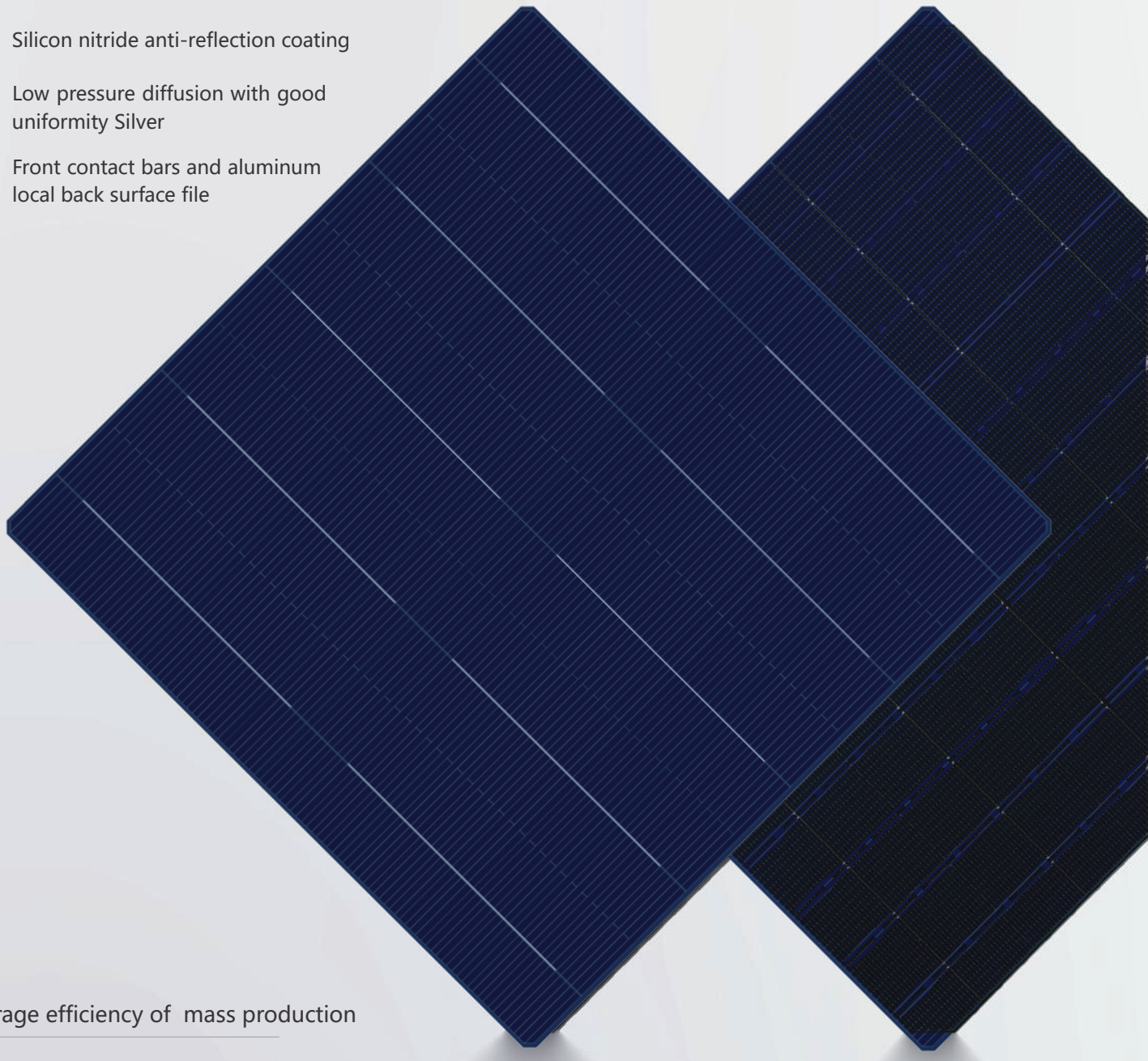
CQ SOLAR®

Y158M

158 Monocrystalline Bifacial Solar Cell

- Ultra-Efficient solar cells with an anisotropically etched surface
- Silicon nitride anti-reflection coating
- Low pressure diffusion with good uniformity Silver
- Front contact bars and aluminum local back surface file



