

Solar Simplified.

Domestic Content Option Available



Q.TRON AC

- Q.TRON BLK M-G2+/AC
- Q.TRON BLK M-G2.H1+/AC



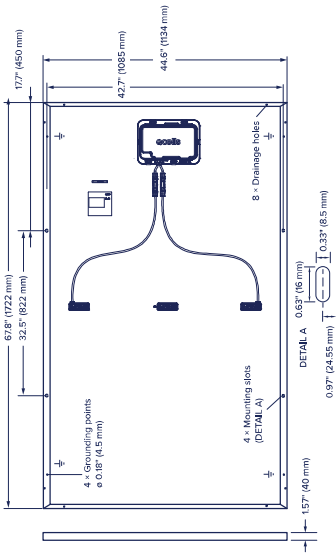
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Description

The Q.TRON AC SERIES is a N-Type TOPCon PV module with an integrated microinverter. The module, with its embedded microinverter, provides optimized power output while also acting as a rapid shutdown compliant solution for optimal system safety. The solution includes a microinverter, DC cables and a junction box, enabling a streamlined installation experience.

Mechanical Specification

Format	67.8 in × 44.6 in × 1.57 in (including frame) (1722 mm × 1134 mm × 40 mm)
Weight	50.59 lbs (22.95 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed ARC solar glass
Back Cover	Composite film
Frame	Black anodized aluminum
Cell	6 × 18 monocrystalline Q.ANTUM NEO solar half cells
Junction Box	2.09-3.98 in × 1.26-2.36 in ¹ 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm). Protection class IP67, with bypass diodes
Cable	4 mm ² Solar cable; (t) ≥ 25.8 in (655 mm), (r) ≥ 25.2 in (640 mm)
Connector	Stäubli MC4; IP68



AC Output Electrical Characteristics

Q.MI.349B-G1 (Model Name)		[VA]	366	Power Factor (adjustable)	0.85 leading...0.85 lagging
Peak Output Power		[VA]	349	Max. number of AC Modules per Q.HOME COMBINER 80 G1	[ea] 44 (Q.HOME COMBINER CB : Max 4)
Max Continuous Output Power		[V]	240 / 211 to 264	Max Units per 20 A (L-L) Branch Circuit	[ea] 11
Nominal (L-L) Voltage/ Range		[A]	1.45	Total Harmonic Distortion	[%] <5
Nominal Rated Output Current		[Hz]	60 / 59.3 to 60.5	Overvoltage Class AC Port	III
Nominal Frequency/ Range		[Hz]	50 to 66	Night-Time Power Consumption	[mW] 60
Extended Frequency Range			1.0	CEC Efficiency	[%] 97
Power Factor at Rated Power					

DC Power Electrical Characteristics

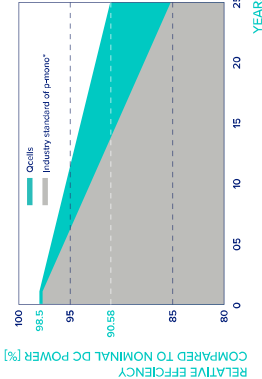
POWER CLASS	415	420	425	430	435	440
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5 W/-0 W)						
Power at MPP ¹	P _{MPP} [W]	415	420	430	435	440
Short Circuit Current ¹	I _{SC} [A]	13.49	13.58	13.66	13.74	13.82
Open Circuit Voltage ¹	V _{OC} [V]	38.47	38.75	39.03	39.32	39.60
Current at MPP	I _{MPP} [A]	12.83	12.91	12.98	13.05	13.13
Voltage at MPP	V _{MPP} [V]	32.34	32.54	32.74	32.94	33.14
Efficiency ¹	η [%]	≥21.3	≥21.5	≥21.8	≥22.0	≥22.5

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²

Power at MPP	P _{MPP} [W]	313.7	317.5	321.2	325.0	328.8
Short Circuit Current	I _{SC} [A]	10.87	10.94	11.00	11.07	11.14
Open Circuit Voltage	V _{OC} [V]	36.50	36.77	37.04	37.31	37.58
Current at MPP	I _{MPP} [A]	10.10	10.15	10.21	10.27	10.33
Voltage at MPP	V _{MPP} [V]	31.07	31.26	31.46	31.65	31.84
						32.03

¹Measurement tolerances P_{MPP} ±3%, I_{SC} ±5%, V_{OC} ±5% at STC: 1000 W/m², 25 ±2 °C, AM 1.5 according to IEC 60904-3. ²800 W/m², NMOT, spectrum AM 1.5

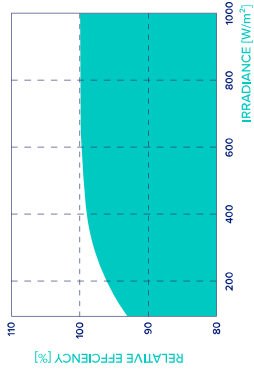
Qcells PERFORMANCE WARRANTY



At least 98.5 % of nominal DC power during first year. Thereafter max. 0.33 % degradation per year. At least 95.53 % of nominal DC power up to 10 years. At least 90.58 % of nominal DC power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Qcells sales organization of your respective country.

¹Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²)

AC module powered by Q.ANTUM NEO Technology

Module-Level Monitoring & Control

- Easily and intelligently monitor system performance at the module level using the Q.OMMAND PRO App for installers
- Homeowners have PV production visibility at their fingertips with the user friendly Q.OMMAND HOME App
- Enhanced communications performance, thanks to high-bandwidth PLC communication technology



Streamlined Installation & Product Management

- Fast installation enabled by integrated Qcells microinverter
- QR codes on both module and embedded microinverter allow installer to map out arrays in the Q.OMMAND Pro app pre- or post-installation
- Improved inventory management enabled by reduced SKU counts and one complete module and MLPE solution by the same brand
- Seamlessly couples with Qcells' residential energy storage system to form one complete Q.HOME SMART system

Superior Module Performance

- Q.TRON AC is powered by Q.ANTUM NEO Technology, delivering up to 22.0 % efficiency
- Lowest module degradation rate compared with Tier 1 TOPCon competitors, translating to more power production over time (90%+ nominal power guaranteed after 25 years)



Top Quality Customer Support & Post-Sales Servicing

- Top tier, responsive customer support offered by Qcells for rapid system troubleshooting
- Detachable microinverter simplifies onsite maintenance when required
- Inbound module and microinverter related inquiries all supported by one brand



Includes Domestic Content

- This product contains U.S. manufactured components which can contribute to qualifying for the 10% domestic content bonus to applicable tax credits under the Inflation Reduction Act of 2022.¹
- Module and microinverter both assembled in the USA by America's No.1 residential module manufacturer

¹ This statement should not be relied on as tax advice and is subject to change based on changes made to the Inflation Reduction Act and its implementing rules and regulations. Please consult a qualified tax professional for specific guidance.

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{SC}	α	[%/K]	+0.04	Temperature Coefficient of V _{oc}	β	[%/K]	-0.24
Temperature Coefficient of P _{MPP}	γ	[%/K]	-0.30	Nominal Module Operating Temperature	NMOT	[°F]	109±5.4 (43±3 °C)

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