



**CITY OF ORANGE HISTORIC PRESERVATION COMMISSION**

ORANGE CITY HALL

29 North Day Street, Orange, New Jersey 07050

PHONE (973) 952- 6344 FAX (973) 672-6643

**CITY OF ORANGE PRESERVATION COMMISSION  
APPLICATION FOR CERTIFICATION OF APPROPRIATENESS**

DATE RECEIVED \_\_\_\_\_ APPLICATION # \_\_\_\_\_

**APPLICANT(S):**

Name of Applicant(s): MOMENTUM SOLAR

Address: 325 HIGH STREET METUCHEN NJ 08840 Email: PERMITS@MOMENTUMSOLAR.COM

Telephone (Day) 732-366-1854 (Eve) \_\_\_\_\_ (Fax) 848-291-9798

**Relationship of Applicant to Property owner:**

Owner(s)       Lessee       Property Under Contract       Other (Specify)

Explanation if Other: \_\_\_\_\_

**OWNER(S), IF DIFFERENT THAN APPLICANT:**

Name(s) of Owner(s): SHAWN MATTISON

Address: 208 Stirling Ave Email: dadevelopmentcorp@gmail.com

Telephone Number: (Day) (516) 376-9999 (Eve) 9735177388

Street Address of the Property that is subject of Application: \_\_\_\_\_

9735177388

Tax Block: 6705 Lot: 11

Name of Historic District in which Property lies: \_\_\_\_\_

Orange Valley       Montrose Seven Oaks Park       Main Street       St. John's

**Existing use of the Property:**

SINGLE FAMILY

**Existing zoning of the Property:**

\_\_\_\_\_

**Describe in detail the proposed work to be done at the Property.**

ROOFTOP SOLAR INSTALLATION

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**Explain how you plan to prevent, minimize and mitigate any adverse effects to this Property, to nearby historically significant properties, and to the Historic District?**

ALL PANELS WILL BE LOCATED ON THE BACK OF THE HOME THEREFORE NOT VISIBLE ON THE STREET OR TO THE PUBLIC

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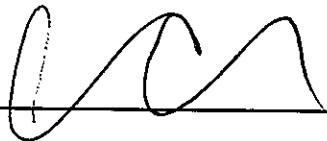
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Each Application must be accompanied by sketches, drawings, photographs, descriptions or other information sufficient to show the proposed alterations, additions, changes or new construction. The Commission may require the subsequent submission of such additional materials as it reasonably requires to make an informed decision. A submission shall include:


- A photograph of each elevation of the structure.
- Fifteen (15) copies of drawings, photographs, material brochures, samples, specifications or information that may be necessary to assist the Commission. Copies may be submitted electronically, or by CD or flash drive.
- Fifteen (15) copies of a survey, or if applicable, a site plan showing the location of new and existing structures on the site and their location with respect to the building line, property line, and the front of those buildings or structures immediately adjacent to each side of the lot to be built upon.
- Fifteen (15) copies of façade elevation(s), if applicable, of the proposed work in sufficient detail to identify the limits and location of the proposed work, and existing and proposed materials to be used.
- \$70.00 Application fee (check or money order made to the City of Orange).

By signing this Application, I hereby certify that the owner of record authorizes the proposed work and I have been authorized by the owner to make this Application as his/her authorized agent. By signing this Application, the owner hereby grants authorization to the Commission members, and its professional and support staff to enter the Property in question for inspection purposes. By signing this application I further agree that the attorney's and professional staff's review of my application is chargeable to me and that I agree to pay for such review separately from the application fee, by depositing an escrow payment of \$\_\_\_\_\_.

