



210 Series

650-675W

MBB Mono Half-cell Module

POWER OUTPUT RANGE

650-675W

MAXIMUM MODULE EFFICIENCY

21.7 %

POWER WARRANTY

30 years

Example 2 Characteristic



Higher Power Output

1500V system voltage, reduce the



Half-cell and Lower Power Loss Design

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



0~+5W

Best Solution to Harsh Conditions

Guaranteed Output Power

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

∷ Electrical Data @STC						
Peak power-Pmax(Wp)	650	655	660	665	670	675
Power tolerance(W)	±3%					
Open circuit voltage - Voc(V)	45.49	45. 69	45. 89	46.09	46.29	46.49
Maximum power voltage - Vmpp(V)	37.87	38. 05	38. 23	38.41	38.59	38.78
Short circuit current - Im(A)	18.18	18. 23	18. 28	18.33	18.39	18.44
Maximum power current - Impp(A)	17.17	17. 22	17. 27	17.32	17.36	17.41
Module efficiency um(%)	20.9	21.1	21. 2	21.4	21.6	21.7

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

∰ Mechanical Data				
Cell size	Mono 210×210mm			
NO.of cells	132Half Cells (6×22)			
Dimension	2384*1303*35mm			
Weight	38. 7kgs			
Glass	2.0mm high transmission,Anti-reflectioncoating toughened glass 2.0mm Half 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 Ratin

Operating temperature -40°Cto+85°C

Maximum system voltage 1500v DC (IEC/UL)

Maximum series fuse rating 35A

Pass hail test Diameter 25mm, speed 23m/s

蹛 Warranty

10 Years Workmanship Warranty

30 Years Performance Warranty





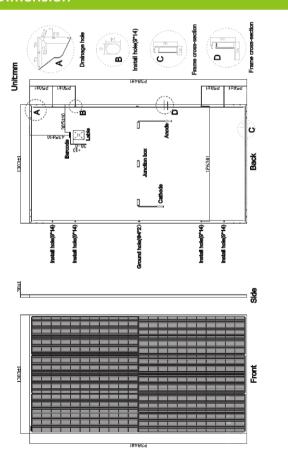






Packing Data Modules per pallet 31 PCS 558 PCS Modules per 40HQ container Modules per 13.5m long flatcar 558 PCS Modules per 17.5m long flatcar 713 PCS

Dimension



Please refer to TOENERGY Solar product warranty for details