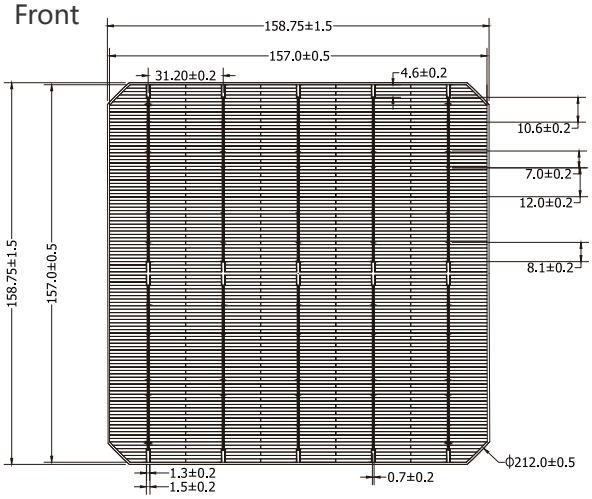
Average efficiency of mass production

Electrical Performance

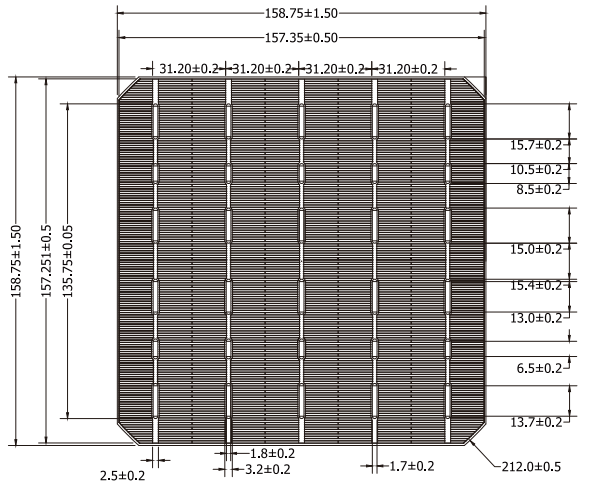
No.	Eiciency(%)	Pmpp(W)	Umpp(V)	Impp(A)	Uoc(V)	Isc(A)	FF(%)
15	22.8	5.75	0.583	9.87	0.685	10.32	81.40
14	22.7	5.72	0.582	9.85	0.684	10.31	81.29
13	22.6	5.69	0.581	9.82	0.683	10.30	81.10
12	22.5	5.67	0.580	9.79	0.682	10.29	80.91
11	22.4	5.64	0.579	9.76	0.681	10.29	80.64
10	22.3	5.62	0.578	9.74	0.680	10.27	80.61
09	22.2	5.59	0.577	9.72	0.679	10.25	80.58
08	22.1	5.57	0.576	9.71	0.678	10.24	80.56
07	22.0	5.54	0.574	9.69	0.677	10.22	80.39
06	21.9	5.52	0.573	9.66	0.675	10.21	80.32
05	21.8	5.49	0.572	9.64	0.674	10.20	80.21
04	21.7	5.47	0.570	9.62	0.673	10.17	80.12
03	21.6	5.44	0.567	9.60	0.672	10.12	80.04
02	21.5	5.42	0.565	9.59	0.670	10.10	80.07
01	21.4	5.39	0.563	9.58	0.669	10.09	79.90

Product Appearance

Front



Back



Temperature Coefficient

TkPower	-0.42%/K
TkVoltage	-(0.33±0.03) %/k
TkCurrent	+0.06%/K

Physical Charaacteristics

Substrate material	Mono-crystalline silicon wafer
Cell thickness	190μm±30μm
Dimension	156.75mm×156.75mm±0.5mm
Front(-)	0.7mm bus bars(silver), blue anti-reflecting coating(silicon nitride)
Back(+)	1.3mm wide soldering pads (silver back surface field(aluminum)

Light induced degradation test

Using Xenon lamp (Irradiance of 1000W/m2,with spectrum AM 1.5) to irradiate test cells, after a total irradiation of 5 kwh/m2 ,the degradation of maximum output power of cells is ≤2%

CTM

Lower cell to module(CTM) power loss:<3%

Anti-PID

Potential Induced Degradation(-1500V,192h):<5%

Packaging, Storage

Solar cells are closely packed with soft sponge around and heat shrink is used around the box unit. Outer packing box must have shock buffer, to be suitable for long-distance delivery.
After packaging, cells should be stored indoors in the conditions of good ventilation, dry, humidity below 60%, and temperature ≤40 °C . Cells should be sampling inspected again if the storage time over 45 days.