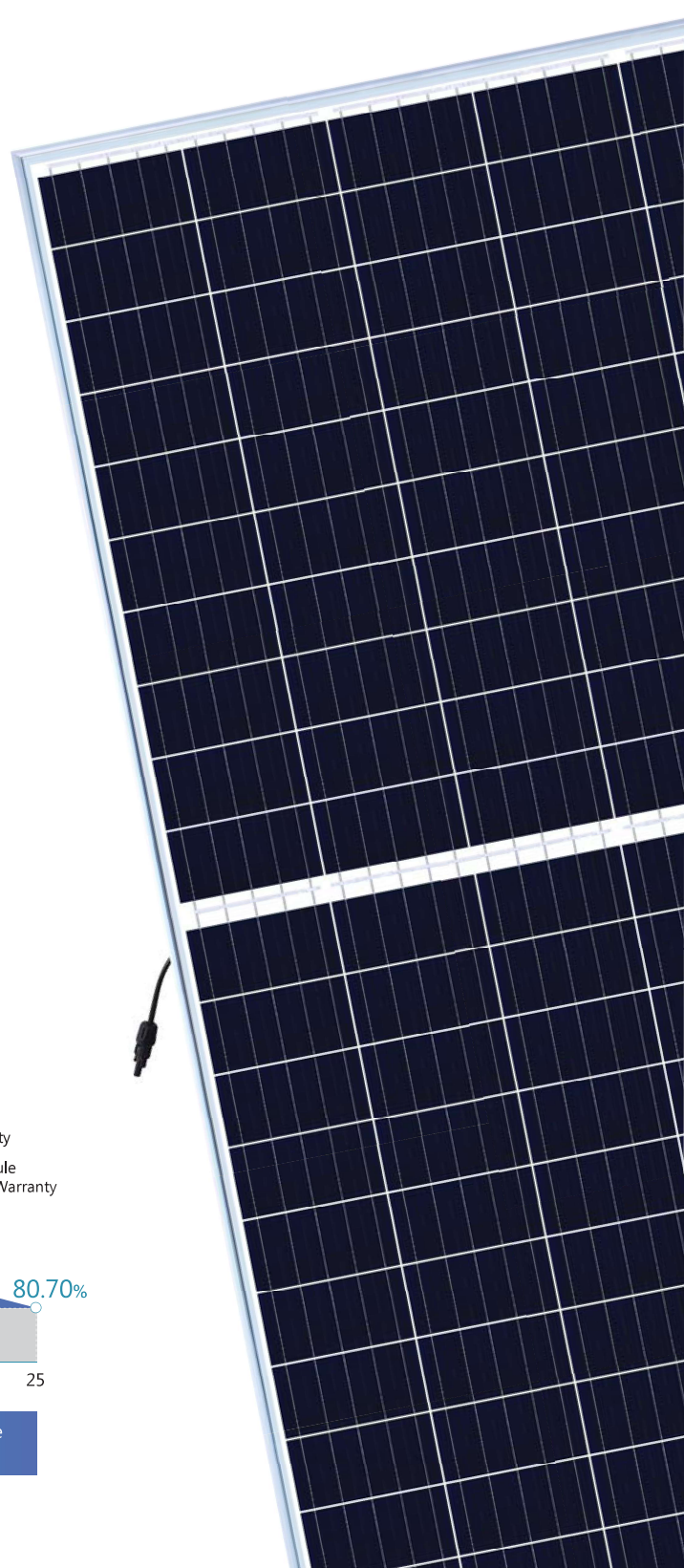
Better Shading Tolerance

Thanks to Paralleling circuit design, more power generated under shading condition and during morning & evening time

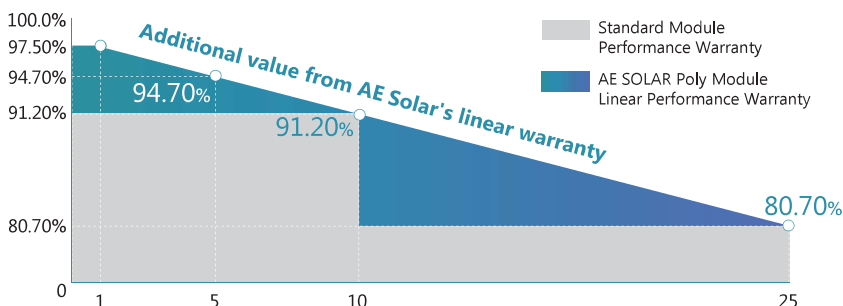


Better Micro Crack Resistance

Minimize the impact by micro crack by limiting cell damage and potentially extending area by half-cut module architecture



