



Arlington Historic District Commissions

Application for Certificate

(Read attached instructions before completing form)

For Commission Use Only:	
Date Rec:	_____
Hearing Date:	_____
Certificate #:	_____
Monitor:	_____

Certificate Requested:

- Appropriateness** – for work described herein
 - Minor project Major Project Demolition
- Non-Applicability** – for the following reason(s):
 - Not subject to public view
 - Maintenance, repair, or replacement using same design and materials
 - Proposed change specifically excluded from review under Bylaw
 - Other: _____
- Hardship** – financial or otherwise and does not conflict substantially with the intent and purposes of the Bylaw

General Information:

Property Address 22 Prescott Street District Russell Historic District
 Owner(s) Mark & Sharon Wilke Email markwilke@verizon.net
 Owner's Phone (h) _____ (w) cell: 781-910-9462 (fax) _____
 Owner's Address 22 Prescott Street Arlington MA 02474
 Applicant (if not Owner) _____
 Applicant's Phone (h) _____ (w) _____ (fax) _____
 Applicant's Address _____
 Applicant's Relationship to Owner _____

Contractor SunBug Solar - Revision Energy Phone 617-500-3938
 Architect _____ Phone _____

Dates of Anticipated Work: Start Spring 2024 Completion " usually only several days"

Description of Proposed Work: (attach additional pages as necessary) Please include a description of how the proposed work (if a change or addition) is historically and architecturally compatible with the building and the District as a whole.

Sun Bug Revision Energy proposes to install solar panels on one south facing section of roof of the house. They will run any electrical work necessary as unobtrusively as possible. Place solar roof and will not - permanently - alter the historic nature of the house. Work to be done in a manner that does not affect solar installations on neighbor's houses also within the Russell Historic District.

Required Documentation Acknowledgement: (see attached instructions)

I acknowledge that I am required to provide supporting documentation, including the attached "Supporting Documents Checklist", by the deadlines indicated in the instructions. I understand that if such documents are not provided in a timely manner, this application will be considered to be incomplete and Commission action may be delayed.

I have read the attached instructions and, to the best of my knowledge, the information contained in this application is accurate and complete. I also give permission for members of the AHDC to access the property for the purpose of reviewing this application and work done under any certificate issued to me.

Owners Signature(s): _____ **Date:** _____

ARLINGTON HISTORIC DISTRICT APPLICATION

Supporting Documentation Checklist

Property Address 22 Prescott Street Arlington, MA 02474 District Russell Historic District
Applicant's Name Sunbug Solar / ReVision Energy Email mmonroe@revisionenergy.com
Applicant's Phone (Day) _____ (Mobile) (617) 209-2289

For Minor Projects or Certificate of Non-Applicability

Drawings (11x17 max., with graphic scale, dimensioned, all materials identified) or marked up Photographs (8x10)

Existing conditions of historic façade(s) to be modified; Show location of proposed work; Show proposed feature(s); Elevations showing proposed work and context; Drawing showing location of proposed work; Drawing showing the proposed feature(s); Site plan for site located equipment and features

Manufacturer's literature and specifications sheets describing the proposed feature(s)

Description of how the proposed work is either compatible with the District or Non-Applicable

For Major Projects

Photographs (8x10)

Existing conditions of historic structure to be modified (facades, roofs, neighboring buildings); Site; Neighborhood context; Historic precedents for proposed work

Drawings (11x17 max., with graphic scale, must show differentiated existing and proposed conditions, dimensions, and all materials identified)

Plans

Site (showing proposed structures, fences, walls, parking, HVAC equipment, electrical equipment, and relationship to adjacent roads, neighboring buildings); Each floor; Roof (showing valleys, hips, ridges, dormers, skylights, chimneys, vents, HVAC equipment, solar panels)

Elevations of building facades- identify:

Foundation; Siding ; Trim; Gutters; Downspouts; Shutters; Railings; Stairs; Windows; Doors; Roof materials; Roof pitch; Chimneys and vents; Masonry; Light fixtures; Solar panels; HVAC equipment; Electrical equipment; Fences; Signage