Signature of Applicant(s) 

(Print Name) ALEXA CATALANO

Date 4/24/2024

Signature of Owner(s) (if different than Applicant) 

(Print Name) SHAWN MATTISON

Date 4/24/2024

**Submittal of this Application form-properly signed, with the indicated copies of documents and the Application fee will constitute a complete Application. Upon receipt of a complete Application, the Board Secretary will schedule the Application with the Commission. The Applicant delays his/her own Application if all of these required items are not submitted. The Commission shall reach a decision on the Application within forty-five (45) days of submission of a complete Application. The Applicant must appear in front of the Commission in order to present the Application during the public hearing on the scheduled date.**

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ Website: \_\_\_\_\_



## The City of Orange Township Historic Preservation Commission

### INSTRUCTIONS AND REQUIRED ATTACHMENTS FOR ALL APPLICATIONS

If your Application is not deemed complete, it will not be heard and your project will suffer delay. In order for your Application for a Certificate of Appropriateness to be deemed complete, you must provide the following documents with your Application:

- A. Photographs of the existing condition of each elevation (façade) of the structure, front, sides and rear, including photographs of the structure from the nearest public street or sidewalk, approaching the structure and leaving the structure. This means a minimum of three color photographs of the front, and both sides of the house or building. This is essential to understanding what work, installations, improvements etc. will be visible from the Public Street or right-of-way. An aerial shot by a drone of the structure is insufficient to satisfy this requirement.
- B. A site plan or other plan or drawing incorporating the location, type, design and details of the work to be undertaken. The plan must show the location of the street and front of the house or building that is the subject of the Application. Façade elevation(s), if applicable, of the proposed work shall have sufficient detail to identify the limits and location of the proposed work.
- C. Samples, specifications and product information on the materials (shingles, windows, paint, brick, wood siding, etc. that you intend to install) to assist the Commission in understanding the work to be undertaken and the products that will be placed on your property. No vinyl or aluminum siding is allowed on any history property, site or in any historic district. Photographs of examples of property/architectural features elsewhere in the historic district that are sought to be duplicated on your property may be submitted as examples. The Applicant should describe or show the existing and proposed materials to be used in some way. It is always preferred to use the same materials as the original structure.
- D. If applicable, a survey, or a site plan showing the location of any new proposed and existing structures on the site and their location with respect to any existing building footprints, height, property boundary lines, fence locations if applicable, and the front of those buildings or structures immediately adjacent to each side of the property(ies) on which the work will be undertaken, to help the Commission determine the design, scale and massing in context of the historic site, property, or neighborhood district.

### ADDITIONAL INSTRUCTIONS AND REQUIRED ATTACHMENTS FOR SOLAR/PV APPLICATIONS

- A. As part of the plan set for the solar installation, **a roof layout plan for the solar/PV panels and equipment, showing the front of the house or building on which the panels will be installed, and the location of the street.**
- B. At least three color photographs from the front of the house, and both sides, as described above, in Section I. A., taken from the street level and showing the roof areas on which the solar panels will be placed, so that the Commission can see whether the panels to be attached to the roof according to the roof layout plan will be visible from the street.
- C. A written certification signed by a professional engineer (P.E.) or architect certifying to the fact that the structure and roof of the building that is the subject of the Application on which the solar/PV panels and related equipment will be installed, is capable of bearing the load of the panels and related equipment without any additional support or renovation, and that the installation will comply with the applicable building codes, if properly installed according to instructions.

# Michael S. Rezk

Engineer-PE

Pro Custom Solar LLC  
3096B Hamilton Blvd  
South Plainfield, NJ 07080

732-902-6224  
April 19, 2024

Re: Proposed Photovoltaic Solar Panel Installation  
Shawn Mattison  
208 STIRLING AVE  
ORANGE, NJ 07050

Dear Plan Reviewer:

Certification: I have reviewed the engineering testing reports for the racking and attachments to be used on this project and I certify that the products are capable of supporting the code required loads and are suitable for this installation when installed in strict compliance with the manufacturers printed instructions.

Regarding the solar panel array installation on the above referenced project please note that an inspection was performed by a representative of the Architect/Engineer of Record, and analysis of the existing structure was conducted. There is adequate structural capacity for the installation of the array with the following recommendations:

1. The array will be installed on the existing roof. The roof framing is constructed of 2"x6" wood rafters @16" o.c. spanning 9'6" with 1"x6" T&G sheathing. The new array (See Site map by contractor) will add 2.63 Lb. / Sf. overall to the roof. The existing structure is sufficient to support the new loads associated with the additional weight & wind resistance. No additional structural support is required for the roof structure.

