

420W-440W

AExxxCMD-108BDE

22.57%
MAXIMUM EFFICIENCY

108
HALF CELLS

- ◆ N-type cell technology
- ◆ High efficiency and power output
- ◆ Cost-effective scalability and market dominance
- ◆ Low degradation and high durability

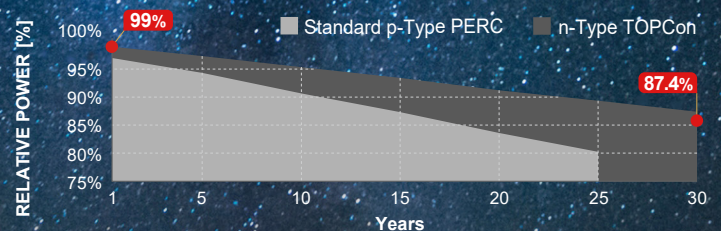


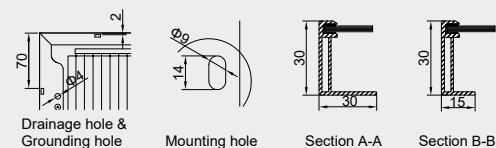
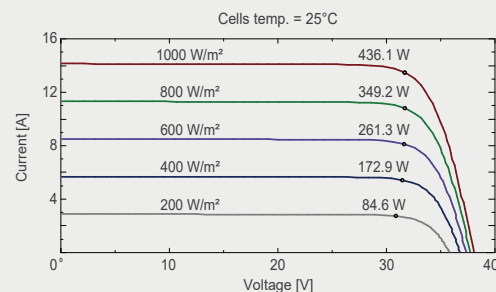
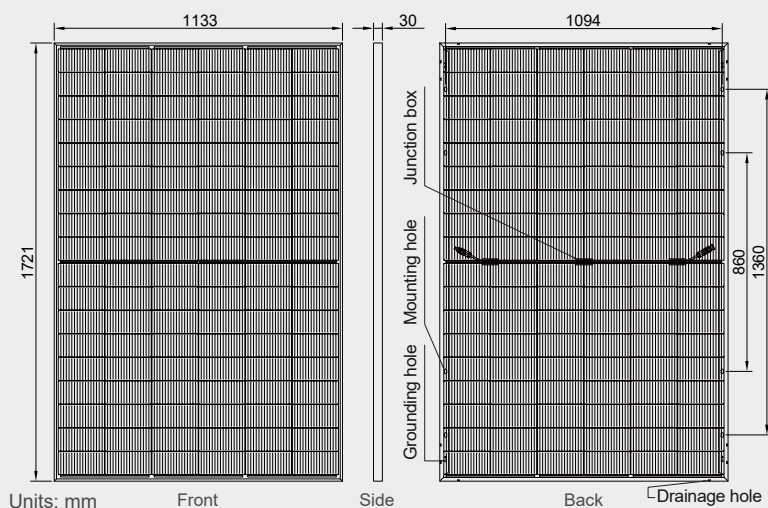
Ver. 25.8.2

30 YEARS
Performance Warranty

15 YEARS
Product Warranty

OUR PERFORMANCE WARRANTY





Electrical specifications (STC*):

Nominal max. power	P_{max} (Wp)	420	425	430	435	440
Maximum operating voltage	V_{MPP} (V)	32.25	32.43	32.64	32.84	33.01
Maximum operating current	I_{MPP} (A)	13.02	13.11	13.17	13.25	13.33
Open-circuit voltage	V_{oc} (V)	38.08	38.26	38.46	38.66	38.95
Short-circuit current	I_{sc} (A)	13.79	13.89	13.98	14.06	14.12
Module efficiency	η (%)	21.54	21.80	22.05	22.31	22.57
Maximum system voltage	(V)	1500				
Maximum series fuse rating	(A)	25				
Measurement Tolerance:		P_{max} : $\pm 3\%$		V_{oc} : $\pm 3\%$		I_{sc} : $\pm 3\%$
Bifaciality Coefficient (Φ):		$\Phi P_{max} = 80 \pm 5\%$		$\Phi V_{oc} = 99 \pm 1\%$		$\Phi I_{sc} = 80 \pm 5\%$

*STC: Standard Test Conditions (irradiance 1000 W/m², cell temperature 25°C and air mass of AM1.5), Power Binning: 0-3%

Electrical specifications (BSI*):

Short-circuit current	I_{sc} (A)	17.10	17.22	17.33	17.44	17.51
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*BSI: BSI Test Conditions ($G=1000$ w/m² + p^*300 w/m², cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):

Nominal max. power	P_{max} (Wp)	320	325	330	335	340
Maximum operating voltage	V_{MPP} (V)	30.34	30.62	30.93	31.22	31.49
Maximum operating current	I_{MPP} (A)	10.55	10.62	10.67	10.73	10.80
Open-circuit voltage	V_{oc} (V)	35.82	36.12	36.44	36.76	37.16
Short-circuit current	I_{sc} (A)	11.17	11.25	11.32	11.39	11.44

*NMOT: Normal Module Operating Temperature (irradiance 800 W/m², ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

Electrical specifications (BNPI*):

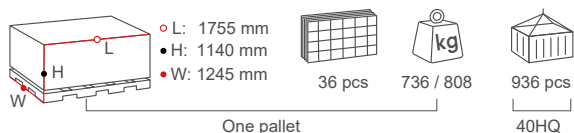
Nominal max. power	P_{max} (Wp)	465	470	475	480	485
Open-circuit voltage	V_{oc} (V)	38.08	38.26	38.46	38.66	38.95
Short-circuit current	I_{sc} (A)	15.28	15.36	15.44	15.52	15.56
Measurement Tolerance:		P_{max} : $\pm 3\%$		V_{oc} : $\pm 3\%$		I_{sc} : $\pm 3\%$

*BNPI: Bifacial Nameplate Irradiance($G=1000$ w/m² + p^*135 w/m², cell temperature 25°C and air mass of AM1.5)

Mechanical and design specification

Cell type	n-Type TOPCon technology, half-cut cells
No. of cells	108
Glass	Dual glass 1.6mm or 1.8mm
Encapsulation	POE
Junction box	IP68 rated, 3 bypass diodes
Frame	30 mm anodized aluminium alloy
Cable (Including Connector)	1 x 4 mm², 1200 mm length or customized
Connectors	PV-XT101.2 (from XTONG Photovoltaic Technologies Co., Ltd.)
Dimension	1721 mm x 1133 mm x 30 mm
Weight	19.5 kg(1.6mm glass) / 21.5 kg(1.8mm glass)
Hail resistance	Max. Ø 25 mm at 23 m/s
Rear test load	2400 Pa or 244 kg/m²
Front test load	5400 Pa or 550 kg/m²
Fire rating	Class A (according to UL 790)

Packaging information



Temperature ratings

Operating temperature	-40 to +70°C
Temp. coefficient of P_{max}	-0.29 %/°C
Temp. coefficient of V_{oc}	-0.25 %/°C
Temp. coefficient of I_{sc}	0.046 %/°C
Nom. operating cell temp. NOCT	42 $\pm$ 2°C

The specifications and characteristics contained in this datasheet may deviate slightly from our actual products due to the product developments and uncertainty of measurement devices. The specifications included in the datasheet are subject to change without prior notice.



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