



182 Series

425-440W

All Black MBB Mono Half-cell Module

POWER OUTPUT RANGE

425-440W

MAXIMUM MODULE EFFICIENCY

20.4%

POWER WARRANTY

30 years

Example 2 Characteristic



Higher Power Output

1500V system voltage, reduce the



Guaranteed Output Power



Half-cell and Lower Power Loss Design

Half-cell design, with lower resistance, improve the module efficiency



Best Solution to Harsh Conditions

Pass the mechanical load test, front 5400Pa and back 2400Pa



Excellent PID Resistance

Excellent Anti-PID Performance, guarantee less power degradation



High Reliability Based On Strict Quantity.Control

irrtadiation, heat-recycling, damp heat(DH) test, humidity-freeze(HF) test and etc.





TOENERGY Technical Parameter

Peak power-Pmax(Wp)	425	430	435	440
Power tolerance(W)		±3	3%	
Open circuit voltage - Voc(V)	40.4	40.6	40.8	41.0
Maximum power voltage - Vmpp(V)	34.3	34.5	34.7	34.9
Short circuit current - Im(A)	13.15	13.24	13.33	13.41
Maximum power current - Impp(A)	12.40	12.47	12.54	12.61
Module efficiency um(%)	19.7	19.9	20.2	20.4

Standard testing condition(STC): Irradiance 1000W/m², Temperature 25°C, AM 1.5

∷ Mechan	ical Data
Cell size	Mono182×182mm
NO.of cells	120 Half Cells (6×20)
Dimension	1903*1134*35mm
Weight	24.20kg
Glass	3.2mm high transmission,Anti-reflectioncoating toughened glass
Frame	Anodized aluminum alloy
Junction box	SeparatedJunction box IP68 3 bypass diodes
Connector	AMPHENOLH4/MC4 connector
Cable	4.0mm ² , 300mm PV CABLE, length can be customized

";;· remperature Katings	
Nominal operating cell temperature	45±2℃
Temperature coefficient of Pmax	-0.35%/°C
Temperature coefficients of Voc	-0.27%/°C
Temperature coefficients of Isc	0.048%/°C

Maximum Ratings		
Operating temperature	-40°Cto+85°C	
Maximum system voltage	1500v DC (IEC/UL)	
Maximum series fuse rating	25A	
Pass hail test	Diameter 25mm, speed 23m/s	

.:::· Warranty	
12 Years Workmanship Warranty	

30 Years Performance Warranty







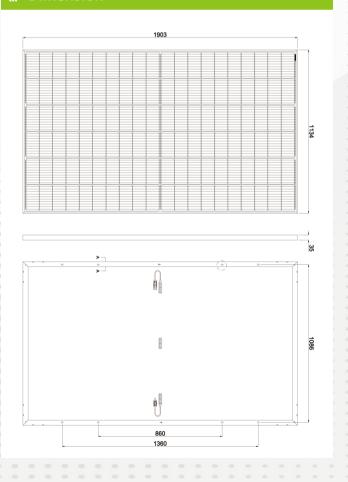






ﷺ Packing Data

	Modules per pallet	31 PCS
	Modules per 40HQ container	744 PCS
	Modules per 13.5m long flatcar	868 PCS
	Modules per 17.5m long flatcar	1116 PCS



Please refer to TOENERGY Solar product warranty for details