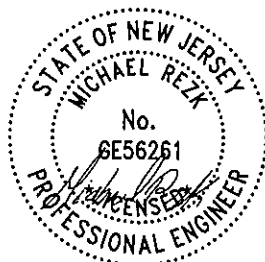
2. The attachment system shall be secured to the roof and shall be in strict compliance with manufacturers printed instructions. The attachment system shall be UL 1703 approved tested. Provide water tight sealant at all penetrations. Attachments shall follow panel rows as specified by the system manufacturer's installation manual. The panel angle shall match the roof slope. Reference summary table below:

Roof Type:	Shingle	Fastener Max Spacing (in.)		
Attachment System:	"UNIRAC SM"	Wind Zone 1	Wind Zone 2	Wind Zone 3
Fastener Info:	min. 5/16" x 4" long stainless-steel lags with a min. embedment of 3" into the rafters	48	32	32

3. Solar Modules shall be UL-1703 rated. Refer to manufacturers specifications sheets.
4. Positive drainage of the system shall be so as not to void the existing roof warranty.
5. All aspects of the installation shall comply with NJUCC, ASCE 7-16, IBC NJ 2021, NEC 2020(NFPA-70) 2021. Please review the attached certifications prepared by the manufacturer.
6. Please refer to the attached structural calculations.

If you have any questions relating to this matter, please contact me at your earliest convenience. Thank you.

Michael S. Rezk, P.E.  
NJ Lic. No. GE56261



RECEIVED  
ORANGE CITY CLERK'S OFFICE  
MAY - 1 P 2:02

# Michael S. Rezk

Engineer-PE

Pro Custom Solar LLC  
3096B Hamilton Blvd  
South Plainfield, NJ 07080

732-902-6224  
April 19, 2024

## Gravity Load Calculation Criteria

Structural Design Loads per ASCE 7-16

Dead Loads = 10 psf + 2.6 psf (new solar panels) = 12.6 psf

Roof Live Load = 20 psf

Ground Snow Load/Live Load = 25 psf

## Wind Load Calculation Criteria

Wind Loads per ASCE 7-16, Ch. 30.4

Design wind pressure determined by Eq. 29.4-7:

Zone 1 = -24.6 psf

Roof Slope = 23 degrees

Roof Mean Height = 15 ft

Zone 2 = -32 psf

Basic Wind Speed = 115 mph

Zone 3 = -36.9 psf

Exposure = B

Per section 2.4.1, ASD combo = D + 0.6W:

Zone 1 = 2.6 psf + 0.6(-24.6 psf) = -12.2 psf

Zone 2 = 2.6 psf + 0.6(-32 psf) = -16.6 psf

Zone 3 = 2.6 psf + 0.6(-36.9 psf) = -19.5 psf

## Check Attachment to Wood Rafter

Use 5/16 dia. Lag screw w/ 3" embedment into 2 in. wide roof rafter

Lag Screw Spacing:

Lag Screw Tributary Area:

Zone 1 = 48" o.c. max

Zone 1 = (48" o.c. max)<sup>2</sup> / 144 = 16 SF

Zone 2 = 32" o.c. max

Zone 2 = (32" o.c. max)<sup>2</sup> / 144 = 7.11 SF

Zone 3 = 32" o.c. max

Zone 3 = (32" o.c. max)<sup>2</sup> / 144 = 7.11 SF

Lag Screw Forces:

Zone 1 = 12.2 psf x 16 SF = 195 lb < W', OK

Zone 2 = 16.6 psf x 7.11 SF = 118 lb < W', OK

Zone 3 = 19.5 psf x 7.11 SF = 139 lb < W', OK

W = 266 lb/in (Table 12.2A, 2015 NDS)

Cd = 1.6 (Table 2.3.2, 2015 NDS)

Ct = 1 (Table 2.3.3, 2015 NDS)

W' = W x embed x Cd x Ct

W' = 266 lb/in x 3 in. x 1.6 x 1 = 1276.8 lb

2344114

THIS IS YOUR RECEIPT

DATE 3/1/2024 AMOUNT \$10<sup>00</sup>

Montclair State  
167-201 Stirling Ave.