Wall sections (especially showing projecting features such as bays, balconies, porches, additions)

Relevant exterior detail drawings (architectural trim, eaves, doors, windows, caps, columns, vents, rail systems)

Profile drawings (window and door elements, railings, balusters, stairs, shutters, roof trim, corner boards, casings, water tables, skirts, frieze boards, and all other trim)

For projections, additions and new construction also include:

Neighborhood lot plan- include footprint to lot area ratio as well as that of neighboring lots; Plot plan- existing building(s), setbacks, proposed new structures; Site section (show relationship to site topography, adjacent structures, major landscape features, roads)

Manufacturers' literature and specification sheets describing the proposed components

Suggested Supporting Submittals: Model; Physical Samples

Description of how the proposed work is compatible with the District.

For Demolition

Statement of current state of existing structure and reason for demolition

Statement of the historic significance of the structure

Site Documentation (including Plot plan; Photographs of existing conditions; List existing materials; Year built; Original architect)

Other provided documentation not described above (please list on a separate attached sheet).

Applicants Signature(s):  Date: 01/11/2024



ABOVE: Dimensions of roof plane for proposed solar array.
BELOW: "Keep-out" margins for firefighter safety access (18" on ridge)



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ABOVE: No solar installed on northeast plane - zone shown to demonstrate required safe firefighter pathways (18" at the ridge and at least 36" available inches at the edge to mount the roof).

BELOW: Solar array layout on southwest portion of side roof.





ABOVE: Street facing front of house (1 of 2)

6 for AHDC 1-25-24

BELOW: Street facing front of house (2 of 2)



7 for AHDC 1-25-24

Q.PEAK DUO BLK ML-G10+ SERIES



385 - 405 Wp | 132 Cells
20.6% Maximum Module Efficiency

MODEL Q.PEAK DUO BLK ML-G10+



6 busbar
cell technology



12 busbar
cell technology



Breaking the 20% efficiency barrier

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 20.6%.



A reliable investment

Inclusive 25-year product warranty and 25-year linear performance warranty¹.



Enduring high performance

Long-term yield security with Anti LeTID Technology, Anti PID Technology² and Hot-Spot Protect.



Extreme weather rating

High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).



Innovative all-weather technology

Optimal yields, whatever the weather with excellent low-light and temperature behaviour.



The most thorough testing programme in the industry

Qcells is the first solar module manufacturer to pass the most comprehensive quality programme in the industry: The new "Quality Controlled PV" of the independent certification institute TÜV Rheinland.

¹ See data sheet on rear for further information.

² APT test conditions according to IEC/TS 62804-1:2015, method A (-1500 V, 96h)

The ideal solution for:



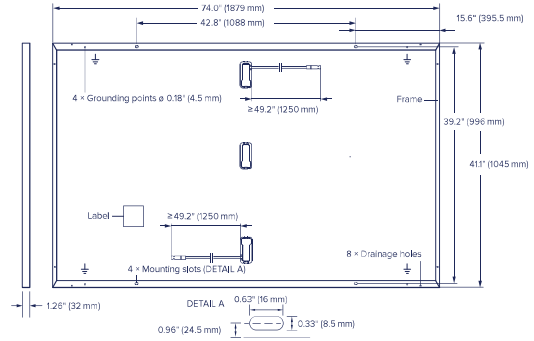
Rooftop arrays on
residential buildings



Q.PEAK DUO BLK ML-G10+ SERIES

Mechanical Specification

Format	74.0 in × 41.1 in × 1.26 in (including frame) (1879 mm × 1045 mm × 32 mm)
Weight	48.5 lbs (22.0 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 22 monocrystalline Q.ANTUM solar half cells
Junction box	2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 49.2 in (1250 mm), (-) ≥ 49.2 in (1250 mm)
Connector	Stäubli MC4; IP68



Electrical Characteristics

POWER CLASS	385	390	395	400	405
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MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W/-0 W)

