



182 Series 390-405W

All Black MBB Mono Half-cell Module

POWER OUTPUT RANGE

390-405W

MAXIMUM MODULE EFFICIENCY

20.8%

POWER WARRANTY

30 years

Example 2 Characteristic



Higher Power Output

1500V system voltage, reduce the **BOS** cost





Half-cell and Lower Power Loss Design

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



+5W

Best Solution to Harsh Conditions

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

Guaranteed Output Power



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)	390	395	400	405
Power tolerance(W)		±3°	%	
Open circuit voltage - Voc(V)	36.3	36.5	36.7	36.9
Maximum power voltage - Vmpp(V)	30.7	30.9	31.1	31.3
Short circuit current - Im(A)	13.44	13.53	13.62	13.71
Maximum power current - Impp(A)	12.71	12.79	12.87	12.94
Module efficiency um(%)	20.0	20.2	20.5	20.8

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

∰ Mechanical Data			
Cell size	Mono182×182mm		
NO.of cells	108Half Cells (6×18)		
Dimension	1723*1134*35mm		
Weight	22.0kg		
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		

Temperature Ratings 45±2°C Nominal operating cell temperature Temperature coefficient of Pmax -0.35%/°C -0.27%/°C Temperature coefficients of Voc 0.048%/°C Temperature coefficients of Isc

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







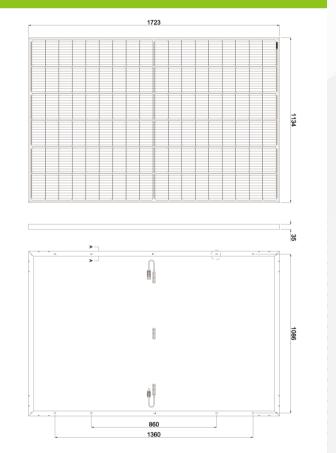






Modules per pallet	31 PCS
Modules per 40HQ container	806 PCS
Modules per 13.5m long flatcar	930 PCS
Modules per 17.5m long flatcar	1240 PCS

: Dimension



Please refer to TOENERGY Solar product warranty for details