HPC

RECEIVED FROM

Montclair Office  
Gabrielle Grimes Skilton

**RECEIVED**  
MAY 01 2024  
BY: *[Signature]*

C/O: 1113

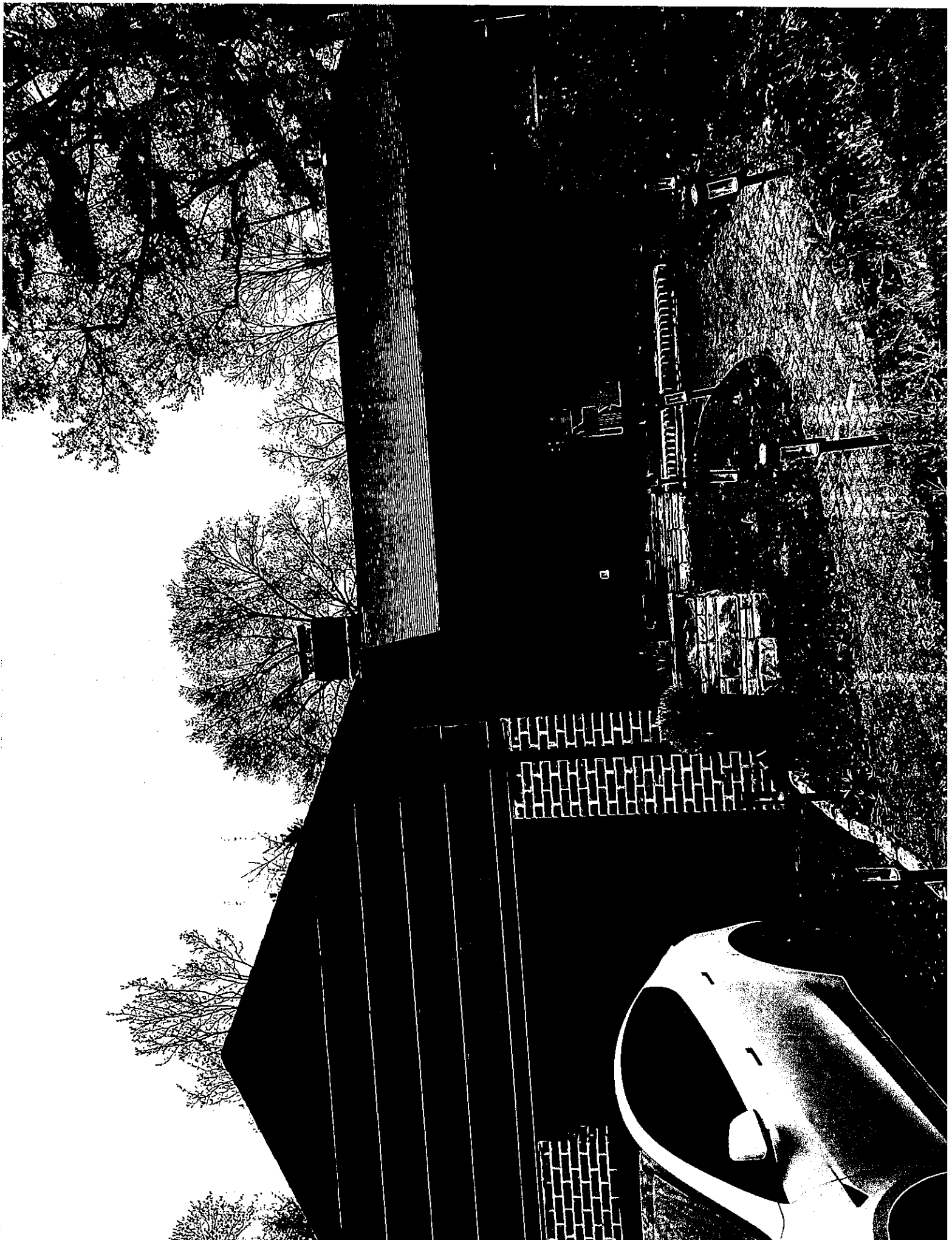
Treasurer's Miscellaneous Receipt  
City of Orange Township, New Jersey