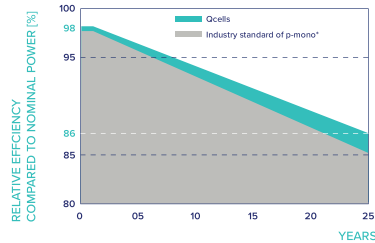
Minimum	Power at MPP ¹	P _{MPP} [W]	385	390	395	400	405
	Short Circuit Current ¹	I _{SC} [A]	11.04	11.07	11.10	11.14	11.17
	Open Circuit Voltage ¹	V _{OC} [V]	45.19	45.23	45.27	45.3	45.34
	Current at MPP	I _{MPP} [A]	10.59	10.65	10.71	10.77	10.83
	Voltage at MPP	V _{MPP} [V]	36.36	36.62	36.88	37.13	37.39
	Efficiency ¹	η [%]	≥19.6	≥19.9	≥20.1	≥20.4	≥20.6

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²

Minimum	Power at MPP	P _{MPP} [W]	288.8	292.6	296.3	300.1	303.8
	Short Circuit Current	I _{SC} [A]	8.90	8.92	8.95	8.97	9.00
	Open Circuit Voltage	V _{OC} [V]	42.62	42.65	42.69	42.72	42.76
	Current at MPP	I _{MPP} [A]	8.35	8.41	8.46	8.51	8.57
	Voltage at MPP	V _{MPP} [V]	34.59	34.81	35.03	35.25	35.46

¹Measurement tolerances P_{MPP} ± 3%; I_{SC}, 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

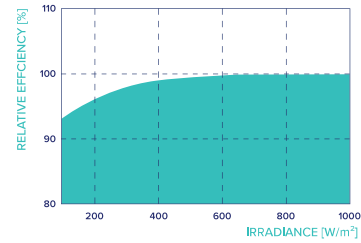


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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

^{*}Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)

PERFORMANCE AT LOW IRRADIANCE



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

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{SC}	α [%/K]	+0.04	Temperature Coefficient of V _{OC}	β [%/K]	-0.27
Temperature Coefficient of P _{MPP}	γ [%/K]	-0.34	Nominal Module Operating Temperature	NMOT [°F]	109 ± 5.4 (43 ± 3 °C)

Properties for System Design

Maximum System Voltage	V _{SYS} [V]	1000 (IEC)/1000 (UL)	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating based on ANSI/UL 61730	TYPE 2
Max. Design Load, Push/Pull ³	[lbs/ft ²]	75 (3600 Pa)/55 (2660 Pa)	Permitted Module Temperature on Continuous Duty	-40 °F up to +185 °F (-40 °C up to +85 °C)
Max. Test Load, Push/Pull ³	[lbs/ft ²]	113 (5400 Pa)/84 (4000 Pa)		

