

celesta®

PLATE-INTERCONNECTION SERIES

CL390M-PI ~ CL410M-PI

Ultra-High Efficient Plate-Interconnection Monocrystalline PV Modules



ULTRA-HIGH POWER OUTPUT

Maximum power output can be increased by 15% compared with the standard modules when sold with the same efficiency are used



HOT-SPOT IMMUNITY

Excellent hot-spot immunity, effectively avoid the power loss caused by shadow coverage on cells with the same efficiency are used



DURABILITY AND RELIABILITY ENHANCEMENTS

Microcrack free, easy installation, power generating capacity is more secured

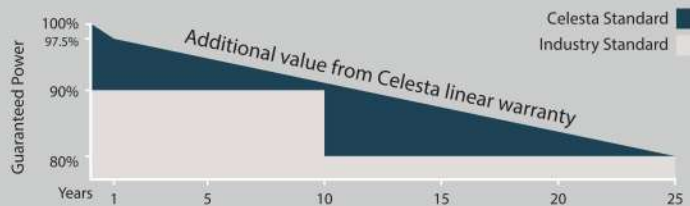


LOW LCOE

Savings in BOS and labour cost

LINEAR PERFORMANCE WARRANTY

12-year product warranty / 25-year linear power warranty



Mechanical Data

Cell	166mm Mono
Module Dimension	1864×1038×35mm
Weight	20.5kg
Glass	3.2mm high transmittance, reinforced glass
Backsheet	Anti-aging film
Frame Material	Anodized aluminum alloy
Junction Box	Protection class IP68
Cable	4.0 mm ² positive pole: 1200 mm negative pole: 1200 mm wire length can be customized
Connector	MC4 compatible connector

CL390M-PI ~ CL410M-PI

Ultra-High Efficient Plate-Interconnection Monocrystalline PV Modules

Electrical Data (STC)

	390	395	400	405	410
Maximum Power (P _{max} /W)	390	395	400	405	410
Voltage at Maximum Power (V _{mp} /V)	36.80	37.00	37.20	37.40	37.60
Current at Maximum Power (I _{mp} /A)	10.61	10.69	10.76	10.84	10.91
Open Circuit Voltage (V _{oc} /V)	44.61	44.81	45.01	45.21	45.41
Short Circuit Current (I _{sc} /A)	11.15	11.23	11.31	11.38	11.46
Module Efficiency (%)	20.16	20.42	20.67	20.93	21.19

Electrical Data (NMOT)

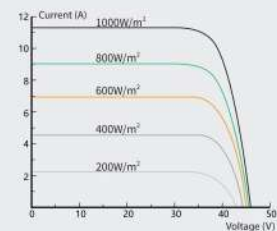
	292	296	300	304	308
Maximum Power (P _{max} /W)	292	296	300	304	308
Voltage at Maximum Power (V _{mp} /V)	33.79	33.99	34.19	34.39	34.59
Current at Maximum Power (I _{mp} /A)	8.65	8.72	8.78	8.85	8.91
Open Circuit Voltage (V _{oc} /V)	40.98	41.18	41.38	41.58	41.78
Short Circuit Current (I _{sc} /A)	9.33	9.40	9.47	9.52	9.58

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25°C, AM1.5

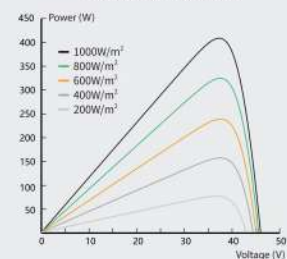
NMOT (Nominal Module Operating Temperature): Irradiance 800W/m², Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s.

I-V Curve

Current-Voltage Curve(410W)



Power-Voltage Curve(410W)



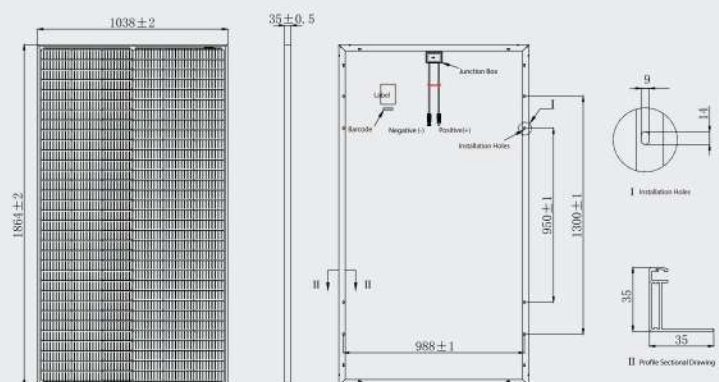
Temperature Coefficients

Temperature Coefficient (P _m)	-0.300%/°C
Temperature Coefficient (V _{oc})	-0.270%/°C
Temperature Coefficient (I _{sc})	0.048%/°C

Operating Parameters

Maximum System Voltage	1000/1500V
Operating Temperature	-40°C ~+85°C
NMOT (Nominal Module Operating Temperature)	41±3°C

Module Dimensions (mm)



Packaging

Modules Per Pallet: 31+31 pcs / 31+31+2 pcs
Modules Per 40'HQ Container: 744 pcs / 768 pcs

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