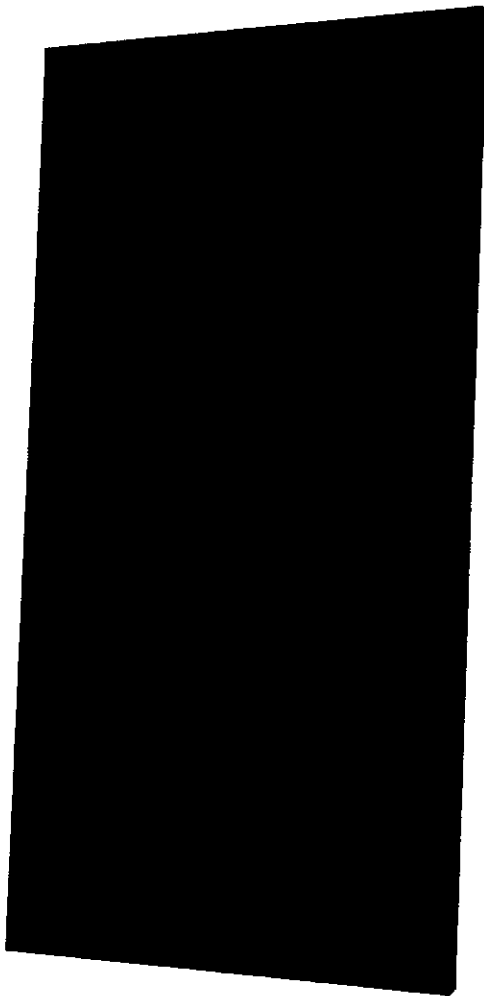


# Q.PEAK DUO BLK ML-G10+ SERIES



385-410 Wp | 132 Cells  
20.9% Maximum Module Efficiency

MODEL Q.PEAK DUO BLK ML-G10+



## Breaking the 20% efficiency barrier

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 20.9%.



## A reliable investment

Inclusive 25-year product warranty and 25-year linear performance warranty<sup>1</sup>.



## Enduring high performance

Long-term yield security with Anti LeTID Technology, Anti PID Technology<sup>2</sup> 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.

<sup>1</sup> See data sheet on rear for further information.

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

The ideal solution for:



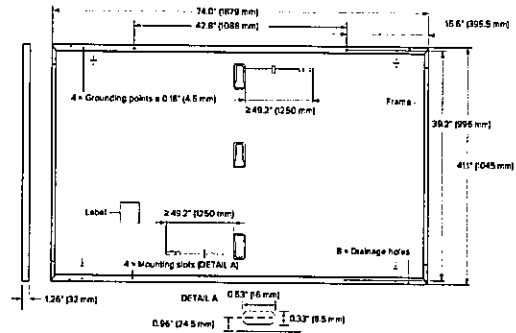
Rooftop arrays on residential buildings



# Q.PEAK DUO BLK ML-G10+ SERIES

## Mechanical Specification

<b>Format</b>	74.0 in × 41.1 in × 1.26 in (including frame) (1879 mm × 1045 mm × 32 mm)
<b>Weight</b>	48.5 lbs (22.0 kg)
<b>Front Cover</b>	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
<b>Back Cover</b>	Composite film
<b>Frame</b>	Black anodised aluminium
<b>Cell</b>	6 × 22 monocrystalline Q.ANTUM solar half cells
<b>Junction box</b>	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
<b>Cable</b>	4 mm <sup>2</sup> Solar cable; (+) ≥ 49.2 in (1250 mm), (-) ≥ 49.2 in (1250 mm)
<b>Connector</b>	Stäubli MC4; IP68



