

Q.PRO L 300-315

POLYCRYSTALLINE SOLAR MODULE

The polycrystalline solar module **Q.PRO L** solar module with power classes up to 315 W is the strongest module of its type on the market globally. Powered by 72 Q CELLS solar cells and with a size of 2 m² **Q.PRO L** was specially designed for large solar power plants to reduce BOS costs. But there is even more to our polycrystalline modules. Only Q CELLS offers German engineering quality with our unique triple Yield Security.

YOUR EXCLUSIVE TRIPLE YIELD SECURITY

- Anti PID Technology (APT) reliably prevents power loss resulting from unwanted leakage currents (potential-induced degradation)¹.
- Hot-Spot Protect (HSP) prevents yield losses and reliably protects against module fire.
- Traceable Quality (Tra.Q™) is the 'Finger Print' of a solar cell. Tra.Q™ ensures continuous quality control throughout the entire production process from cells to modules while making Q CELLS solar modules forgery proof.

ONE MORE ADVANTAGE FOR YOU

- Reduced BOS costs: Optimised design to reduce costs per Wp.
- Improved energy yield: The actual output of all Q CELLS solar modules is up to 5 Wp higher than the nominal power thanks to positive sorting.
- Guaranteed performance: investment security do to 12-year product warranty and 25-year linear performance warranty².



THE IDEAL SOLUTION FOR:



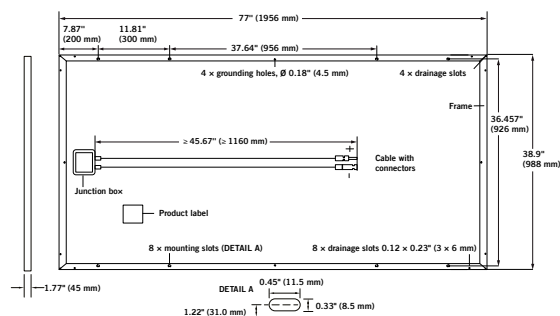
Ground-mounted
solar power plants

¹ APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25°C, 168h

² See data sheet on rear for further information.

MECHANICAL SPECIFICATION

Format	77 in × 38.9 in × 1.77 in (including frame) (1956 mm × 988 mm × 45 mm)
Weight	59.52 lb (27.0 kg)
Front Cover	0.16 in (4.0 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodised aluminium
Cell	6 × 12 polycrystalline solar cells
Junction box	Protection class IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 45.67 in (1160 mm), (-) ≥ 45.67 in (1160 mm)
Connector	SOLARLOK PV4, IP68



ELECTRICAL CHARACTERISTICS

PERFORMANCE AT STANDARD TEST CONDITIONS (STC: 1000 W/m², 25°C, AM 1.5 G SPECTRUM)¹

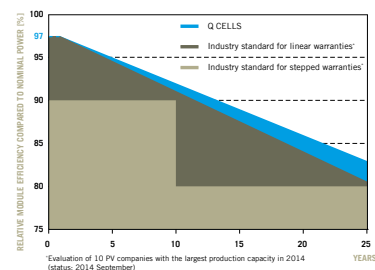
NOMINAL POWER (+5W/-0W)		[W]	300	305	310	315
Average Power	P_{MPP}	[W]	302.5	307.5	312.5	317.5
Short Circuit Current	I_{SC}	[A]	8.93	8.97	9.01	9.06
Open Circuit Voltage	V_{OC}	[V]	45.27	45.56	45.84	46.13
Current at P_{MPP}	I_{MPP}	[A]	8.34	8.40	8.47	8.53
Voltage at P_{MPP}	V_{MPP}	[V]	36.27	36.59	36.91	37.23
Efficiency (Nominal Power)	η	[%]	≥ 15.5	≥ 15.8	≥ 16.0	≥ 16.3

PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 45 ± 3°C, AM 1.5 G SPECTRUM)²

NOMINAL POWER (+5W/-0W)		[W]	300	305	310	315
Average Power	P_{MPP}	[W]	222.9	226.6	230.3	233.9
Short Circuit Current	I_{SC}	[A]	7.20	7.24	7.27	7.30
Open Circuit Voltage	V_{OC}	[V]	42.14	42.41	42.68	42.95
Current at P_{MPP}	I_{MPP}	[A]	6.53	6.58	6.64	6.69
Voltage at P_{MPP}	V_{MPP}	[V]	34.15	34.42	34.70	34.97

¹ Measurement tolerances STC: ± 3% (P_{MPP}); ± 10% (I_{SC} , V_{OC} , I_{MPP} , V_{MPP})² Measurement tolerances NOCT: ± 5% (P_{MPP}); ± 10% (I_{SC} , V_{OC} , I_{MPP} , V_{MPP})

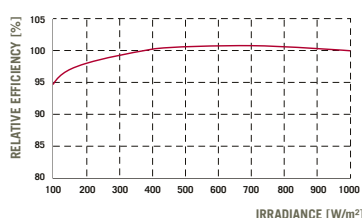
Q CELLS PERFORMANCE WARRANTY



At least 97% of nominal power during first year. Thereafter max. 0.6% degradation per year.
At least 92% of nominal power after 10 years.
At least 83% of nominal power after 25 years.

All data within measurement tolerances.
Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



The typical change in module efficiency at an irradiance of 200 W/m² in relation to 1000 W/m² (both at 25°C and AM 1.5 G spectrum) is -2% (relative).

TEMPERATURE COEFFICIENTS (AT 1000 W/M², 25°C, AM 1.5 G SPECTRUM)

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	-0.30
Temperature Coefficient of P_{MPP}	γ	[%/K]	-0.42	NOCT		[°F]	113 ± 5.4 (45 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating	C
Max Load (UL)²	[lbs/ft ²]	75 (3600 Pa)	Permitted module temperature on continuous duty	-40°F up to +185°F (-40°C up to +85°C)
Load Rating (UL)²	[lbs/ft ²]	33 (1600 Pa)	² see installation manual	

QUALIFICATIONS AND CERTIFICATES

VDE Quality Tested, IEC 61215 (Ed. 2); IEC 61730 (Ed. 1), Application class A
This data sheet complies with DIN EN 50380.



PACKAGING INFORMATION

Number of Modules per Pallet	22
Number of Pallets per 53' Container	28
Number of Pallets per 40' Container	22
Pallet Dimensions (L × W × H)	79.1 in × 43.1 in × 46.5 in (2010 × 1095 × 1180 mm)
Pallet Weight	1429 lb (648 kg)

NOTE: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

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Engineered in Germany

Q CELLS