LINEAR PERFORMANCE WARRANTY



12years Product Material & Workmanship

25years Linear Performance Warranty

AE SOLAR High Efficiency Polycrystalline Half-cut Cell Solar Module

ELECTRICAL DATA @ STC*		AE280HP6-60	AE285HP6-60	AE290HP6-60	AE295HP6-60	AE300HP6-60	AE305HP6-60
Peak Power (Pmax)	(W)	280	285	290	295	300	305
Maximum Power Voltage (Vmp)	(V)	32.15	32.43	32.70	33.00	33.30	33.56
Maximum Power Current (Imp)	(A)	8.71	8.79	8.87	8.94	9.01	9.09
Open-circuit Voltage (Voc)	(V)	38.42	38.69	38.98	39.25	39.53	39.81
Short-circuit Current (Isc)	(A)	9.27	9.35	9.42	9.50	9.57	9.65
Module Efficiency	(%)	16.82	17.12	17.42	17.72	18.02	18.32
Operating Temperature		-40°C~+85°C					
Maximum System Voltage		1000V					
Maximum Series Fuse Rating		15A					
Application Class		Class A					
Power Tolerance		0~+3%					

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

ELECTRICAL DATA @ NMOT*		AE280HP6-60	AE285HP6-60	AE290HP6-60	AE295HP6-60	AE300HP6-60	AE305HP6-60
Peak Power (Pmax)	(W)	207	211	215	219	222	226
MPP Voltage (Vmp)	(V)	29.68	29.93	30.18	30.46	30.74	30.98
MPP Current (Imp)	(A)	6.99	7.05	7.12	7.18	7.23	7.30
Open Circuit Voltage (Voc)	(V)	36.09	36.35	36.62	36.92	37.18	37.45
Short Circuit Current (Isc)	(A)	7.51	7.57	7.63	7.67	7.72	7.79

*Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/ m², Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

TEMPERATURE CHARACTERISTICS		
Temperature coefficient of Pmax		-0.39%/°C
Temperature coefficient of Voc		-0.33%/°C
Temperature coefficient of Isc		0.05%/°C
NMOT		42±3°C

MECHANICAL DATA		
Cell Type		Poly-Crystalline, 156.75×78.38mm
Cell Arrangement		120pcs (2×(6×10))
Dimension (L×W×H)		1680×991×35mm
Weight		19kg
Front Cover		3.2mm Tempered Glass
Frame		Anodized Aluminium Alloy
Junction Box		IP68, 3 Bypass Diodes
Cable Type		4mm ²
Length of Cable		1160mm
Connector		Jiaming:PV-JM601

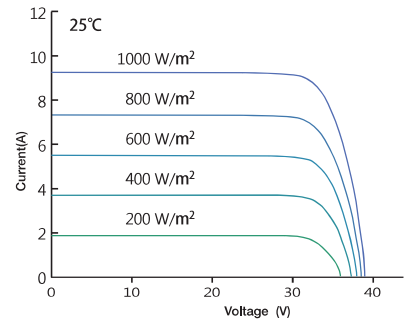
PACKING MANNER		
Packing Type		40HQ
Piece/Pallet		30
Pallet/Container		26
Piece/Container		780

*The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to ongoing innovation, R&D enhancement, AE ALTERNATIVE ENERGY GmbH Reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

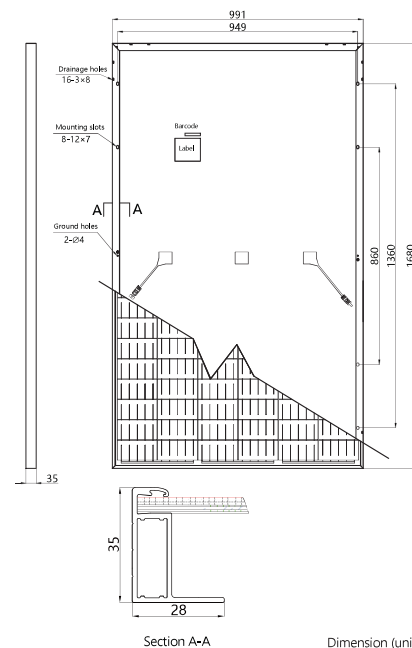
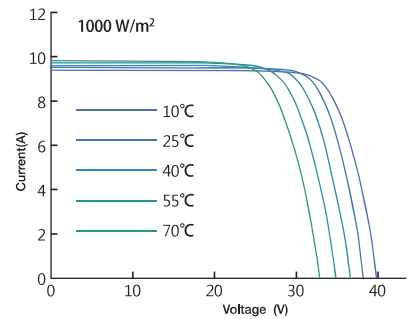
*Power measurement tolerance: ±3%
 *Voc measurement tolerance: ±3%
 *Isc measurement tolerance: ±3%

*Modules Shipped to AU are made in China

Current-Voltage Curve under different irradiance



Current-Voltage Curve under different working temperatures



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