## Electrical Characteristics

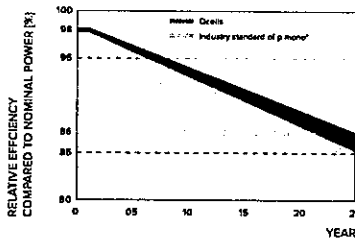
POWER CLASS			385	390	395	400	405	410
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5W/-0W)								
Minimum	Power at MPP <sup>1</sup>	$P_{MPP}$ [W]	385	390	395	400	405	410
	Short Circuit Current <sup>1</sup>	$I_{SC}$ [A]	11.04	11.07	11.10	11.14	11.17	11.20
	Open Circuit Voltage <sup>1</sup>	$V_{OC}$ [V]	45.19	45.23	45.27	45.30	45.34	45.37
	Current at MPP	$I_{MPP}$ [A]	10.59	10.65	10.71	10.77	10.83	10.89
	Voltage at MPP	$V_{MPP}$ [V]	36.36	36.62	36.88	37.13	37.39	37.64
	Efficiency <sup>1</sup>	$\eta$ [%]	≥ 19.6	≥ 19.9	≥ 20.1	≥ 20.4	≥ 20.6	≥ 20.9

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT<sup>2</sup>

Minimum	Power at MPP	$P_{MPP}$ [W]	288.8	292.6	296.3	300.1	303.8	307.6
	Short Circuit Current	$I_{SC}$ [A]	8.90	8.92	8.95	8.97	9.00	9.03
	Open Circuit Voltage	$V_{OC}$ [V]	42.62	42.65	42.69	42.72	42.76	42.79
	Current at MPP	$I_{MPP}$ [A]	8.35	8.41	8.46	8.51	8.57	8.62
	Voltage at MPP	$V_{MPP}$ [V]	34.59	34.81	35.03	35.25	35.46	35.68

<sup>1</sup>Measurement tolerances  $P_{MPP}$  ± 3%;  $I_{SC}$ ,  $V_{OC}$  ± 5% at STC; 1000 W/m<sup>2</sup>, 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • <sup>2</sup>800 W/m<sup>2</sup>, NMOT, spectrum AM 1.5

## Qcells PERFORMANCE WARRANTY

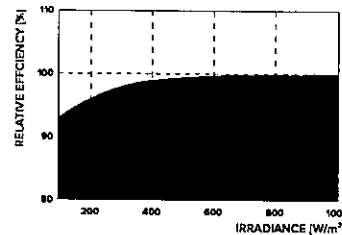


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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

<sup>1</sup>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/m<sup>2</sup>).

## TEMPERATURE COEFFICIENTS

Temperature Coefficient of $I_{SC}$	$\alpha$ [%/K]	+0.04	Temperature Coefficient of $V_{OC}$	$\beta$ [%/K]	-0.27
Temperature Coefficient of $P_{MPP}$	$\gamma$ [%/K]	-0.34	Nominal Module Operating Temperature	NMOT [°F]	109 ± 5.4 (43 ± 3 °C)

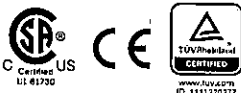
## Properties for System Design

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 <sup>1</sup>	[lbs/ft <sup>2</sup> ]	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 <sup>1</sup>	[lbs/ft <sup>2</sup> ]	113 (5400 Pa)/84 (4000 Pa)		

<sup>1</sup> 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.  
Henwei Q CELLS America Inc. 400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL hqc-inquiry@qcells.com | WEB www.qcells.com