³ See Installation Manual

Qualifications and Certificates

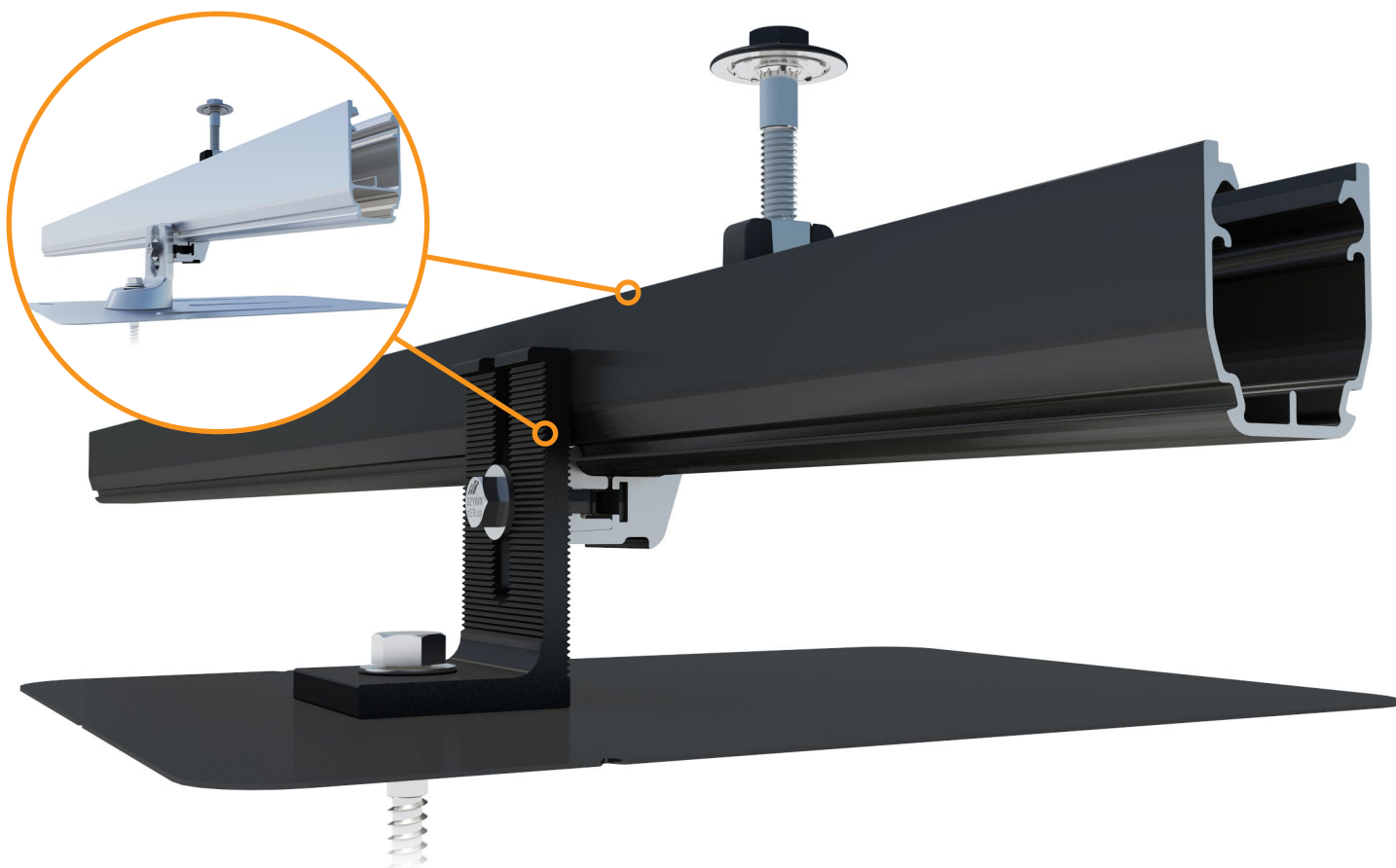
UL 61730, CE-compliant,
Quality Controlled PV - TÜV Rheinland,
IEC 61215:2016, IEC 61730:2016,
U.S. Patent No. 9,893,215 (solar cells),



Qcells pursues minimizing paper output in consideration of the global environment.

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.
Hanwha Q CELLS America Inc. 400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL hq-inquiry@qcells.com | WEB www.qcells.com





Breathe easy with accelerated installations.

The Aire™ racking system has been carefully crafted to streamline every part of the installation process, taking out all of the tiresome hassles—so that you get off the roof and on to your next project faster than ever.

Aire™ retains the strength and reliability that IronRidge installers have come to depend on. Whether you're a seasoned installer with years under your belt or just getting started in solar, breathe easy with open Aire™.



Strength Tested

All components have been evaluated for superior structural performance.



PE Certified

Pre-stamped engineering letters are available online for most states.



Class A Fire Rating

Certified to maintain the fire resistance rating of the existing roof structure.



Design Assistant

Free online software makes it simple to create, share, and price projects.



UL 2703 Listed System

Entire system and components meet the latest effective UL 2703 standards.



25-Year Warranty

Products are guaranteed to arrive without any impairing defects.