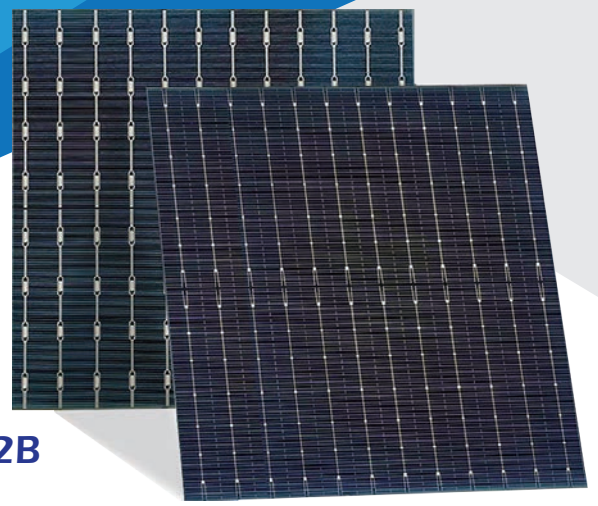


Monocrystalline Cells

PERC Tech



Model: NBM21CP12B

Dimension: 210 mm x 210 mm ± 0.25 mm
 Thickness: 160μm ± 20μm, diameter 295 ± 0.25mm
 Front (-): Silicon dioxide + blue nitride composite anti-reflection film (PID free); Three-Segment design, 12 roots bus bar and 120-180 roots fingers; The bus bar width is 0.06±0.02mm with three-segment design, and the bus bar has two forks head (size (1.3±0.2)mm × (1.0±0.1) mm); the size of 4 pads at the junction of bus bar and the fingers is (1.2±0.2)mm × (0.5±0.2)mm.
 Back (+): 1AlOx and SiNx dual layer and rear contact; the rear electrode is composed of 12 roots rear compound bus bar and 150-250 roots rear Al fingers, 8 sections, 1.4±0.3 mm silver anode.

Temperature Coefficients

Current Temperature Coefficient	α (Isc)	0.040 %/°C
Voltage Temperature Coefficient	β (Voc)	-0.31 %/°C
Power Temperature Coefficient	γ (Pmax)	-0.41 %/°C

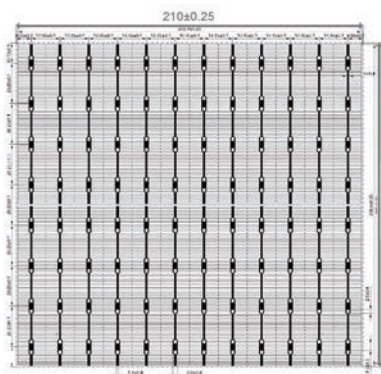
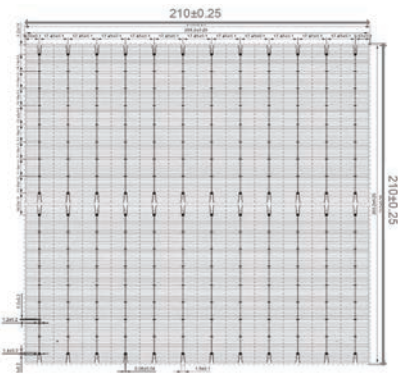
*Standard test condition; AM 1.5, 1000W/m², 25°C

Electrical Characteristics

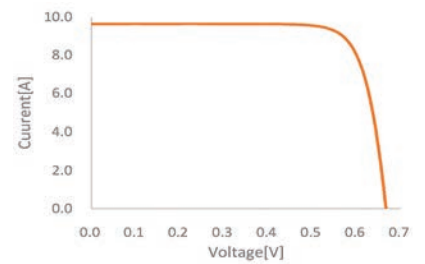
No	Efficiency (%)	Pmpp (W)	Umpp (V)	Impp (A)	Voc (V)	Isc (A)
01	23.00	10.15	0.580	17.500	0.680	18.315
02	22.90	10.11	0.579	17.461	0.679	18.290
03	22.80	10.06	0.578	17.405	0.678	18.250
04	22.70	10.02	0.578	17.336	0.677	18.227
05	22.60	9.98	0.576	17.326	0.676	18.184
06	22.50	9.93	0.575	17.270	0.674	18.151
07	22.40	9.88	0.574	17.213	0.672	18.115
08	22.30	9.84	0.574	17.143	0.670	18.096
09	22.20	9.79	0.574	17.056	0.669	18.033
10	22.10	9.75	0.573	17.016	0.668	17.986
11	22.00	9.71	0.573	16.946	0.668	17.915
12	21.90	9.67	0.572	16.906	0.668	17.841

*Data under standard testing conditions (STC): 1000W/m², AM1.5, 25°C, efficiency tolerance; average +3%/-0.1% absolute.

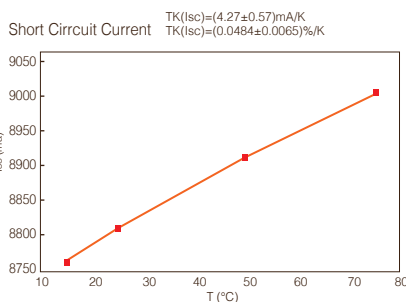
Conductor Patterns (unit: mm)



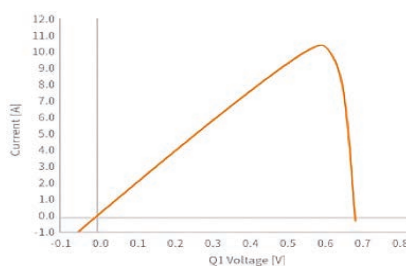
Typical IV Curve



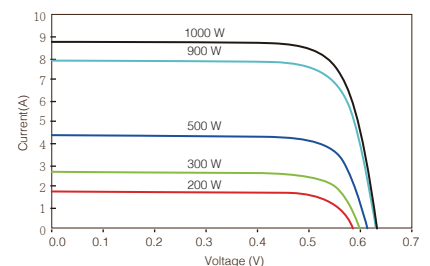
Calculated Temperature Coefficients



Typical Spectral Response



Typical Current-Voltage Curve



Package: Typical package for one carton contains 1,200 cells. The cells are sealed in cell box every 100 PCs.

* The datasheet is for informational purposes only and subject to change without prior notice.