qcells

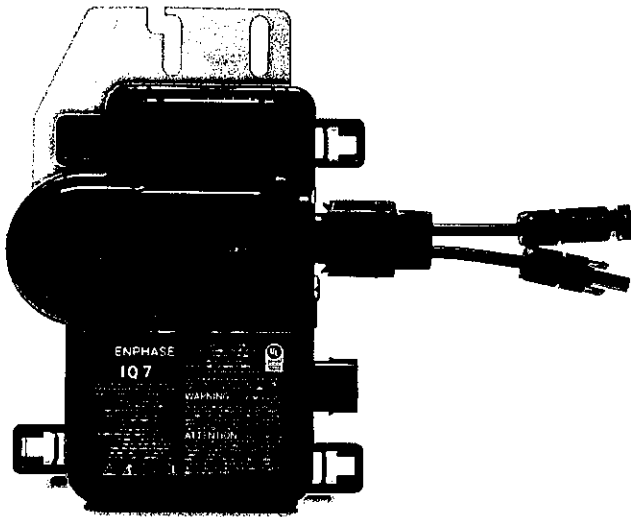
Specifications subject to technical changes © Qcells Q.PEAK\_DUO\_BLK\_ML-G10+\_series\_385-410\_2023-05\_Rev04\_VA

# Enphase IQ 7 and IQ 7+ Microinverters

The high-powered smart grid-ready **Enphase IQ 7 Micro™** and **Enphase IQ 7+ Micro™** dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enphase IQ Envoy™, Enphase IQ Battery™, and the Enphase Enlighten™ monitoring and analysis software.

IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.



## Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

## Productive and Reliable

- Optimized for high powered 60-cell and 72-cell\* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

## Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

\* The IQ 7+ Micro is required to support 72-cell modules.



## Enphase IQ 7 and IQ 7+ Microinverters

INPUT DATA (DC)	IQ7-60-2-US / IQ7-60-B-US		IQ7PLUS-72-2-US / IQ7PLUS-72-B-US	
Commonly used module pairings <sup>1</sup>	235 W - 350 W +		235 W - 440 W +	
Module compatibility	60-cell PV modules only		60-cell and 72-cell PV modules	
Maximum input DC voltage	48 V		60 V	
Peak power tracking voltage	27 V - 37 V		27 V - 45 V	
Operating range	16 V - 48 V		16 V - 60 V	
Min/Max start voltage	22 V / 48 V		22 V / 60 V	
Max DC short circuit current (module Isc)	15 A		15 A	
Overvoltage class DC port	II		II	
DC port backfeed current	0 A		0 A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit			
OUTPUT DATA (AC)	IQ 7 Microinverter		IQ 7+ Microinverter	
Peak output power	250 VA		295 VA	
Maximum continuous output power	240 VA		290 VA	
Nominal (L-L) voltage/range <sup>2</sup>	240 V / 211-264 V	208 V / 183-229 V	240 V / 211-264 V	208 V / 183-229 V
Maximum continuous output current	1.0 A (240 V)	1.15 A (208 V)	1.21 A (240 V)	1.39 A (208 V)
Nominal frequency	60 Hz		60 Hz	
Extended frequency range	47 - 68 Hz		47 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms		5.8 Arms	
Maximum units per 20 A (L-L) branch circuit <sup>3</sup>	16 (240 VAC)	13 (208 VAC)	13 (240 VAC)	11 (208 VAC)
Overvoltage class AC port	III		III	
AC port backfeed current	0 A		0 A	
Power factor setting	1.0		1.0	
Power factor (adjustable)	0.85 leading ... 0.85 lagging		0.85 leading ... 0.85 lagging	
EFFICIENCY	@240 V	@208 V	@240 V	@208 V
Peak efficiency	97.6 %	97.6 %	97.5 %	97.3 %
CEC weighted efficiency	97.0 %	97.0 %	97.0 %	97.0 %
MECHANICAL DATA				
Ambient temperature range	-40°C to +65°C			
Relative humidity range	4% to 100% (condensing)			
Connector type (IQ7-60-2-US & IQ7PLUS-72-2-US)	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)			
Connector type (IQ7-60-B-US & IQ7PLUS-72-B-US)	Friends PV2 (MC4 intermateable). Adaptors for modules with MC4 or UTX connectors: - PV2 to MC4: order ECA-S20-S22 - PV2 to UTX: order ECA-S20-S25			
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)			
Weight	1.08 kg (2.38 lbs)			
Cooling	Natural convection - No fans			
Approved for wet locations	Yes			
Pollution degree	PD3			
Enclosure	Class II double-insulated, corrosion resistant polymeric enclosure			
Environmental category / UV exposure rating	NEMA Type 6 / outdoor			
FEATURES				
Communication	Power Line Communication (PLC)			
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase IQ Envoy.			
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect required by NEC 690.			
Compliance	CA Rule 21 (UL 1741-SA) UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.			

1. No enforced DC/AC ratio. See the compatibility calculator at <https://enphase.com/en-us/support/module-compatibility>.

2. Nominal voltage range can be extended beyond nominal if required by the utility.

3. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

To learn more about Enphase offerings, visit [enphase.com](https://enphase.com)



# NXT HORIZON

**UNIRAC**  
BETTER SOLAR STARTS HERE

#UNIRAC  
**25**  
YEAR  
FULL-SYSTEM  
WARRANTY

## DISCOVER YOUR NXT HORIZON™

The culmination of over two decades of experience. Thoughtful design, rigorous engineering, world-class support, and a reliable supply chain are the foundation of what makes us confident that NXT HORIZON™ is the NXT Level of DESIGN, SIMPLICITY, and VALUE.

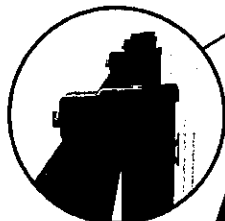
**NXT HORIZON COMBO CLAMP**  
DARK: CCLAMPD1  
MIL: CCLAMP1  
Clicks into rail anywhere (even where there are cables)  
Self-standing clamp with spring combines as both mid and end clamp.  
Clamps 30-40 mm modules



**STRONGHOLD™ RAIL CLAMP**  
DARK: SCLAMPD1  
MIL: SCLAMP1  
Adaptable rail connection to attachments allows click-in feature compatibility with almost all of Unirac's attachments.



1/2 inch module spacing for efficiency.  
Unirac-quality bonding that works both as mid and end clamps.



**NXT HORIZON CAP KIT**  
ENDCAPD1

Make the install look clean with the end cap kit designed to complement the module and clamp and rail ends.



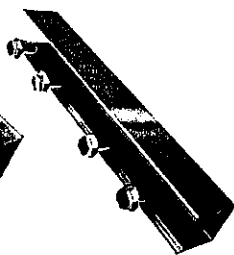
**NXT HORIZON RAIL**  
DARK: 16SRD1  
MIL: 16SR1M1

Strong, lightweight open channel rail with invisible, easy, unobtrusive and integrated wire management system.



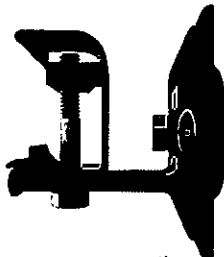
**NXT HORIZON RAIL SPICE**  
RLSPD1

Structural internal splice that does not interfere with roof connection nor module connection. Pre-assembled thread cutting bolts.



**STRONGHOLD™ ATTACHER KIT**  
DARK: SHCPKD1  
MIL: SHCP1M1

Rail clicks into the clamps attached to the Stronghold™ base. Open slot in L-foot allows drop-in rail clamp.



Alternative attachment options:



**SLIDING RING**  
DARK: DR0550  
MIL: DR052A

**FLASHUC™ BUD**  
DARK: DR0475D  
MIL: DR0475U

### WIRE MANAGEMENT OPTIONS

**NXT HORIZON MIPE & LUG CLAMP**  
LUCALP1

Works as either MIPE (Mount or Grounding Lug connection to the rail. Why source two parts when one can do the job?)



**NXT HORIZON WIRE MANAGEMENT CLIP**  
WRMCCPD1

Aesthetic, yet functional accessory that works to help installer's keep wires inside the rail. No zip-ties required. Optional zip tie loop for extra wire management capabilities!



**NXT HORIZON NORTH/SOUTH WIRE MANAGEMENT CLIP**  
WRMNSD1

An elegant solution to help installers get to the home run. The same hardware works to provide both easy entry to rail and adjustability for cable thickness.

